



EclPanel TWCXL

1.500W Tuneable White and colourful LED
soft light with pixels and lighting effects



USER MANUAL

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

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

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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.



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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.



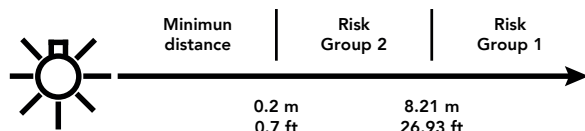
Photobiological safety

- 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

ECLPANELTWCXL PACKAGE CONTENT

- 1x ECLPANELTWCXL.
- 1x 1,5 meters power cable (BARE END - 32A NEUTRIK POWERCON TRUE1 IP65).
- 1x EPTWCXLSPG: spigot for ECLPANELTWCXL..
- User Manual.

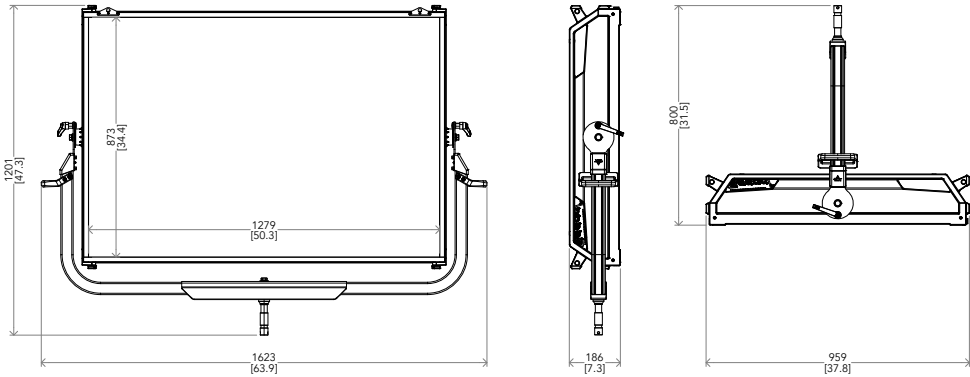
ECLPANELXL1U PACKAGE CONTENT

- 1 x ECLPANELTWCXL with egg crate and filter installed on-board.
- 1 x EPTWCXLSB.
- 1 x EPTWCXLEC48C.
- 2 x EPTWCXLEC30 or EPTWCXLEC60.
- 3 x EPTWCXLFILTER.

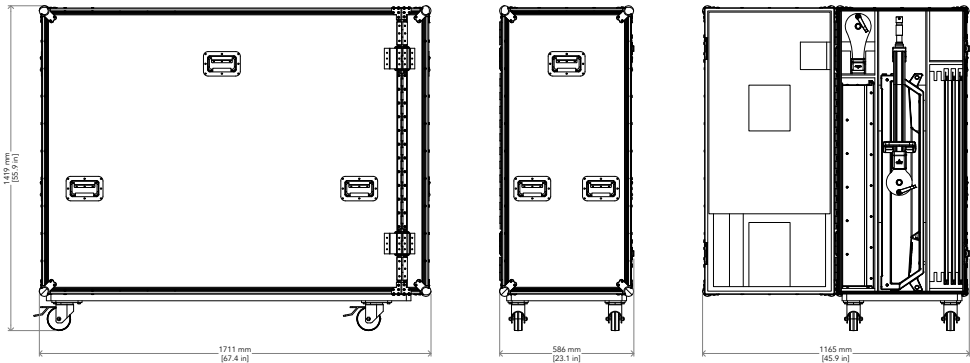
OPTIONAL ACCESSORIES

- FCLPANELXL1U: flight case for 1 pcs of ECLPANELTWCXL.
- EPTWCXLFILTERINT: front intensified diffusion filter for ECLPANELTWCXL.
- EPTWCXLFILTERHD: front high diffusion filter (less output) for ECLPANELTWCXL.
- EPTWCXLFILTERMD: front low diffusion filter (more output) for ECLPANELTWCXL.
- EPTWCXLFILTERLD: front low diffusion filter (more output) for ECLPANELTWCXL.
- EPTWCXLEC30: 30 degree egg crate for ECLPANELTWCXL.
- EPTWCXLEC60: 60 degree egg crate for ECLPANELTWCXL.
- EPTWCXLEC48C: 48 chambers egg crate for ECLPANELTWCXL.
- EPTWCXLSB: short bracket for ECLPANELTWCXL.
- MENAC3FCHC: power-con 32A cable mount straight connector, IN 32A (1P+N+E).
- EPTWCXLSG40: 40° SnapGrid, for ECLPANELTWCXL by DoP choice.
- EPTWCXLSRXL: fat-Rabbit for ECLPANELTWCXL by DoP choice.
- EPSRXLSBRED8: SNAPBAG 8ft DoubleHEX for ECLPANELTWC fat-rabbit (EPTWCXLSRXL).
- EPSRXLSBRER65: SNAPBAG 6' x 5' for ECLPANELTWC rabbit-ears (EPTWCXLSRXL).
- EPSBRER65SG40: 40° SnapGrid, to be mounted on SnapBag 6' x 5' (EPSRXLSBRER65).
- WSBBF1G5: blackBox F-1 G5 transmitter, 2,45GHz & 5.2/5,8 GHz, DMX/RDM, 512Ch.
- WSBBF1G6: blackBox F-1 G6 transrec, 512ch, 2.45GHz, DMX&RDM,Bluetooth,G3,G4,G4S, G5, CRMX.
- WSBBR512G5: blackBox R-512 G5 receiver 512Ch, 2.45GHz & 5.8GHz, DMX/RDM optional.
- WSBBR512G6: blackBox R-512 G6 receiver 512Ch, 2.45GHz,DMX&RDM,Bluetooth,G3,G4,G4S,G5,CRMX.
- TOUR53415L03BK: dmx cable HC5340. CANS5MXX XLR 5p->CANS5FXX XLR (f) 5p, L.3m.
- C6040A/B: aluminum clamp for 28mm spigot, 250kg load, 48-51mm tubes, silver/black.
- C6044A/B: quick-trigger slim clamp for 28mm spigot, 100 kg load, 40-70 mm tubes, silver/black.
- C6046A/B: aluminum clamp for 28mm spigot, 100kg loa, 40-55mm tubes, silver/black.
- RSR0630A/B: steel security cable for hanging bodies, inox steel shackle, L=60 cm, silver/black.
- UPBOX1UP5: firmware uploader kit, USB IN, 5pin XLR DMX OUT, USB OUT.

2 - TECHNICAL DRAWING



Weight: 48,7 kg - 107,36 lbs



Empty weight: 125 kg - 275,58 lbs
Full weight: 225 kg - 496,04 lbs

Fig. 01

3 - INSTALLATION

MOUNTING

Check that the supporting structure can safely bear the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc. and complies with locally applicable regulations.

When suspending the fixture above ground level, secure it against failure of primary attachments by attaching a safety wire that is approved as a safety attachment for the weight of the fixture to an anchor point on the product main frame.

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

Warning! When clamping the fixture to a truss or other structure at any angle, use clamps of half-coupler type. Do not use any type of clamp that does not completely encircle the structure when fastened.

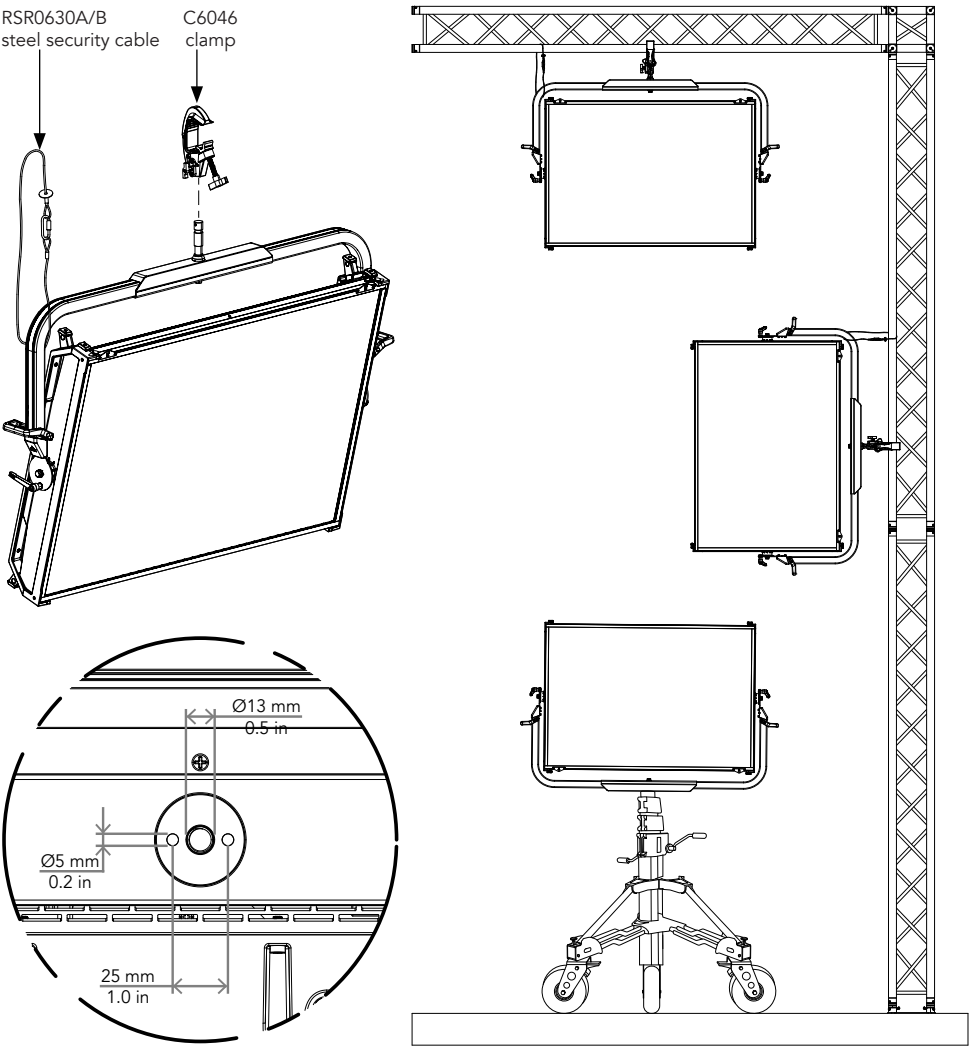



Fig. 02

4 - CONNECTION TO THE MAINS SUPPLY

WARNING: For protection from electric shock, the fixture must be earthed!
The product is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.
If you need to install a power plug on the power cable to allow connection to power outlets, install a grounding-type (earthed) plug, following the plug manufacturer's instructions. If you have any doubts about proper installation, consult a qualified electrician.
The max power consumption is 1.600 W.

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. BRACKET.
2. HANDLE for trasport.
3. TILT KNOB: for fixture tilt adjustment and fastening.
4. ANTENNA of LumenRadio TimoFX Transceiver internal module.
5. M12 holes.
6. RECEIVABLE 1/4" fast lock.
7. USER INTERFACE with display and buttons for access to the control panel functions.
8. ROTARY PUSH ENCODER (RGB BACKLIGHT) for product stand alone control operations.
9. ETHERCON CONNECTORS IN / OUT: for Ethernet protocols signal.
10. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
11. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
12. POWER IN: power input powerCON 32A.
13. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (250V,T20A, Ø6X30).
14. WEIPU SA12 series 4P-F connector for remote control.

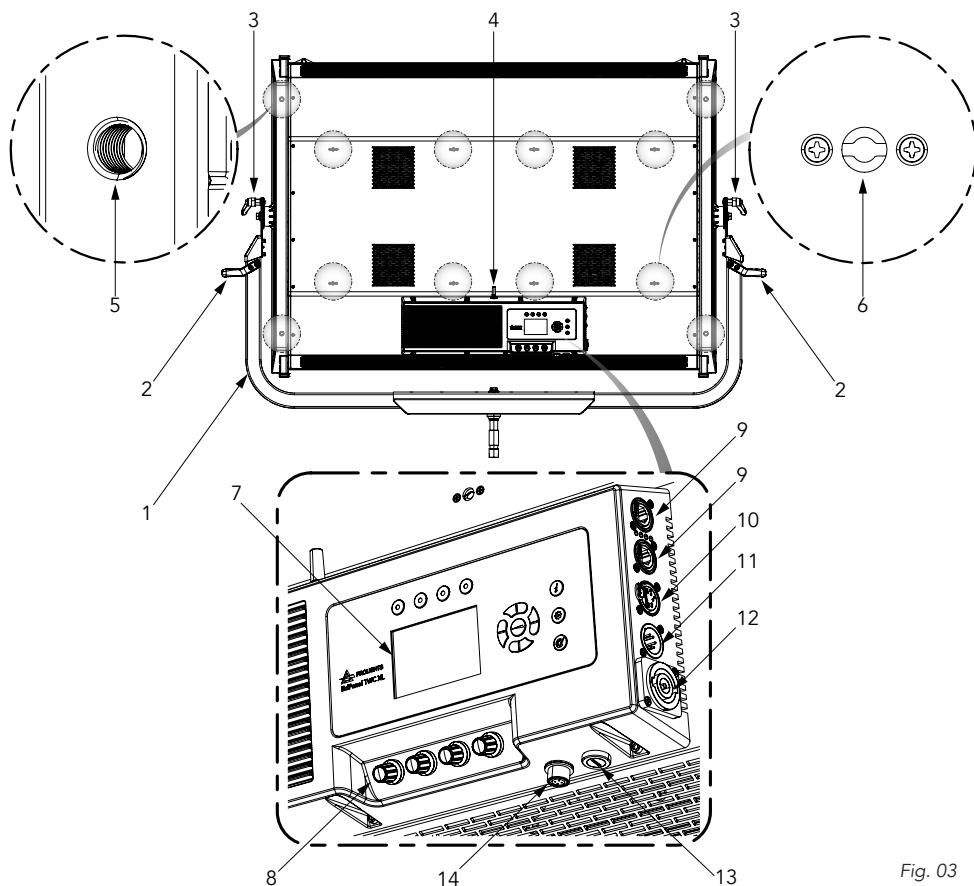


Fig. 03

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:



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:

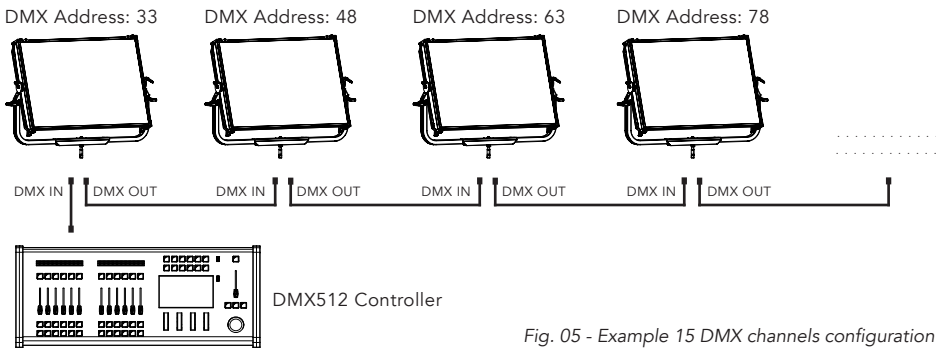


Fig. 05 - Example 15 DMX channels configuration

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.

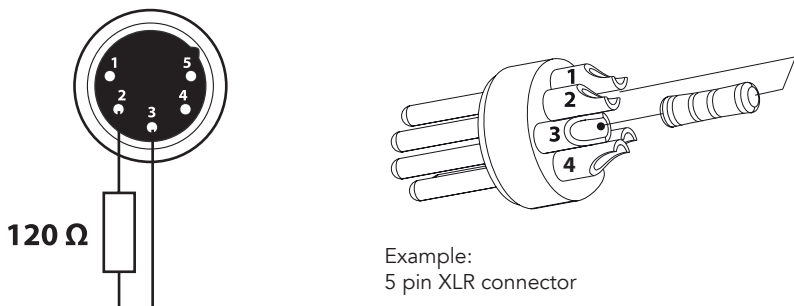


Fig. 06

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 and buttons for access to the control panel functions.

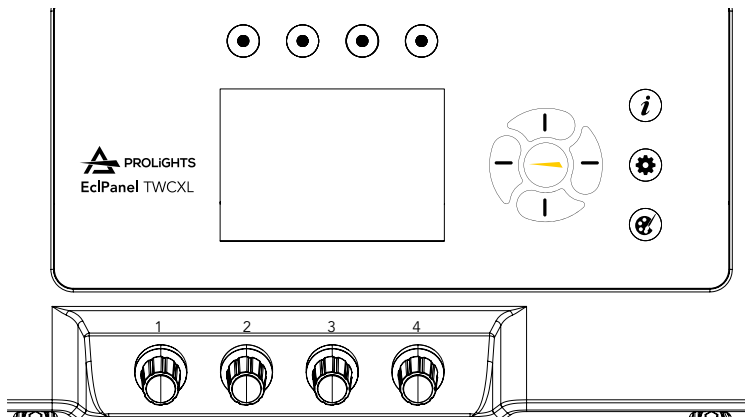


Fig. 07

DISPLAY AND BUTTONS LAYOUT

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

	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.	
1		• Dimmer function on Standalone Mode.	
2 - 4		• Parameter tweaking on Standalone Mode.	

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.

MENU					
1	CONNECT	Address	DMX ArtNet sACN	1 - 512	
		DMX Mode	Refer to DMX Chart chapter		
		Wireless	WDMX ON/OFF	On- Off	Enable/Disable the wireless card.
			WDMX mode	Transmitter Receiver	Choose whether to set the wireless card as Transmitter or Receiver. WDMX mode is unlocked only if WDMX ON / OFF is ON.
			TX link	On- Off	TX link unlock when the unit is set as a transmitter.
			TX unlink	On- Off	Disconnect the transmitter from all receivers. TX unlink unlocks only if WDMX mode is on transmitter.
			RX reset	On- Off	Total reset of the receiver. RX reset unlocks only if WDMX mode is receiver.
			IN to WDMX (TX)	On-Off	Enable/Disable the transmission of the dmx from the transmitter to the receiver via wdmx.
			WDMX to DMX (RX)	On-Off	Enable/Disable the retransmission of the DMX from the receiver to the other units connected by cable to the receiver itself.
		Ethernet Settings	ArtNet settings	IP Address	Settings for ArtNet protocol use.
				Net	
				Subnet	
				Universe	
			sACN settings	IP Address	Settings for sACN protocol use.
				Universe	
				Merge Mode	
				Off HTP LTP	
			Ethernet to WDMX	On-Off	Enable / Disable DMX retransmission from sACN/ ArtNet signal to WDMX (TX mode).
			Ethernet to DMX	On-Off	Enable / Disable DMX retransmission from sACN/ ArtNet signal to DMX out port.
2	SETUP	Light Control	Dimmer Speed	Auto Fast Medium Slow Off	Set Dimmer Speed. This parameter defines interpolation of DMX Changes for main functions. Off turns off interpolation
			Dimmer Curve	Linear S-Curve Square Law Inverse Square Law High Res@Low	Choose dimmer curve.
			Dimmer End	Snap Off @ End Fade Off @ End	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.

2

SETUP

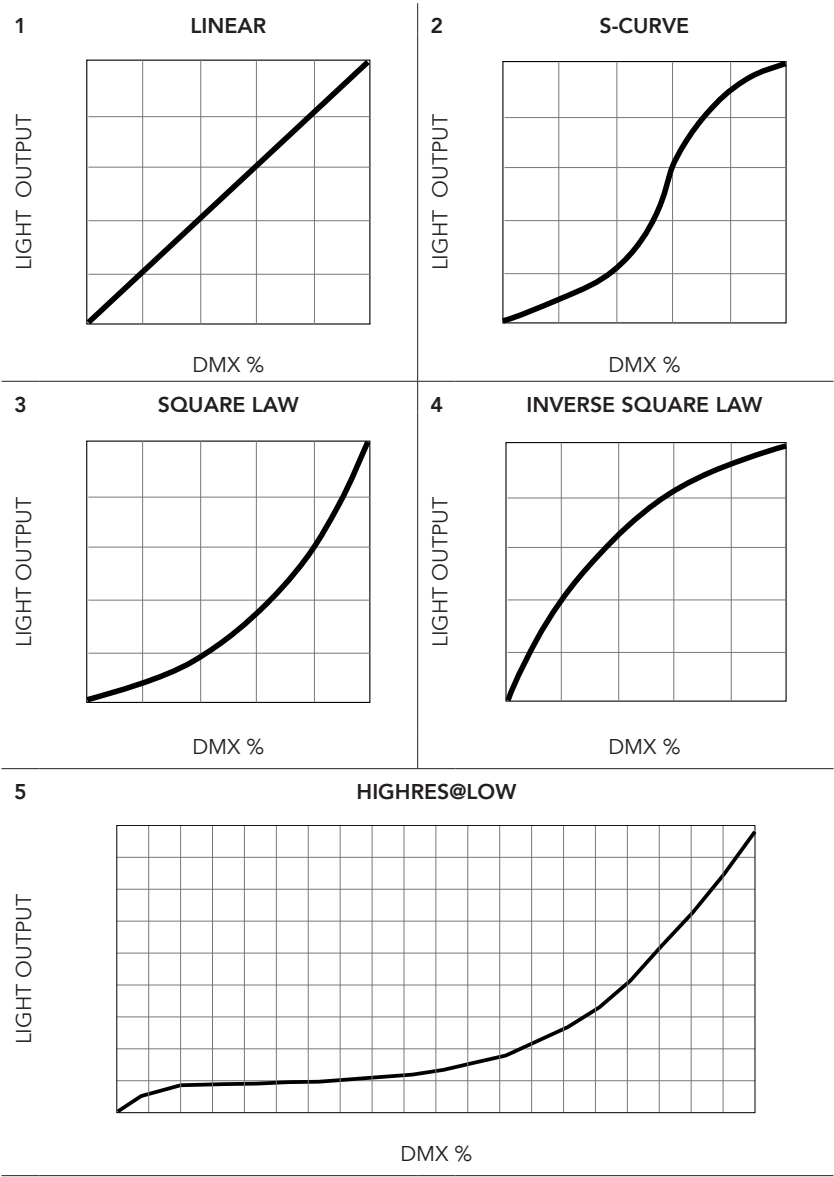
		Tungsten Emulation	Off Auto Fast Medium Slow		
		Color Space	Native		Define color space being used by fixture. (WIP)
Fixture Control	Fan Mode	Auto Turbo Quiet 1 Const. Out Quiet 2 Const. Out Off Const. Out Quiet 1 Dyn. Out Quiet 2 Dyn. Out Off Dyn. Out			See table at the end of the Menu for Fan Modes behaviour.
	Signal Fault behaviour	Keep last frame			Set the behaviour when Signal is lost.
		Keep last frame - On encoder touch	CCT Mode		
			RGBW Mode		
			FX Mode		
		Standalone			
		Blackout			
		Emergency			
	Startup behaviour	Keep last frame			Set the behaviour when fixture is powered on without any signal.
		Keep last frame - On encoder touch	CCT Mode		
RGBW Mode					
FX Mode					
	Standalone				
	Emergency				
LED Frequency	600Hz 1200 Hz 2000 Hz 4000 Hz 6000 Hz 10 kHz	12 kHz 15 kHz 20 kHz 25 kHz 36 kHz 40 kHz	Select PWM frequency.		
UI Settings	Quick settings	On Off			
	Stand Alone Interface	Easy Advanced			
	Endless Rotation	On Off			Allows infinity scroll on Standalone parameters.
	Values format	Temperature	C°		Allows you to choose Temperature unit showed in home screen.
			F°		
		Data	Raw		
	Percentage				
	Backlight Settings	Timeout	Screen	Always On	Select the timing after that display / buttons will switch automatically off when unactive. Buttons and Screen backlight is independent and individually controllable.
				10s	
			Button	30s	
60s					
Dimmer		25% 75% 50% 100%	75% 100%	Select backlight intensity.	
Flip display	Off On Auto			Allows you to rotate the display by 180°. Auto mode automatically flips the display when needed.	
Keylock	Off On			Lock the buttons on the control panel by a password: UP, DOWN, UP, DOWN, ENTER.	
Transfer Settings	No DMX address			To transfer the same menu settings of one fixtures to all the other in the daisy chain, including or not the dmx address.	
	With DMX address				

		Configura- tion Presets	Mode 1		Stores all setting to the	
			Mode 2			
			Mode 3			
			Mode 4			
3	ADVANCED	Calibration	On			Enable/Disable Spektra Calibration
			Off			
		Manage- ment Tools	Clear Color Presets			
			Clear Config. Presets			
		Factory Reload	Yes			To reload all default values.
No						
4	STAND- ALONE	Master/ Slave	Master		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. Please refer to dedicated section "Standalone Mode".	
			Master No Dmx Slave			
		CCT				
		XY				
		FX				
		RGBW				
		HSI				
		GEL				
Source Emulation						
Preset						
5	INFORMA- TION	Fixture Time	Fixture Hours	<99999H>	View informations about product operating lifetime. Fixture Hours is countered based on general operation time. Hours are countered since Power is plugged in. Source Hours is divided for each PCB. Individual reset of single LED PCB counter can be performed during service. Hours are countered only when LEDs are ON.	
			Source Hours	LED PCB 1 <99999H> ... LED PCB 6 <99999H>		
			Power Cycles	<99999>		
			Active / Error / Disabled			
		Calibration State				Refer to Troubleshooting section for Error details.
		Error Messages				
		Fan Speed				
		Tempera- tures	LED PCB 1: 25°C ... LED PCB 6: 25°C		Show temperature for each LED PCB	
		Software Version	DISP: V1.1.01.0 CTR1: V1.1.01.0 CTR2: V1.1.01.0		Show software version for each PCB.	
		RDM UID	15D0022F****		View the UID of the product (RDM control).	
		Documen- tation				Shows QR Codes for direct access to User Manual and DMX Charts

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.

PARAMETER	PID	GET	SET
DEVICE_MODEL_DESCRIPTION	0x0080	x	
MANUFACTURER_LABEL	0x0081	x	
DEVICE_LABEL	0x0082	x	x
FACTORY_DEFAULTS	0x0090	x	x
SOFTWARE_VERSION_LABEL	0x00C0	x	
DMX_PERSONALITY	0x00E0	x	x
DMX_PERSONALITY_DESCRIPTION	0x00E1	x	
DMX_START_ADDRESS	0x00F0	x	x
SENSOR_DEFINITION (<i>LED temperature sensor</i>)	0x0200	x	
CURVE	0x0343	x	x
CURVE_DESCRIPTION	0x0344	x	
OUTPUT_RESPONSE_TIME	0x0345	x	x
OUTPUT_RESPONSE_TIME_DESCRIPTION	0x0346	x	
MODULATION_FREQUENCY	0x0347	x	x
MODULATION_FREQUENCY_DESCRIPTION	0x0348	x	
DEVICE_HOURS	0x0400	x	
DISPLAY_INVERT	0x0500	x	x
IDENTIFY_DEVICE	0x1000	x	x

12 - DMX CHARTS

1PIX Versions

N°	Name	Channels	RDM ID	Features
M1	CCT 8 bit	9	1	
M2	CCT 16 bit	12	2	
M3	RGBW 8 bit	11	3	
M4	RGBW 16 bit	17	4	
M5	HSI 8bit	9	5	
M6	HSI 16 bit	13	6	
M7	XY 8 bit	12	7	
M8	XY 16 bit	18	8	
M9	GEL 8bit	16	9	
M10	GEL 16 bit	18	10	
M11	FX 8bit	13	11	
M12	FX 16 bit	21	12	
M13	Source Emulation 8 bit	11	13	
M14	Source Emulation 16 bit	13	14	
M15	CCT + RGBW 8 bit	14	15	
M16	CCT + RGBW 16 bit	22	16	
M17	CCT + RGBW + GEL 8 bit	19	17	
M18	CCT + RGBW + GEL 16 bit	28	18	
M19	CCT + RGBW + FX 8 bit	22	19	
M20	CCT + RGBW + FX 16 bit	37	20	
M21	CCT + HSI 8bit	12	21	
M22	CCT + HSI 16 bit	18	22	
M23	CCT + HSI + GEL 8 bit	17	23	
M24	CCT + HSI + GEL 16 bit	24	24	
M25	CCT + HSI + FX 8 bit	20	25	
M26	CCT + HSI + FX 16 bit	33	26	
M27	CCT + XY 8 bit	12	27	
M28	CCT + XY 16 bit	18	28	
M29	CCT + XY + GEL 8 bit	17	29	
M30	CCT + XY + GEL 16 bit	24	30	
M31	CCT + XY + FX 8 bit	20	31	
M32	CCT + XY + FX 16 bit	33	32	
M33	EXTENDED Control 8bit	25	33	
M34	EXTENDED Control 16 bit	43	34	

M1 - CCT 8 bit		M2 - CCT 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Preset	CCT Fine
7	Fan Control	Green-Magenta Point
8	Control Channel	Green-Magenta Point Fine
9	RESERVED	Preset
10		Fan Control
11		Control Channel
12		RESERVED

M3 - RGBW 8 bit		M4 - RGBW 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	Red	Strobe
4	Green	Red
5	Blue	Red Fine
6	White	Green
7	White Point	Green Fine
8	Preset	Blue
9	Fan Control	Blue Fine
10	Control Channel	White
11	RESERVED	White Fine
12		White Point
13		White Point Fine
14		Preset
15		Fan Control
16		Control Channel
17		RESERVED

M5 - HSI 8bit		M6 - HSI 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	Hue	Strobe
4	Saturation	Hue
5	White Point	Hue Fine
6	Preset	Saturation
7	Fan Control	Saturation Fine
8	Control Channel	White Point
9	RESERVED	White Point Fine
10		Preset
11		Fan Control
12		Control Channel
13		RESERVED

M7 - XY 8 bit		M8 - XY 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	X 1	Strobe
4	Y 1	X 1
5	Transition type control	X 1 Fine
6	Crossfade XY1 to XY2	Y 1
7	X 2	Y 1 Fine
8	Y 2	Transition type control
9	Preset	Crossfade XY1 to XY2
10	Fan Control	Crossfade XY1 to XY2 Fine
11	Control Channel	X 2
12	RESERVED	X 2 Fine
13		Y 2
14		Y 2 Fine
15		Preset
16		Fan Control
17		Control Channel
18		RESERVED

M9 - GEL 8bit		M10 - GEL 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	GEL1 Source CCT	Strobe
4	GEL1 Brand	GEL1 Source CCT
5	GEL1 Category (Dependent on GEL1 Brand)	GEL1 Brand
6	GEL1 Selector (Dependent on GEL1 Category)	GEL1 Category (Dependent on GEL1 Brand)
7	Transition type control	GEL1 Selector (Dependent on GEL1 Category)
8	Crossfade GEL1 to GEL2	Transition type control
9	GEL2 Source CCT	Crossfade GEL1 to GEL2
10	GEL2 Brand	Crossfade GEL1 to GEL2 Fine
11	GEL2 Category (Dependent on GEL1 Brand)	GEL2 Source CCT
12	GEL2 Selector (Dependent on GEL1 Category)	GEL2 Brand
13	Preset	GEL2 Category (Dependent on GEL1 Brand)
14	Fan Control	GEL2 Selector (Dependent on GEL1 Category)
15	Control Channel	Preset
16	RESERVED	Fan Control
17		Control Channel
18		RESERVED

M11 - FX 8 bit		M12 - FX 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	FX Selector	Dimmer Fine
3	FX Parameter 1	FX Selector
4	FX Parameter 2	FX Parameter 1
5	FX Parameter 3	FX Parameter 1 Fine
6	FX Parameter 4	FX Parameter 2
7	FX Parameter 5	FX Parameter 2 Fine
8	FX Parameter 6	FX Parameter 3
9	FX Parameter 7	FX Parameter 3 Fine
10	Preset	FX Parameter 4
11	Fan Control	FX Parameter 4 Fine
12	Control Channel	FX Parameter 5
13	RESERVED	FX Parameter 5 Fine
14		FX Parameter 6
15		FX Parameter 6 Fine
16		FX Parameter 7
17		FX Parameter 7 Fine
18		Preset
19		Fan Control
20		Control Channel
21		RESERVED

M13 - Source Emulation 8 bit		M14 - Source Emulation 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	Source Category 1	Strobe
4	Source Selector 1	Source Category 1
5	Crossfade Source1 to Source2	Source Selector 1
6	Source Category 2	Crossfade Source1 to Source2
7	Source Selector 2	Crossfade Source1 to Source2 Fine
8	Preset	Source Category 2
9	Fan Control	Source Selector 2
10	Control Channel	Preset
11	RESERVED	Fan Control
12		Control Channel
13		RESERVED

M15 - CCT + RGBW 8 bit		M16 - CCT + RGBW 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to RGBW	CCT Fine
7	Red	Green-Magenta Point
8	Green	Green-Magenta Point Fine
9	Blue	Crossfade CCT to RGBW
10	White	Crossfade CCT to RGBW Fine
11	Preset	Red
12	Fan Control	Red Fine
13	Control Channel	Green
14	RESERVED	Green Fine
15		Blue
16		Blue Fine
17		White
18		White Fine
19		Preset
20		Fan Control
21		Control Channel
22		RESERVED

M17 - CCT + RGBW + GEL 8 bit		M18 - CCT + RGBW + GEL 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to RGBW	CCT Fine
7	Red	Green-Magenta Point
8	Green	Green-Magenta Point Fine
9	Blue	Crossfade CCT to RGBW
10	White	Crossfade CCT to RGBW Fine
11	Crossfade RGBW to GEL	Red
12	GEL Source CCT	Red Fine
13	GEL Brand	Green
14	GEL Categor	Green Fine
15	GEL Selector	Blue
16	Preset	Blue Fine
17	Fan Control	White
18	Control Channel	White Fine
19	RESERVED	Crossfade RGBW to GEL
20		Crossfade RGBW to GEL Fine
21		GEL Source CCT
22		GEL Brand
23		GEL Categor
24		GEL Selector
25		Preset
26		Fan Control
27		Control Channel
28		RESERVED

M19 - CCT + RGBW + FX 8 bit		M20 - CCT + RGBW + FX 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to RGBW	CCT Fine
7	Red	Green-Magenta Point
8	Green	Green-Magenta Point Fine
9	Blue	Crossfade CCT to RGBW
10	White	Crossfade CCT to RGBW Fine
11	FX Selector	Red
12	FX Parameter 1	Red Fine
13	FX Parameter 2	Green
14	FX Parameter 3	Green Fine
15	FX Parameter 4	Blue
16	FX Parameter 5	Blue Fine
17	FX Parameter 6	White
18	FX Parameter 7	White Fine
19	Preset	FX Selector
20	Fan Control	FX Parameter 1
21	Control Channel	FX Parameter 1 Fine
22	RESERVED	FX Parameter 2
23		FX Parameter 2 Fine
24		FX Parameter 3
25		FX Parameter 3 Fine
26		FX Parameter 4
27		FX Parameter 4 Fine
28		FX Parameter 5
29		FX Parameter 5 Fine
30		FX Parameter 6
31		FX Parameter 6 Fine
32		FX Parameter 7
33		FX Parameter 7 Fine
34		Preset
35		Fan Control
36		Control Channel
37		RESERVED

M21 - CCT + HSI 8bit		M22 - CCT + HSI 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to HSI	CCT Fine
7	Hue	Green-Magenta Point
8	Saturation	Green-Magenta Point Fine
9	Preset	Crossfade CCT to HSI
10	Fan Control	Crossfade CCT to HSI Fine
11	Control Channel	Hue
12	RESERVED	Hue Fine
13		Saturation
14		Saturation Fine
15		Preset
16		Fan Control
17		Control Channel
18		RESERVED

M23 - CCT + HSI + GEL 8 bit		M24 - CCT + HSI + GEL 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to HSI	CCT Fine
7	Hue	Green-Magenta Point
8	Saturation	Green-Magenta Point Fine
9	Crossfade HSI to GEL	Crossfade CCT to HSI
10	GEL Source CCT	Crossfade CCT to HSI Fine
11	GEL Brand	Hue
12	GEL Categor	Hue Fine
13	GEL Selector	Saturation
14	Preset	Saturation Fine
15	Fan Control	Crossfade HSI to GEL
16	Control Channel	Crossfade HSI to GEL Fine
17	RESERVED	GEL Source CCT
18		GEL Brand
19		GEL Categor
20		GEL Selector
21		Preset
22		Fan Control
23		Control Channel
24		RESERVED

M25 - CCT + HSI + FX 8 bit		M26 - CCT + HSI + FX 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to HSI	CCT Fine
7	Hue	Green-Magenta Point
8	Saturation	Green-Magenta Point Fine
9	FX Selector	Crossfade CCT to HSI
10	FX Parameter 1	Crossfade CCT to HSI Fine
11	FX Parameter 2	Hue
12	FX Parameter 3	Hue Fine
13	FX Parameter 4	Saturation
14	FX Parameter 5	Saturation Fine
15	FX Parameter 6	FX Selector
16	FX Parameter 7	FX Parameter 1
17	Preset	FX Parameter 1 Fine
18	Fan Control	FX Parameter 2
19	Control Channel	FX Parameter 2 Fine
20	RESERVED	FX Parameter 3
21		FX Parameter 3 Fine
22		FX Parameter 4
23		FX Parameter 4 Fine
24		FX Parameter 5
25		FX Parameter 5 Fine
26		FX Parameter 6
27		FX Parameter 6 Fine
28		FX Parameter 7
29		FX Parameter 7 Fine
30		Preset
31		Fan Control
32		Control Channel
33		RESERVED

M27 - CCT + XY 8 bit		M28 - CCT + XY 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to XY	CCT Fine
7	X	Green-Magenta Point
8	Y	Green-Magenta Point Fine
9	Preset	Crossfade CCT to XY
10	Fan Control	Crossfade CCT to XY Fine
11	Control Channel	X
12	RESERVED	X Fine
13		Y
14		Y Fine
15		Preset
16		Fan Control
17		Control Channel
18		RESERVED

M29 - CCT + XY + GEL 8 bit		M30 - CCT + XY + GEL 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to XY	CCT Fine
7	X	Green-Magenta Point
8	Y	Green-Magenta Point Fine
9	Crossfade XY to GEL	Crossfade CCT to XY
10	GEL Source CCT	Crossfade CCT to XY Fine
11	GEL Brand	X
12	GEL Categor	X Fine
13	GEL Selector	Y
14	Preset	Y Fine
15	Fan Control	Crossfade XY to GEL
16	Control Channel	Crossfade XY to GEL Fine
17	RESERVED	GEL Source CCT
18		GEL Brand
19		GEL Categor
20		GEL Selector
21		Preset
22		Fan Control
23		Control Channel
24		RESERVED

M31 - CCT + XY + FX 8 bit		M32 - CCT + XY + FX 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	CCT Range selector	Strobe
4	CCT	CCT Range selector
5	Green-Magenta Point	CCT
6	Crossfade CCT to XY	CCT Fine
7	X	Green-Magenta Point
8	Y	Green-Magenta Point Fine
9	FX Selector	Crossfade CCT to XY
10	FX Parameter 1	Crossfade CCT to XY Fine
11	FX Parameter 2	X
12	FX Parameter 3	X Fine
13	FX Parameter 4	Y
14	FX Parameter 5	Y Fine
15	FX Parameter 6	FX Selector
16	FX Parameter 7	FX Parameter 1
17	Preset	FX Parameter 1 Fine
18	Fan Control	FX Parameter 2
19	Control Channel	FX Parameter 2 Fine
20	RESERVED	FX Parameter 3
21		FX Parameter 3 Fine
22		FX Parameter 4
23		FX Parameter 4 Fine
24		FX Parameter 5
25		FX Parameter 5 Fine
26		FX Parameter 6
27		FX Parameter 6 Fine
28		FX Parameter 7
29		FX Parameter 7 Fine
30		Preset
31		Fan Control
32		Control Channel
33		RESERVED

M33 - EXTENDED Control 8bit		M34 - EXTENDED Control 16 bit
Ch	Function	Function
1	Dimmer	Dimmer
2	Strobe	Dimmer Fine
3	Layer1 Mode Selector	Strobe
4	Layer1 Parameter 1	Layer1 Mode Selector
5	Layer1 Parameter 2	Layer1 Parameter 1
6	Layer1 Parameter 3	Layer1 Parameter 1 Fine
7	Layer1 Parameter 4	Layer1 Parameter 2
8	Layer1 Parameter 5	Layer1 Parameter 2 Fine
9	Layer1 Parameter 6	Layer1 Parameter 3
10	Layer1 Parameter 7	Layer1 Parameter 3 Fine
11	Layer1 Parameter 8	Layer1 Parameter 4
12	Crossfade Layer1 to Layer2	Layer1 Parameter 4 Fine
13	Layer2 Mode Selector	Layer1 Parameter 5
14	Layer2 Parameter 1	Layer1 Parameter 5 Fine
15	Layer2 Parameter 2	Layer1 Parameter 6
16	Layer2 Parameter 3	Layer1 Parameter 6 Fine
17	Layer2 Parameter 4	Layer1 Parameter 7
18	Layer2 Parameter 5	Layer1 Parameter 7 Fine
19	Layer2 Parameter 6	Layer1 Parameter 8
20	Layer2 Parameter 7	Layer1 Parameter 8 Fine
21	Layer2 Parameter 8	Crossfade Layer1 to Layer2
22	Preset	Crossfade Layer1 to Layer2 Fine
23	Fan Control	Layer2 Mode Selector
24	Control Channel	Layer2 Parameter 1
25	RESERVED	Layer2 Parameter 1 Fine
26		Layer2 Parameter 2
27		Layer2 Parameter 2 Fine
28		Layer2 Parameter 3
29		Layer2 Parameter 3 Fine
30		Layer2 Parameter 4
31		Layer2 Parameter 4 Fine
32		Layer2 Parameter 5
33		Layer2 Parameter 5 Fine
34		Layer2 Parameter 6
35		Layer2 Parameter 6 Fine
36		Layer2 Parameter 7
37		Layer2 Parameter 7 Fine
38		Layer2 Parameter 8
39		Layer2 Parameter 8 Fine
40		Preset
41		Fan Control
42		Control Channel
43		RESERVED

2PIX Versions

N°	Name	Channels	RDM ID	Features
2PX M3	RGBW 8 bit	16	35	
2PX M4	RGBW 16 bit	26	36	
2PX M5	HSI 8bit	12	37	
2PX M6	HSI 16 bit	18	38	
2PX M7	XY 8 bit	18	39	
2PX M8	XY 16 bit	30	40	
2PX M15	CCT + RGBW 8 bit	22	41	
2PX M16	CCT + RGBW 16 bit	38	42	
2PX M21	CCT + HSI 8bit	19	43	
2PX M22	CCT + HSI 16 bit	31	44	
2PX M27	CCT + XY 8 bit	23	45	XY coords are 16bit
2PX M28	CCT + XY 16 bit	31	46	

6PIX Versions

N°	Name	Channels	RDM ID	Features
6PX M3	RGBW 8 bit	40	47	
6PX M4	RGBW 16 bit	70	48	
6PX M5	HSI 8bit	28	49	
6PX M6	HSI 16 bit	46	50	
6PX M7	XY 8 bit	46	51	
6PX M8	XY 16 bit	82	52	
6PX M15	CCT + RGBW 8 bit	56	53	
6PX M16	CCT + RGBW 16 bit	106	54	
6PX M21	CCT + HSI 8bit	47	55	
6PX M22	CCT + HSI 16 bit	83	56	
6PX M27	CCT + XY 8 bit	59	57	XY coords are 16bit
6PX M28	CCT + XY 16 bit	83	58	

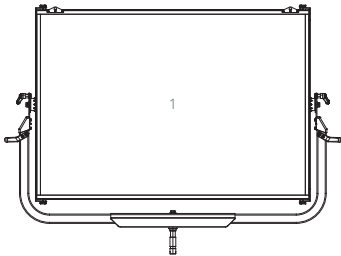
12PIX Versions

N°	Name	Channels	RDM ID	Features
12PX M3	RGBW 8 bit	76	59	
12PX M4	RGBW 16 bit	136	60	
12PX M5	HSI 8bit	52	61	
12PX M6	HSI 16 bit	88	62	
12PX M7	XY 8 bit	88	63	
12PX M8	XY 16 bit	160	64	
12PX M15	CCT + RGBW 8 bit	112	65	
12PX M16	CCT + RGBW 16 bit	208	66	
12PX M21	CCT + HSI 8bit	89	67	
12PX M22	CCT + HSI 16 bit	161	68	
12PX M27	CCT + XY 8 bit	113	69	XY coords are 16bit
12PX M28	CCT + XY 16 bit	161	70	

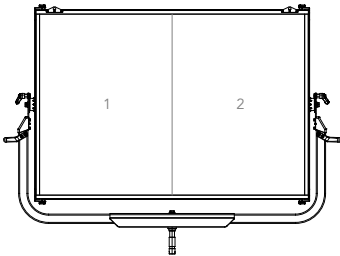
48PIX Versions

N°	Name	Channels	RDM ID	Features
48PX M3	RGBW 8 bit	292	71	
48PX M5	HSI 8bit	196	72	
48PX M6	HSI 16 bit	340	73	
48PX M7	XY 8 bit	340	74	
48PX M8	XY 16 bit	340	75	One Layer only
48PX M15	CCT + RGBW 8 bit	436	76	
48PX M21	CCT + HSI 8bit	341	77	
48PX M27	CCT + XY 8 bit	437	78	XY coords are 16bit

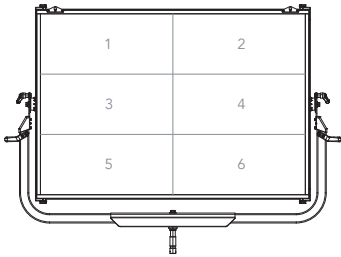
PIXEL LAYOUT



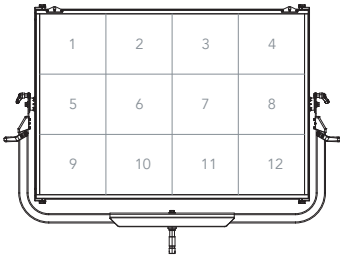
1 Pixel



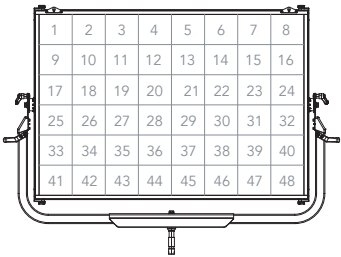
2 Pixel



6 Pixel



12 Pixel



48 Pixel

M3 - M4 RGBW 8/16bit Multi cell modes

2PX M3	2PX M4	6PX M3	6PX M4	12PX M3	12PX M4	48PX M3	48PX M4	
First Cell								Function
1	1	1	1	1	1	1	N/A	Dimmer
	2		2		2		N/A	Dimmer Fine
2	3	2	3	2	3	2	N/A	Strobe
3	4	3	4	3	4	3	N/A	Red
	5		5		5		N/A	Red Fine
4	6	4	6	4	6	4	N/A	Green
	7		7		7		N/A	Green Fine
5	8	5	8	5	8	5	N/A	Blue
	9		9		9		N/A	Blue Fine
6	10	6	10	6	10	6	N/A	White
	11		11		11		N/A	White Fine
Last Cell								
2PX M3	2PX M4	6PX M3	6PX M4	12PX M3	12PX M4	48PX M3	48PX M4	Function
7	12	31	56	67	122	283	N/A	Dimmer
	13		57		123		N/A	Dimmer Fine
8	14	32	58	68	124	284	N/A	Strobe
9	15	33	59	69	125	285	N/A	Red
	16		60		126		N/A	Red Fine
10	17	34	61	70	127	286	N/A	Green
	18		62		128		N/A	Green Fine
11	19	35	63	71	129	287	N/A	Blue
	20		64		130		N/A	Blue Fine
12	21	36	65	72	131	288	N/A	White
	22		66		132		N/A	White Fine
13	23	37	67	73	133	289	N/A	Preset
14	24	38	68	74	134	290	N/A	Fan Control
15	25	39	69	75	135	291	N/A	Control Channel
16	26	40	70	76	136	292	N/A	RESERVED

M5 - M6 HSI 8/16bit Multi cell modes

2PX M5	2PX M6	6PX M5	6PX M6	12PX M5	12PX M6	48PX M5	48PX M6	
First Cell								Function
1	1	1	1	1	1	1	1	Dimmer
	2		2		2		2	Dimmer Fine
2	3	2	3	2	3	2	3	Strobe
3	4	3	4	3	4	3	4	Hue
	5		5		5		5	Hue Fine
4	6	4	6	4	6	4	6	Saturation
	7		7		7		7	Saturation Fine
Last Cell								
2PX M5	2PX M6	6PX M5	6PX M6	12PX M5	12PX M6	48PX M5	48PX M6	Function
5	8	21	36	45	78	189	330	Dimmer
	9		37		79		331	Dimmer Fine
6	10	22	38	46	80	190	332	Strobe
7	11	23	39	47	81	191	333	Hue
	12		40		82		334	Hue Fine
8	13	24	41	48	83	192	335	Saturation
	14		42		84		336	Saturation Fine
9	15	25	43	49	85	193	337	Preset
10	16	26	44	50	86	194	338	Fan Control
11	17	27	45	51	87	195	339	Control Channel
12	18	28	46	52	88	196	340	RESERVED

M7 - M8 XY 8/16bit Multi cell modes

2PX M7	2PX M8	6PX M7	6PX M8	12PX M7	12PX M8	48PX M7	48PX M8	
First Cell								Function
1	1	1	1	1	1	1	1	Dimmer
	2		2		2		2	Dimmer Fine
2	3	2	3	2	3	2	3	Strobe
3	4	3	4	3	4	3	4	X 1
	5		5		5		5	X 1 Fine
4	6	4	6	4	6	4	6	Y 1
	7		7		7		7	Y 1 Fine
5	8	5	8	5	8	5		Crossfade XY1 to XY2
	9		9		9			Crossfade XY1 to XY2 Fine
6	10	6	10	6	10	6		X 2
	11		11		11			X 2 Fine
7	12	7	12	7	12	7		Y 2
	13		13		13			Y 2 Fine
Last Cell								
2PX M7	2PX M8	6PX M7	6PX M8	12PX M7	12PX M8	48PX M7	48PX M8	Function
8	14	36	66	78	144	330	330	Dimmer
	15		67		145		331	Dimmer Fine
9	16	37	68	79	146	331	332	Strobe
10	17	38	69	80	147	332	333	X 1
	18		70		148		334	X 1 Fine
11	19	39	71	81	149	333	335	Y 1
	20		72		150		336	Y 1 Fine
12	21	40	73	82	151	334		Crossfade XY1 to XY2
	22		74		152			Crossfade XY1 to XY2 Fine
13	23	41	75	83	153	335		X 2
	24		76		154			X 2 Fine
14	25	42	77	84	155	336		Y 2
	26		78		156			Y 2 Fine
15	27	43	79	85	157	337	337	Preset
16	28	44	80	86	158	338	338	Fan Control
17	29	45	81	87	159	339	339	Control Channel
18	30	46	82	88	160	340	340	RESERVED

M15 - M16 CCT + RGBW 8/16bit Multi cell modes

2PX M15	2PX M16	6PX M15	6PX M16	12PX M15	12PX M16	48PX M15	48PX M16	
First Cell								Function
1	1	1	1	1	1	1	N/A	Dimmer
	2		2		2		N/A	Dimmer Fine
2	3	2	3	2	3	2	N/A	Strobe
3	4	3	4	3	4	3	N/A	CCT
	5		5		5		N/A	CCT Fine
4	6	4	6	4	6	4	N/A	Green-Magenta Point
	7		7		7		N/A	Green-Magenta Point Fine
5	8	5	8	5	8	5	N/A	Crossfade CCT to RGBW
	9		9		9		N/A	Crossfade CCT to RGBW Fine
6	10	6	10	6	10	6	N/A	Red
	11		11		11		N/A	Red Fine
7	12	7	12	7	12	7	N/A	Green
	13		13		13		N/A	Green Fine
8	14	8	14	8	14	8	N/A	Blue
	15		15		15		N/A	Blue Fine
9	16	9	16	9	16	9	N/A	White
	17		17		17		N/A	White Fine
Last Cell								
2PX M15	2PX M16	6PX M15	6PX M16	12PX M15	12PX M16	48PX M15	48PX M16	Function
10	18	46	86	100	188	424	N/A	Dimmer
	19		87		189		N/A	Dimmer Fine
11	20	47	88	101	190	425	N/A	Strobe
12	21	48	89	102	191	426	N/A	CCT
	22		90		192		N/A	CCT Fine
13	23	49	91	103	193	427	N/A	Green-Magenta Point
	24		92		194		N/A	Green-Magenta Point Fine
14	25	50	93	104	195	428	N/A	Crossfade CCT to RGBW
	26		94		196		N/A	Crossfade CCT to RGBW Fine
15	27	51	95	105	197	429	N/A	Red
	28		96		198		N/A	Red Fine
16	29	52	97	106	199	430	N/A	Green
	30		98		200		N/A	Green Fine
17	31	53	99	107	201	431	N/A	Blue
	32		100		202		N/A	Blue Fine
18	33	54	101	108	203	432	N/A	White
	34		102		204		N/A	White Fine
19	35	55	103	109	205	433	N/A	CCT Range selector
20	36	56	104	110	206	434	N/A	Preset
21	37	57	105	111	207	435	N/A	Fan Control
22	38	58	106	112	208	436	N/A	Control Channel
23	39	59	107	113	209	437	N/A	RESERVED

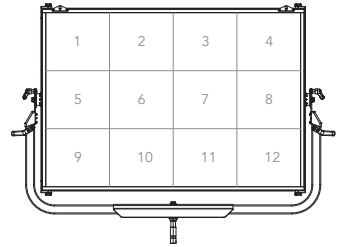
M21 - M22 CCT + HSI 8/16bit Multi cell modes

2PX M21	2PX M22	6PX M21	6PX M22	12PX M21	12PX M22	48PX M21	48PX M22	
First Cell								Function
1	1	1	1	1	1	1	N/A	Dimmer
	2		2		2		N/A	Dimmer Fine
2	3	2	3	2	3	2	N/A	Strobe
3	4	3	4	3	4	3	N/A	CCT
	5		5		5		N/A	CCT Fine
4	6	4	6	4	6	4	N/A	Green-Magenta Point
	7		7		7		N/A	Green-Magenta Point Fine
5	8	5	8	5	8	5	N/A	Crossfade CCT to HSI
	9		9		9		N/A	Crossfade CCT to HSI Fine
6	10	6	10	6	10	6	N/A	Hue
	11		11		11		N/A	Hue Fine
7	12	7	12	7	12	7	N/A	Saturation
	13		13		13		N/A	Saturation Fine
Last Cell								
2PX M21	2PX M22	6PX M21	6PX M22	12PX M21	12PX M22	48PX M21	48PX M22	Function
8	14	36	66	78	144	330	N/A	Dimmer
	15		67		145		N/A	Dimmer Fine
9	16	37	68	79	146	331	N/A	Strobe
10	17	38	69	80	147	332	N/A	CCT
	18		70		148		N/A	CCT Fine
11	19	39	71	81	149	333	N/A	Green-Magenta Point
	20		72		150		N/A	Green-Magenta Point Fine
12	21	40	73	82	151	334	N/A	Crossfade CCT to HSI
	22		74		152		N/A	Crossfade CCT to HSI Fine
13	23	41	75	83	153	335	N/A	Hue
	24		76		154		N/A	Hue Fine
14	25	42	77	84	155	336	N/A	Saturation
	26		78		156		N/A	Saturation Fine
15	27	43	79	85	157	337	N/A	CCT Range selector
16	28	44	80	86	158	338	N/A	Preset
17	29	45	81	87	159	339	N/A	Fan Control
18	30	46	82	88	160	340	N/A	Control Channel
19	31	47	83	89	161	341	N/A	RESERVED

M27 - M28 CCT + XY 8/16bit Multi cell modes

2PX M27	2PX M28	6PX M27	6PX M28	12PX M27	12PX M28	48PX M27	48PX M28	
First Cell								Function
1	1	1	1	1	1	1	N/A	Dimmer
	2		2		2		N/A	Dimmer Fine
2	3	2	3	2	3	2	N/A	Strobe
3	4	3	4	3	4	3	N/A	CCT
	5		5		5		N/A	CCT Fine
4	6	4	6	4	6	4	N/A	Green-Magenta Point
	7		7		7		N/A	Green-Magenta Point Fine
5	8	5	8	5	8	5	N/A	Crossfade CCT to XY
	9		9		9		N/A	Crossfade CCT to XY Fine
6	10	6	10	6	10	6	N/A	X
7	11	7	11	7	11	7	N/A	X Fine
8	12	8	12	8	12	8	N/A	Y
9	13	9	13	9	13	9	N/A	Y Fine
Last Cell								
2PX M27	2PX M28	6PX M27	6PX M28	12PX M27	12PX M28	48PX M27	48PX M28	Function
8	14	36	66	78	144	330	N/A	Dimmer
	15		67		145		N/A	Dimmer Fine
9	16	37	68	79	146	331	N/A	Strobe
12	17	48	69	102	147	426	N/A	CCT
	18		70		148		N/A	CCT Fine
13	19	49	71	103	149	427	N/A	Green-Magenta Point
	20		72		150		N/A	Green-Magenta Point Fine
14	21	50	73	104	151	428	N/A	Crossfade CCT to XY
	22		74		152		N/A	Crossfade CCT to XY Fine
15	23	51	75	105	153	429	N/A	X
16	24	52	76	106	154	430	N/A	X Fine
17	25	53	77	107	155	431	N/A	Y
18	26	54	78	108	156	432	N/A	Y Fine
19	27	55	79	109	157	433	N/A	CCT Range selector
20	28	56	80	110	158	434	N/A	Preset
21	29	57	81	111	159	435	N/A	Fan Control
22	30	58	82	112	160	436	N/A	Control Channel
23	31	59	83	113	161	437	N/A	RESERVED

SPECIAL XY 12 BIT



12 Pixel

SPECIAL XY 8 BIT	FUNCTION	DMX Value	Default
1	DIMMER PIXEL 1 0÷100%	000 ÷ 255	000
2	X PIXEL 1 0÷100%	000 ÷ 255	000
3	Y PIXEL 1 0÷100%	000 ÷ 255	000
...
34	DIMMER PIXEL 12 0÷100%	000 ÷ 255	000
35	X PIXEL 12 0÷100%	000 ÷ 255	000
36	Y PIXEL 12 0÷100%	000 ÷ 255	000
37	CONTROL CHANNEL No Function FAN MODE AUTO FAN MODE HIGH FAN MODE OFF CONST. OUT. FAN MODE QUIET 1 CONST. OUT. FAN MODE QUIET 2 CONST. OUT. LED FREQUENCY 600HZ LED FREQUENCY 1200HZ LED FREQUENCY 2000HZ LED FREQUENCY 4000HZ LED FREQUENCY 6000HZ LED FREQUENCY 25KHZ LED FREQUENCY 36KHZ FAN MODE AUTO FAN MODE HIGH FAN MODE OFF DYNAMIC OUT. FAN MODE QUIET 1 DYNAMIC OUT. FAN MODE QUIET 2 DYNAMIC OUT. DIMMER MODE Auto DIMMER MODE Fast DIMMER MODE Medium DIMMER MODE Slow DIMMER CURVE LINEAR DIMMER CURVE S-CURVE DIMMER CURVE SQUARE LAW DIMMER CURVE INV. SQUARE LAW DIMMER CURVE HIGH RES@LOW DIMMER END SNAP OFF @ END DIMMER END FADE OFF @ END LED FREQUENCY 10KHZ LED FREQUENCY 12KHZ LED FREQUENCY 15KHZ LED FREQUENCY 20KHZ RESERVED RESET ALL CHANNELS CONTROLLED	000 ÷ 001 002 ÷ 003 004 ÷ 005 006 ÷ 007 008 ÷ 009 010 ÷ 011 012 ÷ 013 014 ÷ 015 016 ÷ 017 018 ÷ 019 020 ÷ 021 022 ÷ 023 024 ÷ 025 026 ÷ 027 028 ÷ 029 030 ÷ 031 032 ÷ 033 034 ÷ 035 036 ÷ 037 038 ÷ 039 040 ÷ 041 042 ÷ 043 044 ÷ 045 046 ÷ 047 048 ÷ 049 050 ÷ 051 052 ÷ 053 054 ÷ 055 056 ÷ 057 058 ÷ 059 060 ÷ 061 062 ÷ 063 064 ÷ 065 066 ÷ 253 254 ÷ 255	000

Channel Definition

Dimmer

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

Strobe

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

CCT Range Selector

Function	8 bit value		16 bit value		Note
	From	To	From	To	
2800K - 10000K	0	9	-	-	Default @ 0
2200K - 15000K	10	19	-	-	
1850K - 20000K	20	29	-	-	
Reserved	30	255	-	-	

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

Function		8 bit value		16 bit value		Note
		From	To	From	To	
CCT(K) From	CCT (K) 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	

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	
4700	4800	67	71	17294	18204	Default @ 0
4800	4900	71	74	18204	19114	
4900	5000	74	78	19114	20025	
5000	5100	78	81	20025	20935	
5100	5200	81	85	20935	21845	
5200	5300	85	89	21845	22755	
5300	5400	89	92	22755	23665	
5400	5500	92	96	23665	24576	
5500	5600	96	99	24576	25486	
5600	5700	99	103	25486	26396	
5700	5800	103	106	26396	27306	
5800	5900	106	110	27306	28216	
5900	6000	110	113	28216	29127	
6000	6100	113	117	29127	30037	
6100	6200	117	120	30037	30947	
6200	6300	120	124	30947	31857	
6300	6400	124	128	31857	32768	
6400	6500	128	131	32768	33678	
6500	6600	131	135	33678	34588	
6600	6700	135	138	34588	35498	
6700	6800	138	142	35498	36408	
6800	6900	142	145	36408	37319	
6900	7000	145	149	37319	38229	
7000	7100	149	152	38229	39139	
7100	7200	152	156	39139	40049	
7200	7300	156	159	40049	40959	
7300	7400	159	163	40959	41870	
7400	7500	163	166	41870	42780	
7500	7600	166	170	42780	43690	
7600	7700	170	174	43690	44600	
7700	7800	174	177	44600	45510	
7800	7900	177	181	45510	46421	
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	

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	
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	

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	
7700	7800	110	112	28160	28672	Default @ 0
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	
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	

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	
13300	13400	221	223	56831	57343	Default @ 0
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 @ 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	
5000	5100	44	46	11374	11735	

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	
5100	5200	46	47	11735	12096	Default @ 0
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	
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	

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	
10600	10700	123	124	31594	31955	Default @ 0
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	
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	

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	
16100	16200	200	202	51453	51814	Default @ 0
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	

Green Magenta Point

Function		8 bit value		16 bit value		Note
		From	To	From	To	
Neutral / No Effect		0	1	0	511	Default @ 128
Full Minus Green		2	3	512	1023	
-99% to -1%		4	126	1024	32511	
Neutral / No Effect		127	128	32512	33023	
1% to 99%		129	251	33024	64511	
Full Plus Green		252	253	64512	65023	
Neutral / No Effect		254	255	65024	65535	

Red

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

Green

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

Blue

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

White

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

Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	0	65535	Default @ 255

Saturation

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

White Point

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 @ 76
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	
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	

White Point

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT (K) To	From	To	From	To	
7700	7800	110	112	28160	28672	Default @ 76
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	
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	

White Point

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT (K) To	From	To	From	To	
13300	13400	221	223	56831	57343	Default @ 76
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	

X 1 - X 2

Function		8 bit value		16 bit value		Note
		From	To	From	To	
0.0000 - 0.8500		0	255	0	65535	X1 used on Layer 1, X2 used on Layer 2

Y 1 - Y 2

Function		8 bit value		16 bit value		Note
		From	To	From	To	
0.0000 - 0.8500		0	255	0	65535	Y1 used on Layer 1, Y2 used on Layer 2

Transition Type Control

Function		8 bit value		16 bit value		Note
		From	To	From	To	
Direct		0	9			Default @ 0
Through Black		10	19			
Through White		20	29			
Over White Point		30	39			
Under White Point		40	49			
Reserved		50	255			

Crossfade Layer 1 to Layer 2

Function		8 bit value		16 bit value		Note
		From	To	From	To	
Linear, Layer 1 to Layer 2		0	255	0	65535	Default @ 0

Gel Section

Gel Source CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
3200K	0	9	-	-	Default @ 0
4000K	10	19	-	-	
5600K	20	29	-	-	
Reserved	30	255	-	-	

Gel Brand Selector

Function	8 bit value		16 bit value		Note
	From	To	From	To	
LEE	0	9	-	-	Default @ 0
Color	10	19	-	-	
Reserved	20	255	-	-	

Gel Category Selector (when Gel Brand @ LEE)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Color Correction	0	9	-	-	Default @ 0
Color Filters	10	19	-	-	
600 Series	20	29	-	-	
Cosmetic Filters	30	39	-	-	
700 Series	40	49	-	-	
Reserved	50	255	-	-	

Gel Category Selector (when Gel Brand @ Color)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Color Correction	0	9	-	-	Default @ 0
CColor	10	19	-	-	
SSelection	20	29	-	-	
Lux	30	39	-	-	
Reserved	40	255	-	-	

Gel (when Gel Category @ LEE: Color Correction)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
RESERVED	78	255	-	-	-

Gel (when Gel Category @ LEE: Color Filters)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
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

Gel (when Gel Category @ LEE: Color Filters)

Function	8 bit value		16 bit value		Gel Number
	From	To	From	To	
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
RESERVED	178	255	-	-	

Gel (LEE: Color Correction)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
RESERVED	18	255	-	-	-

Gel (when Gel Category @ LEE: Cosmetic Filters)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
Durham Frost	22	23	-	-	750
Soft Amber Key 1	24	25	-	-	774
Soft Amber Key 2	26	27	-	-	775
Moroccan Frost	28	29	-	-	791
Blue Diffusion	30	31	-	-	217
Blue Frost	32	33	-	-	221
Daylight Blue Frost	34	35	-	-	224
RESERVED	36	255	-	-	-

Gel (when Gel Category @ LEE: 700 Series)

Function	8 bit value		16 bit value		Gel Number
	From	To	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

Gel (when Gel Category @ LEE: 700 Series)

Function	8 bit value		16 bit value		Gel Number
	From	To	From	To	
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
RESERVED	82	255	-	-	-

Gel (when Gel Category @ Color: Correction)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
RESERVED	66	255	-	-	-

Gel (when Gel Category @ Color: CColor)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
RESERVED	66	255	-	-	-

Gel (when Gel Category @ Color: SSelection)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
RESERVED	20	255	-	-	-

Gel (when Gel Category @ Color: Lux)

Function	8 bit value		16 bit value		Gel Number
	From	To	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
RESERVED	92	255	-	-	-

FX Section

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	0	255	Default @ 0
Saturation 0 - 1	1	255	256	65535	

Party Effect - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Candle - P1: CCT Range

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 1400K - 1700K	0	84	0	21759	Default @ 0
CCT 1700K - 2000K	85	170	21760	43775	
CCT 2000K - 2300K	171	255	43776	65535	

Candle - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Clouds Passing - P1: Offset

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

Clouds Passing - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Clouds Passing - P3: Trigger

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Reserved	0	254	0	65279	Default @ 0
Reset Loop	255	255	65280	65535	

Club Lights - P1: Colors

Function	8 bit value		16 bit value		Note
	From	To	From	To	
3 Colors	0	31	0	8191	Default @ 0
6 Colors	32	63	8192	16383	
9 Colors	64	95	16384	24575	
12 Colors	96	127	24576	32767	
15 Colors	128	159	32768	40959	
18 Colors	160	191	40960	49151	
21 Colors	192	223	49152	57343	
24 Colors	224	255	57344	65535	

Club Lights - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Color Chase - P1: Offset

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 to 50	0	255	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	0	65535	Default @ 0

Color Chase - P3: Saturation

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	0	0	255	Default @ 0
Saturation 0 - 1	1	255	256	65535	

Color Chase - P4: Trigger

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Reserved	0	254	0	65279	Default @ 0
Reset Loop	255	255	65280	65535	

Cop Car - P1: Color Combinations

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Just Blue	0	27	0	7167	Default @ 0
Blue and Red	28	55	7168	14335	
Blue and White	56	83	14336	21503	
Blue, Red and White	84	111	21504	28671	
Blue and Amber	112	139	28672	35839	
Blue, Red and Amber	140	167	35840	43007	
Red and Amber	168	195	43008	50175	
Amber	196	223	50176	57343	
Red	224	255	57344	65535	

Cop Car - P2: Flash Pattern

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Single Flash	0	31	0	8191	Default @ 0
Double Flash	32	63	8192	16383	
Quint All Flash	64	95	16384	24575	
Quint Flash	96	127	24576	32767	
Quad Flash	128	159	32768	40959	
Cycle All	160	191	40960	49151	
Reserved	192	255	49152	65535	

Cop Car - P3: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Fire - P1: CCT Range

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 1800K - 2200K	0	84	0	21759	Default @ 0
CCT 2200K - 2600K	85	170	21760	43775	
CCT 2600K - 3000K	171	255	43776	65535	

Fire - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Fireworks - P1: Color Combinations

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Colors	0	63	0	16128	Default @ 0
White	64	127	16129	32767	
Colors and White	128	191	32768	48896	
Reserved	192	255	48897	65535	

Fireworks - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Strobe - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Strobe - P2: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	Default @ 0

Strobe - P3: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Strobe - P4: Crossfade from CCT to Color

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

Strobe - P5: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	0	65535	Default @ 0

Strobe - P6: Saturation

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

Lightning - P1: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
2 - 14 lightning strikes set	0	254	0	65279	Default @ 0
Random	255	255	65280	65535	

Lightning - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 10 flashes / second	0	254	0	65279	Default @ 0
Random	255	255	65280	65535	

Lightning - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	Default @ 0

Lightning - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Lightning - P5: Trigger

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Reserved	0	254	0	65279	Default @ 0
Reset Loop	255	255	65280	65535	

Paparazzi - P1: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
6 to 120 Flashes / min	0	255	0	65535	Default @ 0

Paparazzi - P2: Flash Type

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Flash Bulb	0	127	0	32767	Default @ 0
Modern Flash	128	255	32768	65535	

Paparazzi - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	Default @ 0

Paparazzi - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Pulsing - P1: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
5 to 90 Pulses/minute	0	255	0	65535	Default @ 0

Pulsing - P2: Pulse Duration

Function	8 bit value		16 bit value		Note
	From	To	From	To	
4s to 0.25s	0	255	0	65535	Default @ 0

Pulsing - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	Default @ 0

Pulsing - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Pulsing - P5: Crossfade from CCT to Color

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

Pulsing - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	0	65535	Default @ 0

Pulsing - P7: Saturation

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

Television - P1: CCT Range

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 4700K	0	84	0	21759	Default @ 0
CCT 4700K - 6500K	85	170	21760	43775	
CCT 6500K - 10000K	171	255	43776	65535	

Television - P2: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Explosion - P1: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
5 to 90 Pulses/minute	0	255	0	65535	Default @ 0

Explosion - P2: Trigger

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Auto	0	250	0	64255	Default @ 0
Manual Explosion	251	255	64256	65535	

Explosion - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	Default @ 0

Explosion - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Explosion - P5: Crossfade from CCT to Color

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

Explosion - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	0	65535	Default @ 0

Explosion - P7: Saturation

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

Fluorescent Flicker - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Fluorescent Flicker - P2: Frequency

Function	8 bit value		16 bit value		Note
	From	To	From	To	
3 to 10 flickers per second	0	255	0	65535	Default @ 0

Fluorescent Flicker - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	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	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Fluorescent Flicker - P5: Crossfade from CCT to Color

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

Fluorescent Flicker - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	0	65535	Default @ 0

Fluorescent Flicker - P7: Saturation

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

Process Effect - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	Default @ 0

Process Effect - P2: Direction

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Left to Right	0	127	0	32767	Default @ 0
Right to Left	128	255	32768	65535	

Process Effect - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	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	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Process Effect - P5: Crossfade from CCT to Color

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

Process Effect - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	0	65535	Default @ 0

Process Effect - P7: Saturation

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

Welding - P1: Speed

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Slow to fast	0	255	0	65535	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	0	65535	Default @ 0

Welding - P3: CCT

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT 2800K - 10000K	0	255	0	65535	Default @ 0

Welding - P4: Green Magenta Point

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Neutral / No Effect	0	1	0	511	Default @ 128
Full Minus Green	2	3	512	1023	
-99% to -1%	4	126	1024	32511	
Neutral / No Effect	127	128	32512	33023	
1% to 99%	129	251	33024	64511	
Full Plus Green	252	253	64512	65023	
Neutral / No Effect	254	255	65024	65535	

Welding - P5: Crossfade from CCT to Color

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

Welding - P6: Hue

Function	8 bit value		16 bit value		Note
	From	To	From	To	
0 - 360°	0	255	0	65535	Default @ 0

Welding - P7: Saturation

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

Source Emulation Section

Source Emulation Category

Function	8 bit value		16 bit value		Note
	From	To	From	To	
No Function	0	0	-	-	Default @ 0
Category 1 - Incandescent	1	50	-	-	
Category 2 - Fluorescent	51	100	-	-	
Category 3 - Discharge	101	150	-	-	
Category 4 - Other	151	200	-	-	
RESERVED	201	255	-	-	

Source Emulation Macro (when Source Emulation Category @ Category 1 - Incandescent)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Tungsten Bulb	0	1	-	-	Default @ 0
Incandescent	2	3	-	-	
Halogen	4	5	-	-	
Antique Bulb	6	7	-	-	
Warm Antique Bulb	8	9	-	-	
Christmas Light	10	11	-	-	
Night Light	12	13	-	-	
Infrared Heat Lamp	14	15	-	-	
Grow Light	16	17	-	-	
RESERVED	18	255	-	-	

Source Emulation Macro (when Source Emulation Category @ Category 2 - Fluorescent)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CFL Soft White	0	1	-	-	Default @ 0
CFL Bright White	2	3	-	-	
CFL Cool White	4	5	-	-	
CFL Daylight	6	7	-	-	
Cool White 1	8	9	-	-	
Cool White 2	10	11	-	-	
Cool White 3	12	13	-	-	
Warm White	14	15	-	-	
CFL Blacklight	16	17	-	-	
RESERVED	18	255	-	-	

Source Emulation Macro (when Source Emulation Category @ Category 3 - Discharge)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
HMI	0	1	-	-	Default @ 0
High Pressure Sodium	2	3	-	-	
Low Pressure Sodium	4	5	-	-	
Mercury Vapor	6	7	-	-	
Metal Halide	8	9	-	-	
Ceramic	10	11	-	-	
Carbon Arc	12	13	-	-	
Xenon	14	15	-	-	
RESERVED	18	255	-	-	

Source Emulation Macro (when Source Emulation Category @ Category 4 - Other)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Candle	0	1	-	-	Default @ 0
Gas Fire	2	3	-	-	
Sun Direct	4	5	-	-	
Sun Overcast	6	7	-	-	
Sun Blue Hour	8	9	-	-	
Mobile Phone	10	11	-	-	
Computer Monitor	12	13	-	-	
Electroluminescence	14	15	-	-	
Blow Torch	16	17	-	-	
Road Flare	18	19	-	-	
Amber Caution	20	21	-	-	
Green Traffic Light	22	23	-	-	
Yellow Traffic Light	24	25	-	-	
Red Traffic Light	26	27	-	-	
Blue Glow Stick	28	29	-	-	
Green Glow Stick	30	31	-	-	
Red Glow Stick	32	33	-	-	
Yellow Glow Stick	34	35	-	-	
Pink Glow Stick	36	37	-	-	
Violet Glow Stick	38	39	-	-	
RESERVED	40	255	-	-	

Extended Mode

Layer Mode Selector Channel

Function	8 bit value		16 bit value		Note
	From	To	From	To	
CCT	0	9	-	-	Default @ 0
RGBW	10	19	-	-	
HSI	20	29	-	-	
XY	30	39	-	-	
GEL	40	49	-	-	
FX	50	59	-	-	
Source Emulation	60	69	-	-	
Reserved	70	255	-	-	

Following table is defining usage of Parameter Channels.
When using M33 - EXTENDED Control 8 bit channels ending in "Fine" are not used.
Blank cells means that channel is Reserved / Not being used.

Layer Mode Selector	XY	GEL	FX	Source Emulation	CCT	RGBW	HSI
Parameter 1	X 1	GEL Source CCT	FX Selector	Source Category	CCT Range selector	Red	Hue
Parameter 1 Fine	X 1 Fine	GEL Source CCT Fine				Red Fine	Hue Fine
Parameter 2	Y 1	GEL Brand	FX Parameter 1	Source Selector	CCT	Green	Saturation
Parameter 2 Fine	Y 1 Fine		FX Parameter 1 Fine		CCT Fine	Green Fine	Saturation Fine
Parameter 3		GEL Category	FX Parameter 2		Green-Magenta Point	Blue	White Point
Parameter 3 Fine			FX Parameter 2 Fine		Green-Magenta Point Fine	Blue Fine	White Point Fine
Parameter 4		GEL Selector	FX Parameter 3			White	
Parameter 4 Fine			FX Parameter 3 Fine			White Fine	
Parameter 5			FX Parameter 4			White Point	
Parameter 5 Fine			FX Parameter 4 Fine			White Point Fine	
Parameter 6			FX Parameter 5				
Parameter 6 Fine			FX Parameter 5 Fine				
Parameter 7			FX Parameter 6				
Parameter 7 Fine			FX Parameter 6 Fine				
Parameter 8			FX Parameter 7				
Parameter 8 Fine			FX Parameter 7 Fine				

Control Section

Control Channel

Function	8 bit value		16 bit value		Note
	From	To	From	To	
No Function / Safe	0	1	-	-	Hold 3s to activate functions
Dimmer Speed Auto	2	3	-	-	
Dimmer Speed Fast	4	5	-	-	
Dimmer Speed Medium	6	7	-	-	
Dimmer Speed Slow	8	9	-	-	
Dimmer Speed Off	10	11	-	-	
Reserved for future use	12	13	-	-	
Dimmer Curve Linear	14	15	-	-	
Dimmer Curve S-Curve	16	17	-	-	
Dimmer Curve Square Law	18	19	-	-	
Dimmer Curve Inv. Square Law	20	21	-	-	
Dimmer Curve High Res @ Low	22	23	-	-	
Reserved for future use	24	25	-	-	
Reserved for future use	26	27	-	-	
Reserved for future use	28	29	-	-	
Reserved for future use	30	31	-	-	
Dimmer End Fade Off	32	33	-	-	
Dimmer End Snap Off	34	35	-	-	
Reserved for future use	36	37	-	-	
Reserved for future use	38	39	-	-	
Reserved for future use	40	41	-	-	
Reserved for future use	42	43	-	-	
Tungsten Emulation Auto	44	45	-	-	
Tungsten Emulation Fast	46	47	-	-	
Tungsten Emulation Medium	48	49	-	-	
Tungsten Emulation Slow	50	51	-	-	
Tungsten Emulation Off	52	53	-	-	
Reserved for future use	54	55	-	-	
Reserved for future use	56	57	-	-	
Reserved for future use	58	59	-	-	
Reserved for future use	60	61	-	-	
Reserved for future use	62	63	-	-	
Reserved for future use	64	65	-	-	
Reserved for future use	66	67	-	-	
Reserved for future use	68	69	-	-	
Reserved for future use	70	71	-	-	
Reserved for future use	72	73	-	-	
Reserved for future use	74	75	-	-	
Reserved for future use	76	77	-	-	
Reserved for future use	78	79	-	-	
Reserved for future use	80	81	-	-	
Fan Mode Auto	82	83	-	-	
Fan Mode Turbo	84	85	-	-	
Fan Mode Quiet 1 Const. Out.	86	87	-	-	
Fan Mode Quiet 2 Const. Out.	88	89	-	-	
Fan Mode Off Const. Out.	90	91	-	-	
Fan Mode Quiet 1 Dyn. Out	92	93	-	-	
Fan Mode Quiet 2 Dyn. Out	94	95	-	-	
Fan Mode Off Dyn. Out	96	97	-	-	
Reserved for future use	98	99	-	-	
Reserved for future use	100	101	-	-	
Reserved for future use	102	103	-	-	

Control Channel

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Reserved for future use	104	105	-	-	Hold 3s to activate functions
Signal Fault Keep Last Frame	106	107	-	-	
Signal Fault On Encoder Touch - CCT mode	108	109	-	-	
Signal Fault On Encoder Touch - RGBW mode	110	111	-	-	
Signal Fault On Encoder Touch - FX Mode	112	113	-	-	
Signal Fault StandAlone mode	114	115	-	-	
Signal Fault Blackout	116	117	-	-	
Signal Fault Emergency	118	119	-	-	
Startup Behaviour Wait for Signal	120	121	-	-	
Startup Behaviour On Encoder Touch - CCT mode	122	123	-	-	
Startup Behaviour On Encoder Touch - RGBW mode	124	125	-	-	
Startup Behaviour On Encoder Touch - FX Mode	126	127	-	-	
Startup Behaviour StandAlone mode	128	129	-	-	
Startup Behaviour Emergency	130	131	-	-	
Reserved for future use	132	133	-	-	
Led Freq. 600Hz	134	135	-	-	
Led Freq. 1200Hz	136	137	-	-	
Led Freq. 2kHz	138	139	-	-	
Led Freq. 4kHz	140	141	-	-	
Led Freq. 6kHz	142	143	-	-	
Led Freq. 10kHz	144	145	-	-	
Led Freq. 12kHz	146	147	-	-	
Led Freq. 15kHz	148	149	-	-	
Led Freq. 20kHz	150	151	-	-	
Led Freq. 25kHz	152	153	-	-	
Led Freq. 36kHz	154	155	-	-	
Led Freq. 40kHz	156	157	-	-	
Reserved for future use	158	159	-	-	
Reserved for future use	160	161	-	-	
Reserved for future use	162	163	-	-	
Reserved for future use	164	165	-	-	
Backlight Screen 10s	166	167	-	-	
Backlight Screen 30s	168	169	-	-	
Backlight Screen 60s	170	171	-	-	
Backlight Button Always On	172	173	-	-	
Backlight Button 10s	174	175	-	-	
Backlight Button 30s	176	177	-	-	
Backlight Button 60s	178	179	-	-	
Backlight Dimmer Off	180	181	-	-	
Backlight Dimmer 25%	182	183	-	-	
Backlight Dimmer 50%	184	185	-	-	
Backlight Dimmer 75%	186	187	-	-	
Backlight Dimmer 100%	188	189	-	-	
Flip Display Off	190	191	-	-	
Flip Display On	192	193	-	-	
Flip Display Auto	194	195	-	-	
Reserved for future use	196	253	-	-	
RESET ALL CHANNELS CONTROLLED	254	255	-	-	

Preset Channel

Function	8 bit value		16 bit value		Note
	From	To	From	To	
No Function / Safe	0	1	-	-	Hold 3s to activate functions
User Preset 01	2	3	-	-	Preset saved during usage of StandAlone mode
User Preset 02	4	5	-	-	Preset saved during usage of StandAlone mode
User Preset 03	6	7	-	-	Preset saved during usage of StandAlone mode
User Preset 04	8	9	-	-	Preset saved during usage of StandAlone mode
User Preset 05	10	11	-	-	Preset saved during usage of StandAlone mode
User Preset 06	12	13	-	-	Preset saved during usage of StandAlone mode
User Preset 07	14	15	-	-	Preset saved during usage of StandAlone mode
User Preset 08	16	17	-	-	Preset saved during usage of StandAlone mode
User Preset 09	18	19	-	-	Preset saved during usage of StandAlone mode
User Preset 10	20	21	-	-	Preset saved during usage of StandAlone mode
User Preset 11	22	23	-	-	Preset saved during usage of StandAlone mode
User Preset 12	24	25	-	-	Preset saved during usage of StandAlone mode
User Preset 13	26	27	-	-	Preset saved during usage of StandAlone mode
User Preset 14	28	29	-	-	Preset saved during usage of StandAlone mode
User Preset 15	30	31	-	-	Preset saved during usage of StandAlone mode
User Preset 16	32	33	-	-	Preset saved during usage of StandAlone mode
User Preset 17	34	35	-	-	Preset saved during usage of StandAlone mode
User Preset 18	36	37	-	-	Preset saved during usage of StandAlone mode
User Preset 19	38	39	-	-	Preset saved during usage of StandAlone mode
User Preset 20	40	41	-	-	Preset saved during usage of StandAlone mode
Reserved	42	166	-	-	
Preset 01	167	168	-	-	CCT - 2000K (+/- 0 GN)
Preset 02	169	170	-	-	CCT - 2500K (+/- 0 GN)
Preset 03	171	172	-	-	CCT - 2900K (+/- 0 GN)
Preset 04	173	174	-	-	CCT - 3200K (+/- 0 GN)
Preset 05	175	176	-	-	CCT - 4000K (+/- 0 GN)
Preset 06	177	178	-	-	CCT - 5000K (+/- 0 GN)
Preset 07	179	180	-	-	CCT - 5600K (+/- 0 GN)
Preset 08	181	182	-	-	CCT - 6500K (+/- 0 GN)
Preset 09	183	184	-	-	CCT - 8000K (+/- 0 GN)
Preset 10	185	186	-	-	CCT - 10000K (+/- 0 GN)
Preset 11	187	188	-	-	HSI - 120° Hue, 100% Saturation
Preset 12	189	190	-	-	HSI - 240° Hue, 100% Saturation
Preset 13	191	192	-	-	GEL - Rosco 3408, Base CCT 5600K
Preset 14	193	194	-	-	GEL - Lee 187, Base CCT 3200K
Preset 15	195	196	-	-	GEL - Rosco 3152, Base CCT 3200K
Preset 16	197	198	-	-	GEL - Lee 162, Base CCT 3200K
Reserved	199	255	-	-	---

Fan Control Channel

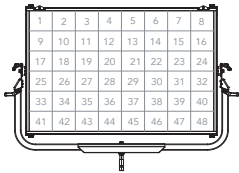
Function	8 bit value		16 bit value		Note
	From	To	From	To	
No Function	0	1	-	-	Use Fan Mode Setting of Fixture Menu
Auto	2	3	-	-	Automatically regulates fan speed - Drops light only if passing the thermal protection treshold.
Turbo	4	5	-	-	Fixed Fan Speed (100%) - Drops light output only when fixture gets near to the thermal protection treshold
Dynamic Light Output					
Quiet 1 DLO	6	7	-	-	Fixed Fan Speed (50%) - Drops light output only when fixture gets near to the thermal protection treshold
Quiet 2 DLO	8	9	-	-	Fixed Fan Speed (35%) - Drops light output only when fixture gets near to the thermal protection treshold
Off DLO	10	11	-	-	Fixed Fan Speed (0%) - Drops light output only when fixture gets near to the thermal protection treshold
Constant Light Output					
Quiet 1 CLO	12	13	-	-	Fixed Fan Speed (50%) - Maximum power available 80%
Quiet 2 CLO	14	15	-	-	Fixed Fan Speed (35%) - Maximum power available 65%
Off CLO	16	17	-	-	Fixed Fan Speed (0%) - Maximum power available 50%
Reserved	18	255	-	-	

S MODES LIST

N°	Name	Channels	RDM ID	Features
S1	48 PIX RGBW Direct	192	79	48 Pixel direct control for videomapping
S2	Film 1M12CH	12	80	CCT (2800 - 10000K), RGBW and Color Macros, 8bit, matching Film Mode 1M12CH of ECLPANELs
S3	Film 2M20CH	20	81	CCT (2800 - 10000K), RGBW and Color Macros, 16 bit, matching Film Mode 2M20CH of ECLPANELs
S4	CCT + RGBW 16Bit RDC	437		48Pixels Control as per 48PIX M16 CCT + RGBW 16Bit mode, strobe channels removed

S1 - 48 PIX RGBW Direct

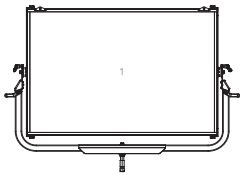
Ch	S1 - 48 PIX RGBW Direct
1	PIXEL 1 RED
2	PIXEL 1 GREEN
3	PIXEL 1 BLUE
4	PIXEL 1 WHITE
5	PIXEL 2 RED
6	PIXEL 2 GREEN
7	PIXEL 2 BLUE
8	PIXEL 2 WHITE
...	...
189	PIXEL 48 RED
190	PIXEL 48 GREEN
191	PIXEL 48 BLUE
192	PIXEL 48 WHITE



48 Pixel

S1	FUNCTION	DMX Value	Default
1	PIXEL 1 RED 0÷100%	000 ÷ 255	255
2	PIXEL 1 GREEN 0÷100%	000 ÷ 255	255
3	PIXEL 1 BLUE 0÷100%	000 ÷ 255	255
4	PIXEL 1 WHITE 0÷100%	000 ÷ 255	255
5	PIXEL 2 RED 0÷100%	000 ÷ 255	255
6	PIXEL 2 GREEN 0÷100%	000 ÷ 255	255
7	PIXEL 2 BLUE 0÷100%	000 ÷ 255	255
8	PIXEL 2 WHITE 0÷100%	000 ÷ 255	255
...
189	PIXEL 48 RED 0÷100%	000 ÷ 255	255
190	PIXEL 48 GREEN 0÷100%	000 ÷ 255	255
191	PIXEL 48 BLUE 0÷100%	000 ÷ 255	255
192	PIXEL 48 WHITE 0÷100%	000 ÷ 255	255

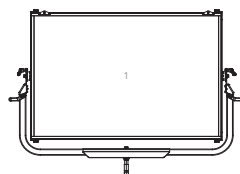
S2 - Film 1M12CH
S3 - Film 2M20CH



1 Pixel

Ch	S2 - Film 1M12CH	S3 - Film 2M20CH
1	DIMMER	DIMMER
2	CCT	DIMMER FINE
3	HUE	CCT
4	CROSSFADE FROM CCT TO COLOR	CCT FINE
5	RED	HUE
6	GREEN	HUE FINE
7	BLUE	CROSSFADE FROM CCT TO COLOR
8	WHITE	CROSSFADE FROM CCT TO COLOR FINE
9	FAN CONTROL	RED
10	COLOR MACRO	RED FINE
11	STROBE	GREEN
12	CONTROL	GREEN FINE
13		BLUE
14		BLUE FINE
15		WHITE
16		WHITE FINE
17		FAN CONTROL
18		COLOR MACRO
19		STROBE
20		CONTROL

S2 - Film 1M12CH
S3 - Film 2M20CH



1 Pixel

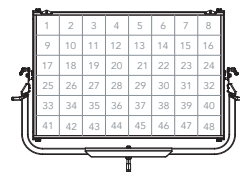
S2	S3	FUNCTION	DMX Value	Default
1	1	DIMMER 0÷100%	000 ÷ 255	000
	2	DIMMER FINE	000 ÷ 255	000
2	3	CCT 2800K - 3000K 3000K - 3200K 3200K - 3400K 3400K - 3600K 3600K - 3800K 3800K - 4000K 4000K - 4200K 4200K - 4400K 4400K - 4600K 4600K - 4800K 4800K - 5000K 5000K - 5200K 5200K - 5400K 5400K - 5600K 5600K - 5800K 5800K - 6000K 6000K - 6200K 6200K - 6400K 6400K - 6600K 6600K - 6800K 6800K - 7000K 7000K - 7200K 7200K - 7400K 7400K - 7600K 7600K - 7800K 7800K - 8000K 8000K - 8200K 8200K - 8400K 8400K - 8600K 8600K - 8800K 8800K - 9000K 9000K - 9200K 9200K - 9400K 9400K - 9600K 9600K - 9800K 9800K - 10000K	000 ÷ 007 007 ÷ 014 014 ÷ 021 021 ÷ 028 028 ÷ 035 035 ÷ 042 042 ÷ 049 049 ÷ 056 056 ÷ 063 063 ÷ 070 070 ÷ 077 077 ÷ 084 084 ÷ 091 091 ÷ 098 098 ÷ 105 105 ÷ 112 112 ÷ 119 119 ÷ 126 126 ÷ 133 133 ÷ 140 140 ÷ 147 147 ÷ 154 154 ÷ 161 161 ÷ 168 168 ÷ 175 175 ÷ 182 182 ÷ 189 189 ÷ 196 196 ÷ 203 203 ÷ 210 210 ÷ 217 217 ÷ 224 224 ÷ 231 231 ÷ 238 238 ÷ 245 245 ÷ 255	000
	4	CCT FINE	000 ÷ 255	000
3	5	HUE Neutral / no effect Full minus green -99% --> -1% Neutral / no effect 1% --> 99% Full plus green	000 ÷ 010 011 ÷ 020 021 ÷ 119 120 ÷ 145 146 ÷ 244 245 ÷ 255	000
	6	HUE FINE	000 ÷ 255	000
4	7	CROSSFADE FROM CCT TO COLOR 0÷100%	000 ÷ 255	000
	8	CROSSFADE FROM CCT TO COLOR FINE	000 ÷ 255	000
5	9	RED 0÷100%	000 ÷ 255	000
	10	RED FINE	000 ÷ 255	000

S2	S3	FUNCTION	DMX Value	Default
6	11	GREEN 0÷100%	000 ÷ 255	000
	12	GREEN FINE	000 ÷ 255	000
7	13	BLUE 0÷100%	000 ÷ 255	000
	14	BLUE FINE	000 ÷ 255	000
8	15	WHITE 0÷100%	000 ÷ 255	000
	16	WHITE FINE	000 ÷ 255	000
9	17	FAN CONTROL Use Fan Mode setting of fixture menu QUIET 1 Dyn. Out Mode AUTO Mode TURBO Mode Not Used QUIET 2 Dyn Out Mode Off Dyn Out Mode	000 ÷ 009 010 ÷ 057 058 ÷ 105 106 ÷ 153 154 ÷ 201 202 ÷ 249 250 ÷ 255	000
10	18	COLOR MACRO Open Red Green Blue Cyan Magenta Yellow Dirty White Alice Blue Congo Blue Dark Steel Blue Deep Lavender Lilac Ting Daylight Blue Flame Red Bastard Amber Deep Orange Pale Gold Apricot Bright Blue Primary Green Special Lavender Pale Lavender Deep Golden Amber Medium Blue Bright Pink Mauve Dark Green Lee Green Dark Blue Light Blue Steel Blue Medium Blue-Green Peacock Blue Magenta Dark Pink Middle Rose Light Salmon English Rose Light Rose Orange Deep Amber Straw Light Amber Spring Yellow Dark Yellow Green Just Blue Sky Blue Lavender Light Lavender Pink Carnation Medium Pink	000 ÷ 001 002 ÷ 003 004 ÷ 005 006 ÷ 007 008 ÷ 009 010 ÷ 011 012 ÷ 013 014 ÷ 015 016 ÷ 017 018 ÷ 019 020 ÷ 021 022 ÷ 023 024 ÷ 025 026 ÷ 027 028 ÷ 029 030 ÷ 031 032 ÷ 033 034 ÷ 035 036 ÷ 037 038 ÷ 039 040 ÷ 041 042 ÷ 043 044 ÷ 045 046 ÷ 047 048 ÷ 049 050 ÷ 051 052 ÷ 053 054 ÷ 055 056 ÷ 057 058 ÷ 059 060 ÷ 061 062 ÷ 063 064 ÷ 065 066 ÷ 067 068 ÷ 069 070 ÷ 071 072 ÷ 073 074 ÷ 075 076 ÷ 077 078 ÷ 079 080 ÷ 081 082 ÷ 083 084 ÷ 085 086 ÷ 087 088 ÷ 089 090 ÷ 091 092 ÷ 093 094 ÷ 095 096 ÷ 097 098 ÷ 099 100 ÷ 101 102 ÷ 103	000

S2	S3	FUNCTION	DMX Value	Default
10	18	Light Pink	104 ÷ 105	000
		Sunset Red	106 ÷ 107	
		Dark Amber	108 ÷ 109	
		Gold Amber	110 ÷ 111	
		Medium Amber	112 ÷ 113	
		Fire	114 ÷ 115	
		Surprise Peach	116 ÷ 117	
		Straw Tint	118 ÷ 119	
		Medium Yellow	120 ÷ 121	
		Lee Minus Green	122 ÷ 123	
		Pale Gold	124 ÷ 125	
		Orange	126 ÷ 127	
		Deep Straw	128 ÷ 129	
		Rose Purple	130 ÷ 131	
		Deep Purple	132 ÷ 133	
		Soft Green	134 ÷ 135	
		Reserved	136 ÷ 211	
		2800K	212 ÷ 213	
		3000K	214 ÷ 215	
		3200K	216 ÷ 217	
		3400K	218 ÷ 219	
		3600K	220 ÷ 221	
		3800K	222 ÷ 223	
		4000K	224 ÷ 225	
		4200K	226 ÷ 227	
		4400K	228 ÷ 229	
		4600K	230 ÷ 231	
		4800K	232 ÷ 233	
		5000K	234 ÷ 235	
		5200K	236 ÷ 237	
		5400K	238 ÷ 239	
		5600K	240 ÷ 241	
		6000K	242 ÷ 243	
		6500K	244 ÷ 245	
		7000K	246 ÷ 247	
		8000K	248 ÷ 249	
		9000K	250 ÷ 251	
		10000K	252 ÷ 253	
		Full On	254 ÷ 255	
11	19	STROBE		000
		Open 1 flash/s -> 25 flashes/s	000-019 020-255	
12	20	CONTROL CHANNEL		000
		No Function	000 ÷ 001	
		FAN MODE AUTO	002 ÷ 003	
		FAN MODE TURBO	004 ÷ 005	
		FAN MODE OFF CONST. OUT.	006 ÷ 007	
		FAN MODE QUIET 1 CONST. OUT.	008 ÷ 009	
		FAN MODE QUIET 2 CONST. OUT.	010 ÷ 011	
		LED FREQUENCY 600HZ	012 ÷ 013	
		LED FREQUENCY 1200HZ	014 ÷ 015	
		LED FREQUENCY 2000HZ	016 ÷ 017	
		LED FREQUENCY 4000HZ	018 ÷ 019	
		LED FREQUENCY 6000HZ	020 ÷ 021	
		LED FREQUENCY 25KHZ	022 ÷ 023	
		LED FREQUENCY 36KHZ	024 ÷ 025	
		FAN MODE AUTO	026 ÷ 027	
		FAN MODE TURBO	028 ÷ 029	
		FAN MODE OFF DYNAMIC OUT.	030 ÷ 031	
		FAN MODE QUIET 1 DYNAMIC OUT.	032 ÷ 033	
		FAN MODE QUIET 2 DYNAMIC OUT.	034 ÷ 035	
		DIMMER MODE AUTO	036 ÷ 037	
		DIMMER MODE FAST	038 ÷ 039	
		DIMMER MODE MEDIUM	040 ÷ 041	
		DIMMER MODE SLOW	042 ÷ 043	
		DIMMER CURVE LINEAR	044 ÷ 045	
		DIMMER CURVE S-CURVE	046 ÷ 047	
		DIMMER CURVE SQUARE LAW	048 ÷ 049	
		DIMMER CURVE INV. SQUARE LAW	050 ÷ 051	
		DIMMER CURVE HIGH RES@LOW	052 ÷ 053	
		DIMMER END SNAP OFF @ END	054 ÷ 055	
		DIMMER END FADE OFF @ END	056 ÷ 057	
		LED FREQUENCY 10KHZ	058 ÷ 059	
		LED FREQUENCY 12KHZ	060 ÷ 061	
		LED FREQUENCY 15KHZ	062 ÷ 063	
		LED FREQUENCY 20KHZ	064 ÷ 065	
		RESERVED	066 ÷ 253	
		RESET ALL CHANNELS CONTROLLED	254 ÷ 255	

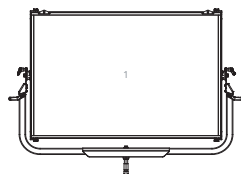
S4 - CCT + RGBW 16Bit RDC

Ch	S4 - CCT + RGBW 16Bit RDC
1st CELL	
1	Dimmer
2	Dimmer Fine
3	CCT
4	Green-Magenta Point
5	Crossfade CCT to RGBW
6	Red
7	Green
8	Blue
9	White
48th CELL	
424	Dimmer
425	Dimmer Fine
426	CCT
427	Green-Magenta Point
428	Crossfade CCT to RGBW
429	Red
430	Green
431	Blue
432	White
433	CCT Range selector
434	Preset
435	Fan Control
436	Control Channel
437	RESERVED



48 Pixel

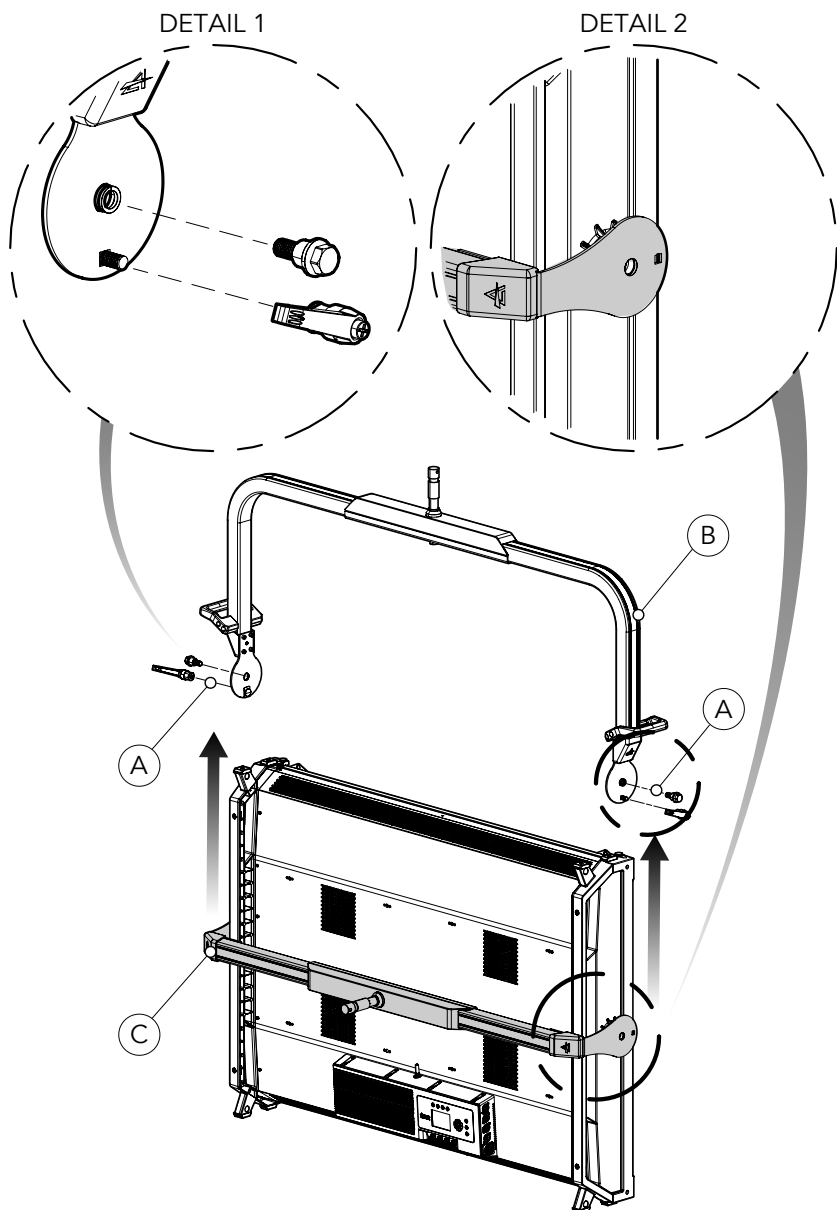
SPECIAL XY 8 BIT



SPECIAL XY 8 BIT		1 Pixel	
	FUNCTION	DMX Value	Default
1	DIMMER 0÷100%	000 ÷ 255	000
2	X 0÷100%	000 ÷ 255	000
3	Y 0÷100%	000 ÷ 255	000
3	HUE Neutral / no effect Full minus green -99% --> -1% Neutral / no effect 1% --> 99% Full plus green	000 ÷ 010 011 ÷ 020 021 ÷ 119 120 ÷ 145 146 ÷ 244 245 ÷ 255	000
4	CONTROL CHANNEL No Function FAN MODE AUTO FAN MODE HIGH FAN MODE OFF CONST. OUT. FAN MODE QUIET 1 CONST. OUT. FAN MODE QUIET 2 CONST. OUT. LED FREQUENCY 600HZ LED FREQUENCY 1200HZ LED FREQUENCY 2000HZ LED FREQUENCY 4000HZ LED FREQUENCY 6000HZ LED FREQUENCY 25KHZ LED FREQUENCY 36KHZ FAN MODE AUTO FAN MODE HIGH FAN MODE OFF DYNAMIC OUT. FAN MODE QUIET 1 DYNAMIC OUT. FAN MODE QUIET 2 DYNAMIC OUT. DIMMER MODE Auto DIMMER MODE Fast DIMMER MODE Medium DIMMER MODE Slow DIMMER CURVE LINEAR DIMMER CURVE S-CURVE DIMMER CURVE SQUARE LAW DIMMER CURVE INV. SQUARE LAW DIMMER CURVE HIGH RES@LOW DIMMER END SNAP OFF @ END DIMMER END FADE OFF @ END LED FREQUENCY 10KHZ LED FREQUENCY 12KHZ LED FREQUENCY 15KHZ LED FREQUENCY 20KHZ RESERVED RESET ALL CHANNELS CONTROLLED	000 ÷ 001 002 ÷ 003 004 ÷ 005 006 ÷ 007 008 ÷ 009 010 ÷ 011 012 ÷ 013 014 ÷ 015 016 ÷ 017 018 ÷ 019 020 ÷ 021 022 ÷ 023 024 ÷ 025 026 ÷ 027 028 ÷ 029 030 ÷ 031 032 ÷ 033 034 ÷ 035 036 ÷ 037 038 ÷ 039 040 ÷ 041 042 ÷ 043 044 ÷ 045 046 ÷ 047 048 ÷ 049 050 ÷ 051 052 ÷ 053 054 ÷ 055 056 ÷ 057 058 ÷ 059 060 ÷ 061 062 ÷ 063 064 ÷ 065 066 ÷ 253 254 ÷ 255	000

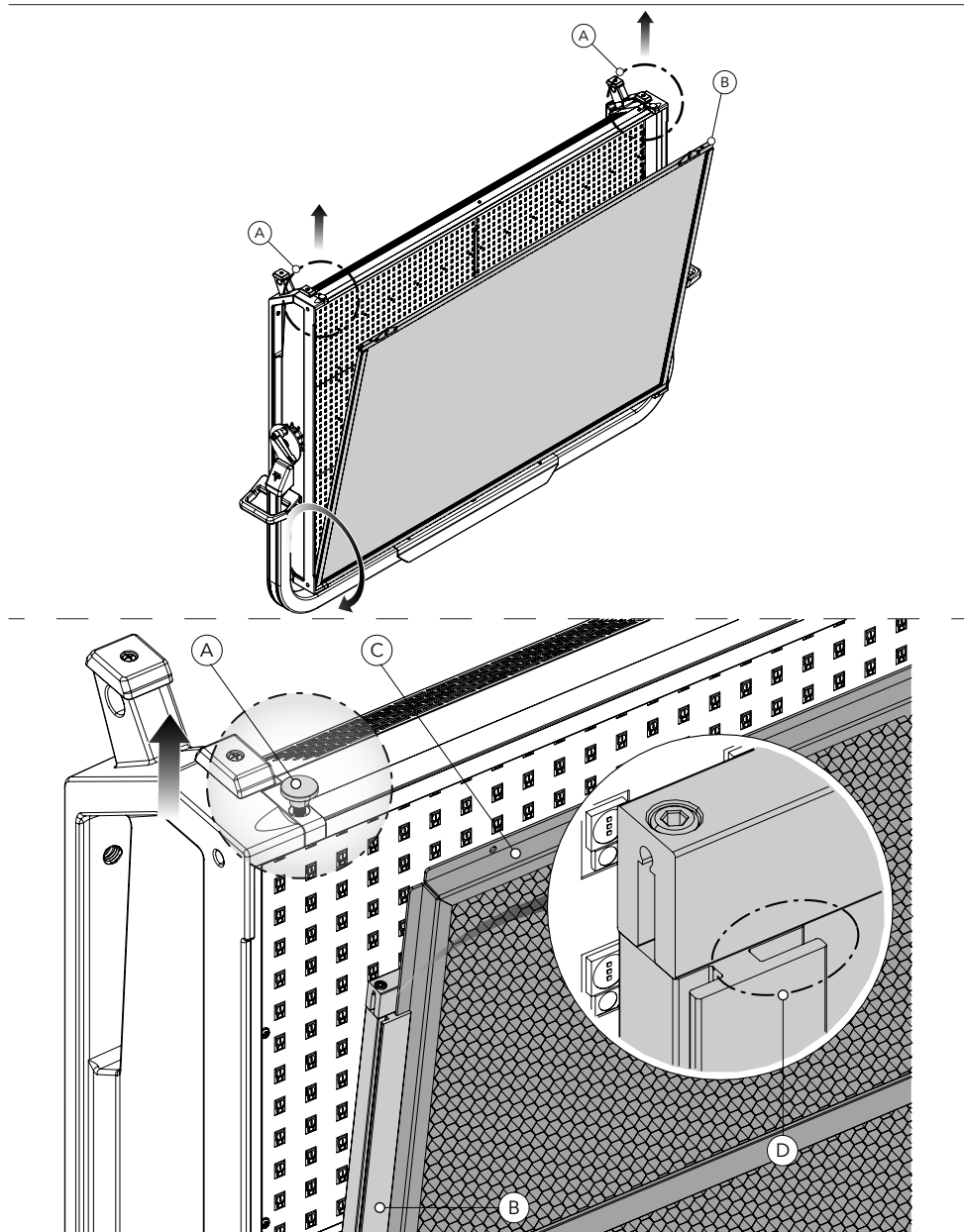
13 - ACCESSORIES INSTALLATION

SHORT BRACKET (CODE EPTWCXLSB - OPTIONAL)



Loosen and remove the screws and tilt knobs (A, DETAIL 1). Then remove the standard bracket (B). Mount the Short Bracket accessory (C) and mount the screws and tilt knobs removed (DETAIL 1).

Fig. 08

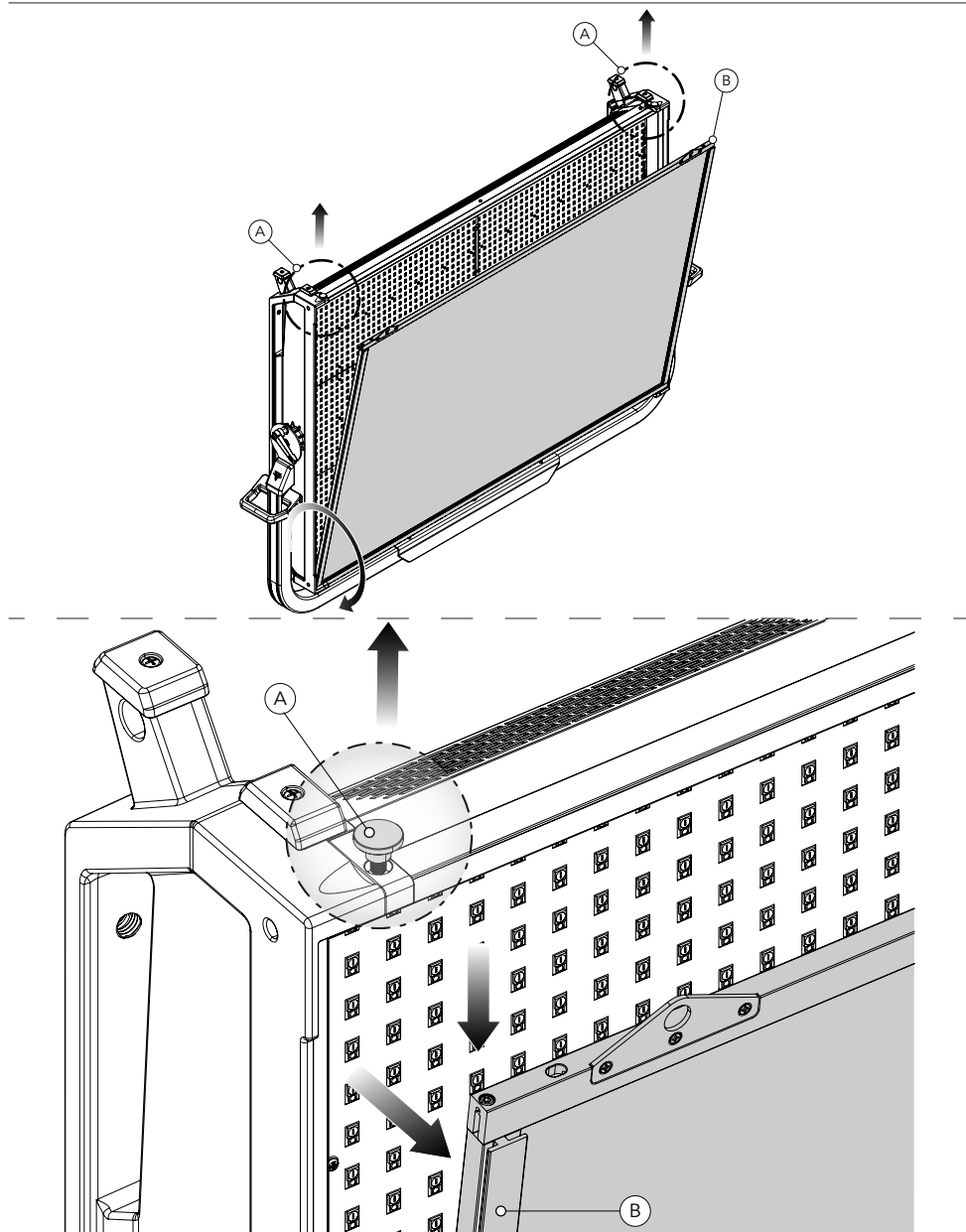


Pull the spring plunger (A) and tilt the diffusion filter holder (B). Then insert the egg crate accessory (C), inside the track guides of the side holder (D). Then diffusion filter holder (B) in its original position and release the spring plunger (A).

NOTE: this guide is valid for all egg-crates accessories.

Fig. 09

FRONT INTENSIFIED DIFFUSION FILTER (CODES EPTWCXLFILTERINT - OPTIONAL)
FRONT HIGH / MEDIUM / LOW DIFFUSION FILTER (CODES EPTWCXLFILTERHD / MD / LD -
OPTIONAL)



Pull the spring plunger (A) and remove the diffusion filter holder (B). Then replace it with another filter
Then release the spring plunger (A).

Fig. 10

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.
- Restoring lubrication of all parts subject to friction, using lubricants specifically supplied by PROLIGHTS.
- General visual check of the internal components, cabling, mechanical parts, etc.
- Electrical, photometric and functional checks; eventual repairs.
- Cleaning the lenses. Only use neutral soap and water to clean the lenses, then dry it carefully with a soft, non-abrasive cloth.

WARNING: the use of alcohol or any other detergent could damage the lenses.

- All other service operations on the product must be carried out by PROLIGHTS, its approved service agents or trained and qualified personnel.
- It is PROLIGHTS policy to apply the strictest possible calibration procedures and use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, optical components are subject to wear and tear over the life of the product, resulting in gradual changes in colours over many thousands of hours of use. The extent of wear and tear depends heavily on operating conditions and environment, so it is impossible to specify precisely whether and to what extent performance will be affected. However, you may eventually need to replace optical components if their characteristics are affected by wear and tear after an extended period of use and if you require fixtures to perform within very precise optical and colour parameters.
- Do not apply filters, lenses or other materials on lenses or other optical components. Use only accessories approved by PROLIGHTS.

REPLACING THE FUSE

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

- Remove the old fuse from the housing with a suitable screwdriver (anticlockwise) and replace it with one of the same type and of the same classification (250V,T3.15A, Ø5X20).

VISUAL CHECK OF PRODUCT HOUSING

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

TROUBLESHOOTING

Problems	Possible causes	Checks and remedies
Product doesn't power ON	<ul style="list-style-type: none"> No power to the product. 	<ul style="list-style-type: none"> Check that power is switched ON and cables are plugged in.
	<ul style="list-style-type: none"> Fuse blown or internal fault. 	<ul style="list-style-type: none"> Check if the Fuse is intact and eventually replace it if necessary. Contact the PROLIGHTS Service or authorized service partner. Do not remove parts and/or covers, or carry out any repairs or service that are not described in this Safety and User Manual unless you have both authorization from PROLIGHTS and the service documentation.
Product reset correctly but does not respond correctly to the controller.	<ul style="list-style-type: none"> Bad signal connection. 	<ul style="list-style-type: none"> Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables.
	<ul style="list-style-type: none"> Signal connection not terminated. 	<ul style="list-style-type: none"> Insert DMX termination plug in signal output socket of the last product on the signal line.
	<ul style="list-style-type: none"> Incorrect addressing of the product. 	<ul style="list-style-type: none"> Check the product address and control settings.
	<ul style="list-style-type: none"> One of the product is defective and is corrupting the signal transmission on the signal line. 	<ul style="list-style-type: none"> Unplug the XLR in and out connectors and connect them directly together to bypass one product at a time until normal operation is regained. Once found the error, have that fixture serviced by a qualified technician.
Timeout error after fixture reset.	<ul style="list-style-type: none"> One or more hardware components requires mechanical adjustments. 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Mechanical effect loses position	<ul style="list-style-type: none"> Mechanical hardware require cleaning, adjustment or lubrication. 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Light output turn OFF Intermittently	<ul style="list-style-type: none"> Fixture is too hot. 	<ul style="list-style-type: none"> Check product stored error messages. Allow product to cool. Clean the product and airflow filters. Reduce ambient temperature.
	<ul style="list-style-type: none"> Hardware failure (temperature sensor, fans, Light source...). 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
General low light intensity	<ul style="list-style-type: none"> Dirty lens assembly 	<ul style="list-style-type: none"> Clean the fixture regularly.
	<ul style="list-style-type: none"> Dirty or damaged filters 	<ul style="list-style-type: none"> Install lens assembly properly.

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

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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