



EclPanel IP Series

Hard and Soft Source LED Panel, IP65
with 6 colors source, 1x1 and 2x1 sizes



USER MANUAL

Thank you for choosing PROLIGHTS

Please note that every PROLIGHTS product has been designed in Italy to meet quality and performance requirements for professionals and designed and manufactured for the use and application as shown in this document.

Any other use, if not expressly indicated, could compromise the good condition/operation of the product and/or be a source of danger.

This product is meant for professional use. Therefore, commercial use of this equipment is subject to the respectively applicable national accident prevention rules and regulations.

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

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



**Visit the download area
of the product page**



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SAFETY INFORMATION



WARNING!

- Please read carefully the instruction reported in this section before installing, powering, operating or servicing the product and observe the indications also for its future handling.



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



Connection to mains supply

- The Connection to the mains supply must be carried out by a qualified electrical installer.
- Use only AC supplies 100-240V 50-60 Hz, the fixture must be electrically connected to ground (earth).
- Select the cable cross section in according with the maximum current draw of the product and the possible number of products connected at the same power line.
- The AC mains power distribution circuit must be equipped with magnetic+residual current circuit breaker protection.
- Do not connect it to a dimmer system; doing so may damage the product.



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 0.5 meters (1.64 ft) from the lens of the projector.

T_a 45°C

Max operating ambient temperature (Ta)

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

T_a -10°C

Minimum operating ambient temperature (Ta)

- Do not operate the fixture if the ambient temperature (Ta) is below -10 °C (-14 °F).



Protection from burns and fire

- The exterior of the fixture becomes hot during use. Avoid contact by persons and materials.
- Ensure that there is free and unobstructed airflow around the fixture.
- Keep flammable materials well away from the fixture
- Do not expose the front glass to sunlight or any other strong light source from any angle. Lenses can focus the sun's rays inside the fixture, creating a potential fire hazard.
- Do not attempt to bypass thermostatic switches or fuses.



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_c 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.



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.



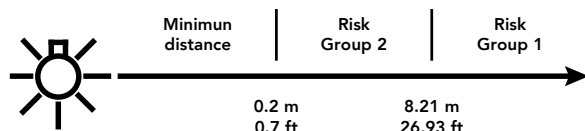
Photobiological safety

- 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 a distance closer than 8.21 m (26.95 ft) is not expected.



Disposal

- This product is supplied in compliance with European Directive 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE). To preserve the environment please dispose/ recycle this product at the end of its life according to the local regulation.



The products to which this manual refers comply with:

- 2014/35/EU - Safety of electrical equipment supplied at low voltage (LVD).
- 2014/30/EU - Electromagnetic Compatibility (EMC).
- 2011/65/EU - Restriction of the use of certain hazardous substances (RoHS).
- 2014/53/EU - Radio Equipment Directive (RED).



The products to which this manual refers comply with:

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



FCC Compliance:

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
 2. This device must accept any interference received, including interference that may cause undesired operation.



Other approvals

- The product meets the safety requirements of the certification procedures of the market in which it is placed and sold.



1 - PACKAGING

PACKAGE CONTENT

- 1x ECLPANELIP: HARD 1X1 / HARD 2X1 / SOFT 1X1 / SOFT 2X1
- 1x EPTWCJRFILTERMD (1X1) / EPTWCFILTERMD (2X1)
- 1x 1,5 meters power cable (BARE END - 32A NEUTRIK POWERCON TRUE1 IP65).
- 1x ECLFRSPG.
- User Manual.

OPTIONAL ACCESSORIES

Check the updated accessories list, description and informations of the product at the following link:

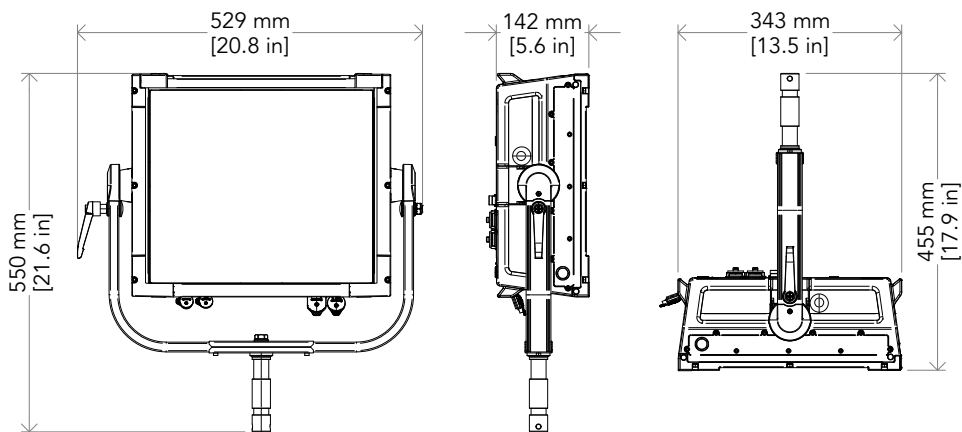
ECLPANELIPHARD1X1: <https://www.prolights.it/product/ECLPANELIPHARD1X1#accessories>

ECLPANELIPHARD2X1: <https://www.prolights.it/product/ECLPANELIPHARD2X1#accessories>

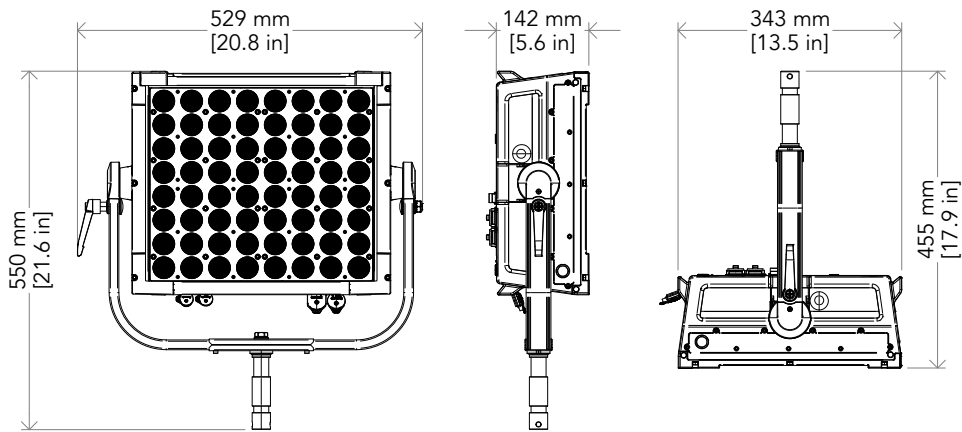
ECLPANELIPSOFT1X1: <https://www.prolights.it/product/ECLPANELIPSOFT1X1#accessories>

ECLPANELIPSOFT2X1: <https://www.prolights.it/product/ECLPANELIPSOFT2X1#accessories>

2 - TECHNICAL DRAWING

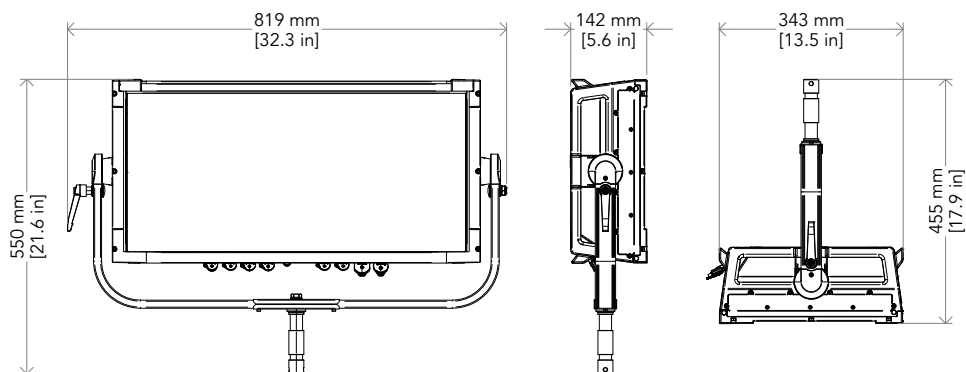


ECLPANELIPSOFT1X1 - Weight: 12,0 kg / 26,46 lbs

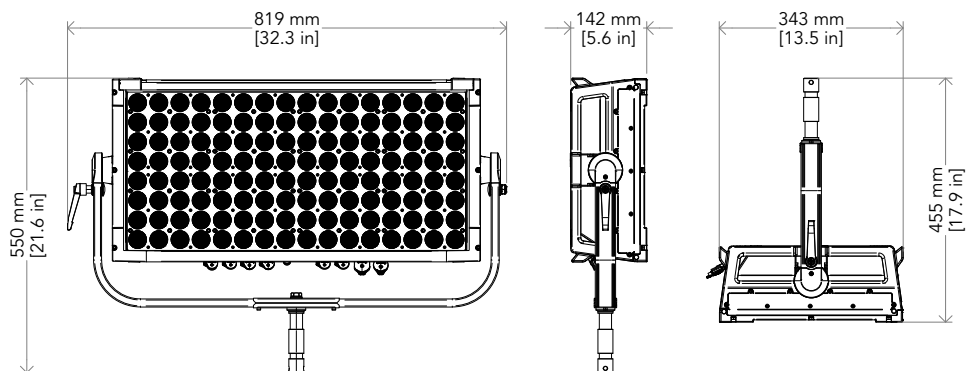


ECLPANELIPHARD1X1 - Weight: 12,8 kg / 28,22 lbs

Fig. 01



ECLPANELIPSOFT2X1 - Weight: 18,6 kg / 41,01 lbs



ECLPANELIPHARD2X1 - Weight: 19,8 kg / 43,65 lbs

Fig. 02

3 - INSTALLATION

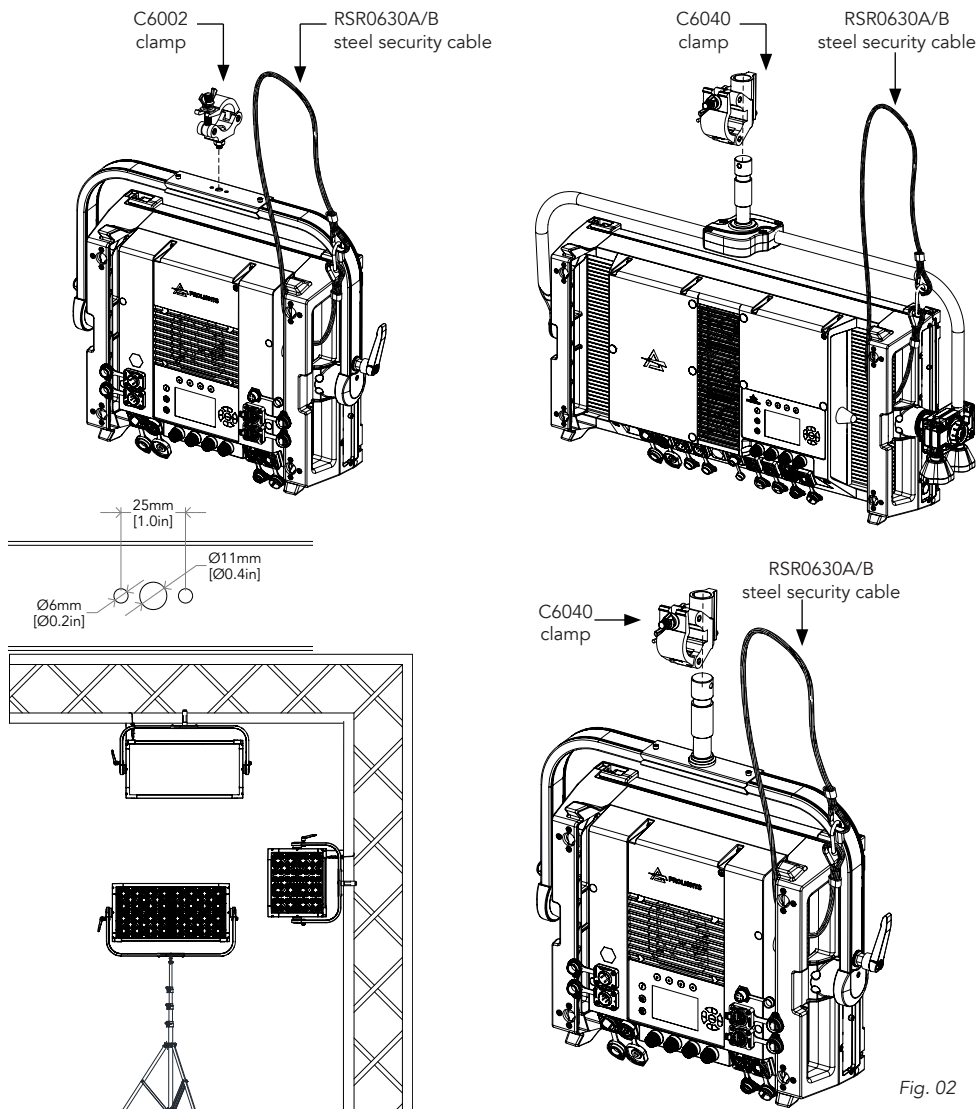
MOUNTING

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 - 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: 300W (1x1), 550W (2x1).

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. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
2. POWER OUT: power output for connection of multiple units in series.
3. DC POWER IN (3-pole XLR): for battery within 48 V range, 1 = V-, 2 = V+, 3 = N/C.
4. BATTERY IN (4-pole XLR): for battery within 24-36 V range, 1 = V-, 2 = N/C, 3 = N/C, 4 = V+.
5. WEIPU SA12 series 4P-F connector for remote control.
6. ETHERCON CONNECTORS IN / OUT signal.
7. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
8. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
9. ANTENNA of Wireless DMX Receiver internal module.
10. USER INTERFACE with display and ROTATORY KNOBS for access to the control panel functions.
11. GORE VALVE.

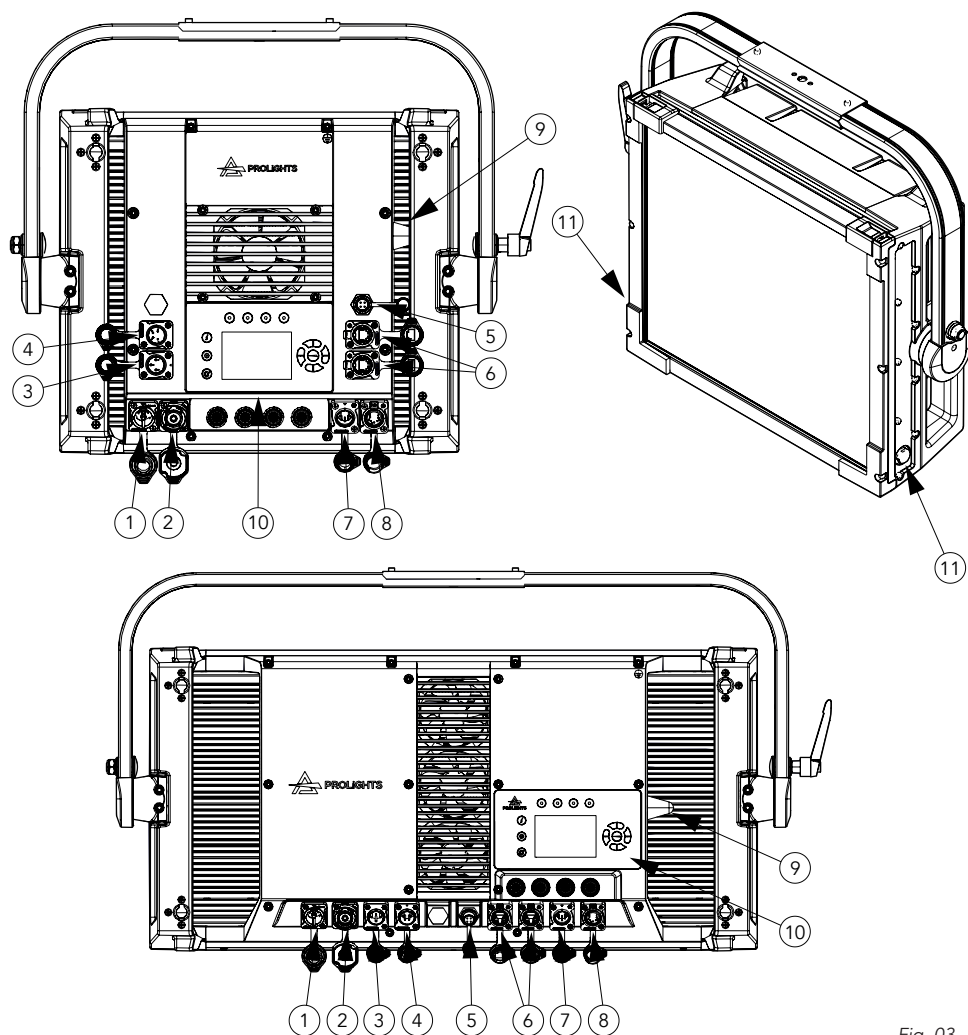


Fig. 03

7 - DMX CONNECTION

CONNECTION OF THE CONTROL SIGNAL: DMX LINE

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

DMX - INPUT
XLR plug



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

DMX - OUTPUT
XLR socket

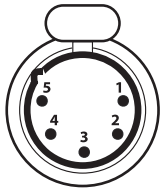


Fig. 04

INSTRUCTIONS FOR A RELIABLE DMX CONNECTION

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

CONNECTION DAISY CHAIN

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

CONNECTION OF THE DMX LINE

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

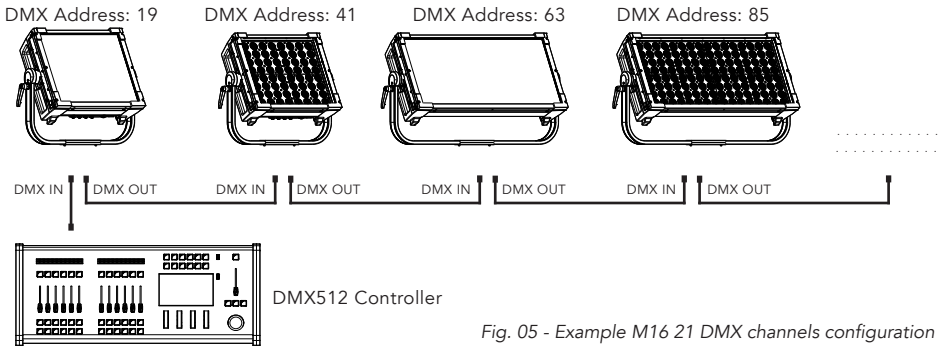


Fig. 05 - Example M16 21 DMX channels configuration

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.

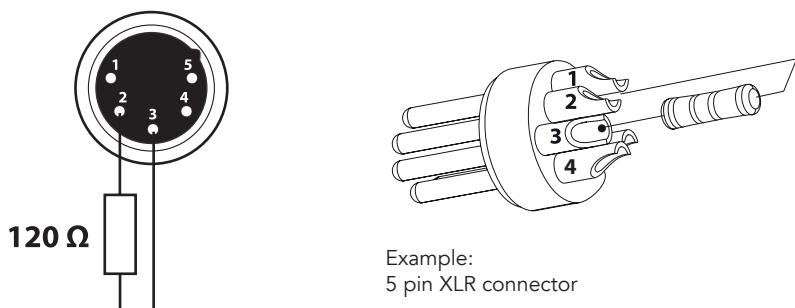


Fig. 06

DMX ADDRESSING

In order to start controlling the product via DMX, the first step is to select a DMX address, also known as the start channel, this is the first channel used to receive instructions from a DMX controller. If you wish to control the product individually, it is necessary to assign a different starting address channel to each fixture.

The number of channels occupied from the product depends on the DMX mode selected, so always verify the DMX Mode in the MENU before start addressing.

If you assign two fixtures the same address, they will be executing the same behaviour. Selecting the same address to multiple fixtures can be useful for diagnostic purposes and symmetrical control.

DMX addressing is limited to make it impossible to set the DMX address so high that you are left without enough control channels for the product.

To set the fixture's DMX address:

1. Press MENU 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 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 120Ω 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

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

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

Unlinking the transmitter

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

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

IN TO WDMX

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

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

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

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

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

To use ECLPANELTWCXL 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 on the receiver unit will show the DMX address. If DMX signal is not available, the display will show "No signal" but keeps the transmitter linked.
8. If the connection fails, check the position of the receiver.
9. The wireless icon on the receiver display indicates the received signal strength.

Reset the receiver

Follow the procedure below to reset the receiver.

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

WDMX TO DMX (RX)

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

8 - CONTROL PANEL

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

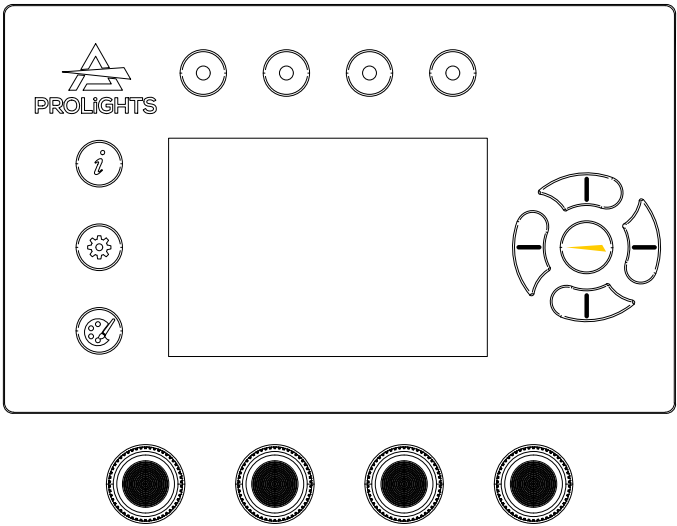


Fig. 07

DISPLAY AND BUTTONS LAYOUT

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

	1		• Browse upwards through the menu list and increases the numeric value displayed.
	2		• Return to the top level.
	3		• Browse downwards through the menu list and decreases the numeric value displayed.
	4		• Return to the upper level. Keep pressed to leave menu.
	5		• Used to access the menu tree and to confirm selections.
			• Programmable quick buttons.
			• Quick info shortcut.
			• Quick Settings shortcut.
			• Quick Colors shortcut.
			• Used to control stand alone modes.

9 - MENU STRUCTURE

The following chart describes the MENU tree of the product, the terms shown in **BOLD** indicate the default settings. Functionalities with the "(WIP)" description are still under development.

NOTE: The terms marked with "*" will be available soon.

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
1	CONNECT	ADDRESS	DMX	1-512		Set address used for Fixture.
			ARTNET			
			SACN			
		DMX MODE	MAIN	UNO	USER PRESETS	Set DMX chart for Main Fixture. "MODE+COLOR CORRECTION" is available only if COLOR CORRECTION@ON
					FACTORY PRESETS	
				DUO	USER PRESETS	See UNO/DUO presets list at pag.21
					FACTORY PRESETS	
				IRGB		
				STANDARD		
				MULTIMODE 8bit		
				MULTIMODE 16bit		
				MULTIMODE 8bit DUAL		
				MULTIMODE 16bit DUAL		
				M16 - CCT + RGB 16bit		
				M16FX - CCT + RGB 16bit		
				M28 - CCT + XY 16bit		
				M36 - RAW CONTROL 16bit		
				M37 - RAW CONTROL 16bit + CCT		
				LEGACY 2M20CH		
				MS - XY 8bit		
				M16 - CC - CCT + RGB 16bit		
				M18 - CC - CCT + RGB + GEL 16bit		
				M28 - CC - CCT + XY 16bit		
		PIXELS	PIXEL 2V			
			PIXEL 2H			
			PIXEL 4			
			PIXEL 8			
			PIXEL 8 RGBW 16BIT			
			PIXEL 8 RGBW MD			
			PIXEL 2V+I			
			PIXEL 2H+I			
			PIXEL 4+I			
			PIXEL 8+I			
			PIXEL XY+I			

Nº	MENU	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION		
1	CONNECT	WIRELESS	CRMX ON / OFF	ON		If CRMX@OFF all other CRMX settings are not available.		
			OFF					
			CRMX MODE	TX CRMX		Allows to choose whether to set the wireless on the Transmitter or Receiver.		
				TX G3				
				TX G4S				
				RX				
			TX LINK RECEIVERS	YES		TX link is available when the unit is set as a transmitter.		
				NO				
			TX UNLINK ALL RECEIVERS	YES		Disconnect the transmitter from all receivers. TX unlink is available only if CRMX mode is as transmitter.		
				NO				
			RX UNLINK RECEIVER	YES		RX unlink is available when the unit is set as a receiver.		
				NO				
			USE LINKING KEY	YES		To enable Linking key.		
				NO				
			SET LINKING KEY	XXXXXXXX	0-9	To set Linking key. Only available if SET LINKING KEY@YES. Encoder 1 = allows the increase/decrease of the digit value and the confirmation of the entire setting. Encoder 4 = Allows switching between the different digits of the Linking Key.		
			SET LINKING MODE	CRMX		SET LINKING MODE is available when the unit is set as a receiver.		
				CRMX2				
			SET LINKING UNIVERSE	A		SET LINKING UNIVERSE is available when the unit is set as a receiver.		
				B (ONLY IN CRMX2)				
				C				
				D (ONLY IN CRMX2)				
				E				
				F (ONLY IN CRMX2)				
				G				
				H (ONLY IN CRMX2)				
			USE BLUETOOTH	YES		To enable Bluetooth.		
				NO				
			USE BLUETOOTH KEY	YES		To enable bluetooth key.		
				NO				
			SET BLUETOOTH KEY	XXXXXX	0 - 9	Only available if USE BLUETOOTH KEY@YES.		
			UNIVERSE RGB COLOR	RED		If CRMX@TX universe color can be set;		
				GREEN		If CRMX@RX universe color shows the universe set on the TX.		
				BLUE				
				CYAN				
				MAGENTA				
				YELLOW				
				WHITE				
				OFF				

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
1	CONNECT		UNIVERSE NAME			If CRMX MODE@TX: Universe name coincides with the device name; If CRMX MODE@RX: Universe name shows the one set on the TX.
			CRMX STATUS	NOT CONNECTED / NOT AVAILABLE / LINKED		To see CRMX status.
			LINK STRENGTH	0 - 100%		To see signal level.
			SOFTWARE VERSION	V X.X.X.X		To see Software version.
			CRMX MODULE	TIMOTWO: V X.X.X.X		To see wireless module.
		ETHERNET SETTINGS	ARTNET SETTINGS	IP ADDRESS	XXX.XXX.XXX.XXX	
				NET	0-127	
				SUBNET	0-15	
				SUBNET MASK	XXX.XXX.XXX.XXX	
				UNIVERSE	0-15	
			SACN SETTINGS	IP ADDRESS	XXX.XXX.XXX.XXX	
				UNIVERSE	1-16	
				MERGE MODE	OFF	
					HTP	
					LTP	
			ETHERNET TO WDMX	ON		
				OFF		
			ETHERNET TO DMX	ON		
				OFF		
2	SETUP	LIGHT CONTROL	DIMMER SPEED	AUTO		To set Dimmer Speed.
				FAST		
				MEDIUM		
				SLOW		
				OFF		
			DIMMER CURVE	LINEAR		To set Dimmer Curve. (Refer to pag.23 for further details)
				S-CURVE		
				SQUARE LAW		
				INVERSE SQUARE LAW		
				HIGH RES @ LOW		
			TUNGSTEN EMULATION	ON		To enable/disable Tungsten Emulation.
				OFF		
			DIMMER END	FADE OFF		Set Dimmer End behaviour. Snap Off will make fixture snap when dimming out to 0. Fade Off will make fixture fade when dimming out to 0. This selection affects only 004-000 DMX value behaviour.
				SNAP OFF		
			COLOR SPACE	NATIVE		To select Color Space
				PROPHOTO		
				SRGB		
				REC. 2020		
				REC. 709		

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
2	SETUP		LED MODE	HIGH BRIGHTNESS		To select LED Mode.
				HIGH QUALITY		
			COLOR CORRECTION	ON		To enable/disable Color Correction.
				OFF		
		FIXTURE CONTROL	FAN MODE	AUTO		To select Fan Mode
				TURBO		
				MANUAL		
				QUIET 1 DLO		
				QUIET 2 DLO		
				OFF DLO		
				QUIET 1 CLO		
				QUIET 2 CLO		
				OFF CLO		
				SIGNAL FAULT	HOLD	
			HOLD - ON ENCODER TOUCH		CCT MODE	
					RGB MODE	
					HSI MODE	
					XY MODE	
					GEL MODE	
					FX MODE	
			STANDALONE			
			BLACKOUT			
			EMERGENCY			
		STARTUP BEHAVIOUR	ON ENCODER TOUCH	CCT MODE	Define the behaviour of fixture in case of start up without DMX signal.	
				RGB MODE		
				HSI MODE		
				XY MODE		
				GEL MODE		
				FX MODE		
			STANDALONE			
			BLACKOUT			
			EMERGENCY			
			LED FREQUENCY	1282HZ		To select LED PWM frequency.
		2000HZ				
		4000HZ				
		6000HZ				
		10KHZ				
		12KHZ				
		15KHZ				
		20KHZ				
		25KHZ				
		36KHZ				
		40KHZ				

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION		
2	SETUP		POWER LIMIT	100% - OFF		To select Power Limit.		
				75%				
				50%				
				25%				
			INVERT MAPPING	ON		To select Invert Mapping.		
				OFF				
		UI SETTINGS	VALUES FORMAT	TEMPERATURE	°C	To select Temperature unit showed in home screen.		
					°F			
			BACKLIGHT SETTINGS	BACKLIGHT TIMEOUT	ALWAYS ON	Select the timing after that display/ buttons will switch automatically off when unactive.		
					10S			
					30S			
					60S			
				BACKLIGHT DISPLAY	25%	Select backlight intensity.		
					50%			
					75%			
					100%			
				BACKLIGHT ENCODER	OFF	Select backlight intensity of Push Knob Encoder.		
					ON			
			FLIP DISPLAY	OFF		Allows you to rotate display by 180°		
				ON				
			KEYLOCK	OFF		Password to unlock: Up-Down-Up-Down		
				ON				
		CONFIGURATION PRESETS	PRESET 1	SAVE / RECALL	YES / NO	Stores all settings to the preset chosen.		
			PRESET 2					
			PRESET 3					
			PRESET 4					
3	ADVANCED	MANAGEMENT TOOLS	CLEAR COLOR PRESETS	CLEAR?				
				CANCEL				
		TRANSFER SETTING	NO DMX ADDRESS					
			WITH DMX ADDRESS					
		SETTING RELOAD	BASIC RELOAD	RELOAD?		To reload all default values.		
				CANCEL				
			FACTORY RELOAD	RELOAD?				
				CANCEL				
		4	STANDALONE	MASTER / SLAVE	MASTER DMX			Allow you to link and operating in synk multiple units without a DMX console. Choose a unit to perform as the Master. Master No DMX: fixture is not broadcasting signal.
					MASTER NO DMX			
SLAVE								
CCT MODE				Please refer to dedicated section "Standalone Mode".				
RGB MODE								
HSI MODE								
XY MODE								
GEL MODE								
FX								
PRESET MODE								

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	DESCRIPTION
5	INFORMATION	FIXTURE HOURS	<65535H>			Real time informations.
		SOURCE HOURS	<65535H>			
		POWER CYCLES	<65535>			
		POWER CONSUMPTION				
		FAN SPEEDS				
		TEMPERATURES	LED TEMPERATURE			
			CPU TEMPERATURE			
		VOLTAGES	48V			
			12V			
			5V			
		CALIBRATION STATE	ACTIVE / FLASH ERROR / NOT CALIBRATED / DISABLED			
		ERROR MESSAGES				
		SOFTWARE VERSION	V1.1.00.0			
		CRMX MODULE VERSION	TIMOTWO: VX.X.XX			
		RDM UID				
		DOCUMENTATION				

UNO/DUO PRESETS

USER Presets
Preset 01
Preset 02
Preset 03
Preset 04
Preset 05
Preset 06
Preset 07
Preset 08
Preset 09
Preset 10
Preset 11
Preset 12
Preset 13
Preset 14
Preset 15
Preset 16
Preset 17
Preset 18
Preset 19
Preset 20

FACTORY Presets
CCT 2000K (+/- GN)
CCT 2500K (+/- GN)
CCT 2900K (+/- GN)
CCT 3200K (+/- GN)
CCT 4000K (+/- GN)
CCT 5000K (+/- GN)
CCT 5600K (+/- GN)
CCT 6500K (+/- GN)
CCT 8000K (+/- GN)
CCT 10000K (+/- GN)
Source Emulation - HMI
Source Emulation - Low Pressure Sodium
Source Emulation - CFL Bright White
Source Emulation - CFL Cool White
Source Emulation - CFL Daylight
Source Emulation - Halogen
Source Emulation - Candle
Source Emulation - Sun Direct
Source Emulation - Sun Overcast
Source Emulation - Sun Blue Hour
HSI - 120° Hue, 100% Saturation
HSI - 240° Hue, 100% Saturation
GEL - RC: 3408, Base CCT 5600K
GEL - Lee 187, Base CCT 3200K
GEL - RC: 3152, Base CCT 3200K
GEL - Lee 162, Base CCT 3200K

FAN MODE

FAN MODE	MAX POWER	FAN SPEED
Auto	100%	Variable from 0% to 100% according to the led temperature to keep constant output.
Turbo	100%	Fixed Speed: 100%
Manual	Up to 100%	Manual Speed: Up to 100%
Quiet 1 DLO	Starts from 100% Max drop -30%	Fixed Speed: 50%
Quiet 2 DLO	Starts from 100% Max drop -40%	Fixed Speed: 35%
OFF DLO	Starts from 100% Max drop -65%	Fixed Speed: 0 RPM
Quiet 1 CLO	70%	Fixed Speed: 50%
Quiet 2 CLO	60%	Fixed Speed: 35%
OFF CLO	35%	Fixed Speed: 0 RPM

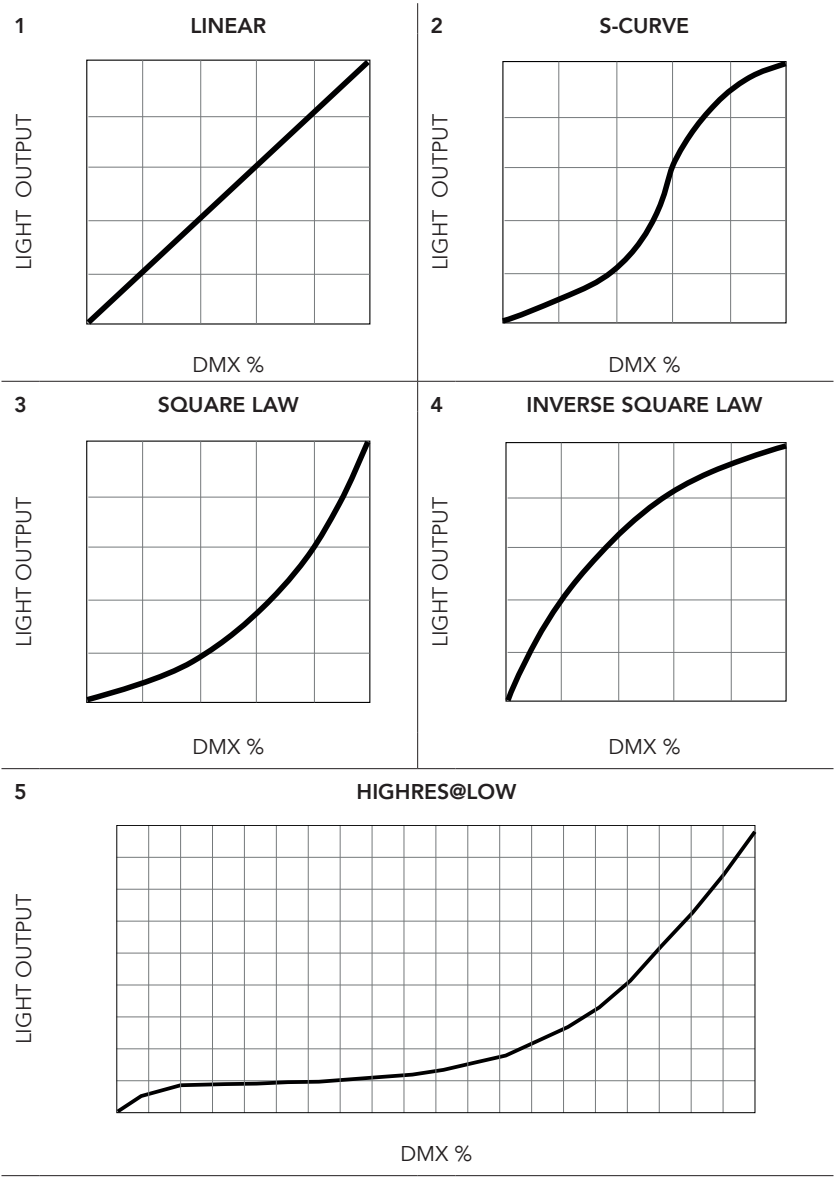
NOTE

Fan settings through the "Control Channel" are saved permanently on the device. They can be changed again via the "Control Channel" or through the menu;
The "Fan Control" channel operates as long as that value is being sent to the fixture. At a value of 0, the fixture's fans operate as set in the menu.

10 - DIMMER CURVES

Five dimming modes are available:

- 1. **LINEAR** - The increase in light intensity appears to be linear as DMX value is increased.
- 2. **S-CURVE** - Light intensity control is finer at low levels and high levels and coarser at medium levels.
- 3. **SQUARE LAW** - Light intensity control is finer at low levels and coarser at high levels.
- 4. **INVERSE SQUARE LAW** - Light intensity control is coarser at low levels and finer at high levels.
- 5. **HIGHRES@LOW** - Very Fine control at low light intensity and coarser at medium and high levels.



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	Value	GET	SET
Product Information	SUPPORTED_PARAMETERS	0x0050	x	
	PRODUCT_DETAIL_ID_LIST	0x0070	x	
	DEVICE_MODEL_DESCRIPTION	0x0080	x	
	MANUFACTURER_LABEL	0x0081	x	
	DEVICE_LABEL	0x0082	x	x
	FACTORY_DEFAULTS	0x0090	x	x
	BOOT_SOFTWARE_VERSION_ID	0x00C1	x	
	BOOT_SOFTWARE_VERSION_LABEL	0x00C2	x	
DMX512 Setup	DMX_PERSONALITY	0x00E0	x	x
	DMX_PERSONALITY_DESCRIPTION	0x00E1	x	
	DMX_START_ADDRESS	0x00F0	x	x
Sensors	SENSOR_DEFINITION	0x0200	x	
	SENSOR_VALUE	0x0201	x	x
	RECORD_SENSORS	0x0202	x	x
Power/Lamp Settings	DEVICE_HOURS	0x0400	x	x
	LAMP_HOURS	0x0401	x	x
	LAMP_STRIKES	0x0402	x	x
	DEVICE_POWER_CYCLES	0x0405	x	x
Control	RESET_DEVICE	0x1001		x

12 - DMX CHARTS

RDM Model ID

ECLPANELIPSOFT1X1	0xD111
ECLPANELIPSOFT2X1	0xD112
ECLPANELIPHARD2X1	0xD113
ECLPANELIPHARD1X1	0xD115

DMX BASIC MODES

Ch	UNO	DUO	IRGB	STANDARD	M16 - CCT + RGB 16 BIT	M18 - CCT + RGB + GEL 16 BIT	M28 - CCT + XY 16 BIT
1	Dimmer	Dimmer	Dimmer	Dimmer	Dimmer	Dimmer	Dimmer
2		Dimmer Fine	Red	Dimmer Fine	Dimmer Fine	Dimmer Fine	Dimmer Fine
3			Green	CCT	CCT	CCT	CCT
4			Blue	CCT Fine	CCT Fine	CCT Fine	CCT Fine
5				GMP	GMP	GMP	GMP
6				Crossfade CCT to RGB	Crossfade CCT to RGB	Crossfade CCT to RGB	Crossfade CCT to XY
7				Red	Red	Red	X
8				Green	Red Fine	Red Fine	X Fine
9				Blue	Green	Green	Y
10				Strobe	Green Fine	Green Fine	Y Fine
11				Control	Blue	Blue	CCT Range Selector
12					Blue Fine	Blue Fine	Transition Type
13					CCT Range Selector	Crossfade RGB to GEL	Strobe
14					White Point	Source Lamp	Control
15					White Point Fine	Brand / Category	Preset
16					Transition Type Selector	Gel Selector	Fan Control
17					Strobe	CCT Range Selector	Reserved
18					Control	White Point	
19					Preset	White Point Fine	
20					Fan Control	Transition Type	
21					Reserved	Strobe	
22						Control	
23						Preset	
24						Fan Control	
25						Reserved	
26							
27							
28							
29							
30							

DMX BASIC MODES

Ch	M36 - RAW CONTROL 16 BIT	M37 - RAW CONTROL 16 BIT + CCT	LEGACY 2M20CH	MS - XY 8 BIT	M16 - CC - CCT + RGB 16 BIT	M18 - CC - CCT + RGB + GEL 16 BIT	M28 - CC - CCT + XY 16 BIT
1	Dimmer	Dimmer	Dimmer	Dimmer (8 bit)	Dimmer	Dimmer	Dimmer (8 Bit)
2	Dimmer Fine	Dimmer Fine	Dimmer Fine	X	Dimmer Fine	Dimmer Fine	Dimmer Fine
3	Emitter 1	CCT	CCT	Y	CCT	CCT	CCT
4	Emitter 1 Fine	CCT Fine	CCT Fine	Control	CCT Fine	CCT Fine	CCT Fine
5	Emitter 2	GMP	GMP		GMP	GMP	GMP
6	Emitter 2 Fine	Spectral Crossfade	GMP Fine		Crossfade CCT to RGB	Crossfade CCT to RGB	Crossfade CCT to XY
7	Emitter 3	Red	Xfade CCT To Color		Red	Red	X
8	Emitter 3 Fine	Red Fine	Crossfade To Color Fine		Red Fine	Red Fine	X Fine
9	Emitter 4	Green	Red		Green	Green	Y
10	Emitter 4 Fine	Green Fine	Red Fine		Green Fine	Green Fine	Y Fine
11	Emitter 5	Blue	Green		Blue	Blue	CCT Range Selector
12	Emitter 5 Fine	Blue Fine	Green Fine		Blue Fine	Blue Fine	Transition Type
13	Emitter 6	Emitter 4	Blue		CCT Range Selector	Crossfade from RGB to GEL	Strobe
14	Emitter 6 Fine	Emitter 4 Fine	Blue Fine		White Point	Source Lamp	Control
15	Strobe	Mint	White		White Point Fine	Brand / Category	Preset
16	Control	Mint Fine	White Fine		Transition Type Selector	Gel Selector	Fan Control
17	Preset	WW	Fan Control		Strobe	CCT Range Selector	Reserved
18	Fan Control	WW Fine	Color Macro		Control	White Point	CC Mode
19	Reserved	CCT Range Selector	Strobe		Preset	White Point Fine	Cooler / Warmer
20		Strobe	Control		Fan Control	Transition Type	Desaturate / Saturate
21		Control			Reserved	Strobe	CC Parameter 1 (±R / ±Emitter 1)
22		Preset			CC Mode	Control	CC Parameter 2 (±G / ±Emitter 2)
23		Fan Control			Cooler / Warmer	Preset	CC Parameter 3 (±B / ±Emitter 3)
24		Reserved			Desaturate / Saturate	Fan Control	CC Parameter 4 (±C / ±Emitter 4)
25					CC Parameter 1 (±R / ±Emitter 1)	Reserved	CC Parameter 5 (±M / ±Emitter 5)
26					CC Parameter 2 (±G / ±Emitter 2)	CC Mode	CC Parameter 6 (±Y / ±Emitter 6)
27					CC Parameter 3 (±B / ±Emitter 3)	Cooler / Warmer	
28					CC Parameter 4 (±C / ±Emitter 4)	Desaturate / Saturate	
29					CC Parameter 5 (±M / ±Emitter 5)	CC Parameter 1 (±R / ±Emitter 1)	
30					CC Parameter 6 (±Y / ±Emitter 6)	CC Parameter 2 (±G / ±Emitter 2)	
31						CC Parameter 3 (±B / ±Emitter 3)	
32						CC Parameter 4 (±C / ±Emitter 4)	
33						CC Parameter 5 (±M / ±Emitter 5)	
34						CC Parameter 6 (±Y / ±Emitter 6)	

NOTE:

For LEGACY2M20CH mode please refer to the same DMX mode on ECLPANELTWC

RAW EMITTERS

	Emitter 1	Emitter 2	Emitter 3	Emitter 4	Emitter 5	Emitter 6
EclPanelIpSoft	Red	Green	Blue	Cyan	Mint	WarmWh
EclPanelIpHard	Red	Green	Blue	Royal Blue	Mint	WarmWh

FX MODES

Ch	M16FX - CCT + RGB 16 bit	MULTIMODE 8bit	MULTIMODE 16bit	MULTIMODE 8bit DUAL	MULTIMODE 16bit DUAL
1	Dimmer	Dimmer	Dimmer	Dimmer	Dimmer
2	Dimmer Fine	Dimmer Fine	Dimmer Fine	Dimmer Fine	Dimmer Fine
3	CCT	Control Mode 8bit	Control Mode 16bit	Control Mode 8bit	Control Mode 16bit
4	CCT Fine	Parameter 1	Parameter 1	Parameter 1	Parameter 1
5	GMP	Parameter 2	Parameter 2	Parameter 2	Parameter 2
6	Crossfade CCT to RGB	Parameter 3	Parameter 3	Parameter 3	Parameter 3
7	Red	FX Selector Channel	Parameter 4	Layer Crossfade	Parameter 4
8	Red Fine	FX Parameter 1	Parameter 5	Control Mode 8bit	Parameter 5
9	Green	FX Parameter 2	Parameter 6	Parameter 1	Parameter 6
10	Green Fine	FX Parameter 3	FX Selector Channel	Parameter 2	Layer Crossfade
11	Blue	FX Parameter 4	FX Parameter 1	Parameter 3	Control Mode 16bit
12	Blue Fine	FX Parameter 5	FX Parameter 2	FX Selector Channel	Parameter 1
13	FX Selector	FX Parameter 6	FX Parameter 3	FX Parameter 1	Parameter 2
14	FX parameter 1	FX Parameter 7	FX Parameter 4	FX Parameter 2	Parameter 3
15	FX parameter 2	Strobe	FX Parameter 5	FX Parameter 3	Parameter 4
16	FX parameter 3	Control	FX Parameter 6	FX Parameter 4	Parameter 5
17	FX parameter 4	*Preset	FX Parameter 7	FX Parameter 5	Parameter 6
18	FX parameter 5	*Fan Control	Strobe	FX Parameter 6	FX Selector Channel
19	FX parameter 6	*Reserved	Control	FX Parameter 7	FX Parameter 1
20	FX parameter 7		*Preset	Transition Type Selector	FX Parameter 2
21	CCT Range Selector		*Fan Control	Strobe	FX Parameter 3
22	White Point		*Reserved	Control	FX Parameter 4
23	White Point Fine			*Preset	FX Parameter 5
24	Transition Type Selector			*Fan Control	FX Parameter 6
25	Strobe			*Reserved	FX Parameter 7
26	Control				Transition Type Selector
27	Preset				Strobe
28	Fan Control				Control
29	Reserved				*Preset
30					*Fan Control
31					*Reserved

NOTE: * future implementation

DMX PIXEL MODES

Ch	PIXEL 2V	PIXEL 2H	PIXEL 4	PIXEL 8	PIXEL 8 RGBW 16bit	PIXEL 8 RGBW MD
1	Red1	Red1	Red1	Red1	Red1	Dimmer (Master)
2	Green1	Green1	Green1	Green1	Red1 Fine	Dimmer (Master) Fine
3	Blue1	Blue1	Blue1	Blue1	Green1	Red1
4	Red2	Red2	Red2	Red2	Green1 Fine	Green1
5	Green2	Green2	Green2	Green2	Blue1	Blue1
6	Blue2	Blue2	Blue2	Blue2	Blue1 Fine	White1
7			Red3	...	White1	Red2
8			Green3	...	White1 Fine	Green2
9			Blue3	...	...	Blue2
10			Red4	...	...	White2
11			Green4	...	...	...
12			Blue4	...	...	...
...				...	...	...
25				Red8	...	...
26				Green8	...	...
27				Blue8	...	...
...					...	...
31					...	Red8
32					...	Green8
33					...	Blue8
34					...	White8
...					...	
57					Red8	
58					Red8 Fine	
59					Green8	
60					Green8 Fine	
61					Blue8	
62					Blue8 Fine	
63					White8	
64					White8 Fine	

NOTE

Pixel 8 mode is only available for ECLPANELIP 2X1 Series.

DMX PIXEL MODES

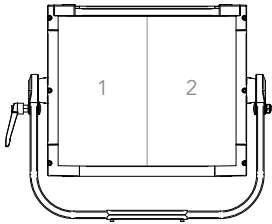
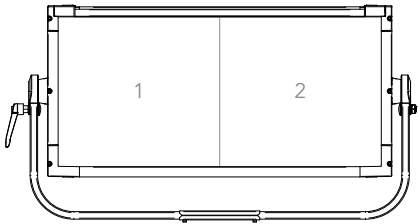
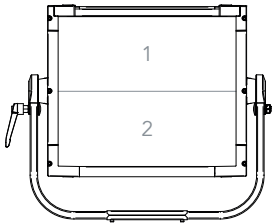
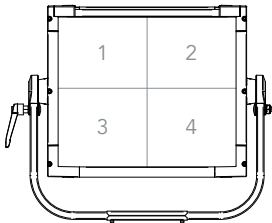
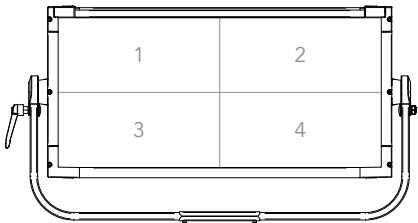
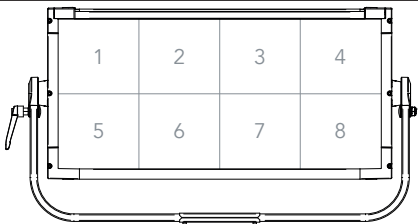
Ch	PIXEL 2V + I	PIXEL 2H + I	PIXEL 4 + I	(*) PIXEL 8 + I	(**) PIXEL XY + I
1	Dimmer 1	Dimmer 1	Dimmer 1	Dimmer 1	Dimmer Pixel 1
2	Red1	Red1	Red1	Red1	X Pixel 1
3	Green1	Green1	Green1	Green1	Y Pixel 1
4	Blue1	Blue1	Blue1	Blue1	Dimmer Pixel 2
5	Dimmer 2	Dimmer 2	Dimmer 2	Dimmer 2	X Pixel 2
6	Red2	Red2	Red2	Red2	Y Pixel 2
7	Green2	Green2	Green2	Green2	Dimmer Pixel 3
8	Blue2	Blue2	Blue2	Blue2	X Pixel 3
9			Dimmer 3	Dimmer 3	Y Pixel 3
10			Red3	Red3	Dimmer Pixel 4
11			Green3	Green3	X Pixel 4
12			Blue3	Blue3	Y Pixel 4
13			Dimmer 4	Dimmer 4	Dimmer Pixel 5
14			Red4	Red4	X Pixel 5
15			Green4	Green4	Y Pixel 5
16			Blue4	Blue4	Dimmer Pixel 6
17				Dimmer 5	X Pixel 6
18				Red5	Y Pixel 6
19				Green5	Dimmer Pixel 7
20				Blue5	X Pixel 7
21				Dimmer 6	Y Pixel 7
22				Red6	Dimmer Pixel 8
23				Green6	X Pixel 8
24				Blue6	Y Pixel 8
25				Dimmer 7	Fan Control
26				Red7	Control
27				Green7	
28				Blue7	
29				Dimmer 8	
30				Red8	
31				Green8	
32				Blue8	

NOTE

(*) **Pixel 8 + I** mode is only available for ECLPANELIP 2X1 Series.

(**) **Pixel XY + I** mode is available on both models (1X1 and 2X1). On models 1X1 with only 4 pixels, Fanc Control and Control are at DMX channels 13 and 14

PIXEL DEFINITION

	ECLPANEL IP 1X1	ECLPANEL IP 2X1
PIXEL 2V PIXEL 2V+I		
PIXEL 2H PIXEL 2H+I		
PIXEL 4 PIXEL 4+I		
PIXEL 8 PIXEL 8+I	Not available	

CHANNEL DEFINITION

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

CCT Range Selector						
Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
1850K	2000K	0	9			Default @ 0 (Linear from 1850K to 20000K)
2200K	15000K	10	19			
2800K	10000K	20	29			
Reserved		30	255			

CCT (When CCT Range Selector @ 1850K - 20000K)						
Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
1850	1900	0	1	0	181	Default @ 0
1900	2000	1	2	181	542	
2000	2100	2	4	542	903	
2100	2200	4	5	903	1264	
2200	2300	5	6	1264	1625	
2300	2400	6	8	1625	1986	
2400	2500	8	9	1986	2347	
2500	2600	9	11	2347	2708	
2600	2700	11	12	2708	3069	
2700	2800	12	13	3069	3430	
2800	2900	13	15	3430	3791	
2900	3000	15	16	3791	4152	
3000	3100	16	18	4152	4513	
3100	3200	18	19	4513	4875	
3200	3300	19	20	4875	5236	
3300	3400	20	22	5236	5597	
3400	3500	22	23	5597	5958	
3500	3600	23	25	5958	6319	
3600	3700	25	26	6319	6680	
3700	3800	26	27	6680	7041	
3800	3900	27	29	7041	7402	
3900	4000	29	30	7402	7763	
4000	4100	30	32	7763	8124	
4100	4200	32	33	8124	8485	
4200	4300	33	34	8485	8846	
4300	4400	34	36	8846	9207	
4400	4500	36	37	9207	9568	
4500	4600	37	39	9568	9930	
4600	4700	39	40	9930	10291	
4700	4800	40	41	10291	10652	
4800	4900	41	43	10652	11013	
4900	5000	43	44	11013	11374	

CCT (When CCT Range Selector @ 1850K - 20000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
5000	5100	44	46	11374	11735	
5100	5200	46	47	11735	12096	
5200	5300	47	48	12096	12457	
5300	5400	48	50	12457	12818	
5400	5500	50	51	12818	13179	
5500	5600	51	53	13179	13540	
5600	5700	53	54	13540	13901	
5700	5800	54	55	13901	14262	
5800	5900	55	57	14262	14624	
5900	6000	57	58	14624	14985	
6000	6100	58	60	14985	15346	
6100	6200	60	61	15346	15707	
6200	6300	61	63	15707	16068	
6300	6400	63	64	16068	16429	
6400	6500	64	65	16429	16790	
6500	6600	65	67	16790	17151	
6600	6700	67	68	17151	17512	
6700	6800	68	70	17512	17873	
6800	6900	70	71	17873	18234	
6900	7000	71	72	18234	18595	
7000	7100	72	74	18595	18956	
7100	7200	74	75	18956	19317	
7200	7300	75	77	19317	19679	
7300	7400	77	78	19679	20040	
7400	7500	78	79	20040	20401	
7500	7600	79	81	20401	20762	
7600	7700	81	82	20762	21123	
7700	7800	82	84	21123	21484	
7800	7900	84	85	21484	21845	
7900	8000	85	86	21845	22206	
8000	8100	86	88	22206	22567	
8100	8200	88	89	22567	22928	
8200	8300	89	91	22928	23289	
8300	8400	91	92	23289	23650	
8400	8500	92	93	23650	24011	
8500	8600	93	95	24011	24373	
8600	8700	95	96	24373	24734	
8700	8800	96	98	24734	25095	
8800	8900	98	99	25095	25456	
8900	9000	99	100	25456	25817	
9000	9100	100	102	25817	26178	
9100	9200	102	103	26178	26539	
9200	9300	103	105	26539	26900	
9300	9400	105	106	26900	27261	
9400	9500	106	107	27261	27622	
9500	9600	107	109	27622	27983	
9600	9700	109	110	27983	28344	
9700	9800	110	112	28344	28705	
9800	9900	112	113	28705	29066	
9900	10000	113	115	29066	29428	

CCT (When CCT Range Selector @ 1850K - 20000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
10000	10100	115	116	29428	29789	
10100	10200	116	117	29789	30150	
10200	10300	117	119	30150	30511	
10300	10400	119	120	30511	30872	
10400	10500	120	122	30872	31233	
10500	10600	122	123	31233	31594	
10600	10700	123	124	31594	31955	
10700	10800	124	126	31955	32316	
10800	10900	126	127	32316	32677	
10900	11000	127	129	32677	33038	
11000	11100	129	130	33038	33399	
11100	11200	130	131	33399	33760	
11200	11300	131	133	33760	34122	
11300	11400	133	134	34122	34483	
11400	11500	134	136	34483	34844	
11500	11600	136	137	34844	35205	
11600	11700	137	138	35205	35566	
11700	11800	138	140	35566	35927	
11800	11900	140	141	35927	36288	
11900	12000	141	143	36288	36649	
12000	12100	143	144	36649	37010	
12100	12200	144	145	37010	37371	
12200	12300	145	147	37371	37732	
12300	12400	147	148	37732	38093	
12400	12500	148	150	38093	38454	
12500	12600	150	151	38454	38815	
12600	12700	151	152	38815	39177	
12700	12800	152	154	39177	39538	
12800	12900	154	155	39538	39899	
12900	13000	155	157	39899	40260	
13000	13100	157	158	40260	40621	
13100	13200	158	159	40621	40982	
13200	13300	159	161	40982	41343	
13300	13400	161	162	41343	41704	
13400	13500	162	164	41704	42065	
13500	13600	164	165	42065	42426	
13600	13700	165	166	42426	42787	
13700	13800	166	168	42787	43148	
13800	13900	168	169	43148	43509	
13900	14000	169	171	43509	43871	
14000	14100	171	172	43871	44232	
14100	14200	172	174	44232	44593	
14200	14300	174	175	44593	44954	
14300	14400	175	176	44954	45315	
14400	14500	176	178	45315	45676	
14500	14600	178	179	45676	46037	
14600	14700	179	181	46037	46398	
14700	14800	181	182	46398	46759	
14800	14900	182	183	46759	47120	
14900	15000	183	185	47120	47481	

CCT (When CCT Range Selector @ 1850K - 20000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
15000	15100	185	186	47481	47842	
15100	15200	186	188	47842	48203	
15200	15300	188	189	48203	48565	
15300	15400	189	190	48565	48926	
15400	15500	190	192	48926	49287	
15500	15600	192	193	49287	49648	
15600	15700	193	195	49648	50009	
15700	15800	195	196	50009	50370	
15800	15900	196	197	50370	50731	
15900	16000	197	199	50731	51092	
16000	16100	199	200	51092	51453	
16100	16200	200	202	51453	51814	
16200	16300	202	203	51814	52175	
16300	16400	203	204	52175	52536	
16400	16500	204	206	52536	52897	
16500	16600	206	207	52897	53258	
16600	16700	207	209	53258	53620	
16700	16800	209	210	53620	53981	
16800	16900	210	211	53981	54342	
16900	17000	211	213	54342	54703	
17000	17100	213	214	54703	55064	
17100	17200	214	216	55064	55425	
17200	17300	216	217	55425	55786	
17300	17400	217	218	55786	56147	
17400	17500	218	220	56147	56508	
17500	17600	220	221	56508	56869	
17600	17700	221	223	56869	57230	
17700	17800	223	224	57230	57591	
17800	17900	224	225	57591	57952	
17900	18000	225	227	57952	58314	
18000	18100	227	228	58314	58675	
18100	18200	228	230	58675	59036	
18200	18300	230	231	59036	59397	
18300	18400	231	233	59397	59758	
18400	18500	233	234	59758	60119	
18500	18600	234	235	60119	60480	
18600	18700	235	237	60480	60841	
18700	18800	237	238	60841	61202	
18800	18900	238	240	61202	61563	
18900	19000	240	241	61563	61924	
19000	19100	241	242	61924	62285	
19100	19200	242	244	62285	62646	
19200	19300	244	245	62646	63007	
19300	19400	245	247	63007	63369	
19400	19500	247	248	63369	63730	
19500	19600	248	249	63730	64091	
19600	19700	249	251	64091	64452	
19700	19800	251	252	64452	64813	
19800	19900	252	254	64813	65174	
19900	20000	254	255	65174	65535	

CCT (When CCT Range Selector @ 2200K - 15000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
2200	2300	0	2	0	512	Default @ 0
2300	2400	2	4	512	1024	
2400	2500	4	6	1024	1536	
2500	2600	6	8	1536	2048	
2600	2700	8	10	2048	2560	
2700	2800	10	12	2560	3072	
2800	2900	12	14	3072	3584	
2900	3000	14	16	3584	4096	
3000	3100	16	18	4096	4608	
3100	3200	18	20	4608	5120	
3200	3300	20	22	5120	5632	
3300	3400	22	24	5632	6144	
3400	3500	24	26	6144	6656	
3500	3600	26	28	6656	7168	
3600	3700	28	30	7168	7680	
3700	3800	30	32	7680	8192	
3800	3900	32	34	8192	8704	
3900	4000	34	36	8704	9216	
4000	4100	36	38	9216	9728	
4100	4200	38	40	9728	10240	
4200	4300	40	42	10240	10752	
4300	4400	42	44	10752	11264	
4400	4500	44	46	11264	11776	
4500	4600	46	48	11776	12288	
4600	4700	48	50	12288	12800	
4700	4800	50	52	12800	13312	
4800	4900	52	54	13312	13824	
4900	5000	54	56	13824	14336	
5000	5100	56	58	14336	14848	
5100	5200	58	60	14848	15360	
5200	5300	60	62	15360	15872	
5300	5400	62	64	15872	16384	
5400	5500	64	66	16384	16896	
5500	5600	66	68	16896	17408	
5600	5700	68	70	17408	17920	
5700	5800	70	72	17920	18432	
5800	5900	72	74	18432	18944	
5900	6000	74	76	18944	19456	
6000	6100	76	78	19456	19968	
6100	6200	78	80	19968	20480	
6200	6300	80	82	20480	20992	
6300	6400	82	84	20992	21504	
6400	6500	84	86	21504	22016	
6500	6600	86	88	22016	22528	
6600	6700	88	90	22528	23040	
6700	6800	90	92	23040	23552	
6800	6900	92	94	23552	24064	
6900	7000	94	96	24064	24576	
7000	7100	96	98	24576	25088	
7100	7200	98	100	25088	25600	

CCT (When CCT Range Selector @ 2200K - 15000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
7200	7300	100	102	25600	26112	
7300	7400	102	104	26112	26624	
7400	7500	104	106	26624	27136	
7500	7600	106	108	27136	27648	
7600	7700	108	110	27648	28160	
7700	7800	110	112	28160	28672	
7800	7900	112	114	28672	29184	
7900	8000	114	116	29184	29696	
8000	8100	116	118	29696	30208	
8100	8200	118	120	30208	30720	
8200	8300	120	122	30720	31232	
8300	8400	122	124	31232	31744	
8400	8500	124	126	31744	32256	
8500	8600	126	128	32256	32768	
8600	8700	128	129	32768	33279	
8700	8800	129	131	33279	33791	
8800	8900	131	133	33791	34303	
8900	9000	133	135	34303	34815	
9000	9100	135	137	34815	35327	
9100	9200	137	139	35327	35839	
9200	9300	139	141	35839	36351	
9300	9400	141	143	36351	36863	
9400	9500	143	145	36863	37375	
9500	9600	145	147	37375	37887	
9600	9700	147	149	37887	38399	
9700	9800	149	151	38399	38911	
9800	9900	151	153	38911	39423	
9900	10000	153	155	39423	39935	
10000	10100	155	157	39935	40447	
10100	10200	157	159	40447	40959	
10200	10300	159	161	40959	41471	
10300	10400	161	163	41471	41983	
10400	10500	163	165	41983	42495	
10500	10600	165	167	42495	43007	
10600	10700	167	169	43007	43519	
10700	10800	169	171	43519	44031	
10800	10900	171	173	44031	44543	
10900	11000	173	175	44543	45055	
11000	11100	175	177	45055	45567	
11100	11200	177	179	45567	46079	
11200	11300	179	181	46079	46591	
11300	11400	181	183	46591	47103	
11400	11500	183	185	47103	47615	
11500	11600	185	187	47615	48127	
11600	11700	187	189	48127	48639	
11700	11800	189	191	48639	49151	
11800	11900	191	193	49151	49663	
11900	12000	193	195	49663	50175	
12000	12100	195	197	50175	50687	
12100	12200	197	199	50687	51199	

CCT (When CCT Range Selector @ 2200K - 15000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
12200	12300	199	201	51199	51711	
12300	12400	201	203	51711	52223	
12400	12500	203	205	52223	52735	
12500	12600	205	207	52735	53247	
12600	12700	207	209	53247	53759	
12700	12800	209	211	53759	54271	
12800	12900	211	213	54271	54783	
12900	13000	213	215	54783	55295	
13000	13100	215	217	55295	55807	
13100	13200	217	219	55807	56319	
13200	13300	219	221	56319	56831	
13300	13400	221	223	56831	57343	
13400	13500	223	225	57343	57855	
13500	13600	225	227	57855	58367	
13600	13700	227	229	58367	58879	
13700	13800	229	231	58879	59391	
13800	13900	231	233	59391	59903	
13900	14000	233	235	59903	60415	
14000	14100	235	237	60415	60927	
14100	14200	237	239	60927	61439	
14200	14300	239	241	61439	61951	
14300	14400	241	243	61951	62463	
14400	14500	243	245	62463	62975	
14500	14600	245	247	62975	63487	
14600	14700	247	249	63487	63999	
14700	14800	249	251	63999	64511	
14800	14900	251	253	64511	65023	
14900	15000	253	255	65023	65535	

CCT (When CCT Range Selector @ 2800K - 10000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
2800	2900	0	4	0	910	Default @ 0
2900	3000	4	7	910	1820	
3000	3100	7	11	1820	2731	
3100	3200	11	14	2731	3641	
3200	3300	14	18	3641	4551	
3300	3400	18	21	4551	5461	
3400	3500	21	25	5461	6371	
3500	3600	25	28	6371	7282	
3600	3700	28	32	7282	8192	
3700	3800	32	35	8192	9102	
3800	3900	35	39	9102	10012	
3900	4000	39	43	10012	10923	
4000	4100	43	46	10923	11833	
4100	4200	46	50	11833	12743	
4200	4300	50	53	12743	13653	
4300	4400	53	57	13653	14563	
4400	4500	57	60	14563	15474	
4500	4600	60	64	15474	16384	
4600	4700	64	67	16384	17294	
4700	4800	67	71	17294	18204	
4800	4900	71	74	18204	19114	
4900	5000	74	78	19114	20025	
5000	5100	78	81	20025	20935	
5100	5200	81	85	20935	21845	
5200	5300	85	89	21845	22755	
5300	5400	89	92	22755	23665	
5400	5500	92	96	23665	24576	
5500	5600	96	99	24576	25486	
5600	5700	99	103	25486	26396	
5700	5800	103	106	26396	27306	
5800	5900	106	110	27306	28216	
5900	6000	110	113	28216	29127	
6000	6100	113	117	29127	30037	
6100	6200	117	120	30037	30947	
6200	6300	120	124	30947	31857	
6300	6400	124	128	31857	32768	
6400	6500	128	131	32768	33678	
6500	6600	131	135	33678	34588	
6600	6700	135	138	34588	35498	
6700	6800	138	142	35498	36408	
6800	6900	142	145	36408	37319	
6900	7000	145	149	37319	38229	
7000	7100	149	152	38229	39139	
7100	7200	152	156	39139	40049	
7200	7300	156	159	40049	40959	
7300	7400	159	163	40959	41870	
7400	7500	163	166	41870	42780	
7500	7600	166	170	42780	43690	
7600	7700	170	174	43690	44600	
7700	7800	174	177	44600	45510	

CCT (When CCT Range Selector @ 2800K - 10000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
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	
9800	9900	248	251	63715	64625	
9900	10000	251	255	64625	65535	

Green Magenta Poin Channel (GMP)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	0	511	Default @ 128 (8bit) / 32768 (16bit)
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	- 0,025
Neutral / No Effect	127	128	32512	33023	+ 0,025
1% to 99%	129	253	33024	65023	
Full Plus Green	254	255	65024	65535	

Crossfade from CCT to RGB

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Crossfade from CCT to RGB	0	255	0	65535	Default @ 0 Linear Crossfade from CCT to RGB

Red

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Red	0	255	0	65535	Default @ 255 (8bit) / 65535 (16bit)

Green

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Green	0	255	0	65535	Default @ 255 (8bit) / 65535 (16bit)

Blue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Blue	0	255	0	65535	Default @ 255 (8bit) / 65535 (16bit)

Cyan (SOFT) - Royal Blue (HARD)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Cyan / Royal Blue	0	255	0	65535	Default @ 255 (8bit) / 65535 (16bit)

Mint

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Mint	0	255	0	65535	Default @ 255 (8bit) / 65535 (16bit)

Warm White

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Warm White	0	255	0	65535	Default @ 255 (8bit) / 65535 (16bit)

White Point Selector

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Default	0	1	0	511	Default @ 0, From Color Space Definition on the device
Dynamic	2	255	512	65535	2800K - 10000K

Dynamic White Point 2800K - 10000K

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
2800	2900	2	6	512	1415	Default @ 0
2900	3000	6	9	1415	2318	
3000	3100	9	13	2318	3221	
3100	3200	13	16	3221	4124	
3200	3300	16	20	4124	5027	
3300	3400	20	23	5027	5931	
3400	3500	23	27	5931	6834	
3500	3600	27	30	6834	7737	
3600	3700	30	34	7737	8640	
3700	3800	34	37	8640	9543	
3800	3900	37	41	9543	10446	
3900	4000	41	44	10446	11349	
4000	4100	44	48	11349	12252	
4100	4200	48	51	12252	13155	
4200	4300	51	55	13155	14058	
4300	4400	55	58	14058	14962	
4400	4500	58	62	14962	15865	
4500	4600	62	65	15865	16768	
4600	4700	65	69	16768	17671	
4700	4800	69	72	17671	18574	
4800	4900	72	76	18574	19477	
4900	5000	76	79	19477	20380	
5000	5100	79	83	20380	21283	
5100	5200	83	86	21283	22186	
5200	5300	86	90	22186	23089	
5300	5400	90	93	23089	23993	
5400	5500	93	97	23993	24896	
5500	5600	97	100	24896	25799	
5600	5700	100	104	25799	26702	
5700	5800	104	107	26702	27605	
5800	5900	107	111	27605	28508	
5900	6000	111	114	28508	29411	
6000	6100	114	118	29411	30314	
6100	6200	118	121	30314	31217	
6200	6300	121	125	31217	32120	
6300	6400	125	129	32120	33024	
6400	6500	129	132	33024	33927	
6500	6600	132	136	33927	34830	
6600	6700	136	139	34830	35733	
6700	6800	139	143	35733	36636	
6800	6900	143	146	36636	37539	
6900	7000	146	150	37539	38442	

Dynamic White Point 2800K - 10000K

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
7000	7100	150	153	38442	39345	
7100	7200	153	157	39345	40248	
7200	7300	157	160	40248	41151	
7300	7400	160	164	41151	42054	
7400	7500	164	167	42054	42958	
7500	7600	167	171	42958	43861	
7600	7700	171	174	43861	44764	
7700	7800	174	178	44764	45667	
7800	7900	178	181	45667	46570	
7900	8000	181	185	46570	47473	
8000	8100	185	188	47473	48376	
8100	8200	188	192	48376	49279	
8200	8300	192	195	49279	50182	
8300	8400	195	199	50182	51085	
8400	8500	199	202	51085	51989	
8500	8600	202	206	51989	52892	
8600	8700	206	209	52892	53795	
8700	8800	209	213	53795	54698	
8800	8900	213	216	54698	55601	
8900	9000	216	220	55601	56504	
9000	9100	220	223	56504	57407	
9100	9200	223	227	57407	58310	
9200	9300	227	230	58310	59213	
9300	9400	230	234	59213	60116	
9400	9500	234	237	60116	61020	
9500	9600	237	241	61020	61923	
9600	9700	241	244	61923	62826	
9700	9800	244	248	62826	63729	
9800	9900	248	251	63729	64632	
9900	10000	251	255	64632	65535	

Crossfade from RGB to GEL

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Crossfade from RGB to GEL	0	255	0	65535	Default @ 0 Linear Crossfade from RGB to GEL

Gel Source Lamp CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
2700K	0	9	-	-	Default @ 0
2800K	10	19	-	-	
3000K	20	29	-	-	
3200K	30	39	-	-	
4000K	40	49	-	-	
5000K	50	59	-	-	
5600K	60	69	-	-	
6500K	70	79	-	-	
Blackout	80	89	-	-	
Reserved	90	255	-	-	

GEL Brand / Category Selector

Function	8 bit value		16 bit value		Note
	From	To	From	To	
LEE: Color correction	0	9	-	-	Default @ 0
LEE:Color Filters	10	19	-	-	
LEE: 600 Series	20	29	-	-	
LEE: Cosmetic Filters	30	39	-	-	
LEE: 700 Series	40	49	-	-	
RC: Color correction	50	59	-	-	
RC: CalC	60	69	-	-	
RC: StSelection	70	79	-	-	
RC: C-Lux	80	89	-	-	
Blackout	90	99	-	-	
Reserved	100	255	-	-	

Category | Lee: Color Correction

Function Gel Name	8 bit value		Gel #
	From	To	
Double CTB	0	1	200
Full CTB	2	3	201
3/4 CTB	4	5	281
1/2 CTB	6	7	202
1/4 CTB	8	9	203
1/8 CTB	10	11	218
Double CTO	12	13	287
Full CTO	14	15	204
3/4 CTO	16	17	285
1/2 CTO	18	19	205
1/4 CTO	20	21	206
1/8 CTO	22	23	223
1 1/2 CTB	24	25	283
1 1/2 CTO	26	27	286
Full CTS	28	29	441
1/2 CTS	30	31	442
1/4 CTS	32	33	443
1/8 CTS	34	35	444
Full CTO + .3 ND	36	37	207
Full CTO + .6 ND	38	39	208
L.C.T. Yellow (Y1)	40	41	212
White Flame Green	42	43	213
LEE Fluorescent Green	44	45	219
Super Correction L.C.T. Yellow	46	47	230
Super Correction W.F. Green	48	49	232
H.M.I. (to Tungsten)	50	51	236
C.I.D. (to Tungsten)	52	53	237
C.S.I. (to Tungsten)	54	55	238
LEE Fluorescent 5700 Kelvin	56	57	241
LEE Fluorescent 4300 Kelvin	58	59	242
LEE Fluorescent 3600 Kelvin	60	61	243
LEE Plus Green	62	63	244
1/2 Plus Green	64	65	245
1/4 Plus Green	66	67	246
1/8 Plus Green	68	69	278
Lee Minus Green	70	71	247
1/2 Minus Green	72	73	248
1/4 Minus Green	74	75	249
1/8 Minus Green	76	77	279
Blackout	78	79	-
Reserved	80	255	-

Category | Lee: Color Filters

Function Gel Name	8 bit value		Gel #
	From	To	
Rose Pink	0	1	2
Lavender Tint	2	3	3
Medium Bastard Amber	4	5	4
Pale Yellow	6	7	7
Dark Salmon	8	9	8
Pale Amber Gold	10	11	9
Medium Yellow	12	13	10
Straw Tint	14	15	13
Surprise Peach	16	17	17
Fire	18	19	19
Medium Amber	20	21	20
Gold Amber	22	23	21
Dark Amber	24	25	22
Scarlet	26	27	24
Sunset Red	28	29	25
Bright Red	30	31	26
Light Pink	32	33	35
Medium Pink	34	35	36
Dark Magenta	36	37	46
Rose Purple	38	39	48
Light Lavender	40	41	52
Paler Lavender	42	43	53
Lavender	44	45	58
Mist Blue	46	47	61
Pale Blue	48	49	63
Sky Blue	50	51	68
Evening Blue	52	53	75
Just Blue	54	55	79
Deeper Blue	56	57	85
Lime Green	58	59	88
Moss Green	60	61	89
Dark Yellow Green	62	63	90
Spring Yellow	64	65	100
Yellow	66	67	101
Light Amber	68	69	102
Straw	70	71	103
Deep Amber	72	73	104
Primary Red	74	75	106
Light Rose	76	77	107
English Rose	78	79	108
Light Salmon	80	81	109
Middle Rose	82	83	110
Dark Pink	84	85	111
Magenta	86	87	113
Peacock Blue	88	89	115
Steel Blue	90	91	117
Light Blue	92	93	118
Deep Blue	94	95	120
LEE Green	96	97	121
Fern Green	98	99	122

Category | Lee: Color Filters

Function Gel Name	8 bit value		Gel #
	From	To	
Dark Green	100	101	124
Smokey Pink	102	103	127
Bright Pink	104	105	128
Marine Blue	106	107	131
Golden Amber	108	109	134
Deep Golden Amber	110	111	135
Pale Lavender	112	113	136
Special Lavender	114	115	137
Pale Green	116	117	138
Summer Blue	118	119	140
Pale Violet	120	121	142
Pale Navy Blue	122	123	143
No Color Blue	124	125	144
Apricot	126	127	147
Bright Rose	128	129	148
Gold Tint	130	131	151
Pale Gold	132	133	152
Pale Salmon	134	135	153
Pale Rose	136	137	154
Chocolate	138	139	156
Pink	140	141	157
No Color Straw	142	143	159
Slate Blue	144	145	161
Bastard Amber	146	147	162
Flame Red	148	149	164
Daylight Blue	150	151	165
Lilac Tint	152	153	169
Deep Lavender	154	155	170
Dark Steel Blue	156	157	174
Loving Amber	158	159	176
Dark Lavender	160	161	180
Light Red	162	163	182
Flesh Pink	164	165	192
Surprise Pink	166	167	194
Zenith Blue	168	169	195
True Blue	170	171	196
Alice Blue	172	173	197
Palace Blue	174	175	198
Regal Blue	176	177	199
Blackout	178	179	-
Reserved	180	255	-

Category | Lee: 600 Series

Function	8 bit value		Gel #
Gel Name	From	To	
Arctic White	0	1	600
Silver	2	3	601
Platinum	4	5	602
Moonlight White	6	7	603
Full CT 85	8	9	604
Industry Sodium	10	11	650
HI Sodium	12	13	651
Urban Sodium	14	15	652
LO Sodium	16	17	653
Blackout	18	19	-
Reserved	20	255	-

Category | Lee: Cosmetic Filters

Function	8 bit value		Gel #
Gel Name	From	To	
Cosmetic Peach	0	1	184
Cosmetic Silver Rose	2	3	186
Cosmetic Rouge	4	5	187
Cosmetic Highlight	6	7	188
Cosmetic Silver Moss	8	9	189
Cosmetic Aqua Blue	10	11	191
Lily Frost	12	13	705
Shanklin Frost	14	15	717
Half Shanklin Frost	16	17	718
Durham Daylight Frost	18	19	720
Hampshire Rose	20	21	749
Soft Amber Key 1	22	23	774
Soft Amber Key 2	24	25	775
Moroccan Frost	26	27	791
Blue Diffusion	28	29	217
Blue Frost	30	31	221
Daylight Blue Frost	32	33	224
Blackout	34	35	-
Reserved	36	255	-

Category | Lee: 700 Series

Function Gel Name	8 bit value		Gel #
	From	To	
Perfect Lavender	0	1	700
Provence	2	3	701
Special Pale Lavender	4	5	702
Cold Lavender	6	7	703
Lily	8	9	704
King Fals Lavender	10	11	706
Cool Lavender	12	13	708
Electric Lilac	14	15	709
Spir Special Blue	16	17	710
Cold Blue	18	19	711
Bedford Blue	20	21	712
Elysian Blue	22	23	714
Cabana Blue	24	25	715
Mikkel Blue	26	27	716
Colour Wash Blue	28	29	719
Berry Blue	30	31	721
Virgin Blue	32	33	723
Ocean Blue	34	35	724
Old Steel Blue	36	37	725
Steel Green	38	39	728
Liberty Green	40	41	730
Dirty Ice	42	43	731
Damp Squib	44	45	733
JAS Green	46	47	738
Bram Brown	48	49	742
Dirty White	50	51	744
Brown	52	53	746
Easy White	54	55	747
Seedy Pink	56	57	748
Wheat	58	59	763
Sun Colour Straw	60	61	764
LEE Yellow	62	63	765
Cardbox Amber	64	65	773
Nectarine	66	67	776
Millenium Gold	68	69	778
Bastard Pink	70	71	779
Terry Red	72	73	781
Blood Red	74	75	789
Moroccan Pink	76	77	790
Pretty n'Pink	78	79	794
Magical Magenta	80	81	795
Blackout	82	83	-
Reserved	84	255	-

Category | Rc: Color Correction

Function Gel Name	8 bit value		Gel #
	From	To	
Full CTB	0	1	3202
3/4 CTB	2	3	3203
1/2 CTB	4	5	3204
1/3 CTB	6	7	3206
1/4 CTB	8	9	3208
1/8 CTB	10	11	3216
Double CTB	12	13	3220
Full CTO	14	15	3407
3/4 CTO	16	17	3411
1/2 CTO	18	19	3408
1/4 CTO	20	21	3409
1/8 CTO	22	23	3410
Double CTO	24	25	3420
Full CTS	26	27	3441
1/2 CTS	28	29	3442
1/4 CTS	30	31	3443
1/8 CTS	32	33	3444
Full Plusgreen	34	35	3304
1/2 Plusgreen	36	37	3315
1/4 Plusgreen	38	39	3316
1/8 Plusgreen	40	41	3317
Full Minusgreen	42	43	3308
3/4 Minusgreen	44	45	3309
1/2 Minusgreen	46	47	3313
1/4 Minusgreen	48	49	3314
1/8 Minusgreen	50	51	3318
Fluorofilter	52	53	3310
Industrial Vapor	54	55	3150
Urban Vapor	56	57	3152
Tough Y-1	58	59	3107
Tough MT 54	60	61	3134
Tough MTY	62	63	3106
Tough MT2	64	65	3102
Blackout	66	67	-
Reserved	68	255	-

Category | Rc: CalC

Function	8 bit value		Gel #
Gel Name	From	To	
15 Blue	0	1	4215
30 Blue	2	3	4230
60 Blue	4	5	4260
90 Blue	6	7	4290
7 Cyan	8	9	4307
15 Cyan	10	11	4315
30 Cyan	12	13	4330
60 Cyan	14	15	4360
90 Cyan	16	17	4390
15 Green	18	19	4415
30 Green	20	21	4430
60 Green	22	23	4460
90 Green	24	25	4490
15 Yellow	26	27	4515
30 Yellow	28	29	4530
60 Yellow	30	31	4560
90 Yellow	32	33	4590
15 Red	34	35	4615
30 Red	36	37	4630
60 Red	38	39	4660
90 Red	40	41	4690
15 Magenta	42	43	4715
30 Magenta	44	45	4730
60 Magenta	46	47	4760
90 Magenta	48	49	4790
15 Pink	50	51	4815
30 Pink	52	53	4830
60 Pink	54	55	4860
90 Pink	56	57	4890
15 Lavender	58	59	4915
30 Lavender	60	61	4930
60 Lavender	62	63	4960
90 Lavender	64	65	4990
Blackout	66	67	-
Reserved	68	255	-

Category | Rc: StSelection

Function	8 bit value		Gel #
Gel Name	From	To	
VS Red	0	1	2001
VS Orange	2	3	2002
VS Yellow	4	5	2003
VS Green	6	7	2004
VS Cyan	8	9	2005
VS Azure	10	11	2006
VS Blue	12	13	2007
VS Indigo	14	15	2008
VS Violet	16	17	2009
VS Magenta	18	19	2010
Blackout	20	21	-
Reserved	22	255	-

Category | Rc: C-Lux

Function	8 bit value		Gel #
Gel Name	From	To	
Bastard Amber	0	1	2
Pale Bastard Amber	2	3	302
No Color Straw	4	5	6
Pale Gold	6	7	8
Daffodil	8	9	310
Straw	10	11	12
Light Amber	12	13	16
Gallo Gold	14	15	316
Light Flame	16	17	17
Flame	18	19	18
Mayan Sun	20	21	318
Golden Amber	22	23	21
Soft Golden Amber	24	25	321
Orange	26	27	23
Henny Sky	28	29	325
Light Red	30	31	26
No Color Pink	32	33	33
Blush Pink	34	35	333
Flesh Pink	36	37	34
Pale Rose Pink	38	39	37
Salmon	40	41	41
Deep Salmon	42	43	42
Middle Rose	44	45	44
Light Rose Purple	46	47	47
Surprise Pink	48	49	51
No Color Blue	50	51	60
Clearwater	52	53	360
Booster Blue	54	55	62
Tipton Blue	56	57	362
Blue Bell	58	59	364
Daylight Blue	60	61	65
Tharon Delft Blue	62	63	365
Cerulean Blue	64	65	375
Bermuda Blue	66	67	376
Green Blue	68	69	77
Alice Blue	70	71	378
Primary Blue	72	73	80
Baldassari Blue	74	75	381
Medium Blue	76	77	83
Pale Yellow Green	78	79	87
Light Green	80	81	88
Moss Green	82	83	89
Primary Green	84	85	91
Turquoise	86	87	92
Blue Green	88	89	93
Chocolate	90	91	99
Blackout	92	93	-
Reserved	94	255	-

X

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear 0.0000 - 0.8500	0	255	0	65535	Default @ 93 (8bit) / 23810 (16bit)

Y

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear 0.0000 - 0.8500	0	255	0	65535	Default @ 93 (8bit) / 23810 (16bit)

Crossfade - CCT to XY

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear, CCT to XY	0	255	-	-	Default @ 0

Transition Type Channel

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Direct XY (Constant Brightness)	0	9	-	-	Default @ 0 Direct fades linear on the shortest distance.
Standard Direct XY (w/o Constant Brightness)	10	19	-	-	Direct fades linear on the shortest distance
Through Black	20	29	-	-	"Through Black" fades from color 1 to black to color 2.
Through White 3200K (w/o Constant Brightness)	30	39	-	-	"Through White" fades from color 1 to white to color 2.
Through White 3200K (Constant Brightness)	40	49	-	-	"Through White" fades from color 1 to white to color 2.
Through White 5600K (w/o Constant Brightness)	50	59	-	-	"Through White" fades from color 1 to white to color 2.
Through White 5600K (Constant Brightness)	60	69	-	-	"Through White" fades from color 1 to white to color 2.
Through White 6500K (w/o Constant Brightness)	70	79	-	-	"Through White" fades from color 1 to white to color 2.
Through White 6500K (Constant Brightness)	80	89	-	-	"Through White" fades from color 1 to white to color 2.
Reserved	90	255	-	-	-

Strobe

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

Fan Control Channel

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Safe					
No Function	0	1	-	-	Use Fan Mode Setting of Fixture Menu
Auto	2	3	-	-	Automatically regulates fan speed - Drops light only if passing the thermal protection treshold.
Turbo	4	5	-	-	Fixed - 100%
Fan Speed	6	107	-	-	Manual Fan Speed: 0% at 6 dmx value - 20% to 100% from 7 to 107 dmx value in linear progression
Dynamic Light Output					
Quiet 1 DLO	108	109	-	-	Fixed Fan Speed (50%)
Quiet 2 DLO	110	111	-	-	Fixed Fan Speed (35%)
Off DLO	112	113	-	-	Fixed Fan Speed (0%)
Constant Light Output					
Quiet 1 CLO	114	115	-	-	Fixed Fan Speed (50%)
Quiet 2 CLO	116	117	-	-	Fixed Fan Speed (35%)
Off CLO	118	119	-	-	Fixed Fan Speed (0%)
Reserved	120	255	-	-	---

Preset Channel

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Safe					
No Function	0	1	-	-	Default @ 0
User Defined Presets					
Preset 01	2	3	-	-	Preset saved by user
Preset 02	4	5	-	-	
Preset 03	6	7	-	-	
Preset 04	8	9	-	-	
Preset 05	10	11	-	-	
Preset 06	12	13	-	-	
Preset 07	14	15	-	-	
Preset 08	16	17	-	-	
Preset 09	18	19	-	-	
Preset 10	20	21	-	-	
Preset 11	22	23	-	-	
Preset 12	24	25	-	-	
Preset 13	26	27	-	-	
Preset 14	28	29	-	-	
Preset 15	30	31	-	-	
Preset 16	32	33	-	-	
Preset 17	34	35	-	-	
Preset 18	36	37	-	-	
Preset 19	38	39	-	-	
Preset 20	40	41	-	-	
Reserved	42	167	-	-	
Factory Presets					
Preset 01	168	169	-	-	CCT - 2000K (+/- 0 GN)
Preset 02	170	171	-	-	CCT - 2500K (+/- 0 GN)
Preset 03	172	173	-	-	CCT - 2900K (+/- 0 GN)
Preset 04	174	175	-	-	CCT - 3200K (+/- 0 GN)
Preset 05	176	177	-	-	CCT - 4000K (+/- 0 GN)
Preset 06	178	179	-	-	CCT - 5000K (+/- 0 GN)
Preset 07	180	181	-	-	CCT - 5600K (+/- 0 GN)
Preset 08	182	183	-	-	CCT - 6500K (+/- 0 GN)
Preset 09	184	185	-	-	CCT - 8000K (+/- 0 GN)
Preset 10	186	187	-	-	CCT - 10000K (+/- 0 GN)
Preset 11	188	189	-	-	Source Emulation - HMI
Preset 12	190	191	-	-	Source Emulation - Low Pressure Sodium
Preset 13	192	193	-	-	Source Emulation - CFL Bright White
Preset 14	194	195	-	-	Source Emulation - CFL Cool White
Preset 15	196	197	-	-	Source Emulation - CFL Daylight
Preset 16	198	199	-	-	Source Emulation - Halogen
Preset 17	200	201	-	-	Source Emulation - Candle
Preset 18	202	203	-	-	Source Emulation - Sun Direct
Preset 19	204	205	-	-	Source Emulation - Sun Overcast
Preset 20	206	207	-	-	Source Emulation - Sun Blue Hour
Preset 21	208	209	-	-	HSI - 120° Hue, 100% Saturation
Preset 22	210	211	-	-	HSI - 240° Hue, 100% Saturation
Preset 23	212	213	-	-	GEL - RC 3408, Base CCT 5600K
Preset 24	214	215	-	-	GEL - Lee 187, Base CCT 3200K
Preset 25	216	217	-	-	GEL - RC 3152, Base CCT 3200K
Preset 26	218	219	-	-	GEL - Lee 162, Base CCT 3200K
Reserved	220	255	-	-	-

Control Channel

Function	8 bit value		Note
	From	To	
No Function / Safe	0	1	Default @ 0 Hold 3s to take function
Dimmer Speed Auto	2	3	
Dimmer Speed Medium	4	5	
Dimmer Speed Slow	6	7	
Dimmer Speed Off	8	9	
Dimmer Curve Linear	10	11	
Dimmer Curve S-Curve	12	13	
Dimmer Curve Square Law	14	15	
Dimmer Curve Inv. Square Law	16	17	
Dimmer Curve High Res @ Low	18	19	
Dimmer Curve Tungsten	20	21	
Tungsten Emulation On	22	23	
Tungsten Emulation Off	24	25	
Dynamic Smoothing ON	26	27	
Dynamic Smoothing OFF	28	29	
Color Space Native	30	31	
Color Space ProPhoto	32	33	
Color Space sRGB	34	35	
Color Space Rec. 2020	36	37	
Color Space Rec. 709	38	39	
Led Mode High Brightness	40	41	
Led Mode High Quality	42	43	
Fan Mode Auto	44	45	
Fan Mode Turbo	46	47	
Fan Mode Manual	48	49	
Fan Mode Quiet 1 DLO	50	51	
Fan Mode Quiet 2 DLO	52	53	
Fan Mode Off DLO	54	55	
Fan Mode Quiet 1 CLO	56	57	
Fan Mode Quiet 2 CLO	58	59	
Fan Mode Off CLO	60	61	
Signal Fault Hold	62	63	
Signal Fault Hold - On Encoder Touch CCT mode	64	65	
Signal Fault Hold - On Encoder Touch RGB mode	66	67	
Signal Fault Hold - On Encoder Touch HSI mode	68	69	
Signal Fault Hold - On Encoder Touch XY mode	70	71	
Signal Fault Hold - On Encoder Touch GEL mode	72	73	
Signal Fault Hold - On Encoder Touch FX mode	74	75	
Signal Fault Standalone	76	77	
Signal Fault Blackout	78	79	
Signal Fault Emergency	80	81	
Startup Behaviour On Encoder Touch - CCT mode	82	83	
Startup Behaviour On Encoder Touch - RGB mode	84	85	
Startup Behaviour On Encoder Touch - HSI mode	86	87	
Startup Behaviour On Encoder Touch - XY mode	88	89	
Startup Behaviour On Encoder Touch - GEL mode	90	91	
Startup Behaviour On Encoder Touch - FX mode	92	93	
Startup Behaviour Standalone	94	95	
Startup Behaviour Blackout	96	97	
Startup Behaviour Emergency	98	99	
Led Frequency 1282Hz	100	101	

Control Channel

Function	8 bit value		Note
	From	To	
Led Frequency 2000Hz	102	103	
Led Frequency 4000Hz	104	105	
Led Frequency 6000Hz	106	107	
Led Frequency 10kHz	108	109	
Led Frequency 12kHz	110	111	
Led Frequency 15kHz	112	113	
Led Frequency 20kHz	114	115	
Led Frequency 25kHz	116	117	
Led Frequency 36kHz	118	119	
Led Frequency 40kHz	120	121	
Power Limit 100%	122	123	
Power Limit 75%	124	125	
Power Limit 50%	126	127	
Power Limit 25%	128	129	
Invert Mapping On	130	131	
Invert Mapping Off	132	133	
Backlight Timeout Always On	134	135	
Backlight Timeout 10s	136	137	
Backlight Timeout 30s	138	139	
Backlight Timeout 60s	140	141	
Backlight Display 25%	142	143	
Backlight Display 50%	144	145	
Backlight Display 75%	146	147	
Backlight Display 100%	148	149	
Backlight Encoder Off	150	151	
Backlight Encoder On	152	153	
Flip Display On	154	155	
Flip Display Off	156	157	
Keylock On	158	159	
Keylock Off	160	161	
Stand Alone Master DMX	162	163	
Stand Alone Master NO DMX	164	165	
Stand Alone Slave	166	167	
Stand Alone CCT Mode	168	169	
Stand Alone RGB Mode	170	171	
Stand Alone HSI Mode	172	173	
Stand Alone XY Mode	174	175	
Stand Alone Gel Mode	176	177	
Stand Alone FX	178	179	
Stand Alone Preset Mode 1	180	181	
Stand Alone Preset Mode 2	182	183	
Stand Alone Preset Mode 3	184	185	
Stand Alone Preset Mode 4	186	187	
Stand Alone Preset Mode 5	188	189	
Stand Alone Preset Mode 6	190	191	
Stand Alone Preset Mode 7	192	193	
Stand Alone Preset Mode 8	194	195	
Stand Alone Preset Mode 9	196	197	
Stand Alone Preset Mode 10	198	199	
Stand Alone Preset Mode 11	200	201	
Stand Alone Preset Mode 12	202	203	

Control Channel

Function	8 bit value		Note
	From	To	
Stand Alone Preset Mode 13	204	205	
Stand Alone Preset Mode 14	206	207	
Stand Alone Preset Mode 15	208	209	
Stand Alone Preset Mode 16	210	211	
Stand Alone Preset Mode 17	212	213	
Stand Alone Preset Mode 18	214	215	
Stand Alone Preset Mode 19	216	217	
Stand Alone Preset Mode 20	218	219	
Configuration Presets Preset 1	220	221	
Configuration Presets Preset 2	222	223	
Configuration Presets Preset 3	224	225	
Configuration Presets Preset 4	226	227	
Dimmer Curve Square TWC	228	229	
Dimmer Speed Fast	230	231	
Dimmer Minimum End Standard	232	233	
Dimmer Minimum End Low	234	235	
Reserved	236	249	
Reset all Control Channel values used	250	251	
Reserved	252	255	

Color Correction Mode Selector

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Standard	0	9	-	-	Default @ 0 Color correction occurs with a purely mathematical shift of the xy coordinates
Subtractive Color	10	19	-	-	Color correction occurs by acting on the emitter (i.e. the LED source)
Reserved	30	255	-	-	

Cooler / Warmer

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Cooler/Warmer	0	255	-	-	Default @ 128 Linear Correction from Cooler to Warmer

Desaturate / Saturate

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Desaturate/Saturate	0	255	-	-	Default @ 128 Linear change from a less saturated light to a more saturated light

CC Parameter 1

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

Color Correction: Standard Mode

±Red	0	255	-	-	Default @ 128 Linear change from less Red to more Red as you move through x-y coordinates
------	---	-----	---	---	--

Color Correction: Subtractive Color Mode

±Red	0	255	-	-	Default @ 128 Linear change from less red to more red by varying the emission of the Red LEDs
------	---	-----	---	---	--

CC Parameter 2

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

Color Correction: Standard Mode

±Green	0	255	-	-	Default @ 128 Linear change from less Green to more Green as you move through x-y coordinates
--------	---	-----	---	---	--

Color Correction: Subtractive Color Mode

±Green	0	255	-	-	Default @ 128 Linear change from less red to more red by varying the emission of the Green LEDs
--------	---	-----	---	---	--

CC Parameter 3

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Color Correction: Standard Mode					
±Blue	0	255	-	-	Default @ 128 Linear change from less Blue to more Blue as you move through x-y coordinates
Color Correction: Subtractive Color Mode					
±Blue	0	255	-	-	Default @ 128 Linear change from less red to more red by varying the emission of the Blue LEDs

CC Parameter 4

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Color Correction: Standard Mode					
±Cyan	0	255	-	-	Default @ 128 Linear change from less Cyan to more Cyan as you move through x-y coordinates
Color Correction: Subtractive Color Mode					
±Cyan	0	255	-	-	Default @ 128 Linear change from less red to more red by varying the emission of the Cyan LEDs

CC Parameter 5

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Color Correction: Standard Mode					
±Magenta	0	255	-	-	Default @ 128 Linear change from less Magenta to more Magenta as you move through x-y coordinates
Color Correction: Subtractive Color Mode					
±Mint	0	255	-	-	Default @ 128 Linear change from less red to more red by varying the emission of the Mint LEDs

CC Parameter 6

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Color Correction: Standard Mode					
±Yellow	0	255	-	-	Default @ 128 Linear change from less Yellow to more Yellow as you move through x-y coordinates
Color Correction: Subtractive Color Mode					
±Amber	0	255	-	-	Default @ 128 Linear change from less red to more red by varying the emission of the Amber LEDs

Control Mode 8BIT

Mode	8 bit value		Parameters		
	From	To	1	2	3
CCT	0	9	CCT	GMP	CCT Range
RGB	10	19	Red	Green	Blue
HSI	20	29	Hue	Saturation	Intensity
XY	30	39	X	Y	No Function
GEL	40	49	Source Lamp	Brand/Category	Gel Selector
Reserved	50	255	No Function	No Function	No Function

Control Mode 16BIT

Mode	8 bit value		Parameters					
	From	To	1	2	3	4	5	6
CCT	0	9	CCT	CCT Fine	GMP	GMP fine	CCT Range	No Function
RGB	10	19	Red	Red Fine	Green	Green Fine	Blue	Blue Fine
HSI	20	29	Hue	Hue Fine	Saturation	Saturation fine	Intensity	Intensity fine
XY	30	39	X	X Fine	Y	Y Fine	No Function	No Function
GEL	40	49	Source Lamp	Ignored	Brand/Category	Ignored	Gel Selector	Ignored
Reserved	50	255	No Function	No Function	No Function	No Function	No Function	No Function

EFFECTS

Parameter allocation is depending on which FX is selected. FXs may have from 2 up to 7 parameters allocated. Parameter are distinguished using P followed by the number of the parameter (example: P1).

FX Selector					
Function	8 bit value		16 bit value		Note
	From	To	From	To	
No Function	0	1	-	-	Default @ 0
Party Effect	2	3	-	-	
Candle	4	5	-	-	
Clouds Passing	6	7	-	-	
Club Lights	8	9	-	-	
Color Chase	10	11	-	-	
Cop Car	12	13	-	-	
Fire	14	15	-	-	
Fireworks	16	17	-	-	
Strobe	18	19	-	-	
Lightning	20	21	-	-	
Paparazzi	22	23	-	-	
Pulsing	24	25	-	-	
Television	26	27	-	-	
Explosion	28	29	-	-	
Fluorescent Flicker	30	31	-	-	
Process Effect	32	33	-	-	
Welding	34	35	-	-	
Reserved	36	255	-	-	

Party Effect - P1: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	0	-	-	Default @ 0
Saturation 0 - 1.0	1	255	-	-	

Party Effect - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Candle - P1: CCT Range

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 1400K - 1700K	0	84	-	-	Default @ 0
CCT 1700K - 2000K	85	170	-	-	
CCT 2000K - 2300K	171	255	-	-	

Candle - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Clouds Passing - P1: Offset

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 to 50	0	255	-	-	Default @ 0

Clouds Passing - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
2x Slower to Default speed	0	127	-	-	Default @ 0
Default speed to 2x Faster	128	255	-	-	

Clouds Passing - P3: Sync

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Reserved	0	254	-	-	Default @ 0
Reset Loop	255	255	-	-	

Club Lights - P1: Colors

Function	8 bit value		16 bit value		Note
	From	To	From	To	
3 Colors	0	31	-	-	Default @ 0
6 Colors	32	63	-	-	
9 Colors	64	95	-	-	
12 Colors	96	127	-	-	
15 Colors	128	159	-	-	
18 Colors	160	191	-	-	
21 Colors	192	223	-	-	
24 Colors	224	255	-	-	

Club Lights - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Color Chase - P1: Offset

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 to 50	0	255	-	-	Default @ 0

Color Chase - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Color Chase - P3: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	0	-	-	Default @ 0
Saturation 0 - 1.0	1	255	-	-	

Color Chase - P4: Sync

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Reserved	0	254	-	-	Default @ 0
Reset Loop	255	255	-	-	

Cop Car - P1: Color Combinations

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Just Blue	0	27	-	-	Default @ 0
Blue and Red	28	55	-	-	
Blue and White	56	83	-	-	
Blue, Red and White	84	111	-	-	
Blue and Amber	112	139	-	-	
Blue, Red and Amber	140	167	-	-	
Red and Amber	168	195	-	-	
Amber	196	223	-	-	
Red	224	255	-	-	

Cop Car - P2: Flash Pattern

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Single Flash	0	31	-	-	Default @ 0
Double Flash	32	63	-	-	
Quint All Flash	64	95	-	-	
Quint Flash	96	127	-	-	
Quad Flash	128	159	-	-	
Cycle All	160	191	-	-	
Reserved	192	255	-	-	

Cop Car - P3: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Fire - P1: CCT Range

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 1800K - 2200K	0	84	-	-	Default @ 0
CCT 2200K - 2600K	85	170	-	-	
CCT 2600K - 3000K	171	255	-	-	

Fire - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Fireworks - P1: Color Combinations

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Colors	0	63	-	-	Default @ 0
White	64	127	-	-	
Colors and white	128	191	-	-	
Reserved	192	255	-	-	

Fireworks - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Strobe - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Strobe - P2: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Strobe - P3: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Strobe - P4: Crossfade from CCT to Color

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear crossfade	0	255	-	-	Default @ 0

Strobe - P5: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	-	-	Default @ 0

Strobe - P6: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Saturation 0 - 1.0	0	255	-	-	

Lightning - P1: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
2 - 14 lightning strikes set	0	254	-	-	Default @ 0
Random	255	255	-	-	

Lightning - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 10 flashes / second	0	254	-	-	Default @ 0
Random	255	255	-	-	

Lightning - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Lightning - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Lightning - P5: Sync

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Reserved	0	254	-	-	Default @ 0
Reset Loop	255	255	-	-	

Paparazzi - P1: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
6 to 120 Flashes / min	0	255	-	-	Default @ 0

Paparazzi - P2: Flash Type

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Flash bulb	0	127	-	-	Default @ 0
Modern flash	128	255	-	-	

Paparazzi - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Paparazzi - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Pulsing - P1: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
5 to 90 Pulses / min	0	255	-	-	Default @ 0

Pulsing - P2: Pulse Duration

Function	8 bit value		16 bit value		Note
	From	To	From	To	
4s to 0.25s	0	255	-	-	Default @ 0

Pulsing - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Pulsing - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Pulsing - P5: Crossfade from CCT to Color

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear crossfade	0	255	-	-	Default @ 0

Pulsing - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	-	-	Default @ 0

Pulsing - P7: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Saturation 0 - 1.0	0	255	-	-	

Television - P1: CCT Range

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 4700K	0	84	-	-	Default @ 0
CCT 4700K - 6500K	85	170	-	-	
CCT 6500K - 10000K	171	255	-	-	

Television - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	-	-	Default @ 0

Explosion - P1: Decay

Function	8 bit value		16 bit value		Note
	From	To	From	To	
From 4s to 0.5s	0	255	-	-	Default @ 0

Explosion - P2: Trigger

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Auto	0	249	-	-	Default @ 0
Manual (bump intensity to explode)	250	255	-	-	

Explosion - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Explosion - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Explosion - P5: Crossfade from CCT to Color

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear crossfade	0	255	-	-	Default @ 0

Explosion - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	-	-	Default @ 0

Explosion - P7: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Saturation 0 - 1.0	0	255	-	-	

Fluorescent Flicker - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
2s to 6s of still	0	255	-	-	Default @ 0

Fluorescent Flicker - P2: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
3 to 10 Flickers / sec	0	255	-	-	Default @ 0

Fluorescent Flicker - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Fluorescent Flicker - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Fluorescent Flicker - P5: Crossfade from CCT to Color

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear crossfade	0	255	-	-	Default @ 0

Fluorescent Flicker - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	-	-	Default @ 0

Fluorescent Flicker - P7: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Saturation 0 - 1.0	0	255	-	-	

Process Effect - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to Fast	0	255	-	-	Default @ 0

Process Effect - P2: Direction

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Left to Right	0	127	-	-	Default @ 0
Right to Left	128	255	-	-	

Process Effect - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Process Effect - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Process Effect - P5: Crossfade from CCT to Color

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear crossfade	0	255	-	-	Default @ 0

Process Effect - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	-	-	Default @ 0

Process Effect - P7: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Saturation 0 - 1.0	0	255	-	-	

Welding - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to Fast	0	255	-	-	Default @ 0

Welding - P2: Minimum Intensity

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0% to 75% minimum intensity level	0	255	-	-	Default @ 0

Welding - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	-	-	Default @ 0

Welding - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	-	-	Default @ 128
Full Minus Green	2	3	-	-	
-99% to -1%	4	126	-	-	
Neutral / No Effect	127	128	-	-	
1% to 99%	129	251	-	-	
Full Plus Green	252	253	-	-	
Neutral / No Effect	254	255	-	-	

Welding - P5: Crossfade from CCT to Color

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear crossfade	0	255	-	-	Default @ 0

Welding - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	-	-	Default @ 0

Welding - P7: Saturation

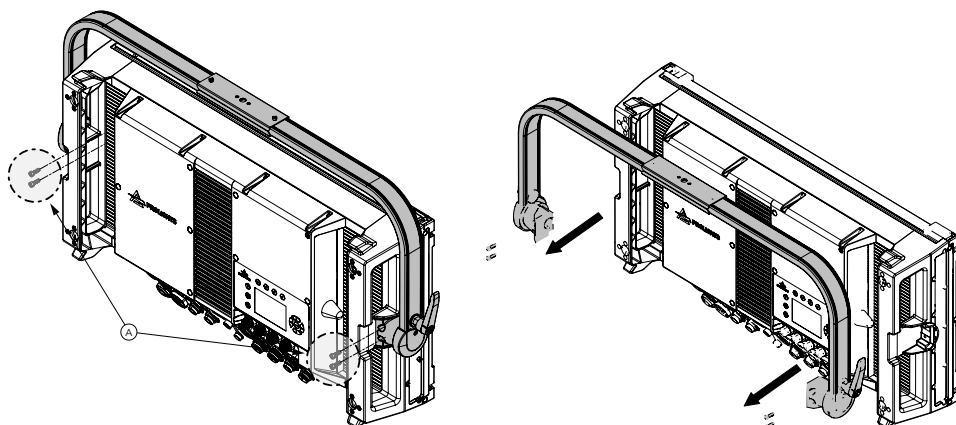
Function	8 bit value		16 bit value		Note
	From	To	From	To	
Saturation 0 - 1.0	0	255	-	-	

13 - ACCESSORIES INSTALLATION

THE POLE OPERATED YOKE

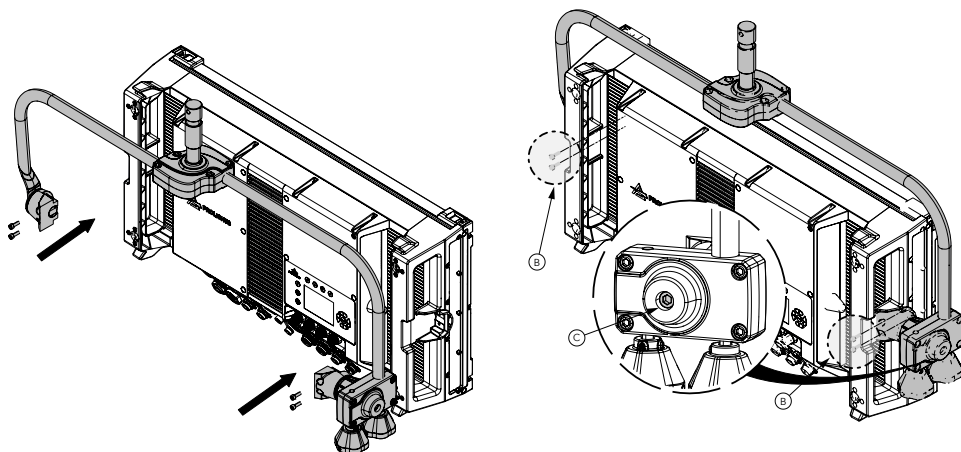
(CODE ECLPANELJRPOYO - 1X1 OPTIONAL) - (CODE ECLPANELPOYO - 2X1 OPTIONAL)

1



Loosen and remove the four M5 screws (A). Then remove the standard bracket.

2



Mount the Pole Operated bracket Yoke and tighten the four M5 screws removed earlier (B). Then tighten the M8 screw (C).

NOTE: to adjust the holding torque of the clutch system of the TILT movement, please tight the indicated M8 screw (C) with 6 mm allen key.

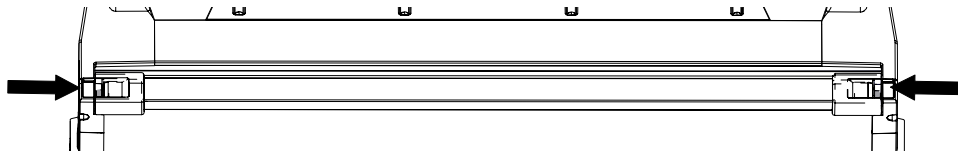
Fig. 08

DIFFUSION FILTERS

(CODES EPTWCJRFILTERHD, EPTWCJRFILTERLD, EPTWCJRFILTERINT - 1X1 OPTIONAL)

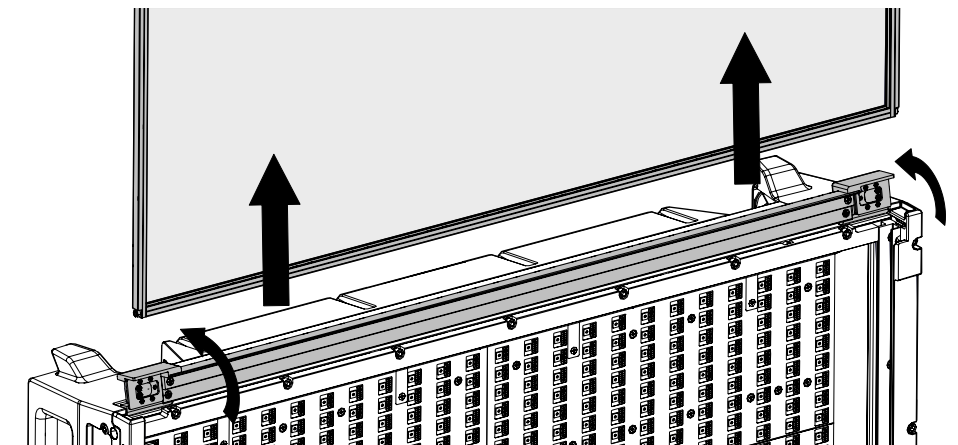
(CODES EPTWCFILTERHD, EPTWCFILTERLD, EPTWCFILTERINT - 2X1 OPTIONAL)

1



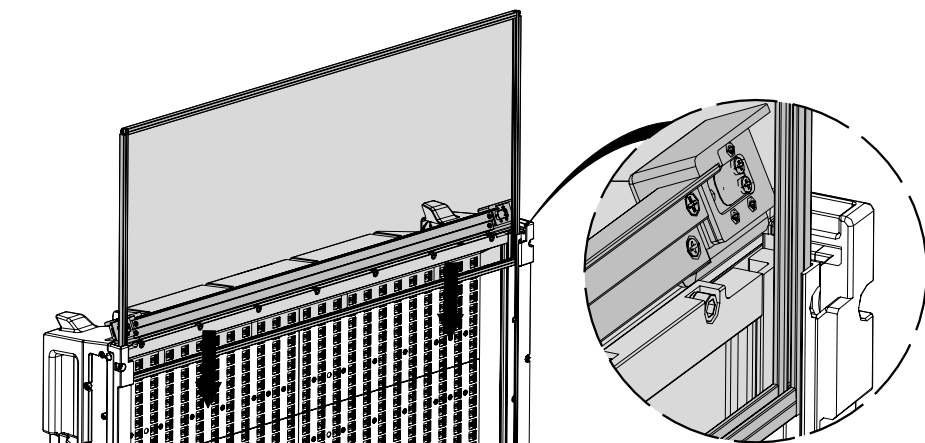
Slide the tabs placed on the top, inward the product.

2



Open the holder plate by turning it upwards, then remove the filter.

3



Insert the diffuser filter, inside the track guides. Then close the plate and re-position the tabs outwards.

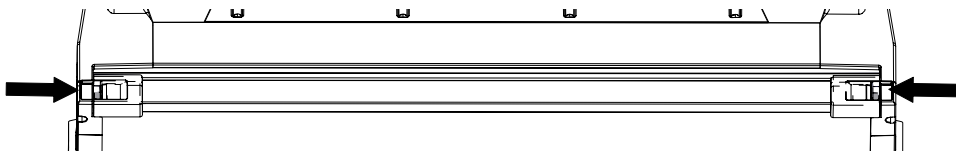
Fig. 9

RIGID EGG CRATES

(CODES EPTWCJREC30, EPTWCJREC60, EPTWCJREC4C - 1X1 OPTIONAL)

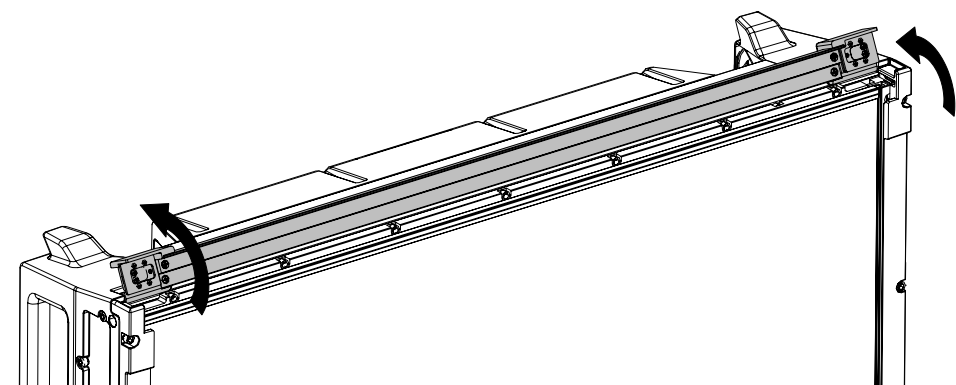
(CODES EPTWCEC30, EPTWCEC60, EPTWCEC8C - 2X1 OPTIONAL)

1



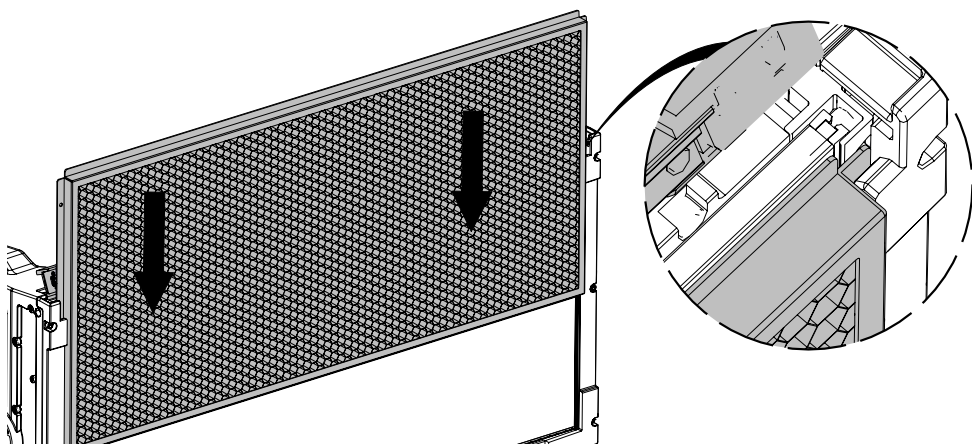
Slide the tabs placed on the top, inward the product.

2



Open the holder plate by turning it upwards.

3

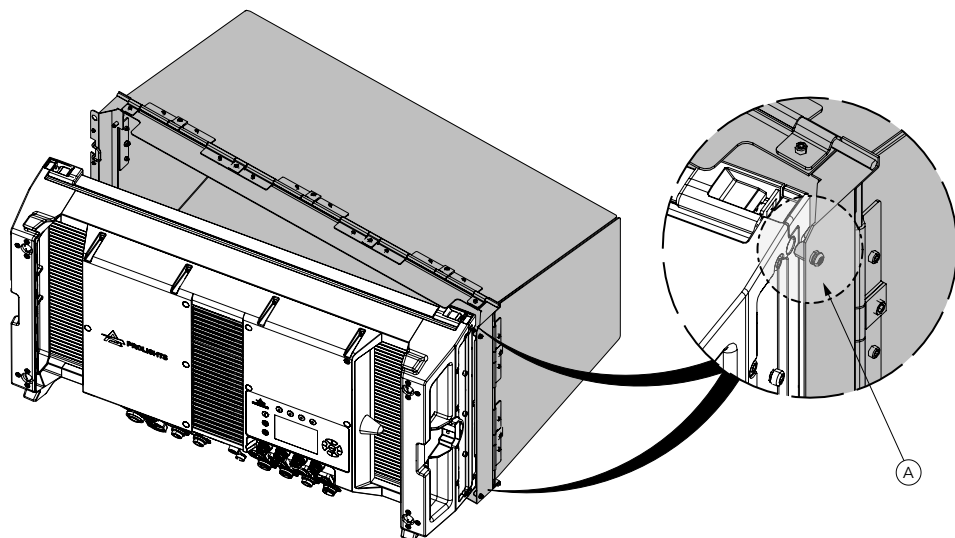


Insert the egg crate inside the track guides. Then close the plate and re-position the tabs outwards.

Fig. 10

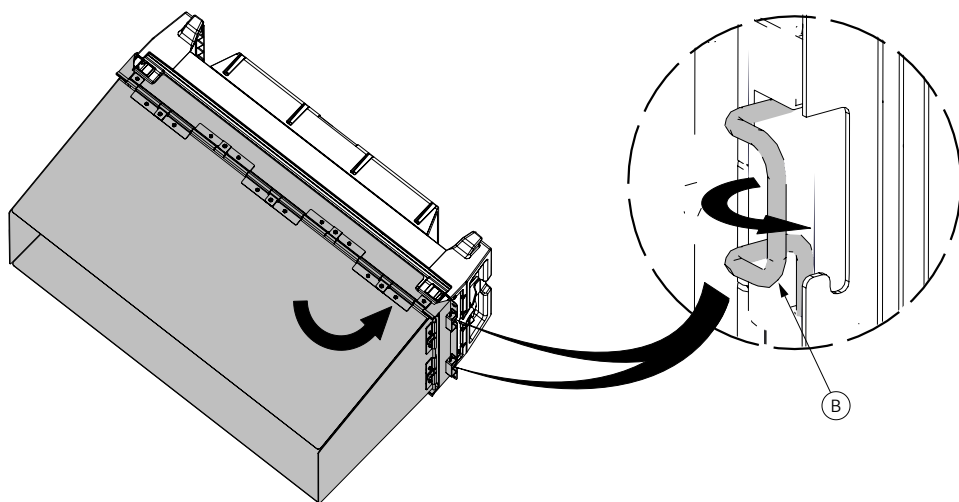
BARN DOOR
(CODE EPTWCJRBD - 1X1 OPTIONAL) - (CODE EPTWCBDR2 - 2X1 OPTIONAL)

1



Insert the two positioning and fixing pins (A) on the hardware into the holes provided on the left side edge of the product.

2



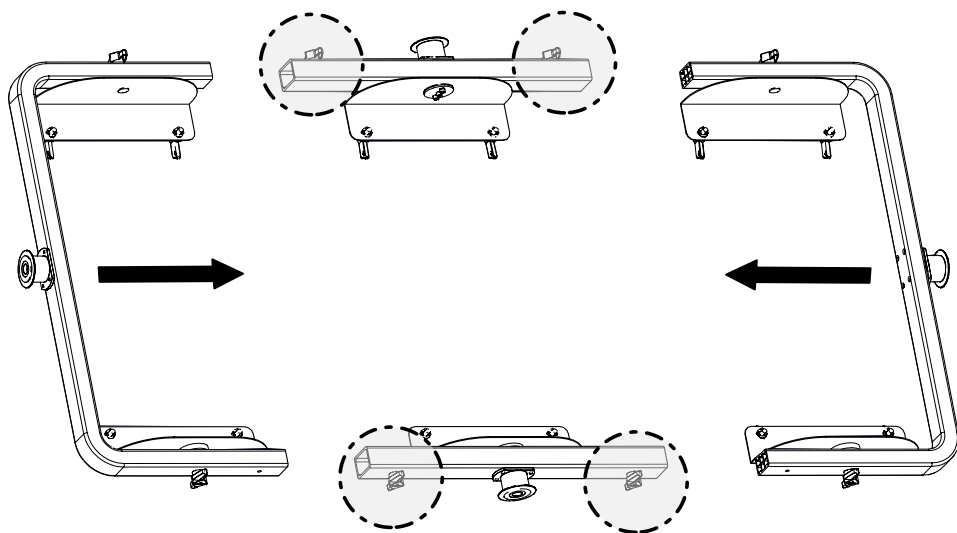
Hook the 2 clips (B) on the right edges, by rotating the head of the pin towards the body of the product. Then adjust the angle of the four leaves to focus the beam.

To remove the accessory, reverse the procedure.

Fig.11

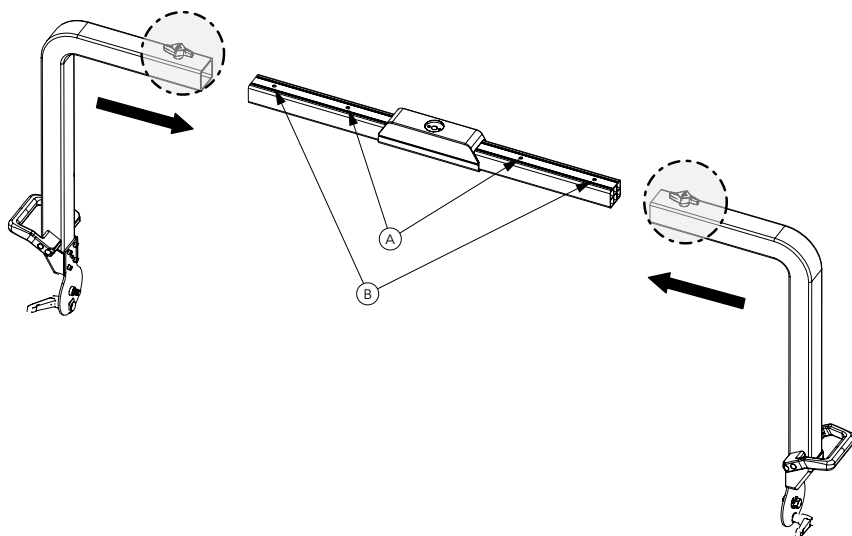
MODULAR YOKE
(CODE EPIP2X1MB3VH - 2X1 OPTIONAL)

1



First assemble the internal bracket inserting all the parts as shown in the figure (1), then fix them with the marked knobs.

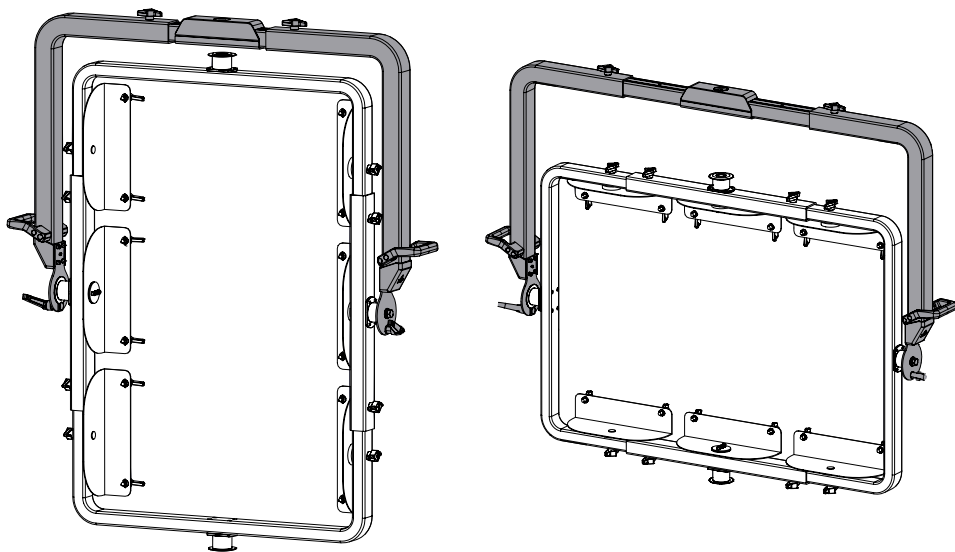
2



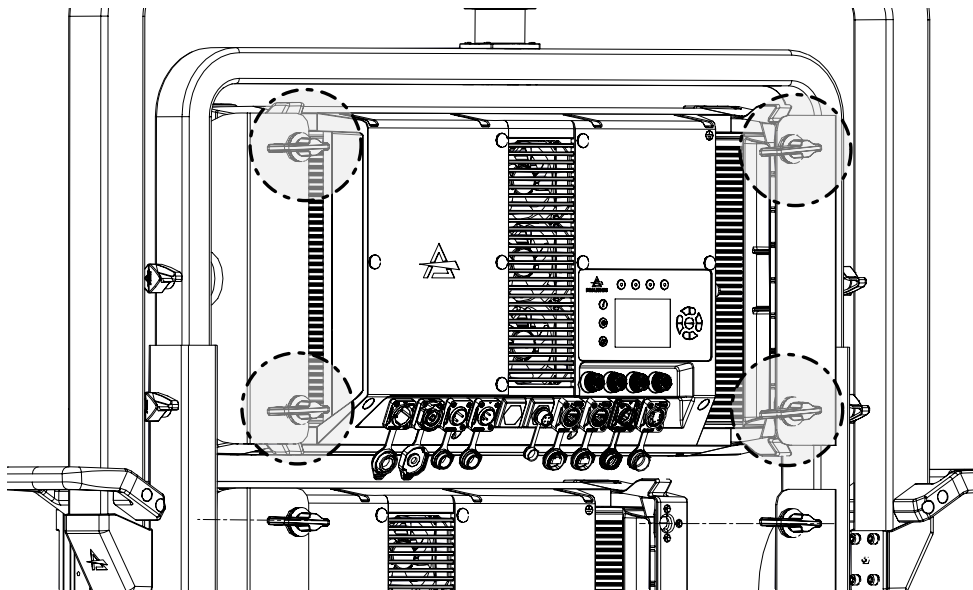
Now you can assemble the external tiltable yoke inserting the "L" parts as shown in the figure (2), then fix them with the marked knobs.

Note: internal holes (A) are for vertical installations, external holes (B) are for Horizontal installations.

Fig.12



Once both brackets are assembled, mount the tiltable yoke in vertical or horizontal configuration and screw it with the M12 screws.



Now the fixtures can be placed on the matrix bracket and fixed with the marked fast-lock clips (4).

Fig.13

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.

- **Only for IP65/IP66 projectors:** It is recommended to verify IP grade using IPTESTBOX every time the bodies are removed for maintenance, this tool helps to double check the correct assembling of the covers with a check of the IP grade of the fixture.
- All other service operations on the product must be carried out by PROLIGHTS, its approved service agents or trained and qualified personnel.
- It is PROLIGHTS policy to apply the strictest possible calibration procedures and use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, optical components are subject to wear and tear over the life of the product, resulting in gradual changes in colours over many thousands of hours of use. The extent of wear and tear depends heavily on operating conditions and environment, so it is impossible to specify precisely whether and to what extent performance will be affected. However, you may eventually need to replace optical components if their characteristics are affected by wear and tear after an extended period of use and if you require fixtures to perform within very precise optical and colour parameters.
- Do not apply filters, lenses or other materials on lenses or other optical components. Use only accessories approved by PROLIGHTS.

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

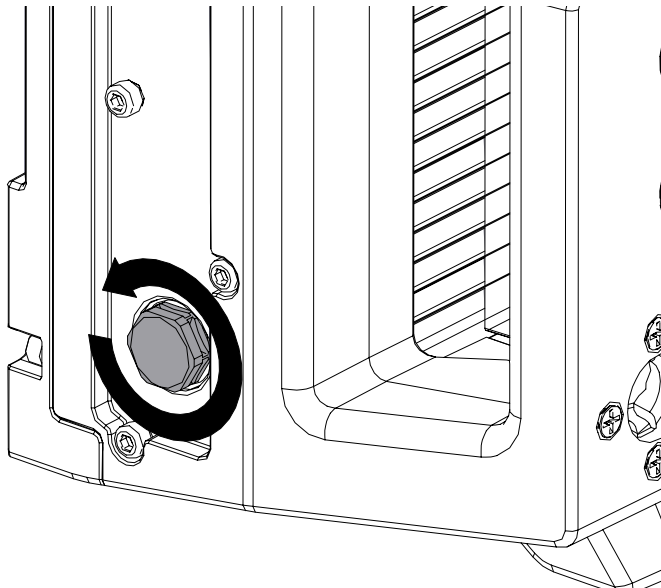
Problems	Possible causes	Checks and remedies
Product doesn't power ON	No power to the product.	Check that power is switched ON and cables are plugged in.
	Fuse blown or internal fault.	- Check if the Fuse is intact and eventually replace it if necessary. - Contact the PROLIGHTS Service or authorized 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 controller.	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 corrupting the signal transmission 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, adjustment or lubrication.	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 (temperature 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	Clean the fixture regularly.
	Dirty or damaged filters	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.

15 - TEST OF IP65 RATING

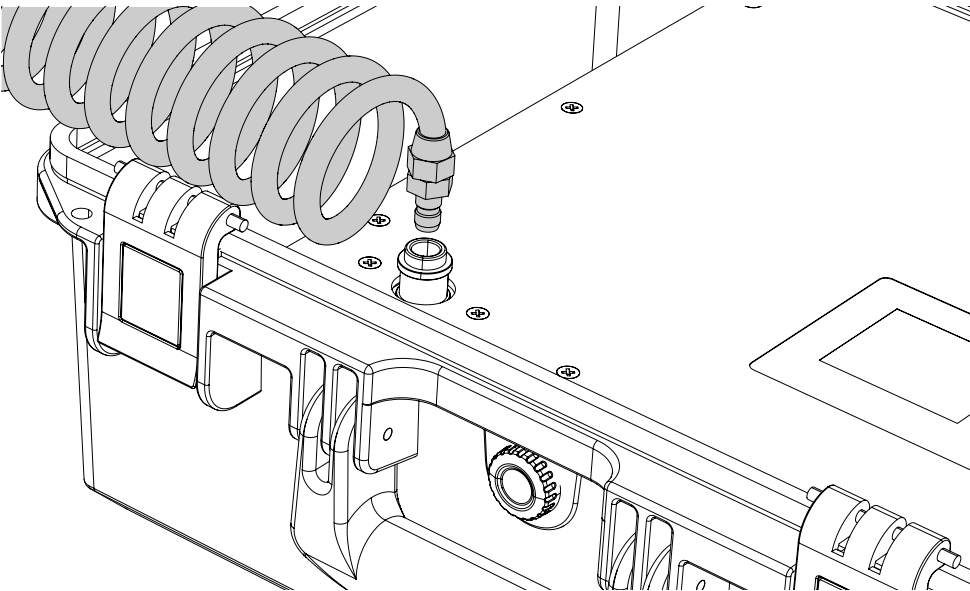
It is recommended to verify IP grade using IPTESTBOX every time the bodies are removed for maintenance.

1



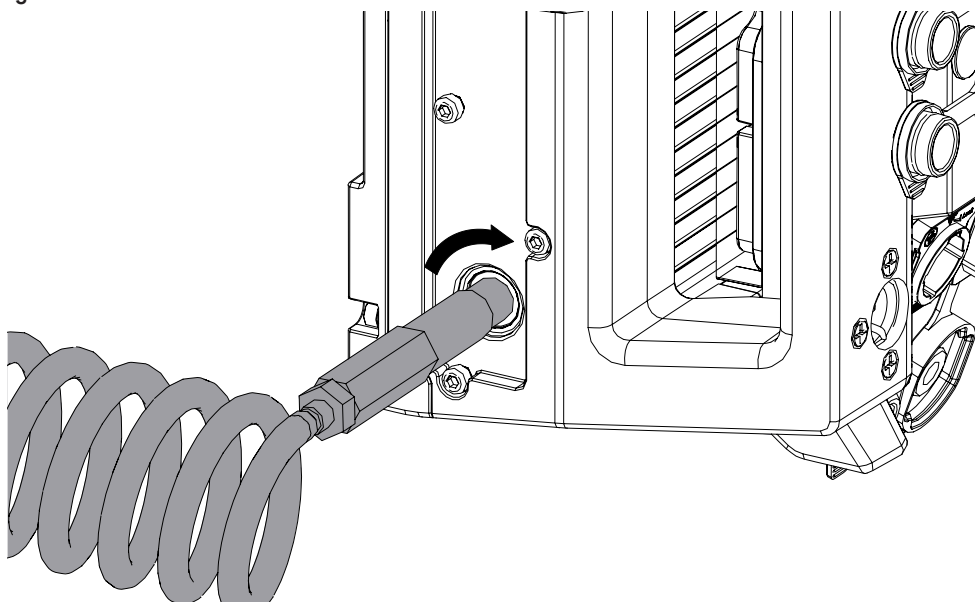
Remove the gore valve from the side of the projector.

2



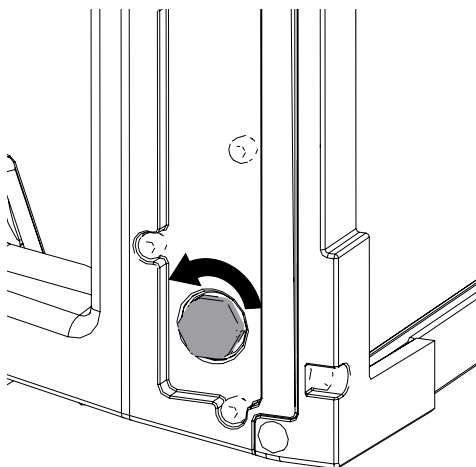
Connect the air hose to the IPTESTBOX by inserting the quick-connect fitting into the coupler.

3

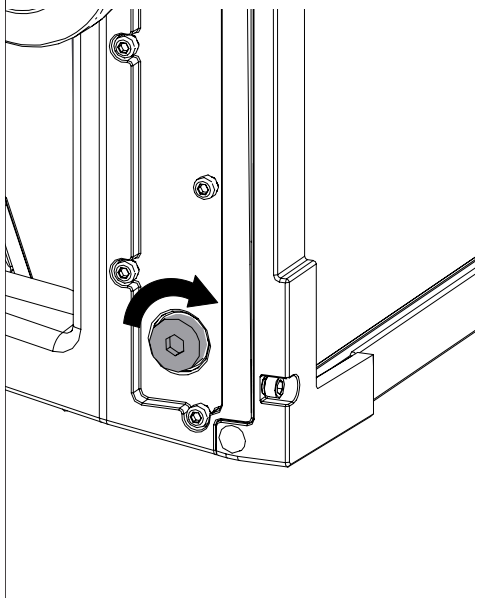


Insert the threaded end into the threaded valve hole socket.

4



5



Remove the gore valve on the other side of the projector (4) and insert the hex socket cap head included in the IPTESTBOX box (5).

For the operating procedure using the instrument, refer to the IPTESTBOX user manual.

Fig. 14

