

EclPendant FC

200W RGB+WarmWhite innovative pendant light



USER MANUAL

REV.01-01/23 English version

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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.

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

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



Visit the download area of the product page



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SAFFTY INFORMATION



WARNING!

- See https://www.prolights.it/product/ECLPENDANTFC#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 loadbearing surface with suitable corrosionresistant hardware.
- For a temporary installation with clamps, ensure that the quarter-turn fastener and/or screws are turned fully, and secured with a suitable safety cable.



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_a45°C

Max operating ambient temperature (Ta)

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

Ta-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.



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.

T_C70°C

Temperature of the external surface

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



Maintenance

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



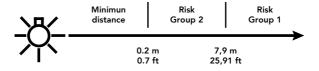
Photobiological safety

This device emits potentially dangerous optical radiation and is identified in the category of Risk Group 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 adistance closer than 7,9 m (25,91 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).



Other approvals

1 - PACKAGING

PACKAGE CONTENT

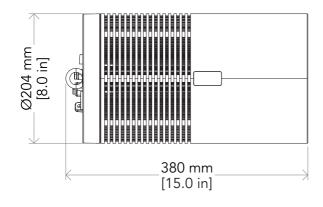
- 1x ECLPENDANTFC.
- 1x 1,5 meters power cable (BARE END SEETRONIC IP65 power connector).
- User Manual.

NOTE: no hanging bracket ECLPENDHGBRKBK/WH on board to the fixture.

OPTIONAL ACCESSORIES

- ECLPENDLENS60: ECLPENDANT series lens.
- ECLPENDLENS40: ECLPENDANT series lens.
- ECLPENDLENS20: ECLPENDANT series lens.
- ECLPENDHGBRKBK/WH: hanging bracket for ECLPENDANT series, black/white.
- ECLPENDRECSKITBK/WH: ceiling recessed kit for ECLPENDANT series, black/white.
- ECLPENDWALLBRKBKWall/WH: mounting bracket for ECLPENDANT and ECLPENDANTJR series, black/white.
- ECLPENDHSNOOTBK/WH: half snoot for ECLPENDANT series, black/white.
- ECLPENDFSNOOTBK/WH: full snoot for ECLPENDANT series, black/white.
- ECLPENDHLOUVREBK/WH: honeycomb louvre for ECLPENDANT series, black/white.
- ECLPENDCLOUVREBK/WH: concentric louvre for ECLPENDANT series, black/white.
- ECLPENDCEILKITBK/WH: ceiling-mounted kit for ECLPENDANT series, black/white.
- TOUR53415TOUR53415L03BK: dmx cable HC5340. CANC5MXX XLR 5p->CANC5FXX XLR (f) 5p
- 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, silver/black.
- 9533FXW9533FXWL03: ass. 3x2.5mm TH07 cable, SHUKO plug, MENAC3FXW socket.
- 9513FXW9513FXWL03: ass. 3x2.5mm TH07 cable, 16A 3p 230V CEE plug, MENAC3FXW socket.
- 958225958225L03: 3x2.5mm TH07. Cable, 16A 3p PwCon MXW, 16A 3p PwCon FXW.
- UPBOX1UP5: firmware uploader kit, USB IN, 5p XLR DMX OUT, DMX OUT.

2 - TECHNICAL DRAWING





Weight: 7,5 kg - 16,53 lbs Fig. 01

3 - INSTALLATION

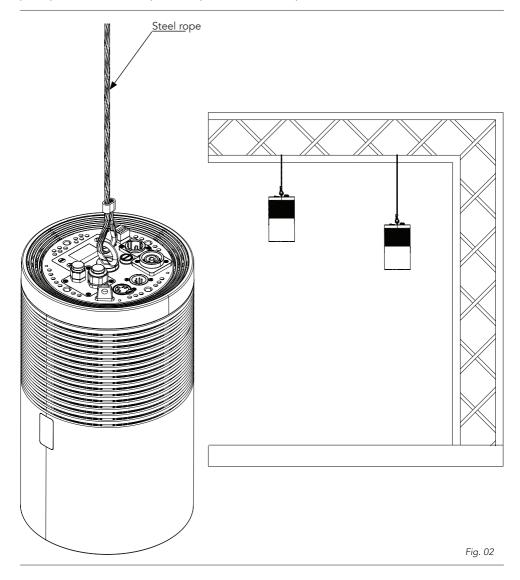
MOUNTING

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.

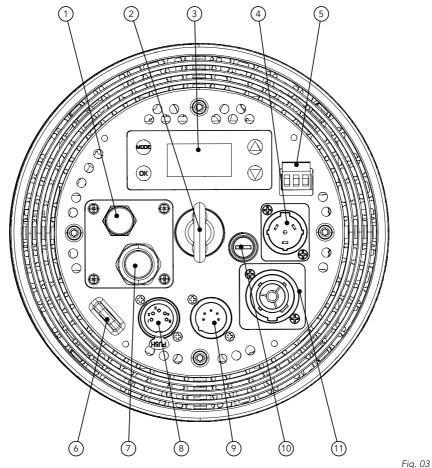
Do not use removable parts or weak anchors for secondary attachment.

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.



4 - PRODUCT OVERVIEW

- 1. DALI/DMX signal.
- 2. EYEBOLT: for hanging pendant applications.
- 3. USER INTERFACE with display and buttons for access to the control panel functions.
- 4. POWER OUT: power output for connection of multiple units in series.
- 5. 48V DC input.
- 6. SAFETY EYE to attach safety cable.
- 7. POWER IN.
- 8. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C
- 9. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
- 10.MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (250V, T3, 15A).
- 11.POWER IN: for connection to the Mains 100-240V~/50-60Hz.



5 - 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. This fixture is also equipped with a DC Input rated 48V.

ATTENTION! Do not connect 100-240 Vac and 48 Vdc at same time!

CONNECT AND DISCONNECT POWER FROM THE PRODUCT

To apply and disconnect power to the product:

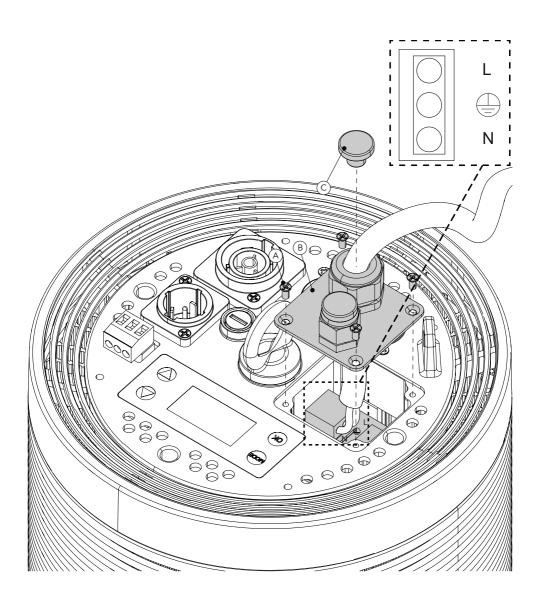
- Check that the product is installed and secured as indicated in the Safety Informations, and that personal safety will not be put at risk when the fixture lights up.
- Connect the power using one of the method descripted below (Power Cable, Mains Terminal Block or VDC Terminal Block) - Do not connect multiple sources at same time.
- The product is then ready for its operations and can be controlled through the available input signals on board. Check paragraph for DMX or DALI connection. Do not connect DMX and DALI at same time.
- To disconnect power from the product, disconnect the Mains from the socket.

CONNECTION TO MAINS POWER CABLE

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 200W.

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



Loosen the four screws (A) and remove the plate with the cable glands (B). Loosen and remove the cap (C). Then insert the cable.

Fig. 04

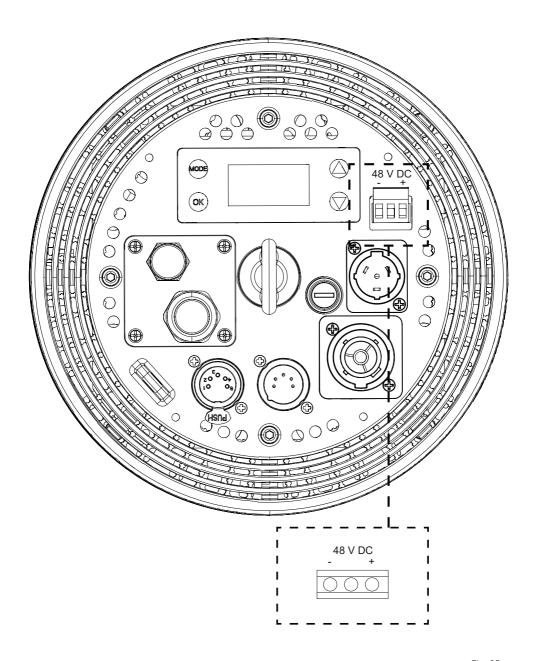


Fig. 05

6 - CONTROL LINE CONNECTION

PROTOCOL SUPPORTED

This fixture supports protocols as indicated in the following table.

DMX	RDM	WDMX	CRMX	DALI
DMX 512	RDM over DMX	G4S	CRMX Classic	DT-8 (Tc mode)
	RDM over CRMX	G3		
	RDM over WDMX			

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. 06

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.

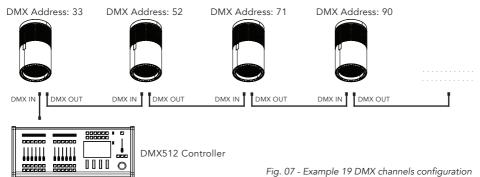
Terminate the data link by connecting a 120 Ohm signal termination. If a splitter is used, terminate each branch of the link.

Install a DMX termination plug on the last fixture on the link.

CONNECTION OF THE DMX LINE

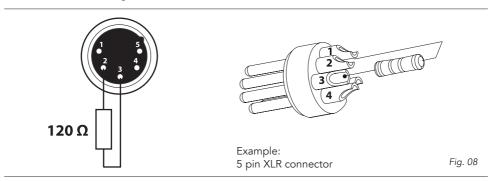
DMX connection employs standard XLR connectors. Use shielded pair-twisted cables with 120Ω impedance and low capacity.

The following diagram shows the connection mode:



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.



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

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

OPERATION AS A WIRELESS RECEIVER

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

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

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

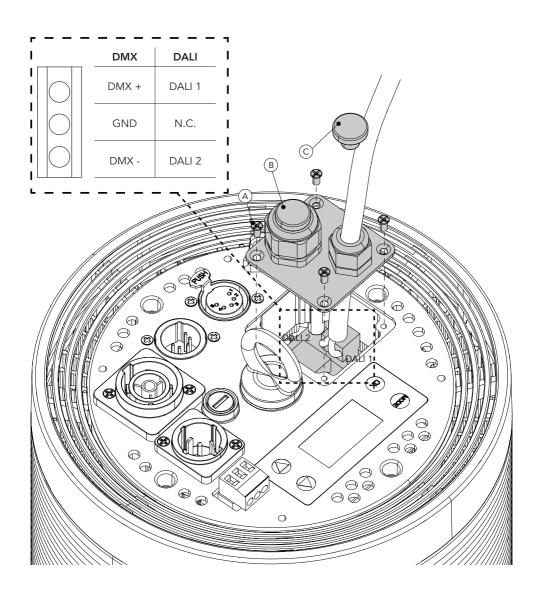
Reset the receiver

Follow the procedure below to reset the receiver.

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

WDMX TO DMX (RX)

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



Loosen the four screws (A) and remove the plate with the cable glands (B). Loosen and remove the cap (C). Then insert the cable.

Fig. 09

7 - CONTROL PANEL

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

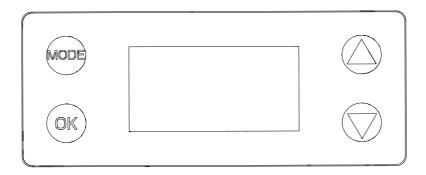


Fig. 10

DISPLAY AND BUTTONS LAYOUT

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

MODE	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.
OK	Used to confirm the current menu or confirm the current function value or option within a menu.

8 - MENU STRUCTURE

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

CONNECT	DMX ADDRESS	1 -512				Set address used for Fixture.
	DMX MODE	UNO	COLOR	2700K		Set DMX chart for Main Fixture.
			TEMPERATURE	2800K		
				3200K		
				3500K		
				4000K		
				4500K		
				5000K		
				5600K		
				6000K		
				6500K		
				10000K		
			COLOR	SEE TABLE		
			MACRO	OF COLOR MACRO		
			MANUAL COLORS	RED	<000- 255>	
				GREEN	<000- 255>	
				BLUE	<000- 255>	
			WARM WHITE	<000- 255>		
	DUO	COLOR TEMPERATURE	2700K			
			2800K			
			3200K			
			3500K			
				4000K		
				4500K		
				5000K		
				5600K		
				6000K		
				6500K		
				000011		
				10000K		
			COLOR	SEE TABLE		
			MACRO	OF COLOR MACRO		
			MANUAL COLORS	RED	<000- 255>	
				GREEN	<000- 255>	
				BLUE	<000- 255>	
				WARM WHITE	<000- 255>	
		BASIC				1
		STANDARD				1
		EXTENDED				1
		ADVANCED				1
	WIRELESS	WDMX ON/OFF	ON			Enable/Disable the wireless card
	VVIIILLLU3	TADIVIN CIVIOFF				Truncio Disable file Mileless cald

	Γ	WDMX MODE	TRANSMITTER RECEIVER	Allows to choose whether to set
			RECEIVER	Receiver. WDMX mode is unlocked only if WDMX ON / OFF is ON.
		TX LINK	ON	TX link unlock Nwhen the unit is set
			OFF	as a transmitter
		TX UNLINK	ON OFF	Disconnect the transmitter from all receivers. TX unlink unlocks only if WDMX
		RX RESET	ON	mode is on transmitter Total reset of the receiver.
			OFF	RX reset unlocks only if WDMX mode is receiver.
		IN TO WDMX (TX)	ON	Enable/Disable the transmission of the dmx from the transmitter to the
			OFF	receiver via wdmx.
		WDMX TO DMX (RX)	ON	Enable/Disable the retransmission of the DMX from the receiver to the
			OFF	other units connected by cable to the receiver itself.
SETUP	SCREEN	BACKLIGHT	ON	Allows you to select the timing
			10s	after that display will switch automatically off when unactive.
			20s	automatically on when unactive.
			30s	
			Allows you to rotate the display by	
			OFF	180°.
		KEY LOCK	ON OFF	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, ENTER.
		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
		WITH DMX ADDRESS		the other in the daisy chain, including or not the dmx address. Transfer configuration also works via WDMX.
		НВ		HB - High Brightness Mode,
	FULL ON MODE	STUDIO		delivering the full output on every primary color. Studio – Calibrated white output at 6000K, when all primary colors are set to full.
	DIMMER CURVE	LINEAR		Select Dimmer curve.
		S-CURVE		
		SQUARE LAW INVERSE		
		SQUARE LAW		
	DIMMER SPEED	AUTO		Select Dimmer speed.
		FAST		<u> </u>
		MEDIUM		
		SLOW		

	WHITE	OFF -		\vdash	Manufacturer calibration to grant
	CALIBRATION	STUDIO	RED	<125-255>	performance and color consistency.
			GREEN	<125-255>	
			BLUE	<125-255>	
			WARM WHITE	<125-255>	
		MANUAL	RED	<0-255>	
			GREEN	<0-255>	
			BLUE	<0-255>	
			WARM WHITE	<0-255>	
		CALIBRATED			
	LED FREQUENCY	600HZ			Select LED PWM frequency.
		1200HZ			
		2000HZ			
		4000HZ			
		6000HZ			
		25KHZ			
		36KHZ			
		40KHZ			
	DMX FAULT	HOLD			Define the behaviour of fixture in
	5	BLACKOUT			case of DMX signal lost.
		STAND ALONE			
		EMERGENCY			
	TUNGSTEN	ON			Enable/Disable Tungsten
	EMULATION	OFF			emulation.
	OUTPUT	CONSTANT			See table at the end of the Menu for
	CONTROL	DYNAMIC			Power behaviour.
	FACTORY RELOAD	ON OFF			Reload fixture with Standard settings.
INFORMATION	DEVICE TIME	FIXTURE HOURS	<99999H>		To check the total working hours of
		CURRENT	<99999H>		the unit. To check the current working hours
		HOURS			of the unit. To see the total operating hours of
		SOURCE HOURS	<99999H>		the LED source.
		AC POWER ON CYCLE	<300>		To see the power cycles of the machine.
		MAINTENANCE	ELAPSED TIME		To choose and reset unit
	DOW/FD	TIME	ALERT PERIOD	10 - 300	maintenance warning hours.
	POWER CONSUMPTION				Show actual power consumption.
	TEMPERATURE	NEAR SOURCE TEMP, DRIVER PCB TEMP, LED PCB TEMP,			To see the unit temperature.
	WIRELESS QUALITY				To check the wireless quality.
	CHANNEL VALUE				To see the dmx value of those channels.
	ERROR MESSAGE				To see any error messages.
	FIXTURE MODEL				View informations about fixture model.
	DEVICE LABEL				Show RDM Device label.
	CALIBRATION	LED			Show calibration active.
	CALIDITATION		I		View informations about software
	SOFTWARE VERSION	<v1.0></v1.0>			version.
	SOFTWARE	<v1.0></v1.0>			version. View ID for the RDM control.
STAND ALONE	SOFTWARE VERSION				View ID for the RDM control.
STAND ALONE	SOFTWARE VERSION RDM UID	15D00228****			View ID for the RDM control. Allow you to link and operating in synk multiple units without a DMX
STAND ALONE	SOFTWARE VERSION RDM UID	15D00228**** MASTER DMX			View ID for the RDM control. Allow you to link and operating in synk multiple units without a DMX console. Choose a unit to perform
STAND ALONE	SOFTWARE VERSION RDM UID	15D00228**** MASTER DMX MASTER NO			

 EFFECTS	EFFECT 1	<1-100>		Effects modes allows creation and
		<1-100>		editing of 5 effects maximum.
	EFFECT 5	<1-100>		Each effect contains up to 20 colors, a Main Dimmer and a Main Strobe.
STATIC	FIXED COLORS	R	DIMMER	Select of the following predefined
		G	<000-255>	color combination and its Dimmer
		В		value. After enabled this mode, the
		W		unit will be automatically assigned as Master.
		RG		as iviaster.
		RB		
		RW		
		GB		
		GW		
		BW		
		RGB		
		RGW		
		RBW		
		GBW		
		RGBW		
	COLOR MACRO	SEE TABLE OF COLOR MACRO		
	WHITE PRESETS	2700K	DIMMER	
		3200K	<000-255>	
		3500K	TINT <-025	
		4000K	025>	
		4500K		
		5000K		
		5600K		
		6000K		
		6500K		
		10000K		
	MANUAL COLORS	RED	<000- 255 >	User generated color preset by assigning values to each primary
		GREEN	<000- 255 >	color attribute. After enabled this mode, the unit will
		BLUE	<000- 255 >	be automatically assigned as Master.
		WARM WHITE	<000- 255 >	

9 - SHORTCUT

SHORTCUTS						
Keys	Mode	Description				
MENU + ENTER then power on	Clear All	Clear all value of functions + factory default				
UP + DOWN after power on	Flip Display	Directly flip display without enter inside menu				
DOWN + ENTER	Internal menu	The menu "Internal" with special displays and editors for service can be used				

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	Default Value
DEVICE_INFO	Product Information	0x0060	х			
PRODUCT_DETAIL_ID_LIST	Product Information	0x0070	Х			
DEVICE_MODEL_DESCRIPTION	Product Information	0x0080	Х			
MANUFACTURER_LABEL	Product Information	0x0081	Х			
DEVICE_LABEL	Product Information	0x0082	Х	Х		
FACTORY_DEFAULTS	Product Information	0x0090	Х	Х		
SOFTWARE_VERSION_LABEL	Product Information	0x00C0	Х			
BOOT_SOFTWARE_VERSION_ID	Product Information	0x00C1	Х			
BOOT_SOFTWARE_VERSION_LABEL	Product Information	0x00C2	Х			
DMX_PERSONALITY	DMX512 Setup	0x00E0	Х	х		
_DMX_PERSONALITY_DESCRIPTION	DMX512 Setup	0x00E1	Х			
DMX_START_ADDRESS	DMX512 Setup	0x00F0	х	х		
SLOT_INFO	DMX512 Setup	0x0120	X			
SLOT_DESCRIPTION	DMX512 Setup	0x0121	х			
DEFAULT_SLOT_VALUE	DMX512 Setup	0x0122	х			
DMX_BLOCK_ADDRESS	DMX512 Setup	0x0140	Х	Х		
DMX_FAIL_MODE	DMX512 Setup	0x0141	х	х		
DMX_STARTUP_MODE	DMX512 Setup	0x0142	х	х		
DIMMER_INFO	Dimmer Settings	0x0340	х			
MINIMUM_LEVEL	Dimmer Settings	0x0341	Х	Х		
MAXIMUM_LEVEL	Dimmer Settings	0x0342	х	х		
CURVE	Dimmer Settings	0x0343	х	х		
CURVE_DESCRIPTION	Dimmer Settings	0x0344	х	х		
OUTPUT_RESPONSE_TIME	Dimmer Settings	0x0345	Х	х		
OUTPUT_RESPONSE_TIME_ DESCRIPTION	Dimmer Settings	0x0346	х			
MODULATION_FREQUENCY	Dimmer Settings	0x0347	х	х		
MODULATION_FREQUENCY_ DESCRIPTION	Dimmer Settings	0x0348	х			
SENSOR_DEFINITION	Sensors	0x0200	х			
SENSOR_VALUE	Sensors	0x0201	х	х		
RECORD_SENSORS	Sensors	0x0202		х		
BURN IN	Sensors	0x0440	х	х		
DEVICE_HOURS	Power/Lamp Settings	0x0400	х	×		
LAMP_HOURS	Power/Lamp Settings	0x0401	х	×		
LAMP_STRIKES	Power/Lamp Settings	0x0402	х	х		

LAMP_STATE	Power/Lamp Settings	0x0403	х	х		
LAMP_ON_MODE	Power/Lamp Settings	0x0404	х	х		
DEVICE_POWER_CYCLES	Power/Lamp Settings	0x0405	×	×		
DISPLAY_INVERT	Display Settings	0x0500	х	х		
DISPLAY_LEVEL	Display Settings	0x0501	х	х		
LOCK PIN	Configuration	0x0640	х	х		
LOCK_STATE	Configuration	0x0641	х	х		
LOCK_STATE_DESCRIPTION	Configuration	0x0642	х			
IDENTIFY DEVICE	Control	0x1000	х	х		
RESET_DEVICE	Control	0x1001		х		
POWER_STATE	Control	0x1010	х	х		
PERFORM_SELFTEST	Control	0x1020	X	X		
SELF_TEST_DESCRIPTION	Control	0x1021	X			
CAPTURE_PRESET	Control	0x1030	X	х		
PRESET PLAYBACK	Control	0x1031	X	x		
IDENTIFY_MODE	Control	0x1040	X	X		
PRESET_INFO	Control	0x1041	X			
PRESET_STATUS	Control	0x1041	x	x		
POWER_ON_SELF_TEST	Control	0x1042	X	x		
DMX FAULT	Manufacturer PIDs	0x82DD	×	×	0-3	DEFAULT :2
MASTER/SLAVE	Manufacturer PIDs	0x8211	×	×	0-3	DEFAULT :2
ST. AL. MODE	Manufacturer PIDs	0x82EC			0-2	DEFAULT :2
EFFECTS	Manufacturer PIDs	0x82BE	X	X	1-5	DEFAULT :5
EFFECTS SPEED	Manufacturer PIDs	0x82BF		X	1-100	
STATIC COLORS	Manufacturer PIDs	0x82ED	X	X	0-14	DEFAULT :100 DEFAULT :14
	Manufacturer PIDs		X	X		
WHITE PRESETS	Manufacturer PIDs	0x8217 0x82C0	X	X	0-16 0-66	DEFAULT :0
COLOR MACROS			X	X		DEFAULT :0
MANUAL RED MANUAL GREEN	Manufacturer PIDs Manufacturer PIDs	0x82C1	X	X	0-255	DEFAULT :255
		0x82C2	Х	Х	0-255	DEFAULT :255
MANUAL BLUE	Manufacturer PIDs	0x82C3	Х	Х	0-255	DEFAULT :255
MANUAL WHITE	Manufacturer PIDs	0x8209	Х	Х	0-255	DEFAULT :255
FULL ON	Manufacturer PIDs	0x8210	Х	X	0-1	DEFAULT :1
STUDIO-RED	Manufacturer PIDs	0x821A	Х	Х	125-255	DEFAULT :255
STUDIO-GREEN	Manufacturer PIDs	0x82C9	Х	X	125-255	DEFAULT :255
STUDIO-BLUE	Manufacturer PIDs	0x82CA	Х	Х	125-255	DEFAULT :255
STUDIO-WHITE	Manufacturer PIDs	0x82CB	Х	Х	125-255	DEFAULT :255
WHITE CALIBRATION-RED	Manufacturer PIDs	0x82CC	Х	Х	125-255	DEFAULT :255
WHITE CALIBRATION-GREEN	Manufacturer PIDs	0x82C0	Х	Х	125-255	DEFAULT :255
WHITE CALIBRATION-BLUE	Manufacturer PIDs	0x82C1	Х	Х	125-255	DEFAULT :255
WHITE CALIBRATION-WHITE	Manufacturer PIDs	0x82C2	Х	Х	125-255	DEFAULT :255
OUTPUT CONTROL	Manufacturer PIDs	0x82C3	Х	Х	0-1	DEFAULT :1
TUNGSTEN EMULATION	Manufacturer PIDs	0x82DE	Х	Х		
CURRENT HOURS	Manufacturer PIDs	0x82C8	Х	Х		DEFAULT:0
POWER CONSUMPTION(AC 220V)	Manufacturer PIDs	0x82C5	Х			
MAINTENANCE TIME:ALERT PERIOD	Manufacturer PIDs	0x82DF	Х	Х	10-300	DEFAULT :300
MAINTENANCE TIME:ELAPSED TIME	Manufacturer PIDs	0x82E0	×	х	0-ALERT PERIOD	DEFAULT :0
ERROR MESSAGES	Manufacturer PIDs	0x82EB	х		0-2	DEFAULT :0
CLEAN ALL DATA	Manufacturer PIDs	0x82C8	х	х	0-1	DEFAULT :0

11 - DMX CHARTS

RDM Model ID: 0xD099 RDM Personality ID List

ID	DMX Mode	Footprint
1	UNO	1CH
2	DUO	2CH
3	BASIC	5CH
4	STANDARD	9CH
5	EXTENDED	12CH
6	ADVANCED	19CH

	MODE					
PARAMETER	UNO	DUO	BASIC	STANDARD	EXTENDED	ADVANCED
DIMMER	1	1	1	1	1	1
DIMMER FINE		2		2	2	2
ССТ					3	3
CCT FINE						4
TINT					4	5
CROSSFADE					5	6
RED			2	3	6	7
RED FINE						8
GREEN			3	4	7	9
GREEN FINE						10
BLUE			4	5	8	11
BLUE FINE						12
WHITE			5	6	9	13
WHITE FINE						14
COLOR MACRO				7	10	15
EFFECT						16
EFFECT SPEED						17
STROBE				8	11	18
CONTROL				9	12	19

Dimmer						
8 bit value		value	16 bit	value	NI I	
Function	From	То	From	То	Note	
Dimmer	0	255	0	65535	Default @ 0	

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

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

	ССТ					
Function		8 bit	value	16 bit	t value	NI I
CCT From	CCT To	From	То	From	То	Note
5800	5900	106	110	27306	28216	
5900	6000	110	113	28216	29127	
6000	6100	113	117	29127	30037	
6100	6200	117	120	30037	30947	
6200	6300	120	124	30947	31857	
6300	6400	124	128	31857	32768	
6400	6500	128	131	32768	33678	
6500	6600	131	135	33678	34588	
6600	6700	135	138	34588	35498	
6700	6800	138	142	35498	36408	
6800	6900	142	145	36408	37319	
6900	7000	145	149	37319	38229	
7000	7100	149	152	38229	39139	
7100	7200	152	156	39139	40049	
7200	7300	156	159	40049	40959	
7300	7400	159	163	40959	41870	
7400	7500	163	166	41870	42780	
7500	7600	166	170	42780	43690	
7600	7700	170	174	43690	44600	
7700	7800	174	177	44600	45510	
7800	7900	177	181	45510	46421	
7900	8000	181	184	46421	47331	
8000	8100	184	188	47331	48241	
8100	8200	188	191	48241	49151	
8200	8300	191	195	49151	50061	
8300	8400	195	198	50061	50972	
8400	8500	198	202	50972	51882	
8500	8600	202	205	51882	52792	
8600	8700	205	209	52792	53702	
8700	8800	209	213	53702	54613	
8800	8900	213	216	54613	55523	
8900	9000	216	220	55523	56433	
9000	9100	220	223	56433	57343	
9100	9200	223	227	57343	58253	
9200	9300	227	230	58253	59164	
9300	9400	230	234	59164	60074	
9400	9500	234	237	60074	60984	
9500	9600	237	241	60984	61894	
9600	9700	241	244	61894	62804	
9700	9800	244	248	62804	63715	1
9800	9900	248	251	63715	64625	
9900	10000	251	255	64625	65535	

	Tint							
8		value	16 bit value		N			
Function	From	То	From	То	Note			
-25% to 0	0	127	-	-	Default @ 128			
Neutral	128	128	-	-	Linear tint			
0 to 25%	129	255	-	-	correction from -0.25 to +0.25			

Crossfade from CCT to Color							
8 bit		value	16 bit value				
Function	From	То	From	То	Note		
Linear Crossfade	0	255	0	65535	Default @ 255 / 65535		

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

Green						
E 8 bit val		value	16 bit value		NI I	
Function	From	То	From	То	Note	
0 - 100%	0	255	0	65535	Default @ 255 / 65535	

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

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

Co	lor	Macro

Color Macro						
Function	8 bit	value	16 bit	value		
1 diletion	From	То	From	То		
No Function	0	1	-	-		
Red	2	3	-	-		
Green	4	5	-	-		
Blue	6	7	-	-		
Cyan	8	9	-	-		
Magenta	10	11	-	-		
Yellow	12	13	-	-		
Dirty White	14	15	-	-		
Alice Bllue	16	17	-	-		
Congo Blue	18	19	-	-		
Dark Steel Blue	20	21	-	-		
Deep Lavender	22	23	_	_		
Lilac Ting	24	25	_	_		
Daylight Blue	26	27	_	_		
Flame Red	28	29	_	_		
Bastard Amber	30	31	-	_		
Deep Orange	32	33	_	_		
Pale Gold	34	35	_			
Apricot	36	37	_			
Bright Blue	38	39	_	-		
	40	41		-		
Primary Green			-	-		
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	-	_		
Dark Yellow Green	90	91	_	-		
Just Blue	92	93	_	-		
Sky Blue	94	95	-	_		
Lavender	96	97	-	_		
Light Lavender	98	99	_	-		
Pink Carnation	100	101	-			
I IIIK Calliation	100	101				

Note
Default @ 0

Col	lor	Macro

Function From To From To Medium Pink 102 103 - - Light Pink 104 105 - - Sunset Red 106 107 - - - Dark Amber 108 109 - <t< th=""><th></th><th colspan="7">Color Macro</th></t<>		Color Macro						
Medium Pink 102 103 - -	Function	8 bit value		16 bit value		Note		
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 - - Surprise Peach 116 117 - - Surprise Peach 116 117 - - Medium Yellow 120 121 - - - Medium Yellow 120 121 - <th></th> <th></th> <th></th> <th></th> <th>То</th> <th></th>					То			
Sunset Red 106 107 - - Dark Amber 108 109 - - Gold Amber 110 1111 - - 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 - - 2700K 210 211 - - 2800K 212 213 - -				-	-			
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 - - - Pale Gold 124 125 -				-	-			
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 - - - - - - - - - - - - - - - <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td></td>				-	-			
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 - - 3300K 214 215 - - 3400K 218 219 - - 3800K 222 223 - -		112	113	-	-			
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 - - 3300K 214 215 - - 3400K 218 219 - - 3800K 222 223 - - 4000K 224 225 - - 420		114	115	-	-			
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 - - 3800K 222 223 - - 400K 226 227 - - 4200K <td>Surprise Peach</td> <td>116</td> <td>117</td> <td>-</td> <td>-</td> <td></td>	Surprise Peach	116	117	-	-			
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 - - 3400K 218 219 - - 3400K 221 221 - - 3800K 222 223 - - 4000K 224 225 - - 4200K 226 227 - - 4600K	Straw Tint	118	119	-	-			
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 -		120	121	-	-			
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 - - 3800K 220 221 - - 4000K 224 225 - - 4200K 226 227 - - 4400K 228 229 - - 4400K 230 231 - - 4800K 232 <td>Lee Minus Green</td> <td>122</td> <td>123</td> <td>-</td> <td>-</td> <td></td>	Lee Minus Green	122	123	-	-			
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 - - 3400K 220 221 - - 3800K 222 223 - - 4000K 224 225 - - 4200K 226 227 - - 4400K 238 230 231 - - 4800K 232 233 - - -	Pale Gold	124	125	-	_			
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 238 229 - - 4800K 230 231 - - 5200K 234 235 - - 5200K 236	Orange	126	127	-	-			
Deep Purple 132 133 - - Soft Green 134 135 - - Reserved for future use 136 209 - - 2700K 210 211 - - 2800K 212 213 - - 3000K 214 215 - - 3400K 216 217 - - 3400K 218 219 - - 3800K 220 221 - - 3800K 222 223 - - 4000K 224 225 - - 4200K 226 227 - - 4400K 228 229 - - 4600K 230 231 - - 4800K 232 233 - - 5000K 234 235 - - 5000K 236 <t< td=""><td> Deep Straw</td><td>128</td><td>129</td><td>-</td><td>-</td><td></td></t<>	Deep Straw	128	129	-	-			
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 - - 4800K 230 231 - - 4800K 232 233 - - 5000K 234 235 - - 5200K 236 237 - - 5600K 240 241<	Rose Purple	130	131	-	-			
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 248 239 - - 5600K 240 241	Deep Purple	132	133	-	-			
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 - - 6500K 244 245 - - 7000K 246 247 - - <td< td=""><td>Soft Green</td><td>134</td><td>135</td><td>-</td><td>-</td><td></td></td<>	Soft Green	134	135	-	-			
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 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - <td< td=""><td>Reserved for future use</td><td>136</td><td>209</td><td>-</td><td>-</td><td></td></td<>	Reserved for future use	136	209	-	-			
3000K	2700K	210	211	-	-			
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 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - - <td>2800K</td> <td>212</td> <td>213</td> <td>-</td> <td>-</td> <td></td>	2800K	212	213	-	-			
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 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	3000K	214	215	-	-			
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 - - 6500K 242 243 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	3200K	216	217	-	-			
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 - -	3400K	218	219	-	-			
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 - - 6500K 242 243 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	3600K	220	221	-	-			
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 - -	3800K	222	223	-	-			
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 - -	4000K	224	225	-	-			
4600K 230 231 - - 4800K 232 233 - - 5000K 234 235 - - 5200K 236 237 - - 5400K 238 239 - - 5600K 240 241 - - 6500K 242 243 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	4200K	226	227	-	-			
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 - -	4400K	228	229	-	-			
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 - -	4600K	230	231	-	-			
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 - -	4800K	232	233	-	-			
5400K 238 239 - - 5600K 240 241 - - 6000K 242 243 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	5000K	234	235	-	-			
5600K 240 241 - - 6000K 242 243 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	5200K	236	237	-	-			
6000K 242 243 - - 6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	5400K	238	239	-	-			
6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -	5600K	240	241	-	-			
6500K 244 245 - - 7000K 246 247 - - 8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -				-	-]		
8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -		244		-	-]		
8000K 248 249 - - 9000K 250 251 - - 10000K 252 253 - -				-	-	1		
9000K 250 251 10000K 252 253				-	_	1		
10000K 252 253					-	1		
				-	-	1		
FULL OIN 254 255 - -	FULL ON	254	255	-	-	1		

Effects						
Function	8 bit value		16 bit value		NI I	
	From	То	From	То	Note	
No Function	0	10	-	-		
FX 1	11	60	-	-		
FX 2	61	110	-	-	D (1.80	
FX 3	111	160	-	-	Default @ 0	
FX 4	161	210	-	-		
FX 5 (FX 1 -4)	211	255	-	-		

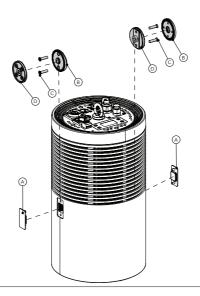
Effect Speed						
	8 bit value		16 bit value			
Function	From	То	From	То	Note	
From slow to fast	0	255	_	_	Default @ 128	

Control Channel						
F	8 bit value		16 bit value		N	
Function	From	То	From	То	Note	
No Functon	0	1	-	-	Default @ 0	
DIMMER CURVE LINEAR	2	3	-	-	Hold 3s to take function	
DIMMER CURVE S-CURVE	4	5	-	-		
DIMMER CURVE SQUARE LAW	6	7	-	-		
DIMMER CURVE INVERSE SQUARE LAW	8	9	-	-		
DIMMER SPEED AUTO	10	11	-	-		
DIMMER SPEED FAST	12	13	-	-]	
DIMMER SPEED MEDIUM	14	15	-	-		
DIMMER SPEED SLOW	16	17	-	-		
LED FREQUENCY 600HZ	18	19	-	-]	
LED FREQUENCY 1200HZ	20	21	-	-		
LED FREQUENCY 2000HZ	22	23	-	-		
LED FREQUENCY 4000HZ	24	25	-	-		
LED FREQUENCY 6000HZ	26	27	-	-		
LED FREQUENCY 25KHZ	28	29	-	-	1	
LED FREQUENCY 36KHZ	30	31	-	-		
LED FREQUENCY 40KHZ	32	33	_	-		
DMX FAULT HOLD	34	35	_	-		
DMX FAULT BLACKOUT	36	37	-	-		
DMX FAULT STAND ALONE	38	39	-	-		
DMX FAULT EMERGENCY	40	41	_	-	1	
WHITE CALIBRATION OFF	42	43	_	-		
WHITE CALIBRATION STUDIO	44	45	-	-		
WHITE CALIBRATION MANUAL	46	47	-	-		
WHITE CALIBRATION CALIBRATED	48	49	-	-		
STAND ALONE MASTER DMX	50	51	-	-		
STAND ALONE MASTER NO DMX	52	53	-	-		
STAND ALONE SLAVE	54	55	-	-		
STAND ALONE EFFECTS	56	57	_	-		
STAND ALONE STATIC COLORS	58	59	-	-]	
STAND ALONE WHITE PRESETS	60	61	-	-		
STAND ALONE COLOR MACROS	62	63	-	-		
STAND ALONE MANUAL COLORS	64	65	-	-		
TUNGSTEN EMULATION ON	66	67	-	-		
TUNGSTEN EMULATION OFF	68	69	-	-		
OUTPUT CONTROL CONSTANT	70	71	-	-	_	
OUTPUT CONTROL DYNAMIC	72	73	-	-		
Reserved	74	253	-	-		
Reset all channel controlled	254	255	-	-		

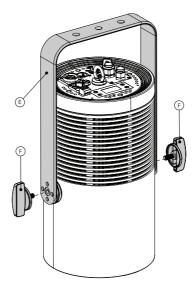
12 - ACCESSORIES INSTALLATION

HANGING BRACKET (CODE ECLPENDHGBRKBK/WH - OPTIONAL)

1



2



Place fixture on a stable surface.

- 1. Remove rubber caps (A). Fix spacer disks (B) using the M5 screws (C), in the holes of the unit.
- 2. Align inner mounting disc (D) and hanging bracket (E) with the previously mounted spacer disks and then insert and rotate knobs (F) clockwise to secure hanging bracket in desired position.

Please turn!



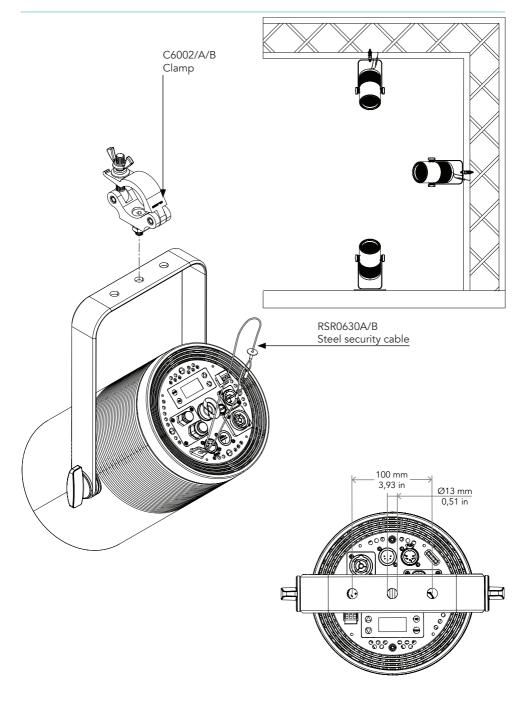
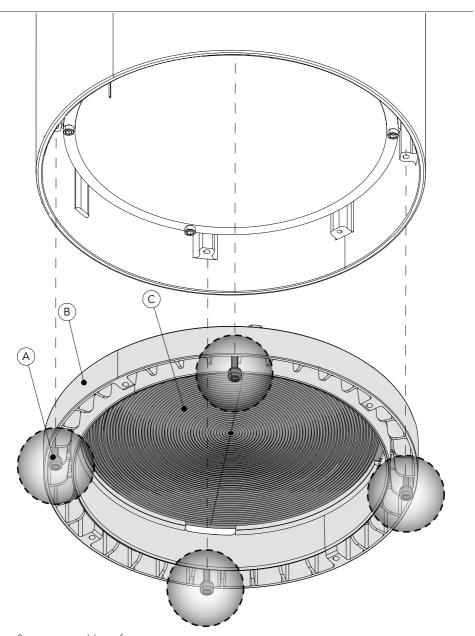


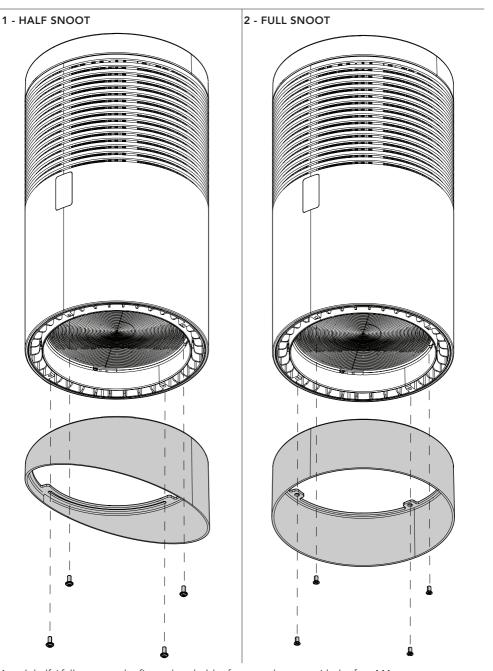
Fig. 11



Place fixture on a stable surface.

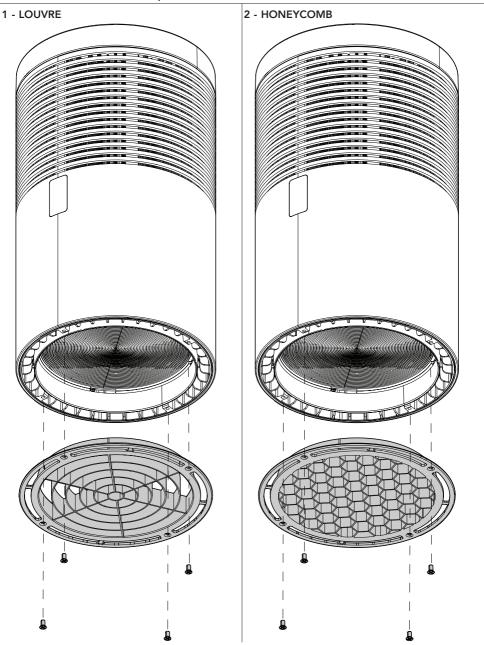
- Loosen the three M4 (A) screws and remove the lens holder frame (B).
- Remove the lens (C) and its reflect cup to insert the desired one.
- Check lens is positioned correctly and then secure lens holder frame.

Fig. 12

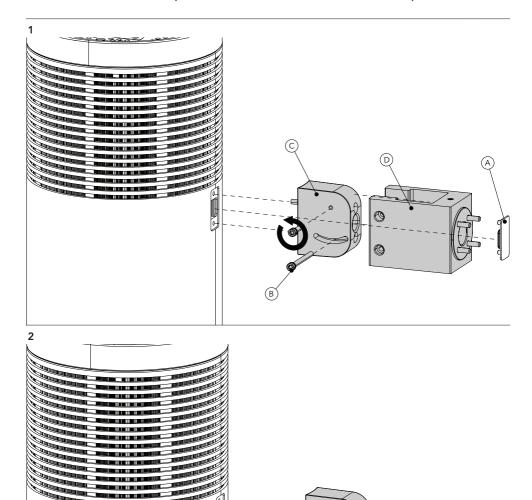


Attach half / full snoot to the fixture lens holder frame and secure with the four M4 screws.

Fig. 13

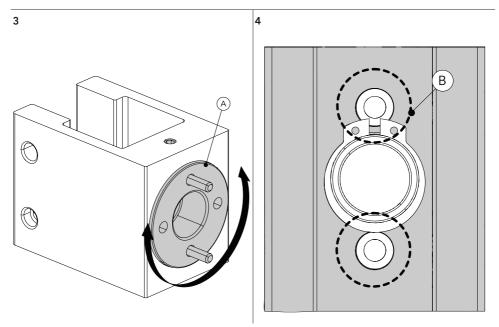


Attach louvre / honeycomb accessory to the fixture lens holder frame and secure with the four M4 screws.



Remove the rubber from the desired side (A).

- 1. Remove the rubber (A) from the fixture.
- 2. Unscrew the screws (B) to remove the body (C) from the body (D). Attach the body to the fixture and secure it with the two screws.

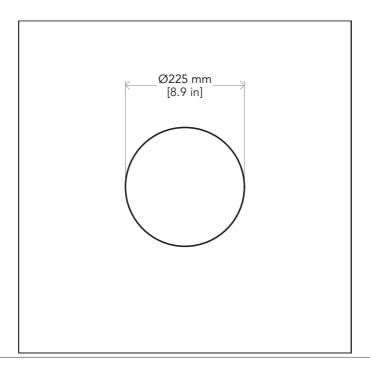


Rotate the disc (A) and align the two holes (B). Then insert the screws for wall fixing, and rotate it 90° again and insert the other two screws. Tighten the four screws in total.

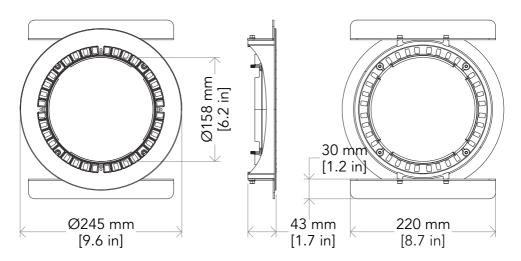
- Tighten the screw (A) to block the horizontal tilt.
- Attach the two bodies (B-C) and secure it with the two screws (D-E). NOTE: use the screw (D) to fix the vertical tilt.

Fig. 15

Α

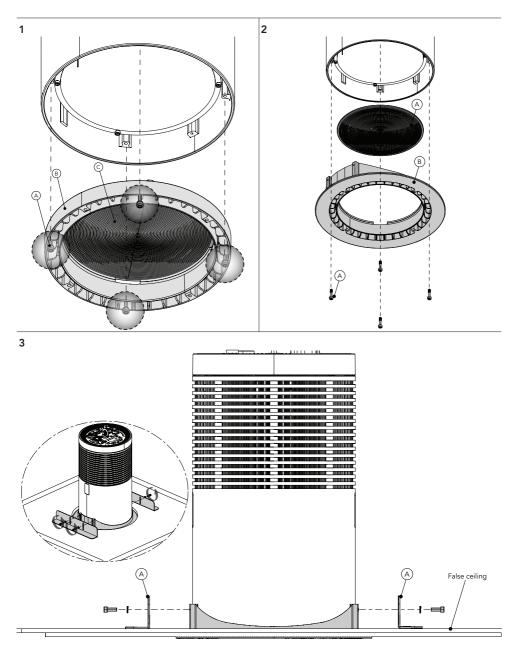


В



Measurements for cuts on the panels (1) and of Ceiling Recessed kit (2).

Please turn!

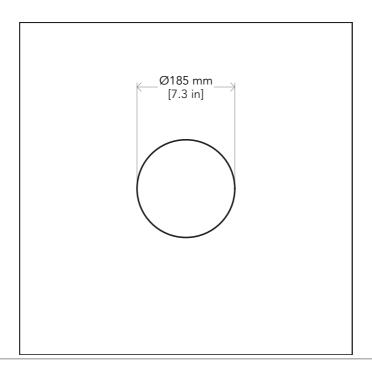


Place fixture on a stable surface.

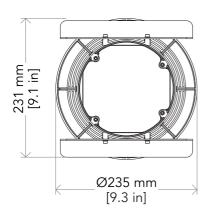
- 1. Loosen the four M4 screws (A) and remove the lens holder frame (B), lens (C) and its filter.
- 2. Mount the lens (A) on the accessory flange Ceiling Recessed kit (B). Attach the accessory flange (B) to the fixture and secure it with the four M4 screws (C).
- 3. Fix the two parts (A) on the panel and tighten using the screws (B).

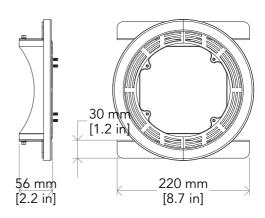
Fig. 16

Α



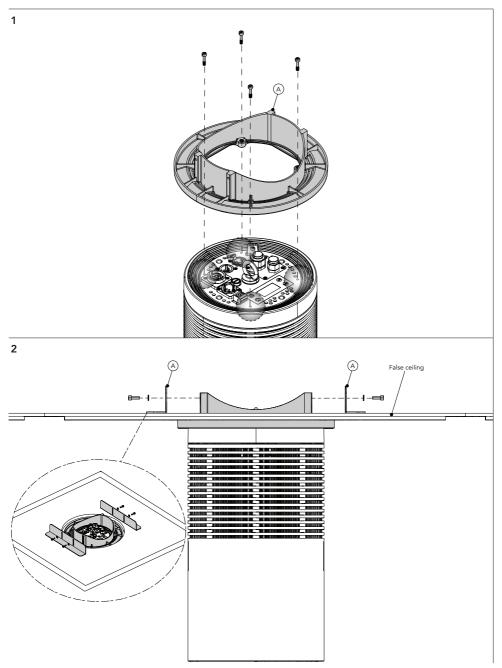
В





Measurements for cuts on the panels (1) and of Ceiling Mounted kit (2).

Please turn! □



Place fixture on a stable surface.

- Attach the accessory flange (A) to the fixture and secure it with the four M4 screws.
 Fix the two parts (A) on the panel and tighten using the screws.

Fig. 17

13 - 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 (250V, T3, 15A).

VISUAL CHECK OF PRODUCT HOUSING

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

TROUBLESHOOTING

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

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

Note	

Note	

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