



SmartBat Wash

15x20W LED Wash Light, IP65 rated,
with an RGB + Warm White LED source,
wirelessly controlled with battery or
wired with mains power



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.

Features, specifications and appearance are subject to change without notice. Music & Lights S.r.l. and all affiliated companies disclaim liability for any injury, damage, direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document.

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 <https://www.prolights.it/product/SMARTBATWASH#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.



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 specialised 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 (Ta)

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

T_c 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

Outdoor (temporary) use

- This product is rated with an IP (Ingress protection) for temporary 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 75°C

Temperature of the external surface

- The surface of the fixture can reach up to 75 °C (167 °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 specialised technicians PROLIGHTS or specialised 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 specialised 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.



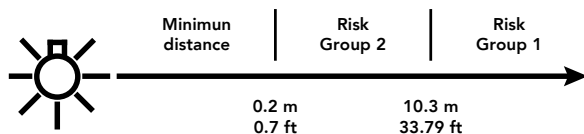
Photobiological safety

- This device emits potentially dangerous optical radiation and is identified in the category of Risk Group 2 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 10.3 m (33.79 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);
- 2014/53/EU - Radio Equipment Directive (RED).



The products to which this manual refers comply with:

- UL 1573 + CSA C22.2 No. 166 - Stage and Studio Luminaires and Connector Strips.
- UL 1012 + CSA C22.2 No. 107.1 - Standard for power units other than class 2.



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

1 - PACKAGING

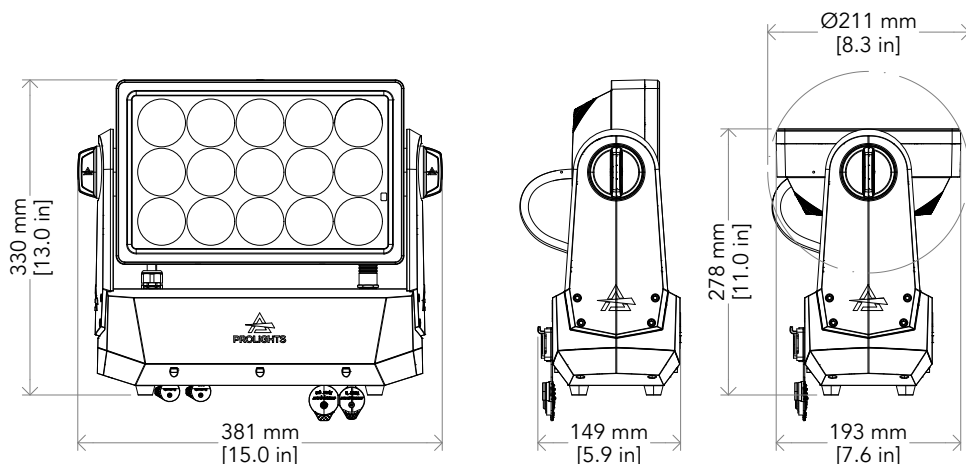
PACKAGE CONTENT

- 1x SMARTBATWASH.
- 1x SBWFILTER25: 25° symmetric light diffusion filter for SMARTBATWASH.
- 1x OS25D13: quick-Lock omega bracket, M13 hole.
- 1x 1,5 meters power cable (BARE END - NEUTRIK POWERCON TRUE1 IP65).
- User Manual.

OPTIONAL ACCESSORIES

- FCLSMARTBATWASH: flight case for 4 SMARTBATPLUSWASH, internal AC battery charging.
- SBWFILTER25: 25° symmetric light diffusion filter for SMARTBATWASH.
- SBWFILTER40: 40° symmetric light diffusion filter for SMARTBATWASH.
- SBWFILTER1060: 10x60° asymmetric light diffusion filter for SMARTBATWASH.
- SBWBD: black barn door 4 directional flaps to adjust the light beam, comp. SMARTBATWASH.
- OS25D13: quick-Lock omega bracket, M13 hole.
- SBWPOWER: single charger for SMARTBATWASH.
- PRL-IRC: RGBWA IR controller, 29 buttons, manual/static colours, auto programs, fade.
- C6002A/B: slim aluminium clamp, 200 kg loading, 48-51 mm tubes, M10 bolt, silver/black.
- RSR0630A/B: steel security cable for hanging bodies, inox steel shackle, L=60 cm, silver/black.
- 9513FXWL03: ass. 3x2.5mm TH07 cable, 16A 3p 230V CEE plug, MENAC3FXW socket, L.3 m.
- 9533FXWL03: ass. 3x2.5mm TH07 cable, SHUKO plug, MENAC3FXW socket, L.3m.
- WSBBR512G5: blackBox R-512 G5 receiver 512Ch, 2.45GHz & 5.8GHz, DMX/RDM optional.
- WSBBF1G6: BlackBox F-1 G6 transrec, 512ch, 2.45GHz, DMX&RDM,Bluetooth,G3,G4,G4S, G5, CRMX.
- WSBBF1G5: blackBox F-1 G5 transmitter, 2,45GHz & 5.2/5,8 GHz, DMX/RDM, 512Ch.
- WSBBR512G6: blackBox R-512 G6 receiver 512Ch, 2.45GHz,DMX&RDM,Bluetooth,G3,G4,G4S,G5,CRMX.
- UPBOX1UP5: firmware uploader kit, USB IN, 5pin XLR DMX OUT, USB OUT.

2 - TECHNICAL DRAWING



Weight: 9,8 kg - 21,60 lbs

Fig. 01

3 - INSTALLATION

MOUNTING

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.

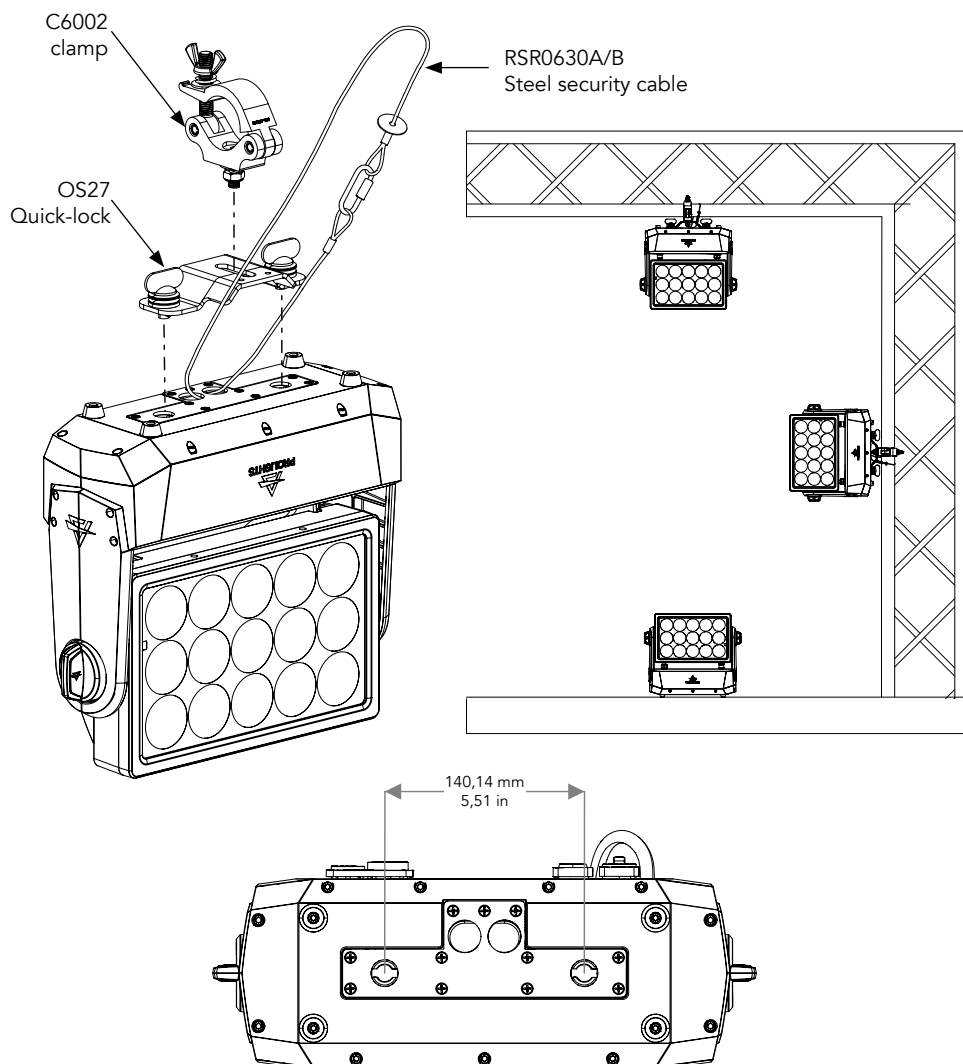



Fig. 02

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 is 180W.

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

5 - START UP

CONNECT AND DISCONNECT POWER FROM THE PRODUCT

To apply and disconnect power to the product:

- Check that the product is installed and secured as indicated in the Safety Informations, and that personal safety will not be put at risk when the fixture lights up.
- Connect the power connector into the Mains input socket (100-240 VAC-50/60 Hz).
- The product is then ready for its operations and can be controlled through the available input signals on board.
- To disconnect power from the product, disconnect the Mains from the socket.

6 - PRODUCT OVERVIEW

1. HANDLE for trasport.
2. GORE VALVE.
3. HANDLE for rotation.
4. ANTENNA.
5. SOCKET for recharge.
6. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
7. POWER OUT: power output for connection of multiple units in series.
8. BUTTON to turn on/ff the unit.
9. HOLES to attach Quick-lock.
10. USER INTERFACE with display and buttons for access to the control panel functions.
11. SAFETY EYE to attach safety cable.
12. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
13. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.

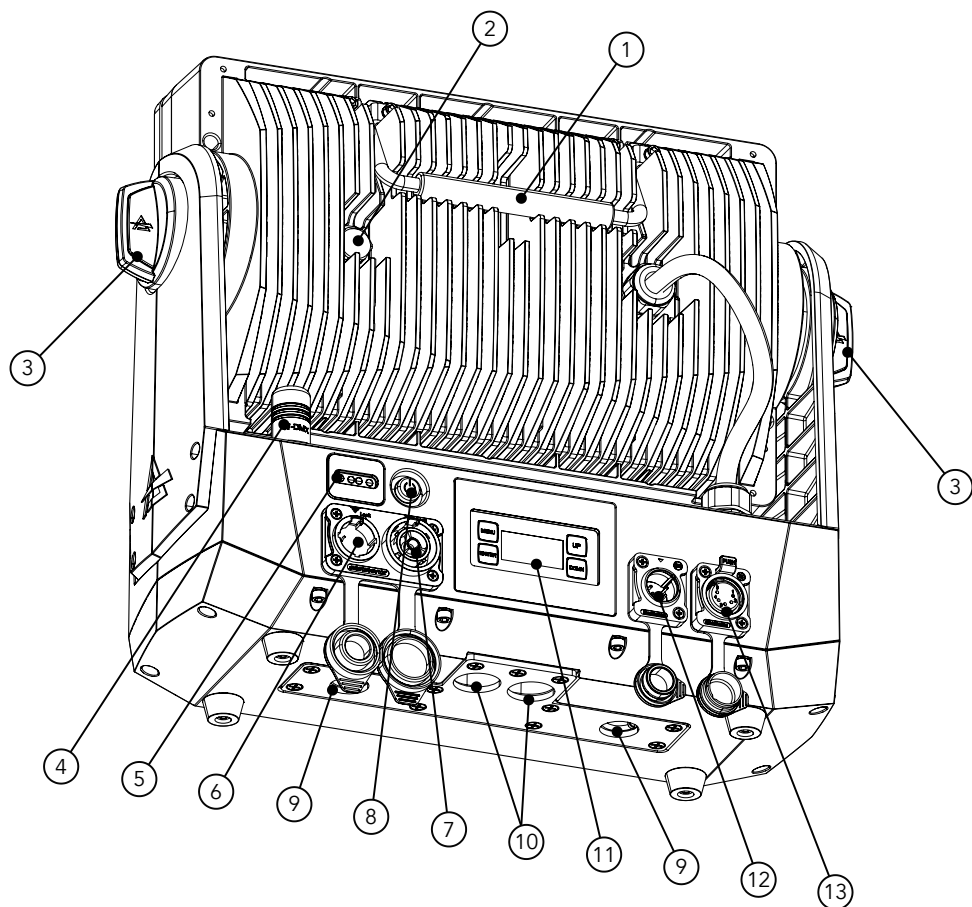


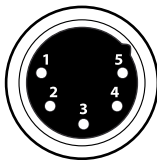
Fig. 03

7 - DMX CONNECTION

CONNECTION OF THE CONTROL SIGNAL: DMX LINE

The product has XLR sockets for DMX input and output.
The default pin-out on both socket is as the following diagram:

DMX - INPUT
XLR plug



- Pin1 : GND - Shield
- Pin2 : - Signal
- Pin3 : + Signal
- Pin4 : N/C
- Pin5 : N/C

DMX - OUTPUT
XLR socket

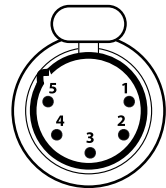


Fig. 04

INSTRUCTIONS FOR A RELIABLE DMX CONNECTION

Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft). Heavier gauge cable and/or an amplifier is recommended for longer runs.
To split the data link into branches, use splitter-amplifiers in the connection line.
Do not overload the link. Up to 32 devices may be connected on a serial link.

CONNECTION DAISY CHAIN

Connect the DMX data output from the DMX source to the product DMX input (male connector XLR) socket.
Run the data link from the product XLR output (female connector XLR) socket to the DMX input of the next fixture.
Terminate the data link by connecting a 120 Ohm signal termination. If a splitter is used, terminate each branch of the link.
Install a DMX termination plug on the last fixture on the link.

CONNECTION OF THE DMX LINE

DMX connection employs standard XLR connectors. Use shielded pair-twisted cables with 120Ω impedance and low capacity.
The following diagram shows the connection mode:

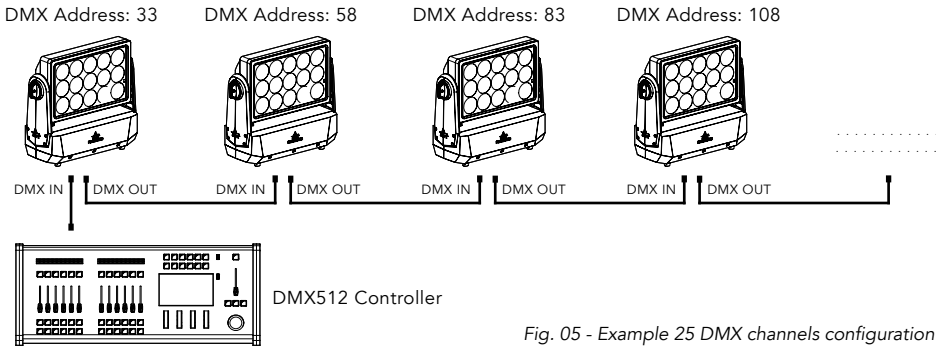
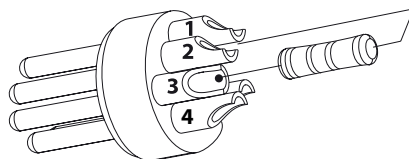
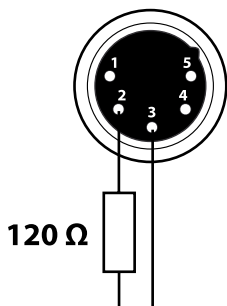


Fig. 05 - Example 25 DMX channels configuration

CONSTRUCTION OF THE DMX TERMINATION

The termination is prepared by soldering a 120Ω 1/4 W resistor between pins 2 and 3 of the male XLR connector, as shown in figure.



Example:
5 pin XLR connector

Fig. 06

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 until 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 until 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.

IN TO WDMX

This function enable or disable the transmission through wireless of the DMX signal from the transmitter side to the receiver.

Any incoming signal (ArtNet, sACN or DMX) is retransmitted through wireless.

If the SMARTBATWASH protocol selected is ArtNet / sACN, the WDMX module will retransmit the DMX values contained in the ArtNet / sACN signal received from the SMARTBATWASH.

NOTE: Artnet and sACN have higher priority on DMX if they are connected to transmitter.

OPERATION AS A WIRELESS RECEIVER

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

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

1. Push ENTER button until 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 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 show the DMX address. If DMX signal is not available, the display will show "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 until 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.

WDMX TO DMX (RX)

This function enable or disable the retransmission of the wireless DMX signal received through the DMX port on the receiver side.

8 - CONTROL PANEL

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

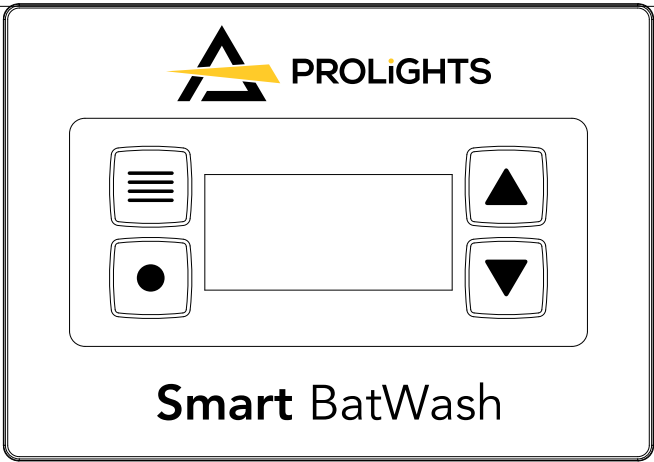


Fig. 07

DISPLAY AND BUTTONS LAYOUT

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

	Used to access the menu tree or to return a previous menu window.
	Browse upwards through the menu list and increases the numeric value displayed.
	Browse downwards through the menu list and decreases the numeric value displayed.
	Used to confirm the current menu or confirm the current function value or option within a menu.

SHORTCUT

Mode	KEYS	WHEN/WHERE	TIMING	Description
FLIP DISPLAY	UP + DOWN	Home screen	Keep 3 sec	Directly flip display without enter inside menu
FIXTURE TYPE @ AC	POWER button	If AC plugged in	//	Make fixture go blackout, triggers recharge
FIXTURE TYPE @ BATTERY	POWER button	If AC plugged in	//	Stop charging, start follow signal / dmx
STANDALONE	ENTER	Home screen	Keep 3 sec	Quick access to enter the Stand Alone menu.
FACTORY RELOAD	DOWN	Home screen	Keep 3 sec	Quick access to enter the Factory Reload menu.
RX RESET MENU	UP	Home screen	Keep 3 sec	Quick access to enter the RX RESET menu (YES/NO).

9 - MENU STRUCTURE

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

SECTION	MAIN MENU	MENU LEVEL 2	MENU LEVEL 3	MENU LEVEL 4	MENU LEVEL 5	MENU LEVEL 6	DESCRIPTION
1	CONNECT	DMX ADDRESS	1-512				Set DMX Address.
		DMX MODE	FIXTURE	UNO	FIXED COLORS	R	Set DMX Mode.
						G	
						B	
						W	
						RG	
						RB	
						RW	
						GB	
						GW	
						BW	
						RGB	
						RGW	
						RBW	
						GBW	
						RGBW	
					COLOR MACRO	See Color Macro page	
					WHITE PRESETS	2700K	
						2800K	
						3200K	
						3500K	
						4000K	
						4500K	
						5000K	
						5600K	
						6000K	
						6500K	
						7000K	
						8000K	
						9000K	
						10000K	
				DUO	MANUAL COLORS	RED	
						GREEN	
						BLUE	
						WHITE	
					FIXED COLORS	R	
						G	
						B	
						W	
						RG	
						RB	
						RW	
						GB	
						GW	
						BW	
						RGB	
						RGW	
						RBW	
						GBW	
						RGBW	
					COLOR MACRO	See Color Macro page	
					WHITE PRESETS	2700K	
						2800K	
						3200K	
						3500K	
						4000K	

						4500K	MANUAL COLORS		
						5000K			
						5600K			
						6000K			
						6500K			
						7000K			
						8000K			
						9000K			
						10000K			
						RED			
						GREEN			
						BLUE			
						WHITE			
						BASIC			
						STANDARD			
						STANDARD 2			
						EXTENDED			
	WIRELESS	WDMX ON/OFF		ON					Enable/Disable the wireless card.
				OFF					
		WDMX MODE		TRANSMITTER					Choose whether to set the wireless card as Transmitter or Receiver. WDMX mode is unlocked only if WDMX ON / OFF is ON.
				RECEIVER					
		TX LINK		ON					TX link unlock when the unit is set as a transmitter.
				OFF					
		TX UNLINK		ON					Disconnect the transmitter from all receivers. TX unlink unlocks only if WDMX mode is on transmitter.
				OFF					
		RX RESET		ON					Total reset of the receiver. RX reset unlocks only if WDMX mode is receiver.
				OFF					
		DMX TO WDMX (TX)		ON					Enable/Disable the transmission of the dmx from the transmitter to the receiver via wdmx.
				OFF					
		WDMX TO DMX (RX)		ON					Enable/Disable the retransmission of the DMX from the receiver to the other units connected by cable to the receiver itself.
				OFF					
2	SETUP	SCREEN	BACKLIGHT	ON					Select the timing after that display will switch automatically off when unactive.
				10S					
				20S					
				30S					
			FLIP DISPLAY	ON					Allows you to rotate the display by 180°.
				OFF					
			KEY LOCK	ON					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.
				OFF					
			TEMPERATURE UNIT	°C					Allows you to choose temperature unit showed in home screen.
				°F					
		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						
3	ADVANCED	SPEKTRA CALIBRATION	ON						Calibration active on following control modes: RGBW, RGB, CMY, HSI, CCT, GEL, COLOR MACRO, SOURCE EMULATION, XY
									Calibration active on following control modes: RGB, CMY, HSI, CCT, GEL, COLOR MACRO, SOURCE EMULATION, XY. Calibration disabled on following control modes: RGBW.
		DIMMER CURVE	OFF						Always off.
			LINEAR						Choose dimmer curve.
			S-CURVE						
			SQUARE LAW						
			INVERSE SQUARE LAW						
		DIMMER SPEED	AUTO						Set Dimmer Speed. This parameter defines interpolation of DMX Changes for main functions. Off turns off interpolation
			FAST						
			MEDIUM						
			SLOW						

4	INFORMATION	LED FREQUENCY	600HZ				Select PWM frequency.
			1200HZ				
		RUN TIME	2000HZ				Select Run Time of the fixture. 2H: Max power available 120W. 6H: Max power available 60W. 8H: Max power available 45W. 12H: Max power available 30W. 18H: Max power available 20W. Run Time is calculated using fixture RGBW @ Full with Calibration on.
			4000HZ				
			6000HZ				
			25KHZ				
			3H				
		IR SETUP	6H				Enable/Disable IR Remote control.
			8H				
			12H				
			18H				
			ON				
		DMX FAULT	OFF				Define the behaviour of fixture in case of DMX signal lost.
			HOLD				
			BLACKOUT				
			STAND ALONE				
			EMERGENCY				
		POWER MODE	BATTERY				See Power Mode table page 19.
			AC				
			AC EMERGENCY				
		BATTERY RECHARGE	ENABLE				Fixture behaviour battery: Fixture will be operating as a standard battery powered fixture. When AC/DC is plugged in, the fixture will go instantaneously blackout and charge. When AC/DC is plugged off, fixture will turn off. Fixture behaviour AC: Fixture will be operating as a standard AC fixture. When AC is plugged in, fixture will turn on and operate normally. If Battery recharge is enabled, battery will be recharged as soon as dimmer is = 0. If Battery recharge is disabled, battery won't be recharged. Fixture will turn off as soon as AC is plugged out. Fixture behaviour AC Emergency: Fixture will be operating as per "Fixture behaviour AC but as soon as AC is missing it will turn on as an emergency lamp, user will have to manually turn off the fixtures. Battery recharge is valid as per "Fixture behaviour AC".
			DISABLE				
		TUNGSTEN EMULATION	ON				Enable/Disable Tungsten emulation.
			OFF				
		FACTORY RELOAD	ON				Reload fixture with Standard settings.
			OFF				
		DEVICE TIME	FIXTURE HOURS	<99999H>			To view information about the unit
			CURRENT HOURS	<99999H>			
			SOURCE HOURS	<99999H>			
			AC POWER ON CYCLE	<300>			
			MAINTENANCE TIME	ELAPSED TIME			
				ALERT PERIOD	10 - 300		
		POWER CONSUMPTION	CONSUMPTION, VOLTAGE, CURRENT				
		TEMPERATURE					
		BATTERY CYCLE	<300>				
		BATTERY STATE	<100%>				
		BATTERY LIFE	3h 5m				
		WIRELESS QUALITY					
		CHANNEL VALUE					
		ERROR MESSAGE					
		FIXTURE MODEL					
		DEVICE LABEL					
		SOFTWARE VERSION	<V1.0>				

		RDM UID	15D00228****				
5	STAND ALONE	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				
		EFFECTS	EFFECT 1 to 5	DIMMER	<1-100>		Effects modes allows creation and editing of 5 effects maximum. Each effect contains up to 20 colors, a Main Dimmer and a Main Strobe. COLOR section: SWITCH is used to toggle On/Off the color in the sequence. DIMMER is used to individually DIM the selected color. STROBE is used to individually STROBE the selected color. HOLD TIME defines how long the color is hold on the output. FADE IN/OUT TIME defines the timings of fading in/out. The effects can be considered as CHASE, once last color has finished playing the sequence will start again.
				STROBE	<1-100>		
				COLOR 1	SWITCH	ON - OFF	
					DIMMER		
					STROBE		
					HOLD TIME	0 - 360s	
					FADE IN TIME	0 - 60s	
					FADE OUT TIME	0 - 60s	
					SAME STRUCTURE OF STATIC IN STAND ALONE		
					
				COLOR 20	SWITCH	ON - OFF	
					DIMMER		
					STROBE		
					HOLD TIME	0 - 360s	
					FADE IN TIME	0 - 60s	
					FADE OUT TIME	0 - 60s	
					SAME STRUCTURE OF STATIC IN STAND ALONE		
		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	SEE COLOR MACRO PAGE	DIMMER <000-255>		
			WHITE PRESETS	2700K	DIMMER <000-255> HUE <-025-025>		
				2800K			
				3200K			
				3500K			
				4000K			
				4500K			
				5000K			
				5600K			
				6000K			
				6500K			
				7000K			
				8000K			
				9000K			
				10000K			
				RED	<000-255>		
			MANUAL COLORS	GREEN	<000-255>		
				BLUE	<000-255>		
				WHITE	<000-255>		

POWER MODE

Mode	Description
Battery	<ul style="list-style-type: none"> • If fixture is being used (Standalone or DMX/WDMX Active) and AC is plugged in, fixture will draw power from the mains and status of light output won't be affected (only max power will be higher than what available on battery). • If fixture is being used (Standalone or DMX/WDMX Active) and AC is plugged out, fixture will draw power from the battery and status of light output won't be affected (only max power will be reduced) . • Pressing Power button without mains present --> fixture will turn on and follow its settings (Standalone or DMX/WDMX) • Pressing Power button while using without mains present --> fixture will turn off. • Pressing Power button while charging --> fixture will turn on and follow its settings (Standalone or DMX/WDMX), or would keep charging if nothing is setted/ no signal received. • Pressing Power button while using with mains present --> fixture will turn off and start charging. • Plugging Mains power while fixture is off --> fixture will start charging. • Plugging Mains power OFF while fixture is charging --> fixture will stop charging and turn off.
AC DC*	Fixture operates as a standard AC fixture. When AC is plugged in, fixture will turn on and operate normally. If Battery recharge is enabled, battery will be recharged as soon as dimmer is = 0 or by pressing the power button. If Battery recharge is disabled, battery won't be recharged. Fixture will turn off as soon as AC is plugged out.
AC Emergency DC Emergency*	Fixture operates as a standard AC unit. When AC is present, it turns on and works normally. If Battery Recharge is enabled, the battery charges when dimmer is at 0% or by pressing the power button. If disabled, no recharge occurs. When AC is lost, the fixture turns on at full power with 6000K White. It can be turned off via the control channel or the power button.

In case of fixture equipped with BOTH AC and DC connector, plugging power from DC connector will always trigger the recharge.

*Mode indicated with asterisk are present on fixture equipped with DC connector only.

BATTERY RECHARGE

Defines how the fixture behaves when operating with battery power and AC/DC input.

Two options are available:

- **ENABLE** – The battery is allowed to recharge under certain conditions.
- **DISABLE** – The battery will not recharge, even when connected to AC power.

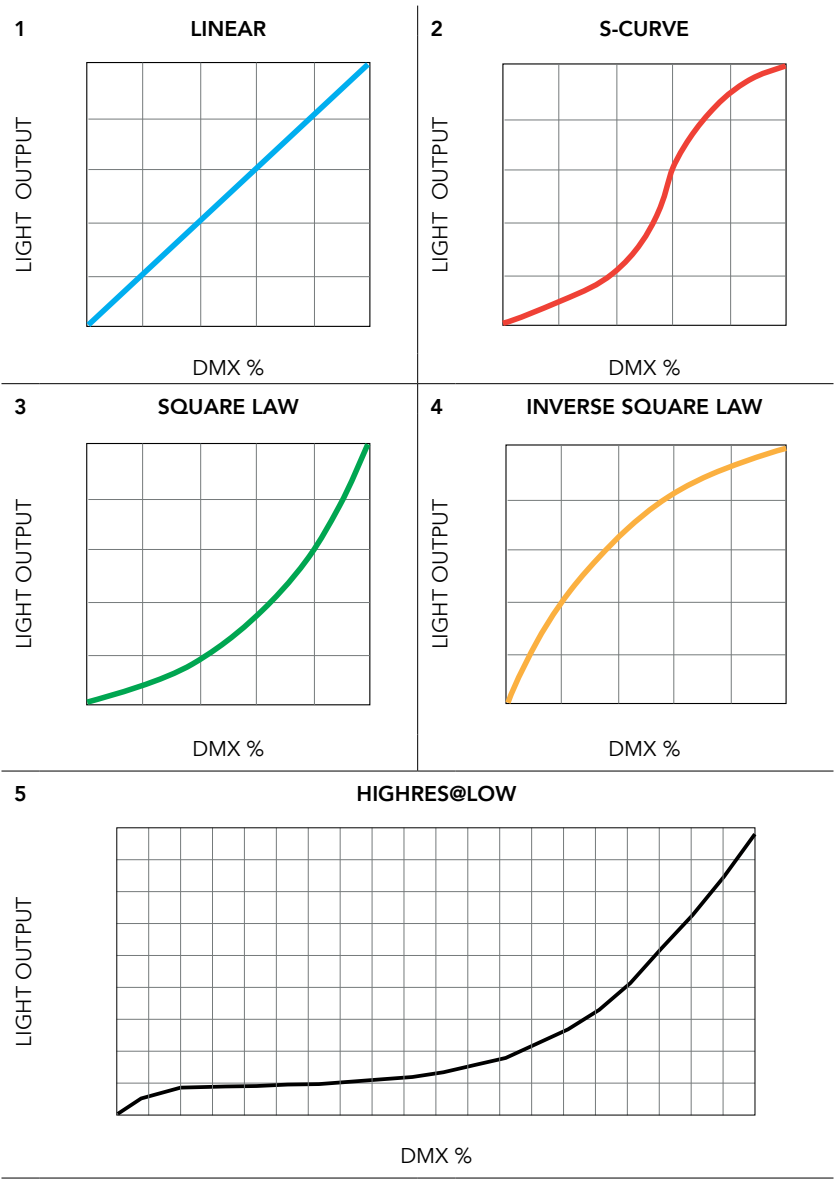
The fixture can operate under different power scenarios:

Power Mode	Description
Battery	<p>The fixture operates as a standard battery-powered unit.</p> <ul style="list-style-type: none"> • When AC/DC is plugged in: the fixture turns off (blackout) and begins charging. • When AC/DC is unplugged: the fixture remains off until manually powered on again.
AC	<p>The fixture operates as a standard mains-powered unit.</p> <ul style="list-style-type: none"> • When AC is present: the fixture turns on and operates normally. • If Battery Recharge = ENABLE, the battery will recharge only when dimmer is at 0%. • If Battery Recharge = DISABLE, the battery will not recharge. • When AC is unplugged: the fixture turns off.
AC Emergency	<p>Works like the AC mode, but with emergency backup:</p> <ul style="list-style-type: none"> • When AC is lost: the fixture automatically turns on, acting as an emergency light. • The fixture must be manually turned off. • Battery recharge follows the same logic as the AC mode.

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.

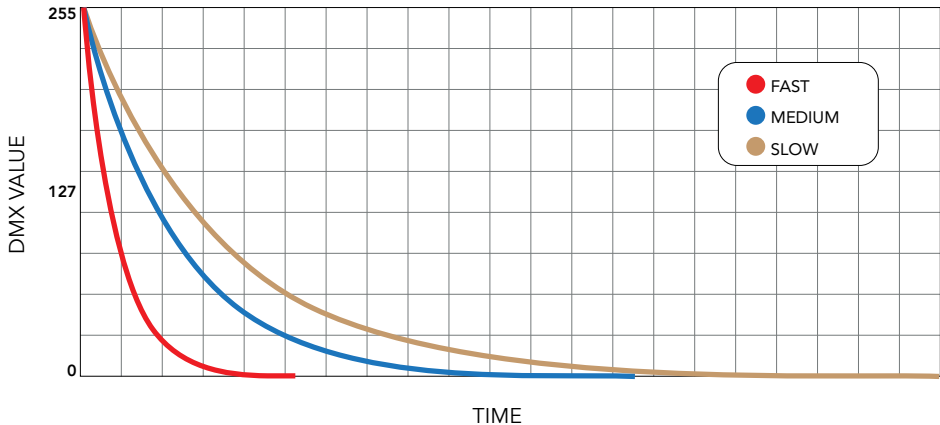


DIMMER SPEEDS

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).

DIMMER SPEED BEHAVIOUR



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 - 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	

RDM PIDs							
Parameter	Category	PID Address	GET	SET	Value	Description	Default Value
MAXIMUM_LEVEL	Dimmer Settings	0x0342	x	x	---	N/A	
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	0

RDM PIDs							
Parameter	Category	PID Address	GET	SET	Value	Description	Default Value
POWER MODE	Manufacturer PIDs	0x82E8	x	x	0-2	0:BATTERY 1:AC 2: AC EMERGENCY	0
BATTERY RECHARGE	Manufacturer PIDs	0x82F6	x	x	0-1	0:OFF, 1:ON	1
MASTER/SLAVE	Manufacturer PIDs	0x8211	x	x	0-2	0:MST DMX 1:MST NO DMX 2:SLAVE	2
ST. AL. MODE	Manufacturer PIDs	0x82EC	x	x	0-4	0:STATIC; 1:CCT; 2:MACRO; 3:RGBW; 4:FX	0
FIXED COLOR	Manufacturer PIDs	0x82BE	x	x	0-15	Refer to menu section	0
WHITE PRESETS	Manufacturer PIDs	0x82BF	x	x	0-13	Refer to menu section	0
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	0x822F	x	x	0-4	Refer to menu section	0
SPEKTRA	Manufacturer PIDs	0x822F	x	x	0 - 2	0: ON 1: PURE COLORS 2: OFF	1
IR SETUP 0:OFF 1:ON	Manufacturer PIDs	0x82E9	x	x	0-1	0:OFF 1:ON	0
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	0
CURRENT HOURS	Manufacturer PIDs	0x82C5	x		---		-
MAINTENANCE TIME:ALERT PERIOD	Manufacturer PIDs	0x82DF	x	x	0-300		300
MAINTENANCE TIME:ELAPSED TIME	Manufacturer PIDs	0x82E0	x	x	---		-
WIRELESS QUALITY	Manufacturer PIDs	0x82F4	x		---	**%	-
ERROR MESSAGE	Manufacturer PIDs	0x82EA	x		---		-
BATTERY CYCLE	Manufacturer PIDs	0x82F1	x		---		-

RDM PIDs							
Parameter	Category	PID Address	GET	SET	Value	Description	Default Value
BATTERY LIFE	Manufacturer PIDs	0x82F3	x		---	**m	-
BATTERY STATE	Manufacturer PIDs	0x82F2	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	-

11 - DMX CHARTS

RDM Model ID: 0xD097
RDM Personality ID List

ID	DMX Mode	Footprint
1	UNO	1
2	DUO	2
3	BASIC	5
4	STANDARD	6
5	EXTENDED	17
6	STANDARD 2	10

MODE						
PARAMETER	UNO	DUO	BASIC	STANDARD	STANDARD 2	EXTENDED
DIMMER	1	1	1	1	1	1
DIMMER FINE	-	2	-	2	2	2
STROBE	-	-	-	3	3	3
CCT	-	-	-	4	4	4
TINT	-	-	-	-	-	5
CROSSFADE	-	-	-	5	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	-	-	-	6	-	15
CTO ON COLORS	-	-	-	-	-	16
CONTROL	-	-	-	-	10	17

FW 1.1.04

CHANNEL DEFINITION

Dimmer					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
Dimmer	0	255	0	65535	Default @ 0

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

CCT						
Function		8 bit value		16 bit value		Note
CCT From	CCT 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	
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	

CCT						
Function		8 bit value		16 bit value		Note
CCT From	CCT To	From	To	From	To	
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	

Tint					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
-25% to 0	0	127	-	-	Default @ 128 Linear tint correction from -0.25 to +0.25
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	0	65535	Default @ 255

Red					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 100%	0	255	0	65535	Default @ 255

Green					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 100%	0	255	0	65535	Default @ 255

Blue					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 100%	0	255	0	65535	Default @ 255

White					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 100%	0	255	0	65535	Default @ 255

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	-	-	
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	-	-	

Color Macro					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
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	-	-	
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	0	65535	Default @ 0

Control Channel					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
No Function	0	1	-	-	Default @ 0
BACKLIGHT ON	2	3	-	-	Hold 3s to take function
BACKLIGHT 10S	4	5	-	-	
BACKLIGHTS 20S	6	7	-	-	
BACKLIGHTS 30S	8	9	-	-	
FLIP DISPLAY ON	10	11	-	-	
FLIP DISPLAY OFF	12	13	-	-	
KEY LOCK ON	14	15	-	-	
KEY LOCK OFF	16	17	-	-	
SPEKTRA CALIBRATION ON	18	19	-	-	
SPEKTRA CALIBRATION PURE COLORS	20	21	-	-	
SPEKTRA CALIBRATION OFF	22	23	-	-	
Reserved	24	25	-	-	
DIMMER CURVE LINEAR	26	27	-	-	
DIMMER CURVE S-CURVE	28	29	-	-	
DIMMER CURVE SQUARE LAW	30	31	-	-	
DIMMER CURVE INVERSE SQUARE LAW	32	33	-	-	
DIMMER SPEED AUTO	34	35	-	-	
DIMMER SPEED FAST	36	37	-	-	
DIMMER SPEED MEDIUM	38	39	-	-	
DIMMER SPEED SLOW	40	41	-	-	
LED FREQUENCY 600HZ	42	43	-	-	
LED FREQUENCY 1200HZ	44	45	-	-	
LED FREQUENCY 2000HZ	46	47	-	-	
LED FREQUENCY 4000HZ	48	49	-	-	
LED FREQUENCY 6000HZ	50	51	-	-	
LED FREQUENCY 25KHZ	52	53	-	-	
RUN TIME 3 H	54	55	-	-	
RUN TIME 6 H	56	57	-	-	
RUN TIME 8 H	58	59	-	-	
RUN TIME 12 H	60	61	-	-	
RUN TIME 18 H	62	63	-	-	
IR SETUP ON	64	65	-	-	
IR SETUP OFF	66	67	-	-	
DMX FAULT HOLD	68	69	-	-	
DMX HOLD BLACKOUT	70	71	-	-	
DMX FAULT STAND ALONE	72	73	-	-	
DMX FAULT EMERGENCY	74	75	-	-	
POWER MODE BATTERY	76	77	-	-	
POWER MODE AC	78	79	-	-	
POWER MODE AC EMERGENCY	80	81	-	-	

Control Channel					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
SHUTDOWN FIXTURE	82	83	-	-	Hold 3s to take function Working only on AC EMERGENCY - 10s
Reserved	84	85	-	-	Hold 3s to take function
Reserved	86	87	-	-	
BATTERY RECHARGE ENABLE	88	89	-	-	
BATTERY RECHARGE DISABLE	90	91	-	-	
TUNGSTEN EMULATION OFF	92	93	-	-	
TUNGSTEN EMULATION ON	94	95	-	-	
STAND ALONE MASTER DMX	96	97	-	-	
STAND ALONE MASTER NO DMX	98	99	-	-	
STAND ALONE SLAVE	100	101	-	-	
STAND ALONE EFFECT 1	102	103	-	-	
STAND ALONE EFFECT 2	104	105	-	-	
STAND ALONE EFFECT 3	106	107	-	-	
STAND ALONE EFFECT 4	108	109	-	-	
STAND ALONE EFFECT 5	110	111	-	-	
STAND ALONE STATIC FIXED COLORS	112	113	-	-	
STAND ALONE STATIC COLOR MACRO	114	115	-	-	
STAND ALONE STATIC WHITE PRESETS	116	117	-	-	
STAND ALONE STATIC MANUAL COLORS	118	119	-	-	
Reserved	120	253	-	-	
Reset all channel controlled	254	255	-	-	

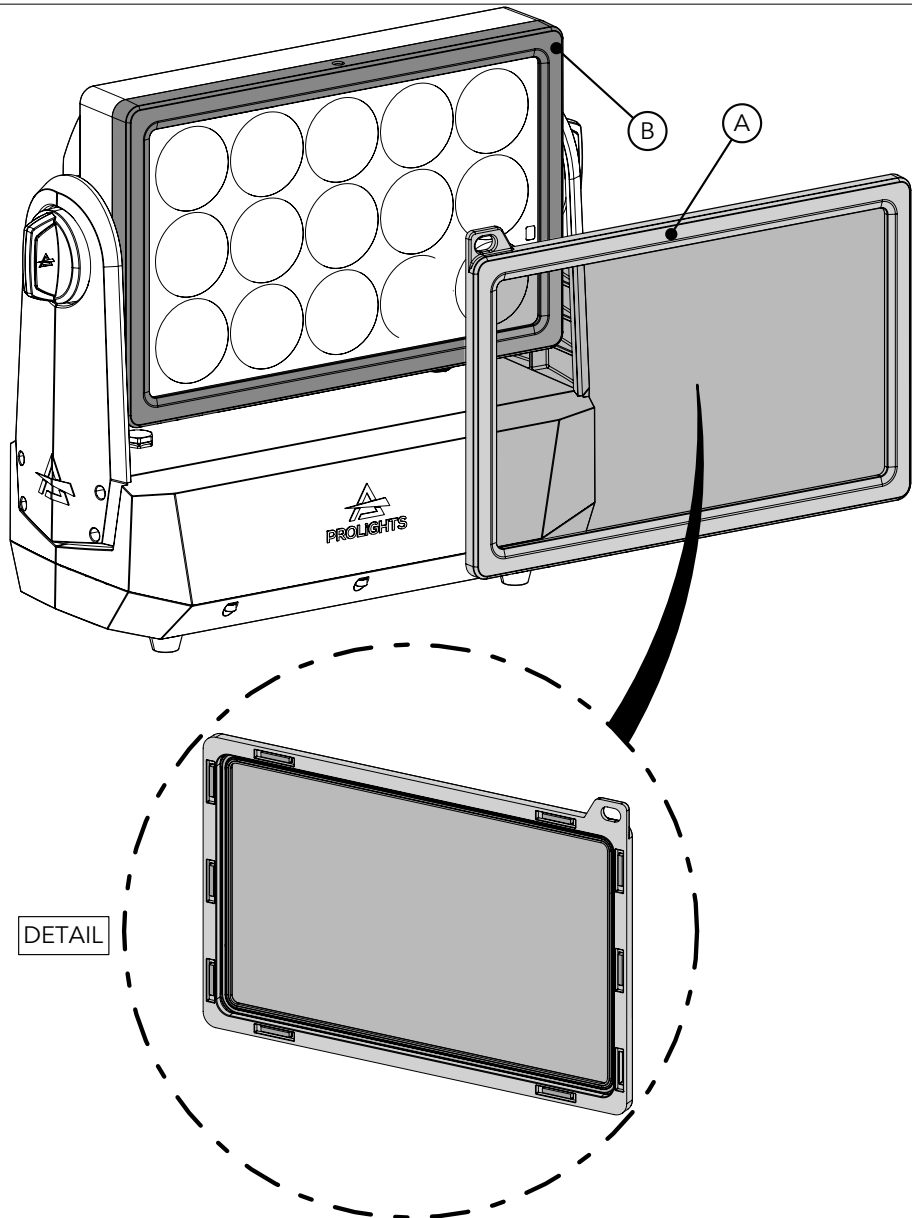
12 - ERROR MESSAGES

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.

ERRORS		
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
[NO BATTERY]	Battery not detected. It may be faulty or disconnected.	5
[LOW BATTERY]	Battery is almost empty (20%). Need to recharge	6
[BATTERY CHARGER ERROR]	Battery charger circuit not working	7
DRV ERROR	Communication failure between DISP and DRV	8
CALIBRATION ERROR	Communication failure between calibration chip and DRV2 or Calibration returning unexpected/wrong datas	9

13 - ACCESSORIES INSTALLATION

LIGHT DIFFUSION FILTER (CODE SBWFILTER25/40/1060 - OPTIONAL)

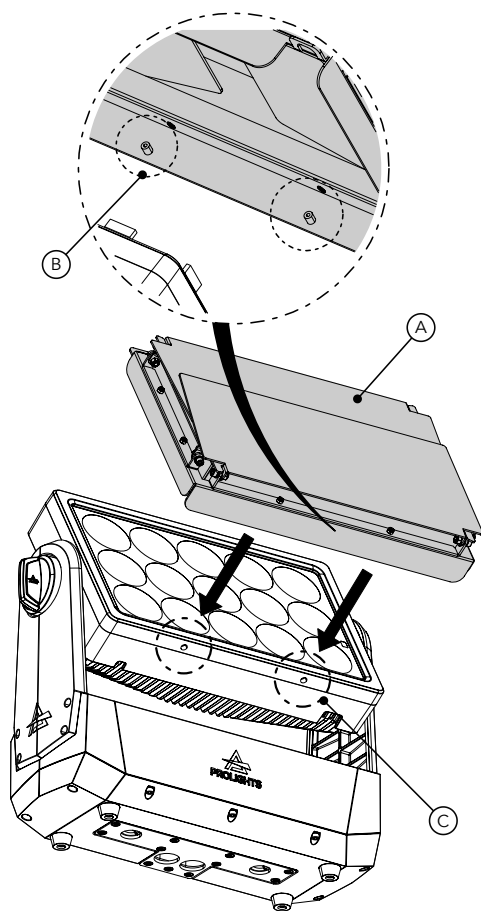


Mount the accessory light diffusion filter (A) on the front cover (B); the hooking is magnetic due to the magnets on the frame of the accessory light diffusion filter (DETAIL) and inside the front cover.

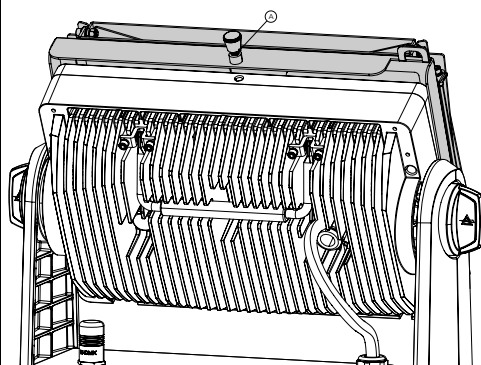
Fig. 08

BARN DOOR (CODE SBWBD - OPTIONAL)

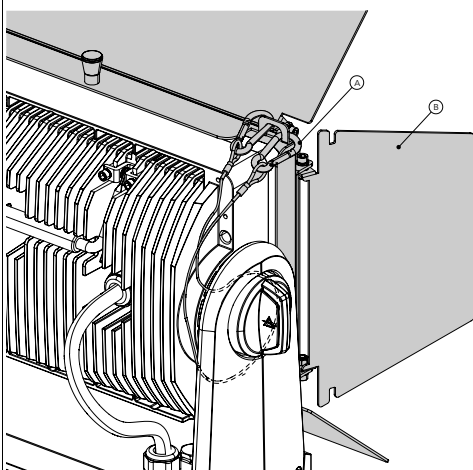
1



2



3



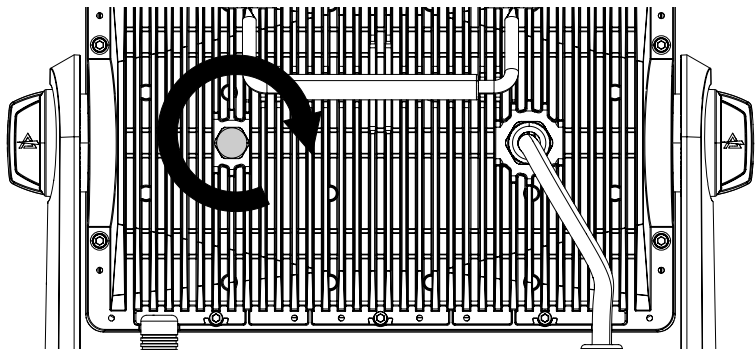
1. To mount the accessory barn door (A) insert the two marked pin on down edge of the barn door (B) into the holes provided on the bottom edge of the unit head (C).
2. Then positioning the spring pin on the hardware into the hole provided on the top of the unit head (A).
3. Hook the safety cable (A) and adjust the angle of the four leaves (B).

Fig. 09

14 - TEST OF IP65 RATING

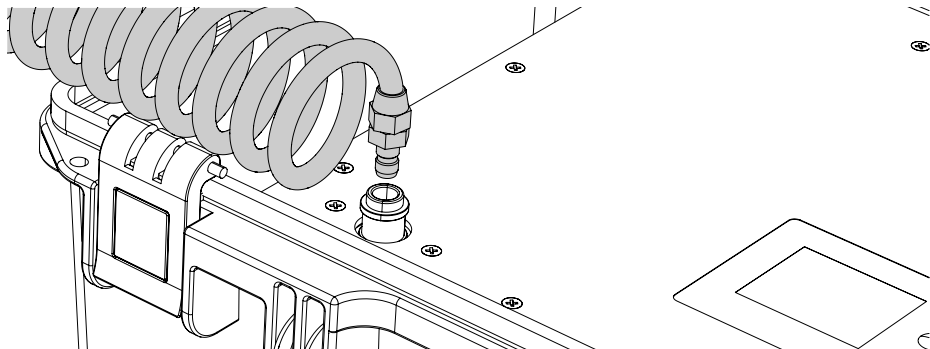
To check sealing after servicing use the IPTESTBOX.

1



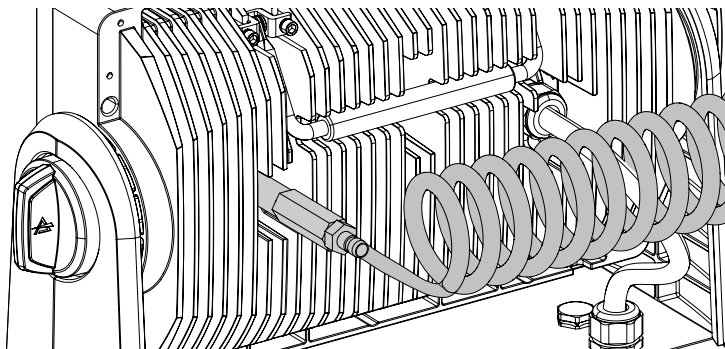
Remove the gore valve from the connections panel.

2



Connect the air hose to the IPTESTBOX by inserting the quick-connect fitting into the coupler.

3



Insert the threaded end into the threaded valve hole socket.
For the operating procedure using the instrument, refer to the IPTESTBOX user manual.

Fig. 10

15 - 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.

- 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.	<ul style="list-style-type: none"> No power to the product. 	<ul style="list-style-type: none"> Check that power is switched ON and cables are plugged in.
	<ul style="list-style-type: none"> Fuse blown or internal fault. 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Bad signal connection. 	<ul style="list-style-type: none"> Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables.
	<ul style="list-style-type: none"> Signal connection not terminated. 	<ul style="list-style-type: none"> Insert DMX termination plug in signal output socket of the last product on the signal line.
	<ul style="list-style-type: none"> Incorrect addressing of the product. 	<ul style="list-style-type: none"> Check the product address and control settings.
	<ul style="list-style-type: none"> One of the product is defective and is corrupting the signal transmission on the signal line. 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> One or more hardware components requires mechanical adjustments. 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Mechanical effect loses position.	<ul style="list-style-type: none"> Mechanical hardware require cleaning, adjustment or lubrication. 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Light output turn OFF Intermittently.	<ul style="list-style-type: none"> Fixture is too hot. 	<ul style="list-style-type: none"> Check product stored error messages. Allow product to cool. Clean the product and airflow filters. Reduce ambient temperature.
	<ul style="list-style-type: none"> Hardware failure (temperature sensor, fans, Light source...). 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
General low light intensity.	<ul style="list-style-type: none"> Dirty lens assembly. 	<ul style="list-style-type: none"> Clean the fixture regularly.
	<ul style="list-style-type: none"> Dirty or damaged filters. 	<ul style="list-style-type: none"> 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.

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal grey lines across its entire width, providing a guide for handwriting or typing. The paper is otherwise completely empty, with no margins, text, or other markings.

