ÆtherBox

IP65 1 universe CRMX transceiver, DMX and Ethernet protocols, Wi-Fi, Bluetooth and battery ready

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**

INDEX

SAFETY INFORMATION

WARNING!
- See https://www.prolights.it/product/AETHERBOX#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.

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

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

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

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

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$_a$-10°C   **Minimum operating ambient temperature (Ta)**
- Do not operate the fixture if the ambient temperature (Ta) is below -10 °C (14 °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.

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.

Radio receiver/transmitter
This product contains a radio receiver and/or transmitter:
- Maximum output power: 17 dBm.
- Frequency band: 2.4 GHz.
- Frequency range: 2402MHz ~ 2479MHz.
- Channel number: 78 channels.
- Channel spacing: 1MHz.
- Modulation type: GFSK.
- Antenna description: Internal antenna, 2.5dBi (MAX).

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.
- Don't throw the unit into the garbage at the end of its lifetime.
- Make sure to dispose according to your local ordinances and/or regulations, to avoid polluting the environment!
- The packaging is recyclable and can be disposed.

The products to which this manual refers comply with:
- 2014/53/UE - Radio Equipment Directive (RED).
- 2011/65/EU - Restriction of the use of certain hazardous substances (RoHS)

The products to which this manual refers comply with:
- UL 1573 + CSA C22.2 No. 166 - Stage and Studio Luminaires and Connector Strips.
- UL 1310 + CSA C22.2 NO. 223 - Standard for power units 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
- The product meets the safety requirements of the certification procedures of the market in which it is placed and sold.

1 - PACKAGING

PACKAGE CONTENT
- 1 x AETHERBOX;
- 1 x AEB2DBA90D;
- 1 x 1,5 meters 3G1,5mmq power cable (BARE END - SEETRONIC POWERCON TRUE1 IP65 power connector);
- User Manual

OPTIONAL ACCESSORIES
Check the updated accessories list, description and informations of the product at the following link:
https://www.prolights.it/product/AETHERBOX#accessories

2 - TECHNICAL DRAWING
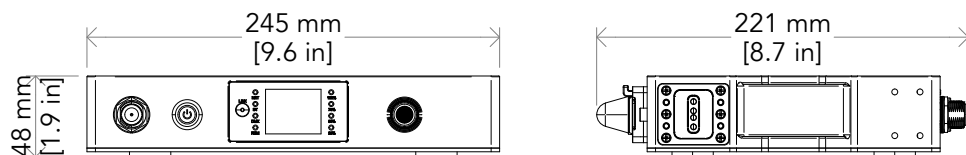
Weight: 1,8 kg - 3,97 lbs   *Fig. 01*

3 - INSTALLATION

MOUNTING

Check that the supporting structure can safely bear the weight of all installed fixtures, clamps, track adapter, 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.
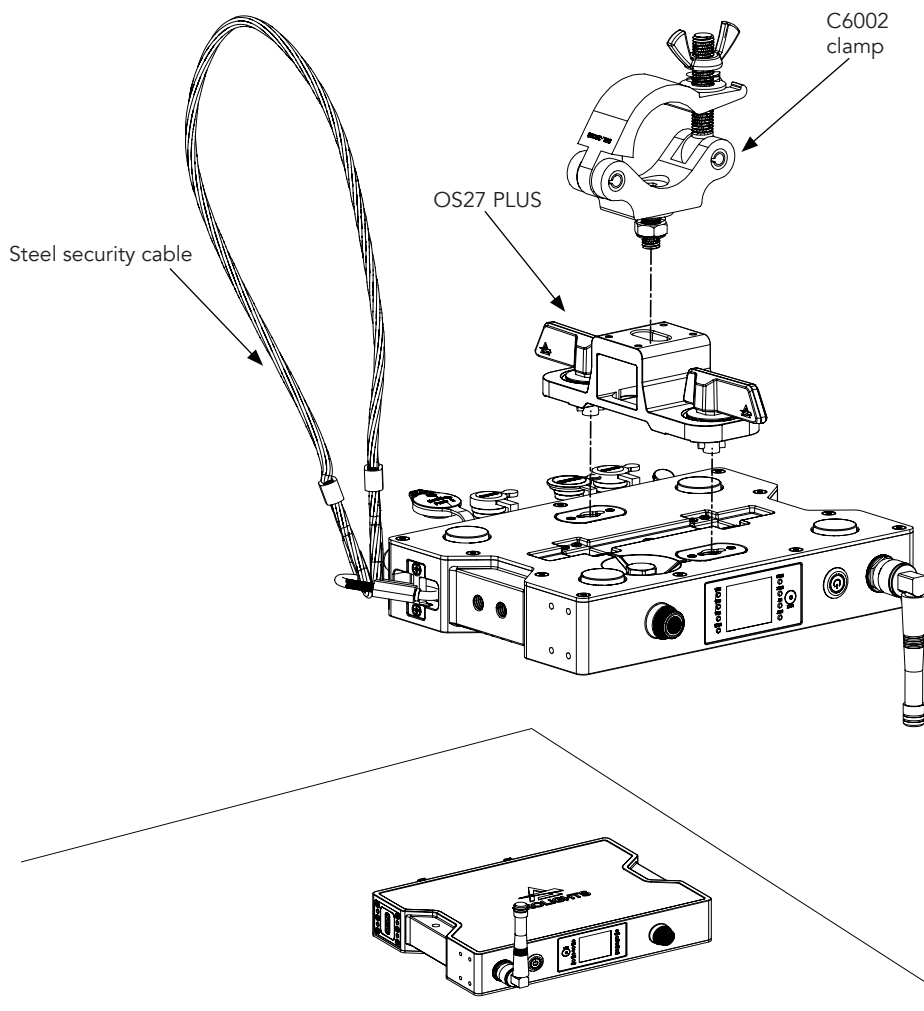

C6002
clamp

OS27 PLUS

Steel security cable

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 (max absolutes range : 90- 264V).
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 3W.

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. USER INTERFACE with button and status LEDs for access to the functions;
2. PUSHABLE ENCODER to access and select the menu function;
3. POWER BUTTON to power on the AETHERBOX;
4. AEB2DBA90D 2dBi antenna;
5. SAFETY HOLE: to attach the safety cable;
6. 3/8, M10 HOLES for installations;
7. ANCHOR POINTS for accessories;
8. GORE VALVE;
9. AEBBATADP connector to connect the battery adapter;
10. WIRELESS ANTENNA;
11. POWER IN: for connection to the Mains 100-240V~/50-60Hz;
12. ETHERCON CONNECTOR IN signal;
13. DMX IN / OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C;
14. WEIPU SA6 for low voltage DC (12-48V).
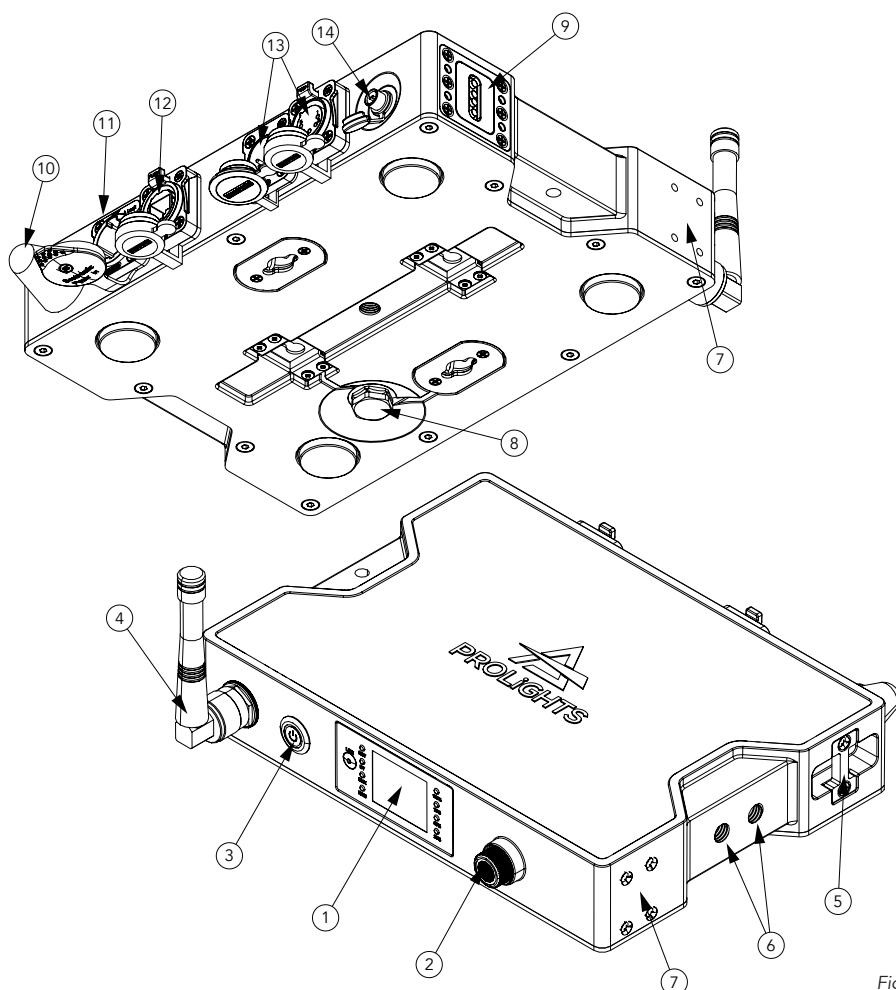
Fig.03

7 - CONTROL PANEL

CONTROL PANEL OVERVIEW

The product has an OLED display, a LINK button and a pushable encoder with backlight for access to the functions of the control panel.
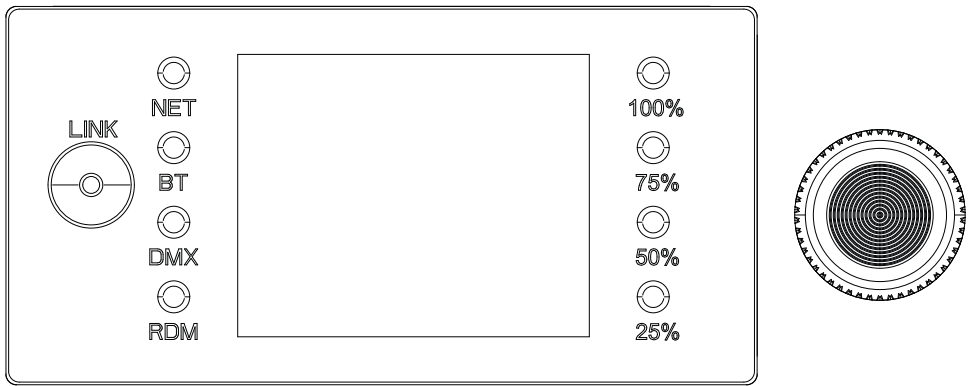
Fig. 04

BUTTONS LAYOUT
The product has status LEDs to check each functions:

NET	• DMX from ethernet enabled. If this LED is on, DMX LED must be OFF
BT	• If this LED is on, the bluetooth is enabled
DMX	• DMX In enabled. If this LED is on, NET LED must be OFF
RDM	• If this LED is on, the RDM is enabled

Fig. 05

8 - MENU STRUCTURE

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

MENU: CONNECT

| LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
WIRELESS	CRMX MODE	**CRMX TX**		Allows configuration of the wireless card as either a Transmitter or Receiver. G4s and G3 are supported protocols for connection with Wireless Solution products.
		WDMX G4S TX		
		WDMX G3 TX		
		RX ALL		
		<- BACK		
	TX SOURCE	NET		
		DMX IN		
		WIFI ARTNET		
		WIFI SACN		
	LINK	YES		
		NO		
	UNLINK	YES		
		NO		
	WIRELESS to DMX	**YES**		
		NO		
	LINKING KEY	ENABLE	YES	
			NO	
		SET KEY		Insert 8 digit code.
		ERASE KEY	YES	
			NO	
		LINKING MODE	**CRMX**	Only with Linking Key ON and CRMX MODE @RX
			CRMX2	
		LINKING UNIVERSE	**A**	With CRMX MODE TX, this settings are no visible.
			B (Only in CRMX2)	
			C	
			D (Only in CRMX2)	
			E	
			F (Only in CRMX2)	
			G	
			H (Only in CRMX2)	
		<- BACK		
	UNIVERSE METADATA	UNIVERSE NAME	xxx	RX Mode: received from TX; TX CRMX Mode: default first 16 characters of Model Name: (DEVICELABEL-Last 4 digit of RDM UID)

MENU: CONNECT

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
WIRELESS	COLOR	UNIVERSE COLOR	RED	Universe Color can be set only if CRMX Mode@TX;
			FIRE	
			YELLOW	If CRMX Mode@RX, Universe Color shows the one set on the TX
			GREEN	
			EMERALD	
			OCEAN	
			BLUE	
			DEEP PURPLE	
			COOL WHITE	
		<- BACK		
	BLUETOOTH	ENABLE	YES	
			NO	
		RESET PIN	YES	
			NO	
		<- BACK		
	TX RDM HOST	**ENABLE**		
		DISABLE		
		<- BACK		
	LINK STRENGTH	** %		Show Wireless quality by percentage.
		<- BACK		
WIFI	Mode	**OFF**		
		Access Point		
		Client Mode		
		<- BACK		
	Access Point	SSID		not editable, just readable.
		Password		16 alphanumeric parameters (Hex)
		Encryption	WPA	
			WPA2	
			WPA3	
		CH	36	
		IP	x.x.x.x	
		Netmask	x.x.x.x	
		<- BACK		
	Client Mode	SSID		16 alphanumeric parameters (Hex)
		Password		16 alphanumeric parameters (Hex)
		DHCP	ON	
			OFF	
		IP	x.x.x.x	
		Netmask	x.x.x.x	
		Gateway	x.x.x.x	
		<- BACK		
	<- BACK			
ETHERNET SETTINGS	ARTNET SETTINGS	IP ADDRESS	xxx.xxx.xxx.xxx	Set IP Address for ArtNet usage.
		NET	0-127	Set Net used for ArtNet, value from 0 to 127
		SUBNET	0-15	Set SubNet used for ArtNet, value from 0 to 15
		SUBNET MASK		Set SubNet Mask for ArtNet usage.

MENU: CONNECT

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
ETHERNET SETTINGS		UNIVERSE	0-15	Set the universe.
		<- BACK		
	sACN SETTINGS	IP ADDRESS	xxx.xxx.xxx.xxx	Set IP Address for aACN usage.
		UNIVERSE	1-16	Set the universe.
		MERGE MODE	**OFF**	Toggle and Set Merge mode for sACN.
			HTP	
			LTP	
		<- BACK		
	<- BACK			
<- BACK				

MENU: SETTINGS

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
DISPLAY	DISPLAY TIMEOUT	Always On		Sets the time after which the display will automatically turn off when inactive.
		10s		
		30s		
		60s		
		<- BACK		
	DISPLAY DIMMER	25%		Sets the display backlight intensity.
		50%		
		75%		
		100%		
		<- BACK		
	FLIP DISPLAY	YES		Enables the display to be rotated by 180°.
		NO		
	<- BACK			
KEYLOCK	ENABLE	**NO**		*Allows you lock the buttons on the control panel by a password. Default keylock code is 0000.*
		YES		
	EDIT KEY			
	<- BACK			
LED STATUS	YES			*To turn the status LEDs on the front panel on or off.*
	NO			
FACTORY RELOAD	YES			*To reload all default settings.*
	NO			
<- BACK				

MENU: SETTINGS

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
Software Version	V1.1.00.0			Show firmware version of the fixture.
CRMX Firmware	V1.7.2.0			Show CRMX firmware version of the fixture.
WIFI Firmware	2.00.00			Show WIFI firmware version of the fixture.
Working hours	<999h>			Show working hours of the fixture.
RDM UID	xxxx			Show RDM UID of the fixture.
<- BACK				

9 - SHORTCUT

Keys	Mode	Description
LINK 1 sec (push and release)	LINK	Signal led power ons from 0 to 100% 3 times (ot the same time as link goes)
LINK 3 sec (keep pushed)	UNLINK	Signal led power of from 100 to 0% 3 times (ot the same time as link goes)
LINK Keep pushed while power-on	FACTORY RESET	Soft reset, factory reset keeping working hours
ENCODER 3 sec (keep pushed)	QUICK SETTINGS	Triggers on display settings for fast change. Enabled on home screen only.
Keep pushed **ENCODER** and then push **LINK** (1 sec)	LOCK/UNLOCK (KEYLOCK)	Works only with KEYLOCK ON

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.

Category	Parameter	Value	GET	SET
Product Information	SUPPORTED_PARAMETERS	0x0050	x	
	PARAMETER_DESCRIPTION	0x0051	x	
	DEVICE_MODEL_DESCRIPTION	0x0080	x	
	MANUFACTURER_LABEL	0x0081	x	
	DEVICE_LABEL	0x0082	x	x
	FACTORY_DEFAULTS	0x0090	x	x
DMX512 Setup	DMX_PERSONALITY	0x00E0	x	x
	DMX_PERSONALITY_DESCRIPTION	0x00E1	x	
	DMX_START_ADDRESS	0x00F0	x	x
Power/Lamp Settings	DEVICE_HOURS	0x0400	x	x
	DEVICE_POWER_CYCLES	0x0405	x	x
Display Settings	DISPLAY_INVERT	0x0500	x	x

Manufacturer Specific PIDs

Parameter	PID	GET	SET	Value	Description
WIRELESS MODE	0x8213	x	x	0-3	**0: TX CRMX** 1: TX G4S 2: TX G3 3: RX
TX LINK	0x8214		x	0-1	**0: Not Link** 1: Link
RX RESET	0x8215	x	x	0-1	**0: No** 1: Yes
TX RESET	0x8347	x	x	0-1	**0: Not link** 1: Link
TX RF OUTPUT POWER	0x8318	x	x	0-3	0: 20 1: 16 2: 11 3: 5 dBm
BLUETOOTH	0x8319	x	x	0-1	**0: Off** 1: On
IDENTIFY	0x8317	x	x	0-1	**0: No identify** 1: Identify active
RDM DOWNSTREAM	0x8316	x	x	0-1	**0: Off** 1: On
LINK QUALITY	0x831A	x	x	0-255	

11 - ACCESSORIES INSTALLATION

RACK ADAPTER (CODE AEBRACKADP)

1
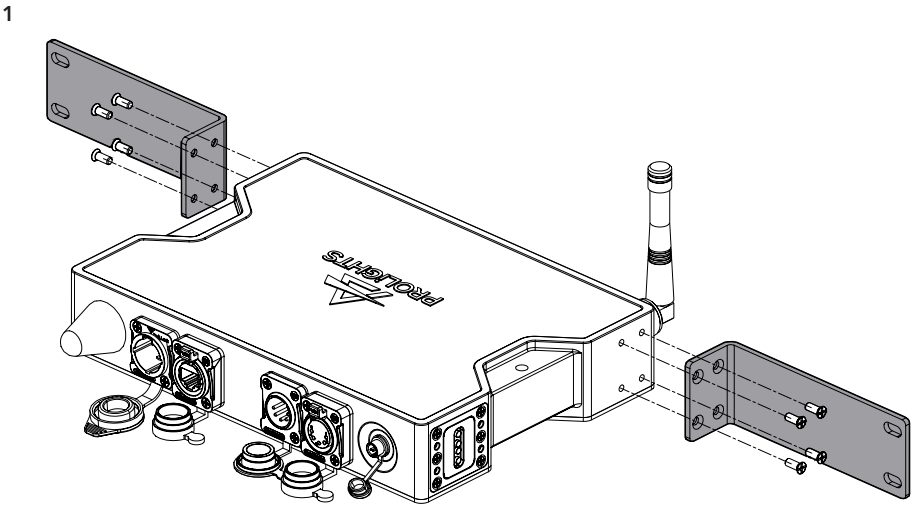
Place the two metal plates as shown in figure (**1**), then fix them with the provided screws.
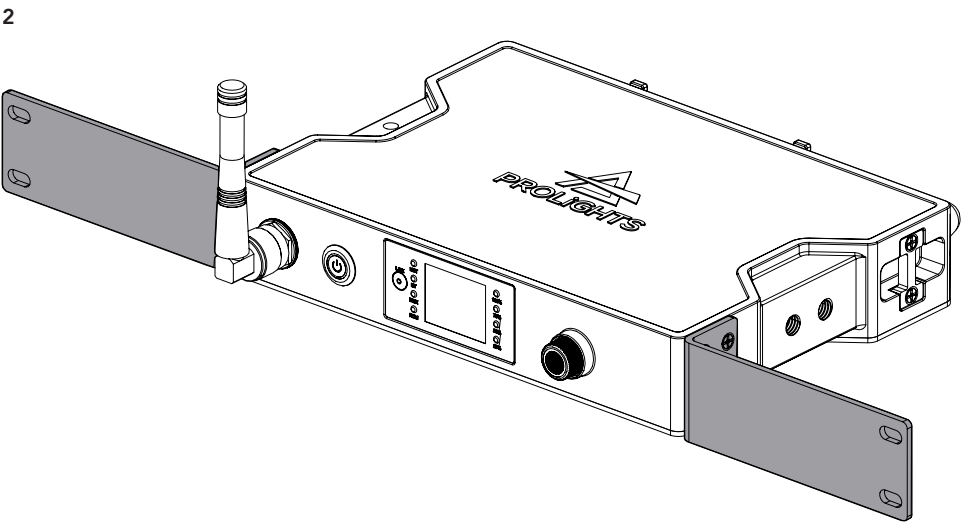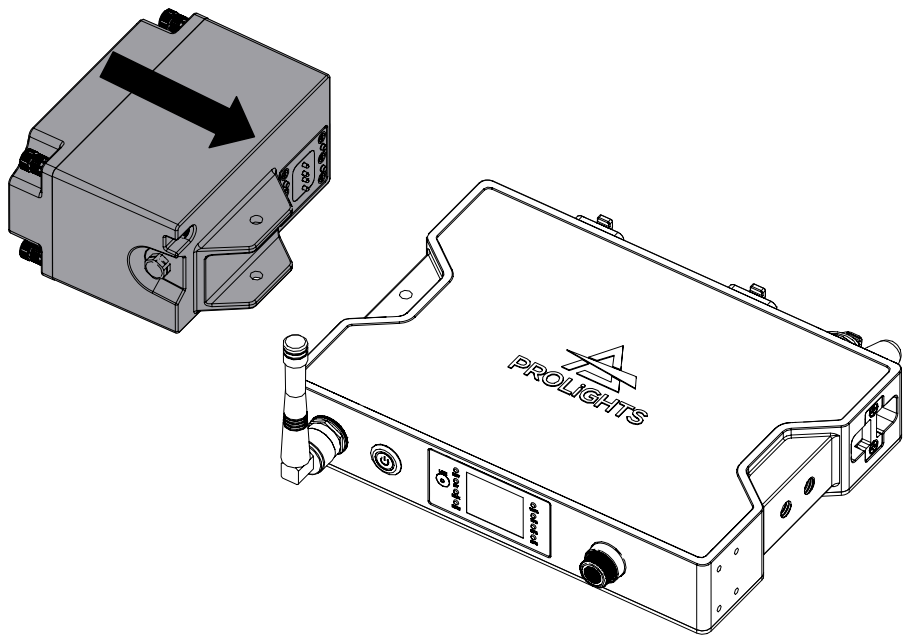
2

Fig. 06

1

Place the battery holder as shown in figure (**1**).
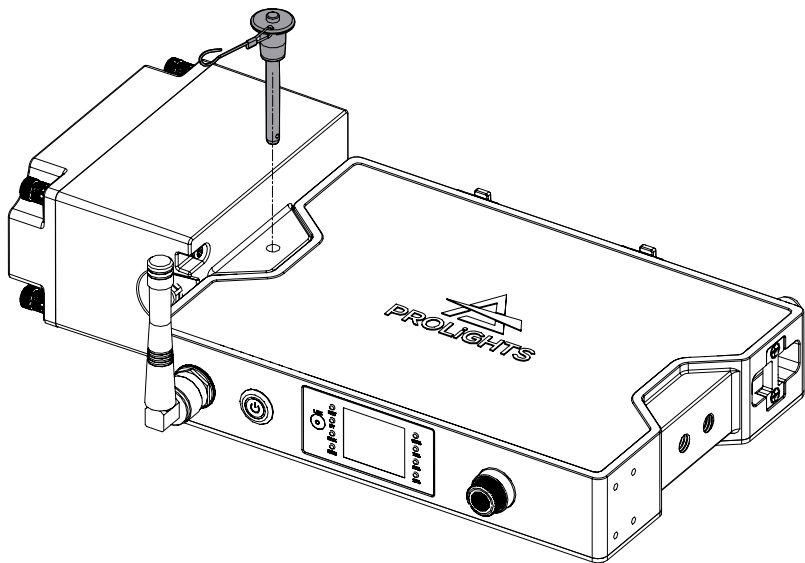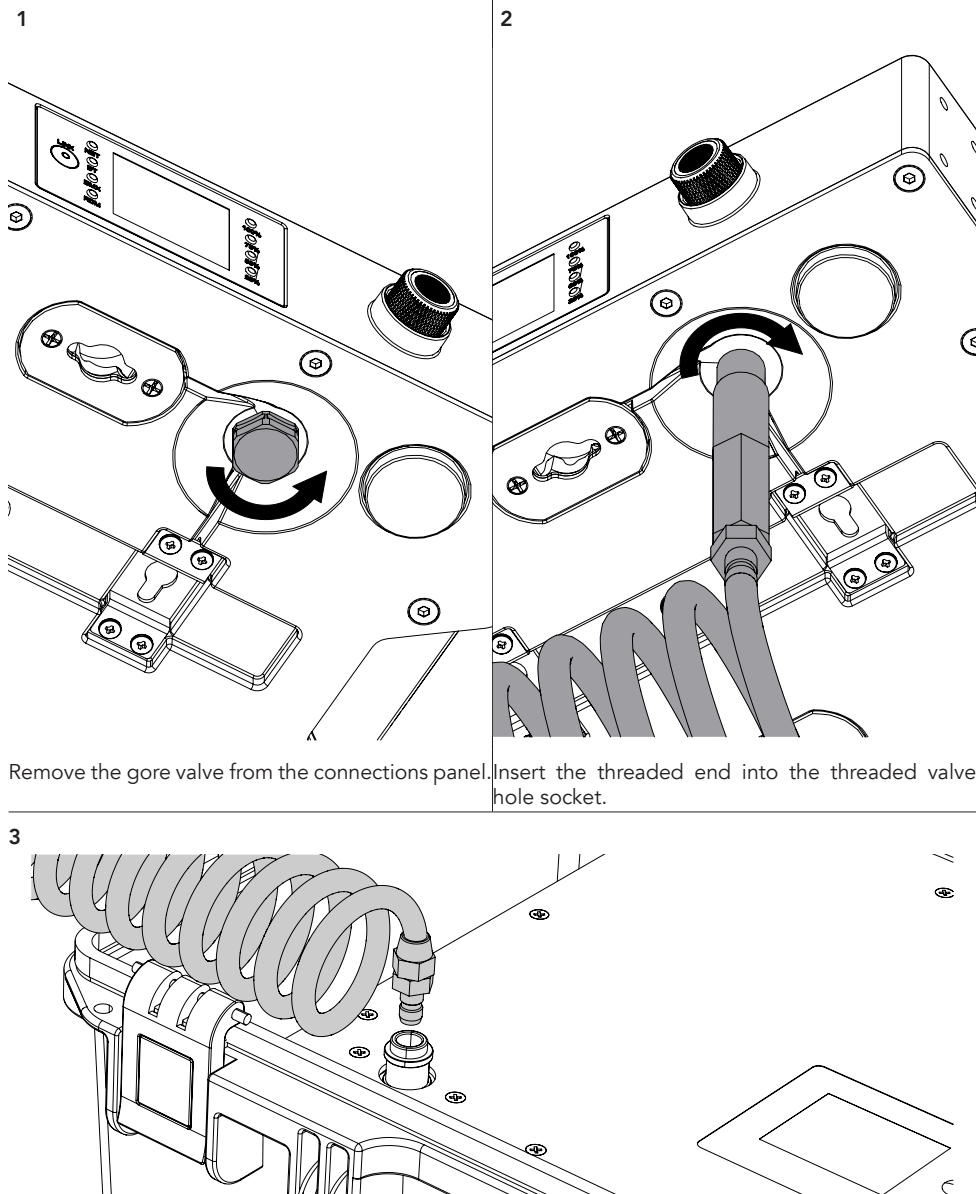
2

Fig. 07

Lock the accessory by the provided pin as shown in figure (**2**).

12 - TEST OF IP65 RATING

To check sealing after servicing use the IPTESTBOX.

1	2
Remove the gore valve from the connections panel.	Insert the threaded end into the threaded valve hole socket.

3

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. 08

13 - MAINTENANCE

MAINTENANCE THE PRODUCT

It is recommended that the product be checked at regular intervals.

- For cleaning use a soft, clean cloth moistened with a mild detergent. Never use a liquid, it might penetrate the unit and cause damage to it.
- The user may also upload firmware (product software) to the fixture via the DMX signal input port using UPBOXPRO or UPBOX2 and instructions from PROLIGHTS.
- It is recommended to check at least annually if new firmware is available and a visual check of the status of the device and mechanical parts.
- **Only for IP65/IP66 fixtures**: 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 use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, components are subject to wear and tear over the life of the product. 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 components if their characteristics are affected by wear and tear after an extended period of use.
- 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. 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.

TROUBLESHOOTING

Problems	Possible causes	Checks and remedies
	• Internal fault	• 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.

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

Note

Note