



# Stark Bar1000

18x40W moving LED batten with zoom and pixel control



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## USER MANUAL

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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](http://www.prolights.it), or can be inquired to the official PROLIGHTS distributors of your territory ([https://www.prolights.it/sales\\_network.html](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/STARKBAR1000#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, 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 authorized PROLIGHTS service center.



## Installation

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



## Minimum distance of illuminated objects

- The projector needs to be positioned so that the objects hit by the beam of light are at least 1 meters (3,28 ft) from the lens of the projector.

**T<sub>a</sub> 45°C**

#### **Max operating ambient temperature (T<sub>a</sub>)**

- Do not operate the fixture if the ambient temperature (T<sub>a</sub>) exceeds 45 °C (113 °F).

**T<sub>a</sub> -10°C**

#### **Minimum operating ambient temperature (T<sub>a</sub>)**

- Do not operate the fixture if the ambient temperature (T<sub>a</sub>) 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.



#### **Indoor use**

- This product is designed for indoor and dry environments.
- Do not use in wet location and do not expose the fixture to rain or moisture.
- 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.



#### **Light collimation optical system**

- This product contains internal light collimation optical system. Avoid to expose the optical system to any intense source of light (including sunlight) from any angle.

**T<sub>c</sub> 80°C**

#### **Temperature of the external surface**

- The surface of the fixture can reach up to 80 °C (176 °F) during operation. Avoid contact with people and materials.



#### **Radio receiver**

This product contains a radio receiver and/or transmitter:

- Maximum output power: 17 dBm.
- Frequency band: 2.4 GHz.



#### **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.



#### **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 product contains a lithium ion battery**

- 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:**

- 2014/35/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).



#### **Other approvals**



# 1 - PACKAGING

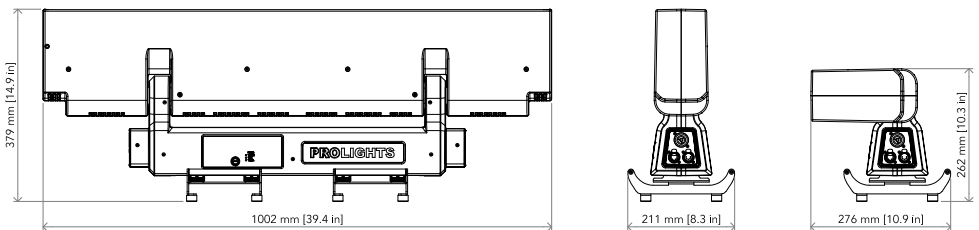
## PACKAGE CONTENT

- 1 x STARKBAR1000
- 2 x OS24
- 2 x quick-lock floor brackets
- 1 x 1,5 meters power cable (BARE END - NEUTRIK POWERCON TRUE1 IP65)
- User Manual

## OPTIONAL ACCESSORIES

- WSBBR512G6: BlackBox R-512 G6 receiver 512Ch, 2.45GHz, DMX&RDM, Bluetooth, G3, G4, G4S, G5, CRMX
- 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
- TOUR53415L03: Dmx cable HC5340. CANC5MXX XLR 5p->CANC5FXW XLR (f) 5p, L.3m
- 958225L03: 3x2.5mm TH07 Cable, 16A 3p PwCon MXW, 16A 3p PwCon FXW, L. 3m
- 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
- RSR0630B: Steel security cable for hanging bodies, inox steel shackle, L=60 cm, black
- C6016B: Quick-trigger slim clamp, 250Kg load, 48-51mm tubes, M10 bolt incl, Black
- OS24: Quick-lock omega bracket, M10 hole
- FCLSB1000: Flight case for 4x STARKBAR1000
- UPBOX2P5: Firmware uploader kit, USB IN, 5-pin XLR DMX OUT

# 2 - TECHNICAL DRAWING



Weight: 19 kg - 41,89 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.

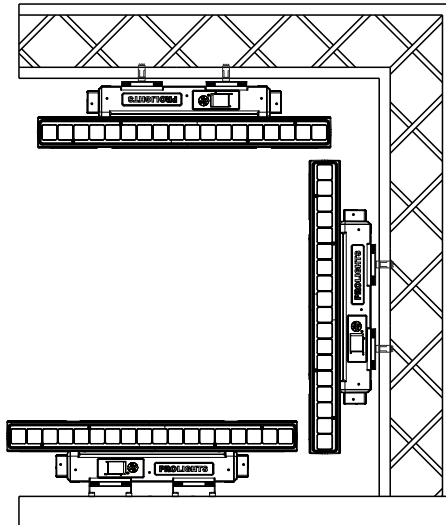
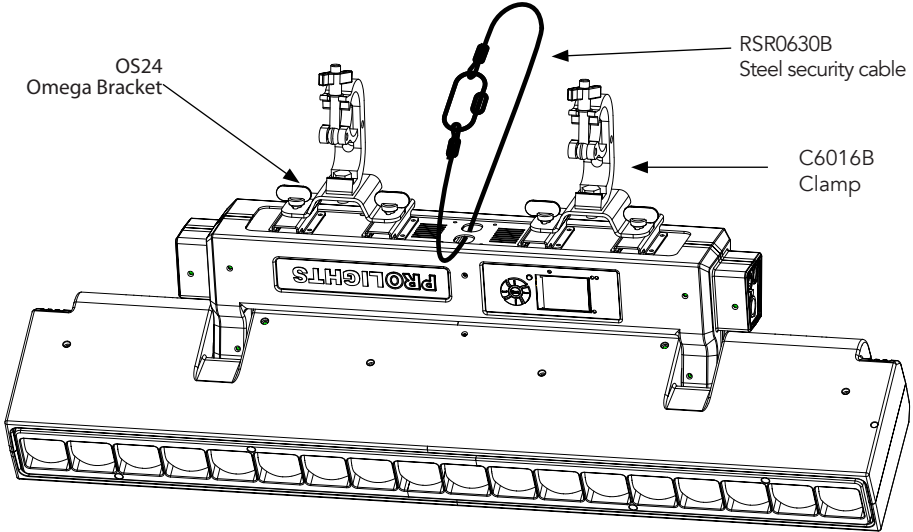


Fig.03




## 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 583W.

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. LED BAR
2. ROTARY ARM
3. HANDLE
4. LED INDICATOR "WDMX"
5. MICROPHONE
6. CONTROL PANEL with LCD display and 5 button used to access the control panel functions and manage them.
7. DMX IN (5-pole XLR): 1 = ground, 2 = DMX-, 3 = DMX+, 4 N/C, 5 N/C
8. EtherCON connector Signal IN/OUT
9. POWER IN (PowerCON IN): for connection to a socket (100-240V~/50-60Hz) via the supplied mains cable.
10. POWER OUT (PowerCON OUT): power output for connection of multiple units in series
11. DMX OUT (5-pole XLR):  
1 = ground, 2 = DMX-, 3 = DMX+, 4 N/C, 5 N/C
12. EtherCON connector Signal IN/OUT
13. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only.

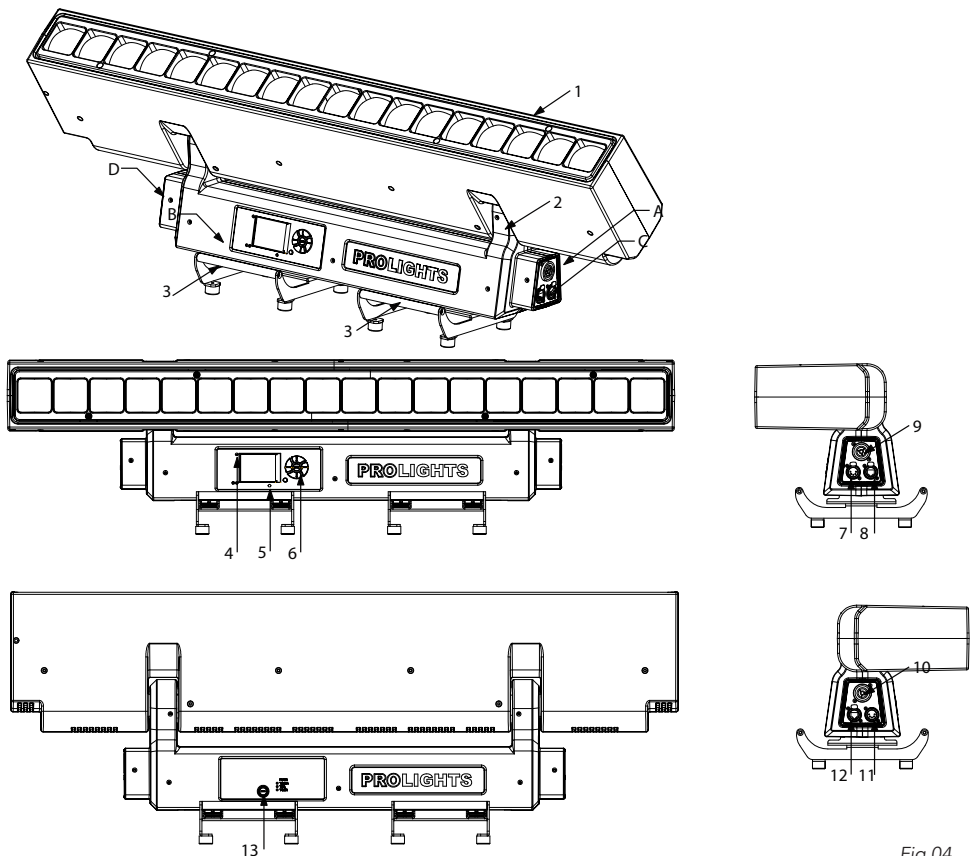


Fig 04

# 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

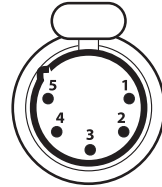


Fig. 05

## 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:

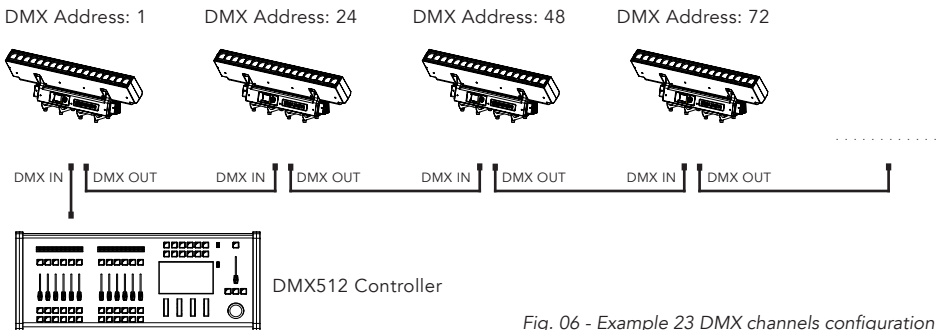


Fig. 06 - Example 23 DMX channels configuration

## 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.

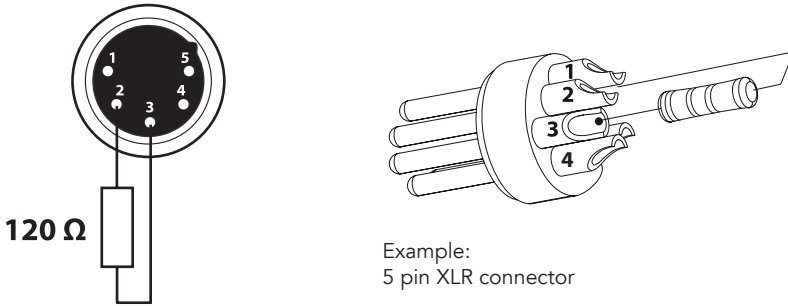


Fig. 07

## 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.

## ETHERNET CONNECTION

The products is provided with two 8-pin RJ-45 sockets for Ethernet input/output for a simple daisy chain connection to the network.

The product can be controlled with ArtNet/sACN/Klingnet communication protocol.

Use a network cable category 5 (with four "twisted" wire pairs) and standard RJ-45 plugs.

## ETHERNET OPERATION

Please refer to the section MENU STRUCTURE contained in this document for detailed informations about the parameters of setting on the fixture (Protocol, Net, Subnet, Universe, Start Channel and IP Address, Ethernet to DMX No/Yes).

- IP addresses recommended: 002.xxx.xxx.xxx or 010.xxx.xxx.xxx.
- The submask net is fixed at 255.0.0.0.

## ETHERNET TO DMX OPERATIONS

Please refer to the section MENU STRUCTURE contained in this document for detailed informations. This function allow a product receiving an ethernet signal protocol to re-transmit the incoming signal onto a wired DMX line through its onboard XLR-out connector.

- An Ethernet protocol (Artnet, sACN or others available) has to be enabled from Ethernet menu at first fixture. **Please make sure that wireless receiver is switched to OFF if you use Ethernet communication.**
- Enable the option Ethernet To DMX choosing which fixture needs to be retransmitted (Main Fixture or Pixel Engine) from the Ethernet menu at the first product (connected to the Ethernet) in the signal chain, next products have standard DMX setting.
- Connect the Ethernet input of the first product in the data chain with the network. Connect the DMX output of this product with the input of the next product until all products are connected to the DMX chain.
- Caution: At the last product, the DMX chain has to be terminated with a terminator. Solder a 120  $\Omega$  resistor between Signal (-) and Signal (+) into a XLR-plug and connect it in the DMX-output of the last product.

## OPERATION AS A WIRELESS TRANSMITTER

STARKBAR1000 can be used as wireless transmitter to transmit DMX signal to different wireless receivers. To use STARKBAR1000 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.

## IN TO WDMX

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

Any incoming signal (ArtNet, sACN or DMX) is retransmitted throught wireless. It's possible to choose retransmission of Main Fixture or Pixel Engine.

If the STARKBAR1000 protocol selected is ArtNet / sACN, the WDMX module will retransmit the DMX values contained in the ArtNet / sACN signal received from the STARKBAR1000.

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

**NOTE:** Do not use IN TO WDMX and ETH TO DMX simultaneously, this will cause data conflict on DMX output signal.

## **OPERATION AS A WIRELESS RECEIVER**

STARKBAR1000 can be used as wireless receiver connected to a wireless transmitter.

To use STARKBAR1000 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 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 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.

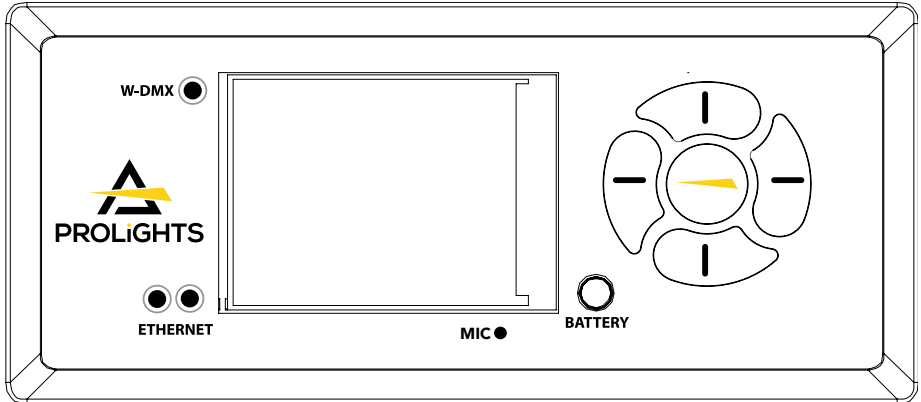


Fig. 08

### DISPLAY AND BUTTONS LAYOUT

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

	<p>1 </p> <p>2 </p> <p>3 </p> <p>4 </p> <p>5 </p>	<ul style="list-style-type: none"> <li>• Browse upwards through the menu list and increases the numeric value displayed.</li> <li>• Commute from units, tens, hundred in the menu.</li> <li>• Browse downwards through the menu list and decreases the numeric value displayed.</li> <li>• Return to the top level.</li> <li>• Used to access the menu tree or to return a previous menu window.</li> </ul>
	<ul style="list-style-type: none"> <li>• Switch on the display using backup battery. Hold for 5s.</li> <li>• Switch off display by pressing button 4 for 5s while on being on Home screen.</li> </ul>	
<p>W-DMX </p>	<ul style="list-style-type: none"> <li>• LED indicator for Wireless dmx (color red and green).</li> </ul>	
<p>ETHERNET </p>	<ul style="list-style-type: none"> <li>• LED indicator for Ethernet network.(color orange).</li> </ul>	

## 9 - MENU STRUCTURE

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

1	CONNECT	ADDRESS	DMX	VALUE (1-512)	Set address used for Fixture.
			WDMX	VALUE (1-512)	
			ARTNET	VALUE (1-512)	
		DMX MODE	MODE	<b>WASH</b> / FX / PIXFX / USER	Set DMX chart for Main Fixture.
			EDIT USER	Max Channel/Control// Fine/Tilt/...	
		WIRELESS	DMX OUT	ON/ <b>OFF</b>	Enable/Disable the wireless card.
			RESET CONNECT	YES/ <b>NO</b>	Reset connection.
		ETHERNET	DMX OUT	ON/ <b>OFF</b>	Enable/Disable the ARTNET connection.
			IP ADDRESS	2.XX.XX.01	Set IP address of the fixture.
			IP MASK	255.0.0.0	Set Subnet for ArtNet protocol.
			UNIVERSE	00000	Set Universe for ArtNet protocol.
		RDM ID	Name		Fixture ID Name
			Mode	<b>Mode1</b> /Mode2	
			-Password-		050 (unlocks the following settings)
			PID Code	00001	
		2	SETUP	TEMPERATURE	TEMPERATURE C/F
MAX TEMPERATURE	80~139°C / 176~282°F ( <b>90°C / 194°F</b> )				Select the maximum temperature value to give the fault
MOVEMENT	TILT REVERSE		YES/ <b>NO</b>	Allows you to reverse Tilt movement.	
	TILT FEEDBACKS		<b>YES</b> /NO	To activate / deactivate the reading of the feedbacks given by the encoders.	
	TILT MODE		<b>Standard</b> /Smooth	Select Tilt Mode	
SCREEN	BACKLIGHT		<b>02m</b> -60m	Allows you to select the timing after that display will switch automatically off when unactive.	
	FLIP DISPLAY		YES/NO/ <b>AUTO</b>	Allows you to rotate the display by 180°.	
	DISPLAY BRIGHT		Value: 00~31 ( <b>10</b> )	Set the brightness of the display	
	KEY LOCK		ON/ <b>OFF</b>	Allows you 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.	
	LANGUAGE		<b>EN</b> /FR/SP...	Select menu language	
	FIXTURE		FANS MODE	<b>AUTO SPEED</b> / HIGH SPEED	Select Fan behaviour.
NO SIGNAL			CLOSE/ <b>HOLD</b> / AUTO/MUSIC	To choose the behaviour of fixture in case of dmx signal lost.	



		HIBERNATION	Disable/Min:01~99 <b>(15min)</b>		
		THEATER MODE	YES/NO		
		FREQUENCY	600Hz / <b>1200Hz</b> / 2000Hz / ....	Select PWM LED frequency.	
	ADJUST	Control, Tilt, Tilt Fine, Tilt Speed, Shutter, Dimmer, Dimmer Fade, [...]	Value (000-255) for each function	Make fixture goes blackout OFF while moving.	
3	ADVANCED	RESET FUNCTIONS	ALL		To reset these functions.
			TILT		
			OTHER		
	DIMMER CURVE	NEW MODE		Select different curve behaviour of dimmer.	
		OLD MODE			
	CALIBRATION	PASSWORD		For the calibration of these functions. 050 password for user reset.	
		TILT (16 BIT)	Value <b>128</b>		
		1Led Red	Value <b>128</b>		
		1Led Green	Value <b>128</b>		
		1Led Blue	Value <b>128</b>		
		2Led Red	Value <b>128</b>		
		2Led Green	Value <b>128</b>		
		2Led Blue	Value <b>128</b>		
		.....			
		18Led Red	Value <b>128</b>		
		18Led Green	Value <b>128</b>		
		18Led Blue	Value <b>128</b>		
	RELOAD DEFAULT	BASIC RELOAD	ON / <b>OFF</b>	Password 050 to unlocks the following settings	
		PROGRAM RELOAD	ON / <b>OFF</b>		
		PASSWORD			
PRIVATE RELOAD		ON / <b>OFF</b>			
ALL RELOAD		ON / <b>OFF</b>			
4	INFORMA- TIONS	TIME INFO.	CURRENT HOURS	XXXX(Hours)	To check the total working hours of the unit.
			FIXTURE HOURS	XXXX(Hours)	To check the current working hours of the unit.
	TEMPERA- TURE	NEAR LAMP TEMP,	°C AND °F	To see the unit temperature.	
	FAN SPEED	NEAR LAMP FAN	RPM AND %	To see the speed of the fans.	
	CHANNEL VALUE	TILT...		To see the dmx value of those channels.	
	ERROR MESSAGE	TILT...		To see any error messages.	

		FIXTURE MODEL	XXXXXXXXXX		View informations about fixture model.
		SOFTWARE VERSION	1U01 V1.0.00...		View informations about software version.
5	STAND ALONE	PLAY	DMX RECEIVE		This mode will allow you to receive DMX signal.
			SLAVE RECEIVE	Part 1-2-3 Receive	This mode will allow you to link up the units together without a controller. Choose a unit to function as the Master. The unit must be the first unit in line; other units will work as slave with the same effect.
			STATIC	1-250 Scene	This mode will allow you to play e stored scene.
			SEQUENCE	Alone/Master	Press the UP/DOWN button to select the mode of operation: <ul style="list-style-type: none"> <li>• Master, if the unit is connected in series with other units and it acts as the Master;</li> <li>• Alone, if the unit is not connected to other units.</li> </ul>
			MUSIC	Alone/Master	
			MIC SENS.	Value: 00 ~ 99% <b>(60%)</b>	To set the value of the sensitivity of the microphone for use with a music control.
			SELECT CHASE	CHASE PART 1	Chase 1 - Chase 8
		CHASE PART 2		Chase 1 - Chase 8	
		CHASE PART 3		Chase 1 - Chase 8	
		EDIT CHASE	CHASE 1	Step 1 - 64	The function Edit Chase allows you to create automatic pre-programmed show.
			CHASE 2	Step 1 - 64	
			....		
			CHASE 8	Step 1 - 64	
		EDIT SCENES	EDIT SCENES 001	TILT / FADE / SCENE / DMX INPUT	The function Edit Scenes allows you to create individual scenes to be included in the Chase Step.
			EDIT SCENES ...	....	
			EDIT SCENES 250	TILT / FADE / SCENE / DMX INPUT	
		SCENES RECORD	Sc XX - Sc XX		STARKBAR1000 is equipped with a built-in DMX recorder by which you can transmit the programmed scenes from your DMX-controller to the device.

## WIRELESS CONTROL SETTINGS

To enable wireless control mode, proceed as follows:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Connect icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Wireless DMX and press ENTER.
- Press the UP/DOWN and LEFT/RIGHT buttons to select the desired value (001-512).
- Press the ENTER key to confirm the setting.
- To change the settings of wireless control, proceed as follows:
- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Wireless Set, and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to select the option proposed and press the ENTER button to confirm your choice.
- DMX On Cable - Disable/enable the DMX signal cable. Select OFF to deactivate or ON to activate the function.
- Reset Connect - Reset the wireless connection of the unit. Select OFF to deactivate or ON to activate the function.
- Press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

## DISPLAY SETTINGS

You can change the following parameters related to the display, following the same procedure:

- Press the ENTER button to access the main menu.
- Press the UP / DOWN keys to scroll the menu, select the Setup icon, then press the ENTER button to enter the next menu.
- Press UP / DOWN to scroll through the menu, then select UI Set, and press the ENTER button to enter the next menu.
- Press UP / DOWN to scroll through the menu, and then select one of the following settings for the display and press the ENTER key to display it.
- Back Light - Backlight display Auto Off. This feature allows you to automatically turn off the backlight after a specified time that you can set using the arrow buttons. To have the display always on select Always On or set a value of 01-99 min to turn off the display after the amount of time you choose.
- Flip Display - Orientation of the display. This function allows you to rotate the display 180° to get a better view of the display when the unit is hanging upside down. Select ON to activate or OFF to disable this function.
- Bright Display - Backlight Brightness. Use the arrow buttons to select a value from 0-31.
- Key Lock - Lock keys. With this function, you can lock the buttons on the control panel. If this function is activated, the keys are automatically locked. To disable or temporarily disable the key lock function, press the buttons in the following order to regain access to menu commands: UP, DOWN, LEFT, RIGHT, ENTER. Select ON to activate or OFF to disable.
- Language - Select the display language. This function allows you to select the preferred menu language.
- Press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

## SPECIAL FUNCTIONS

For the STARKBAR1000 you can access the following special functions:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the icon Set Up, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the Fixture menu, then select one of the following information and press the ENTER button to display it.
- Theater Mode - Activate this function to set a lower light output with a lower heat and fans operation.
- Fans Mode - Select this function to set the fans operation mode. Use the arrow buttons to select Auto Speed /High Speed. Press the ENTER button to confirm your choice.
- No Signal - Select this feature to set the preferred mode of operation to be activated in case the drive is not present no DMX signal input. Press the UP/DOWN button to select the preferred mode of operation: Close/ Hold/Auto/Music. Press the ENTER button to confirm your choice.
- Hibernation - Select this function to activate the standby mode. This function will be activated automatically

after a period of inactivity, which is defined by the user. In standby mode, the lamp and all engines will not be fed if no signal is sent. The unit will automatically reset and will return to operation as soon as the DMX signal is sent. Select the desired time Min (01-99) through the arrow keys or select Disable to disable this function, then press the ENTER button to confirm your choice.

- Press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.
- Press the UP/DOWN button to scroll through the menu, select Temperature C/F and press ENTER to confirm.
- Press the UP/DOWN button to select the unit of measure Celsius/Fahrenheit and press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

## **FIXTURE SETTINGS**

You can change the parameters for the device by following these steps:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select Movement and press the ENTER button to enter the next menu.
- Use the UP/DOWN button to select the option proposed and press the ENTER button to confirm the setting.
- Tilt Reverse - Used for reversing tilt movement. Select OFF to deactivate the function (normal setting); ON to activate the function (Tilt Reverse).
- Tilt Feedbacks - Reorganization Tilt position after rolling away. Select OFF to deactivate or ON to activate the function.
- Tilt Mode - Type of movement of the moving head. Select Standard to obtain a fast and fluid movement of Tilt, Smooth for a slower and softer movement of Tilt.
- Press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

## **LAMP SETTINGS**

### **Reset**

You can start a preset program to restore the selected function:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Reset and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select the function you wish to reset between All, Tilt e Others.
- Press the ENTER button to confirm your choice and wait for the recovery of the selected function.

### **Calibration**

Select this function to calibrate and adjust the wheels of the effects in their correct positions:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button keys to scroll the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select Calibration and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select Password and press ENTER to confirm.
- Use the arrow keys to enter the password 050 and press ENTER to confirm.
- Once you have entered your password, you can set the values for Password, Tilt, 1led red, 1led green, 1led blue, 2led red, 2led green, 2led blue, ..., 18led red, 18led green, 18led blue. Press the UP/DOWN button to scroll through the menu, select one of the functions mentioned above and press ENTER to confirm your choice.
- Use the arrow buttons to enter the desired value, then press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

### **Reload Default**

Select this function to reset the unit to factory settings:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Reload Default and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to select the favourite recovery mode Basic Reload/Program Reload/Private Reload/All Reload, then press the ENTER button to confirm.
- Press the UP/DOWN button to select ON or OFF, then press the ENTER button to confirm.

## FIXTURE INFORMATION

To view all the information on the device, proceed as follows:

- Press the ENTER button to access the main menu.
  - Press the UP/DOWN button to scroll the menu, select the icon Information, then press the ENTER button to enter the next menu.
  - Press the UP/DOWN button to scroll through the menu, then select one of the following information and press the ENTER button to display it.
  - Time Information - Through the Time Information function you can display the operating time of the projector.
  - Lamp Info - Through the Lamp Info function you can display the lamp information.
  - Temperature - Through the Temperature function can be displayed the temperature inside the fixture, near the lamp. The temperature can be displayed in degrees Celsius or Fahrenheit.
  - Fans Speed - Through the Fans Speed function you can show on display the fan speed present near the lamp. Velocity is expressed in RPM (revolutions per minute).
  - Channel Value - Channel Value function can be used to display the values of the channels by which the unit will operate when switched on.
  - Error Message - Through the Error Message function can be displayed any errors channels.
  - Fixture Model - Through the Fixture Model function can be displayed the model number and manufacturer.
  - Software Version - Through Software Version function you can display the currently installed software version.
- Press the LEFT button repeatedly to exit the menu.

## OPERATIONS IN AUTOMATIC MODE

The unit independently runs through its show. Before you send an automatic program you need to set the drive as Master/Alone:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Program icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Play and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Sequence and press ENTER to confirm your choice.
- Press the UP/DOWN button to select the mode of operation:
- Master, if the unit is connected in series with other units and it acts as the Master;
- Alone, if the unit is not connected to other units.
- Press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.
- The unit will go into automatic mode by executing the program automatically.

## Select Chase

The function Select Chase lets you choose the automatic program to actually run.

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Program icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Select Chase and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select Chase Part 1/Chase Part 2/Chase Part 3 and press ENTER to confirm.
- Press the UP/DOWN button to select Chase1-Chase8, and press the ENTER button to confirm.
- Press the LEFT button repeatedly to exit the menu and save changes.

## Edit Chases

The function Edit Chases allows you to create automatic pre-programmed show.

The automatic programs Chase Part1/2/3 are each divided into Chase1-Chase8. Each Chase can be composed of 1-64 step that can be configured through the following procedure:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Program icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Edit Chases and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Edit Chase 1 - Edit Chase 8, then press the ENTER button to confirm.
- Press the UP/DOWN button to select the Step 01 - Step 64, and press ENTER to confirm.
- Press the UP/DOWN button to select the Scene you want to set for the Step chosen, and then press ENTER to confirm.
- Press the LEFT button repeatedly to exit the menu and save changes.
- Edit Scenes
- The function Edit Scenes allows you to create individual scenes to be included in the Chase Step.
- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Program icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Edit Scenes and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Edit Scene 001 - Edit Scene 250, then press the ENTER button to confirm.
- Press the UP/DOWN button to select the desired function you want to edit (Control, Tilt, etc..), Then press the ENTER button to confirm.
- Press the UP/DOWN button to change the value of the function, then press the ENTER button to confirm.
- Press the LEFT button repeatedly to exit the menu and save changes.

## SLAVE RECEIVE MODE

This mode will allow you to link up the units together without a controller. Choose a unit to function as the Master. The unit must be the first unit in line; other units will work as slave with the same effect.

A Master unit can send up to 3 different data groups to the Slave units, i.e. a Master unit can start 3 different Slave units, which run 3 different programs. The Master unit sends the 3 program parts in a continuous loop.

The Slave unit receives data from the Master unit according to the group which the Slave unit was assigned to. For example, if a slave device is set to Receive Part 1, the Master unit Slave unit will send the automated Chase Part 1; if set to Receive Part 2, the Chase Part 2 Slave units will receive from the Master.

To set the drive as a slave, proceed as follows:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Program icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, and then select Play and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, and select Slave Receive and press ENTER to confirm.
- Press the UP/DOWN button to select the different modes of operation Part 1 Receive/Receive Part 2/Part 3 Receive, and then press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.
- Select the desired program on the master unit (described in section 3.5).

Use the DMX connectors of the STARKBAR1000 and an XLR cable to form a chain of units.

## SCENES RECORD MODE

STARKBAR1000 is equipped with a built-in DMX recorder by which you can transmit the programmed scenes from your DMX-controller to the device. Proceed as follows to store the sequence of scenes in the unit.

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll through the menu, select the Program icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Scenes Record and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to adjust the scene at the beginning and end to be inserted in the automatic program, then press the ENTER button to confirm.

- Press the LEFT button repeatedly to exit the menu and save changes.
- When recalling scenes from the controller will automatically be transmitted to the device.

## MUSIC MODE

In music mode, via its integrated microphone, the unit can be controlled by music with a clear rhythm in the bass range. If the music control should not work optimally, increase the volume or reduce the distance between the sound source and the light effect unit or alternatively increase the sensitivity of the microphone.

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Program icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Play and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Music and press ENTER to confirm.
- Press the UP/DOWN button to select the mode of operation:
- Master, if the mobile head is connected in series to other units, and it performs the Master function;
- Alone, if the fixture is not connected to other units.
- Press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

The unit will go into music mode by executing an automatic program to the rhythm of music.

## SENSITIVITY MICROPHONE

Select this function to set the value of the sensitivity of the microphone for use with a music control:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select UI Set, and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select Mic Sens. and press ENTER to confirm.
- Press the UP/DOWN button to adjust the level of sensitivity of the microphone, and then press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

## 10 - SHORTCUT

Keys	Mode	Description
DOWN then power on	Reset without pan/tilt movements	Fixture will be powered on without reset on pan/tilt movements.
ENTER + UP then power on	Bootloader	Force firmware upgrade.

# 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.

Category	Parameter	PID	GET	SET
<b>Product Information</b>	DEVICE_INFO	0x0060	x	
	DEVICE_MODEL_DESCRIPTION	0x0080	x	
	MANUFACTURER_LABEL	0x0081	x	
	DEVICE_LABEL	0x0082	x	
	FACTORY_DEFAULTS	0x0090	x	x
	SOFTWARE_VERSION_LABEL	0x00C0	x	
	SUPPORTED_PARAMETERS	0x0050	x	
<b>DMX512 Setup</b>	DMX_PERSONALITY	0x00E0	x	x
	DMX_PERSONALITY_DESCRIPTION	0x00E1	x	
	DMX_START_ADDRESS	0x00F0	x	x
	SLOT_INFO	0x0120	x	
	SLOT_DESCRIPTION	0x0121	x	
<b>Sensors</b>	SENSOR_DEFINITION	0x0200	x	
	SENSOR_VALUE	0x0201	x	x
<b>Power/Lamp Settings</b>	DEVICE_HOURS	0x0400	x	x
	LAMP_HOURS	0x0401	x	x
	LAMP_STATE	0x0403	x	x
<b>Display Settings</b>	DISPLAY_INVERT	0x0500	x	x
<b>Configuration</b>	TILT_INVERT	0x0601	x	x
<b>Control</b>	IDENTIFY_DEVICE	0x1000	x	x
	RESET_DEVICE	0x1001		x
	DISC_UNIQUE_BRANCH	0x0001	x	x
	DISC_MUTE	0x0002	x	x
	DISC_UN_MUTE	0x0003	x	x



# 12 - DMX CHARTS

**DMX Chart Summary**

Channel	Wash	FX	Pixfx
1	Tilt	Tilt	Tilt
2	Tilt fine	Tilt fine	Tilt fine
3	Movement Speed	Movement Speed	Movement Speed
4	Shutter	Shutter	Shutter
5	Dimmer	Dimmer	Dimmer
6	Virtual Color Function	Dimmer fade	Dimmer fade
7	Virtual Color1	Virtual Color Function	Virtual Color Function
8	Red-All	Virtual Color1	Virtual Color1
9	Green-All	Red-All	Zoom
10	Blue-All	Green-All	Pattern
11	White-All	Blue-All	Pattern Speed
12	Zoom	White-All	Dimmer transition
13	Control	Zoom	Foreground
14		Pattern	Foreground dimmer
15		Pattern Speed	"Foreground Shutter"
16		Pattern transition	Background
17		Foreground	Background dimmer
18		Foreground dimmer	"Background Shutter"
19		"Foreground Shutter"	Control
20		Background	Red 1
21		Background dimmer	Green 1
22		"Background Shutter"	Blue 1
23		Control	White 1
...			...
88			Red 18
89			Green 18
90			Blue 18
91			White 18

Wash	FX	Pixfx	Function	DMX Value	Default
1	1	1	<b>TILT</b> Lineary from 0% to 100%	000 ÷ 255	0
2	2	2	<b>TILT FINE</b>	000 ÷ 255	0
3	3	3	<b>MOVEMENT SPEED</b> Fastest to Slowest Movement With Backout	000 ÷ 250 251 ÷ 255	0
4	4	4	<b>SHUTTER</b> Close Strobe from slow to fast Open Pulse in from slow to fast Open OpenRandom from slow to fast Open	000 ÷ 010 011 ÷ 082 083 ÷ 093 094 ÷ 163 164 ÷ 174 175 ÷ 244 245 ÷ 255	0
5	5	5	<b>DIMMER</b> Lineary from 0% to 100%	000 ÷ 255	000
	6	6	<b>DIMMER FADE</b>	000 ÷ 255	000
6	7	7	<b>VIRTUAL COLOR FUNCTION</b> Normal Function White presets Forward Spin Reverse Spin Continuous TBD	000 - 015 016 - 031 032 - 047 048 - 063 064 - 079 080 - 255	000
7	8	8	<b>VIRTUAL COLOR 1</b> <b>White Presets</b> White 2000K ~ 2700K White 2700K ~ 3200K White 3200K ~ 4200K White 4200K ~ 5600K White 5600K ~ 8000K White 8000K ~ 10000K <b>Forward Spin</b> Rainbow Effect (Slow to Fast) <b>Reverse Spin</b> Rainbow Effect (Slow to Fast) <b>Continuous</b> Black Red Green Blue White Pastel Red Pastel Green Pastel BLue Cyan Magenta Yellow Light Yellow Light BLue Light Magenta Full White Full White ~ White 3200K White 3200K ~ White 4200K White 4200K ~ White 5600K	000 - 155 156 - 175 176 - 195 196 - 215 216 - 235 236 - 255 000 - 255 000 - 255 000 - 000 001 - 013 014 - 027 028 - 041 042 - 055 056 - 069 070 - 083 084 - 097 098 - 111 112 - 125 126 - 139 140 - 153 154 - 167 168 - 181 182 - 195 196 - 225 226 - 235 236 - 255	000
8	9		<b>Red-All</b> Linear insertion from 0% to 100%	000 ÷ 255	000
9	10		<b>Green-All</b> Linear insertion from 0% to 100%	000 ÷ 255	000
10	11		<b>Blue-All</b> Linear insertion from 0% to 100%	000 ÷ 255	000
11	12		<b>White-All</b> Linear insertion from 0% to 100%	000 ÷ 255	000
12	13	9	<b>ZOOM</b> Big Angle to Small Angle	000 ÷ 255	000

Wash	FX	Pixfx	Function	DMX Value	Default
	14	10	<b>PATTERN</b> No Pattern <b>Static Pattern</b> Static mode <b>Dynamic Pattern Selection</b> Dynamic Pattern 1 Dynamic Pattern 2 Dynamic Pattern 3 Dynamic Pattern 4 Dynamic Pattern 5 Dynamic Pattern 6 Dynamic Pattern 7 Dynamic Pattern 8 Dynamic Pattern 9 Dynamic Pattern 10 Dynamic Pattern 11 Dynamic Pattern 12 Dynamic Pattern 13 Dynamic Pattern 14 Dynamic Pattern 15 Dynamic Pattern 16 Dynamic Pattern 17 Dynamic Pattern 18 Dynamic Pattern 19 Dynamic Pattern 20 Dynamic Pattern 21 <b>Random Pattern</b> Random	000 - 015  016 - 031  032 - 049 050 - 058 059 - 067 068 - 076 077 - 085 086 - 094 095 - 103 104 - 112 113 - 121 122 - 130 131 - 139 140 - 148 149 - 157 158 - 166 167 - 175 176 - 184 185 - 193 194 - 202 203 - 211 212 - 220 221 - 229  230 - 255	000
	15	11	<b>PATTERN SPEED</b> <b>Static Pattern</b> No Function Static Selection (When static mode is active) No Function <b>Dynamic Pattern (When dinamic patterns are active)</b> Index Forward spin Stop Reverse spin	000 - 002 003 - 252 253 - 255  000 - 037 038 - 144 145 - 148 149 - 255	000
	16	12	<b>PATTERN TRANSITION</b> Dimmer 0% ~ 100%	000 ÷ 255	000
	17	13	<b>FOREGROUND</b> Foreground color (same as CONTINUOUS PRESETS )	000 ÷ 255	000
	18	14	<b>FOREGROUND DIMMER</b> Dimmer 0% ~ 100%	000 ÷ 255	000
	19	15	<b>FOREGROUND SHUTTER</b> Shutter closed Strobe effect slow to fast Shutter open 1 Random strobe effect slow to fast Shutter open 2	000 - 010 011 - 163 164 - 174 175 - 244 245 - 255	000
	20	16	<b>BACKGROUND</b> No Function Background color (same as CONTINUOUS PRESETS)	000 ÷ 015 016 ÷ 255	000
	21	17	<b>BACKGROUND DIMMER</b> Dimmer 0% ~ 100%	000 ÷ 255	000
	22	18	<b>BACKGROUND SHUTTER</b> Shutter closed Strobe effect slow to fast Shutter open 1 Random strobe effect slow to fast Shutter open 2	000 - 010 011 - 163 164 - 174 175 - 244 245 - 255	000

Wash	FX	Pixfx	Function	DMX Value	Default
13	23	19	<b>CONTROL</b> Normal Reset All Tilt Reset TBD Other Reset Display Off Display On TBD TBD Hibernation TBD	000 - 007 008 - 015 016 - 023 024 - 047 048 - 055 056 - 063 064 - 071 072 - 079 080 - 087 088 - 095 096 - 255	000
		27	<b>Red 1</b> Linear insertion from 0% to 100%	000 ÷ 255	000
		28	<b>Green 1</b> Linear insertion from 0% to 100%	000 ÷ 255	000
		29	<b>Blue 1</b> Linear insertion from 0% to 100%	000 ÷ 255	000
		30	<b>White 1</b> Linear insertion from 0% to 100%	000 ÷ 255	000
		...	....		
		88	<b>Red 18</b> Linear insertion from 0% to 100%	000 ÷ 255	000
		89	<b>Green 18</b> Linear insertion from 0% to 100%	000 ÷ 255	000
		90	<b>Blue 18</b> Linear insertion from 0% to 100%	000 ÷ 255	000
		91	<b>White 18</b> Linear insertion from 0% to 100%	000 ÷ 255	000

## 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).

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES
[LAMP REPLACE]	This message will appear after the reset of the product if:
	the PAN magnetic-indexing circuit detect a failure (sensor failed or magnet is missing).
	or the stepping motor is defective.
	or its driving IC on the PCB is defective. or the product is not located in the default position after the reset of the fixture.
[EXCEED TEMPERATURE]	This error message indicates that an overheating on the lamp has occurred and the lamp has been switched OFF by the product protection system.
[FAN NO SPEED]	Blower for cooling the power supply failed.
	Blower for cooling failed.
[TILT ERROR]	This message will appear after the reset of the product if:
	the TILT magnetic-indexing circuit detect a failure (sensor failed or magnet is missing) .
	or the stepping motor is defective.
	or its driving IC on the PCB is defective.
	or the product is not located in the default position after the reset of the fixture.
	Tilt encoder not detected. Tilt sensor not detected.
[POWER SUPPLY FAN ERROR]	Blower for cooling the power supply failed.
[BASE FAN 1 ERROR]	First of the blowers for cooling the base failed.
[ZOOM ERROR]	Failure detected during the reset of the ZOOM system, if the focus lens is not located in its default position.

# 14 - 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.

## REPLACING THE FUSE

**WARNING:** Before replacing the fuse, unplug the product from the mains.

- Remove the old fuse from the housing with a suitable screwdriver (anticlockwise) and replace it with one of the same type and of the same classification (T8A 250V).

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