NERO

MANUAL

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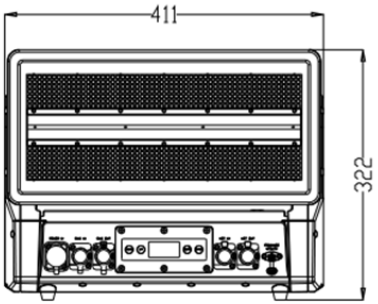
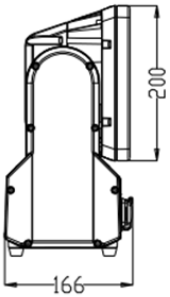
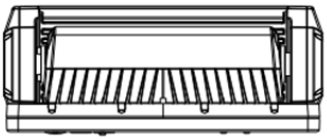
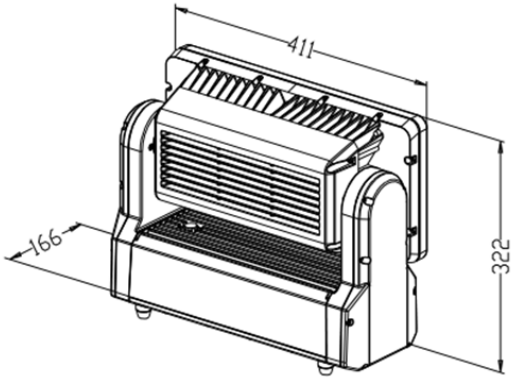
DIMENSIONS

ALL DIMENSIONS ARE IN MILLIMETERS









SAFETY INSTRUCTION

WARNING!
Read the safety precautions in this section before installing, powering, operating or servicing this product.

The following symbols are used to identify important safety information on the product and in this manual:


DANGER!
Safety hazard.
Risk of severe injury or death.


DANGER!
Hazardous voltage. Risk of lethal or severe electric shock.


WARNING!
Fire hazard.


WARNING!
LED light emission. Risk of eye injury.


WARNING!
Burn hazard. Hot surface. Do not touch.


WARNING!
Wear protective eyewear.


WARNING!
Refer to user manual.

Warning! Do not look into the beam at a distance of less than 2 meters from the front surface of the product. Do not view the light output with optical instruments or any device that may concentrate the beam.

This product is for professional use only. It is not for household use.

This product presents risks of severe injury or death due to fire and burn hazards, electric shock and falls.

Read this manual before installing, powering or servicing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture. If you have questions about how to operate the fixture safely, please contact your supplier.

PROTECTION FROM ELECTRIC SHOCK

- Disconnect the fixture from AC power before removing or installing any cover or part and when not in use.
- Always ground (earth) the fixture electrically.
- 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.
- Power input and throughput cables must be rated 20 A minimum, have three conductors 1.5 mm² (16 AWG) minimum conductor size and an outer cable diameter of 5 - 15 mm. Cables must be hard usage type (SJT or equivalent) and heat-resistant to 90° C minimum.
- Use only PowerCON TRUE 1 ® cable connectors to connect to power input sockets. Use only PowerCON TRUE 1 ® cable connectors to connect to power through put sockets.
- Isolate the fixture from power immediately if the power plug or any seal, cover, cable, or other component is damaged, defective, deformed, wet or showing signs of overheating. Do not reapply power until repairs have been completed.
- Refer any service operation not described in this manual to a qualified technician.
- Socket outlets used to supply fixture fixtures with power or external power switches must be located near the fixtures and easily accessible so that the fixtures can easily be disconnected from power.

PROTECTION FROM BURNS AND FIRE

- The exterior of the fixture becomes hot during use. Avoid contact by persons and materials. Allow the fixture to cool for at least 5 minutes before handling.
- Keep all combustible materials (e.g. fabric, wood, paper) at least 100 mm away from the fixture.
- Keep flammable materials well away from the fixture.
- Ensure that there is free and unobstructed airflow around the fixture.

- Do not illuminate surfaces within 200 mm of the fixture.
- Do not attempt to bypass thermostatic switches or fuses.
- If you relay power from one fixture to another using power throughput sockets, do not connect more than ten fixture fixtures in total to each other in an interconnected chain.
- Connect only other fixture fixtures to fixture power throughput sockets.
- Do not connect any other type of device to these sockets.
- Do not stick filters, masks or other materials onto any optical component.
- Do not modify the fixture in any way not described in this manual.

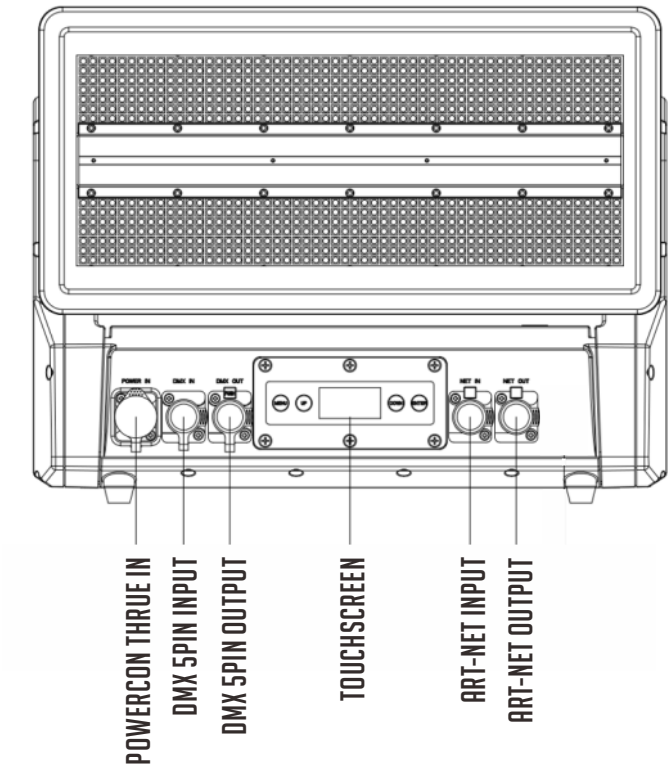
PROTECTION FROM INJURY

- Do not look continuously at LEDs from a distance of less than 3 meters from the front surface of the fixture without protective eyewear such as shade 4-5 welding goggles. At less than this distance, the LED emission can cause eye injury or irritation. At distances of 3 meters and above, light output is harmless to the naked eye provided that the eye's natural aversion response is not overcome.
- Do not look at LEDs with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light output.

- Ensure that persons are not looking at the LEDs from within 2 meters when the product lights up suddenly. This can happen when power is applied, when the product receives a DMX signal, or when SERVICE menu items are selected.
- Fasten the fixture securely to a fixed surface or structure when in use. The fixture is not portable when installed.
- Ensure that any supporting structure and/or hardware used can hold at least 10 times the weight of all the devices they support.

- Allow enough clearance around the head to ensure that it cannot collide with an object or another fixture when it moves.
- Check that all external covers and rigging hardware are securely fastened.
- Block access below the work area and work from a stable platform whenever installing, servicing or moving the fixture.
- Do not operate the fixture with missing or damaged covers, shields or any optical component.

FIXTURE OVERVIEW



INTRODUCTION

WATERPROOF TILT STROBE

- Versatile ultra bright tilt strobe
- Art-Net, DMX and manually controlled
- Water and dustproof design

USING FOR THE FIRST TIME

Warning! Read "Safety Information" before installing, powering, operating or servicing the fixture. Before applying power to the fixture:

Thank you for purchasing our product. Before carrying out any operations with the product, carefully read this instruction manual and keep it with cure for future reference. It contains important information about the installation, usage and maintenance of the unit. Please strictly follow it.

The product conforms to the international standard DMX512 agreement. The products can be controlled in signal use and also can be controlled in many units. Sleek and stylish, precise and accurate optical system design, bring and clear light effects. All above makes our products applicable to be used within the scope of film and television, theater, live events, trade show exhibits, educational facilities, retail environments, and corporate shows, etc.

* The product is compliance with the CE & ROHS Standard.
* The product belongs to our company. The intellectual property is exclusively reserved. We will file a lawsuit on condition that it is illegally copied and imitated.

AC POWER

Warning! Read "Safety Information" starting on before connecting the fixtures to AC mains power.

Warning! For protection from electric shock, the fixture must be grounded (earthed). The power distributioncircuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault) protection.

Warning! Socket outlets or external power switches used to supply the fixture with power must be located near the fixture and easily accessible so that the fixtures can easily be disconnected from power.

Important! Do not insert or remove live PowerCON TRUE 1 ® connectors to apply or cut power, as this may cause arcing at the terminals that will damage the connectors.

Important! Do not use an external dimming system to supply power to the fixture, as this may cause damage to the fixture that is not covered by the product warranty.

The fixture can be hard-wired to a electrical installation if you want to install it permanently, or a power plug that is suitable for the local power outlets can be installed on the power cable.

POWER VOLTAGE

Warning! Check that the voltage range specified on the fixtures serial number label matches the local AC mains power voltage before applying power to the fixture.

The fixtures accepts AC mains power at 100-240 V nominal, 50/60 Hz. Do not apply AC mains power to the fixture at any other voltage than specified.

POWER CABLES

Power input and throughput cables must be rated 16A minimum, have three conductors 1.5 mm² (16 AWG) minimum conductor size and an outer cable diameter of 5 - 15 mm. Cables must be hard usage type (SJT or equivalent) and heat- resistant to 90°C minimum. In the EU the cable must be HAR approved or equivalent.

If you install a power plug on the power cable, install a grounding-type (earthed) plug that is rated 16A minimum. Follow the plug manufacturer's instructions. Table 1 shows standard wire color-coding schemes and some possible pin identification schemes; if pins are not clearly identified.

Wire Color (EU models)	Wire Color (US models)	Conductor	Symbol
Brown	Black	Live	L
Blue	White	Neutral	N
Yellow/Green	Green	Ground (earth)	or

Table 1 : Wire color-coding and power connections

DATA LINK

A DMX 512 data link is required in order to control a fixture via DMX. The fixture has 5-pin XLR connectors for DMX data input and output. The pin-out on all connectors is pin 1 = shield, pin 2 = cold (-), and pin 3 = hot (+) Pins 4 and 5 in the 5-pin XLR connectors are not used.

TIPS FOR RELIABLE DATA TRANSMISSION

To connect the fixture to data:

1. Connect the DMX data output from the controller to the 5-pin XLR connector of the nearest fixture.

2. Connect the DMX output of the fixture closest to the controller to the DMX input of the next fixture and continue connecting fixtures output to input.

PHYSICAL INSTALLATION

Warning! The fixture must be either fastened to a flat surface such as a stage or wall, or clamped to a truss or similar structure in any orientation using a rigging clamp.

Warning! If the fixture can cause injury or damage if it falls, attach an approved safety cable to one of the safety cable attachment points on the base (see “Fixture overview”).

Check that all surfaces to be illuminated are minimum 200 mm. from the fixture, that combustible materials (wood, fabric, paper, etc.) are minimum 100 mm. from the fixture, that there is free airflow around the fixture and that there are no flammable materials nearby.

FASTENING THE FIXTURE TO A FLAT SURFACE

The fixture can be fastened to a fixed flat surface that is oriented at any angle. Check that the surface can support at least 10 times the weight of all fixtures and equipment to be installed on it.

Warning! The supporting surface must be hard and flat or cooling may be blocked, which will cause overheating. Fasten the fixture securely. Do not stand it on a surface or leave it where it can be moved or can fall over. Attach a securely anchored safety cable to the safety cable attachment point (see “Fixture overview”) if the fixture is to be installed in any location where it may fall and cause injury or damage if the primary attachment fails.

1. Block access under the work area. Working from a stable platform, hang the fixture on the truss with the arrow on the base towards the area to be illuminated. Tighten the rigging clamp.
2. Secure the fixture against clamp failure with a secondary attachment such as an approved safety cable that is rated for the weight of the fixture using one of the attachment points at the edges of the base (see “Fixture overview”). Do not use any other part of the fixture as a safety cable attachment point.

SETUP

Warning! Read “Safety Information” before installing, powering, operating the fixture.

CONTROL PANEL AND MENU NAVIGATION

The onboard control panel and backlit graphic display are used to set the fixture’s DMX address, configure individual fixture settings (personality), read out data and execute service utilities. See “Onboard control menus” for a complete list of menus and commands.

Using the control buttons

- To enter the menu select [MENU].
- Press [UP] and [DOWN] to scroll within a menu or adjust values.
- To enter a menu, select a function or apply a selection, press [ENTER].
- To escape a function or move back one level in the menu structure, press [MENU].

DMX ADDRESS SETTING

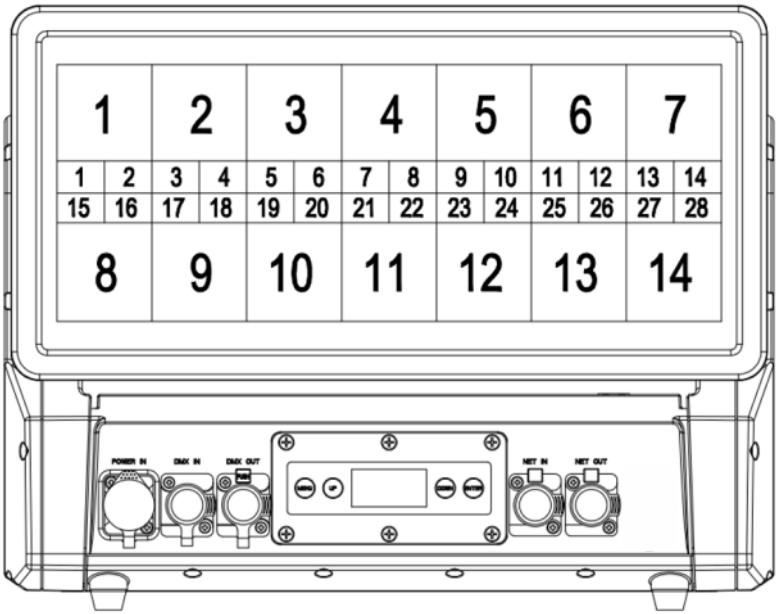
The DMX address, also known as the start channel, is the first channel used to receive instructions from the controller. For independent control, each fixture must be assigned its to a separate channel. The DMX address can be configured by using the DMX ADDRESS menu in the control panel. For setting the DMX address press [ENTER] before you can change the address.

- The main screen will show a ‘dot’ and the backlight will be switched off when a DMX signal is detected.
- The fixture is fully RDM ready. So when you are using a RDM ready console you can address the unit and read out its complete status. For RDM functions please refer to the ANSI/ESTA E1.20-2006 standard

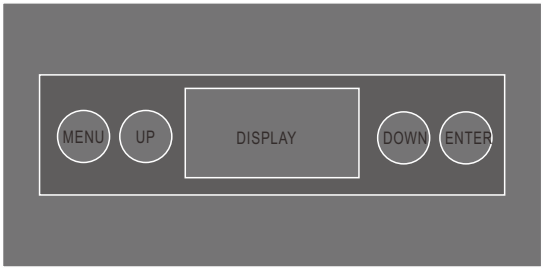
CONTROL MODE

DMX control mode is selected in the CONTROL MODE menu. The fixture can be controlled with 7 DMX control modes:

	8CH	11CH	13CH	24CH	30CH	74CH	97CH
TILT CONTROL	✓	✓	✓	✓	✓	✓	✓
LIMITED PIXEL CONTROL	✓				✓		
BUILD IN MACRO PIXEL			✓		✓		✓
FULL PIXEL CONTROL						✓	✓
FULL FIXTURE CONTROL							✓



CONTROL PANEL



ONBOARD CONTROL MENUS

1	DMX SIGNAL MODE		DMX 512		
			Art-Net		
			sACN		
2		DMX Address	1–512*		
3	CONTROL MODE		8CH		
			11CH		
			13CH		
			24CH		
			30CH		
			47CH		
			74CH		
			97CH		
4	STATIC COLOR		Fixed Color	R	
				G	
				B	
				GB	
				RB	
				RG	
				RGB	
			Manual Color	Plate red	0-255
				Plate gree	
				Plate blue	
				Beam intensity	
				Beam flash duration	
				Beam flash rate	
			Tilt	Tilt	0-255
5	AUTO COLOR		Plate FX 1	Speed	1-100
			Plate FX 2	Plate Intensity	000-255
			Plate FX 3	Background Color	R
			Plate FX 4		G
			Plate FX 5		B
			Plate FX 6		GB
			Plate FX 7		RB
			Plate FX 8		RG
			Plate FX 9		RGB
					Off
				Foreground Color	R
					G
					B
					GB
					RB
					RG
					RGB
					Off
6	PERSONALITY	Beam Intensity	000-255		
7		Beam Flash Duration	000-255		
8		Beam Flash Rate	000-255		
9		Tilt	000-255		
10		Tilt Offset	000-255		
11		Tilt Invert	No		
			Yes		
12		Pixel Invert	Plate1 Invert	No	
				Yes	
			Plate2 Invert	No	
				Yes	
			Tube1 Invert	No	
				Yes	
			Tube2 Invert	No	
				Yes	
13		LED Array Swap	Plate Swap	No	
				Yes	
			Beam Swap	No	
				Yes	
14		Master/Slave	Master		
			Slave		
15		Dimmer Speed	normal		
			Smooth 1/ Smooth 2/ Smooth 3		
16		White Balance	Off		
			Manual	Red Geen Blue	125-255
17		Refresh rate	600Hz		
			1200Hz		
			2000Hz		
			4000Hz		
			6000Hz		
			25000Hz		
18		Fans	Regulated		
			Full		
19		Display rotate	No		
			Yes		
20		Background light	10s		
			30s		
			2Min		
			Always On		
21		KEY-Lock	On (008 to unlock)		
			Off		

22	Ethernet Setting	Universe	0–255 (ArtNet)
			1–255 (sACN)
		IP Address	2.192.0.1
23	Information	Fixture Hours:	_ _ _Hours
		LED Hours:	_ _ _H
		Display board Ver:	V_._ _ _ _
		Driver board-Y Ver:	V_._
		LED board-A Ver:	V_._
		LED board-C Ver:	V_._
		Ethernet board Ver:	V_._
		RDM UID	_ _ _ _ _ _ _ _ _ _ _ _
24	Update firmware	Only this Unit	_ _ _ _ _ _.CHL
			…
		Multiple Units	_ _ _ _ _ _.CHL
			…
		Other Fixture Type	_ _ _ _ _ _.CHL
			…
25	Factory reset	No	
		Yes	

DMX PROTOCOL

8-11-13CH

8CH			
Channel	Function	Value	Percent/Setting
1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Dimmer	000-255	0-100%
4	Strobe	000-009	Open
		010-079	Strobe,slow to fast
		080-149	Pulse,slow to fast
		150-219	Random Strobe,slow to fast
		220-255	Open
5	Red	000-255	0-100%
6	Green	000-255	0-100%
7	Blue	000-255	0-100%
8	Beam	000-255	0-100%

11CH			
Channel	Function	Value	Percent/Setting
1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Dimmer	000-255	0-100%
4	Plate flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
5	Plate flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
6	Beam flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
7	Beam flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
8	Plates red	000-255	0-100%
9	Plates green	000-255	0-100%
10	Plates blue	000-255	0-100%
11	Beam	000-255	0-100%

13CH			
Channel	Function	Value	Percent/Setting
1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Plate dimmer	000-255	0-100%
4	Beam dimmer	000-255	0-100%
5	Plate flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
6	Plate flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
7	Beam flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
8	Beam flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
9	Plates red	000-255	0-100%
10	Plates green	000-255	0-100%
11	Plates blue	000-255	0-100%
12	Beam FX	000-005	No function
		006-042	Ramp up
		043-085	Ramp down
		086-128	Ramp up-down
		129-171	Random
		172-214	Lightning
		215-255	Spikes
13	Control*	000-005	No function
		006-010	Off (dimmer mode)
		011-015	Dimmer 1
		016-020	Dimmer 2
		021-025	Dimmer 3
		026-030	600 Hz
		031-035	1200 Hz
		036-040	2000 Hz
		041-045	4000 Hz
		046-050	6000 Hz
		051-055	25 KHz
		056-060	Fan mode auto
		060-065	Fan mode on
		066-070	Tilt reset
		071-075	Plate 1 invert off
		076-080	Plate 1 invert on
		081-085	Plate 2 invert off
		086-090	Plate 2 invert on
		091-095	Beam 1 invert off
		096-100	Beam 1 invert on
		101-105	Beam 2 invert off
		106-110	Beam 2 invert on
		111-115	Plate swap on
		116-120	Plate swap off
		121-125	Beam swap on
		126-130	Beam swap off
		131-255	No function

DMX PROTOCOL 24CH

Channel	Function	Value	Percent/Setting
1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Master dimmer	000-255	0-100%
4	Plate dimmer	000-255	0-100%
5	Beam dimmer	000-255	0-100%
6	Plate flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
7	Plate flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
8	Beam flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
9	Beam flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
10	Plates red	000-255	0-100%
11	Plates green	000-255	0-100%
12	Plates blue	000-255	0-100%
13	Beam FX	000-005	No function
		006-042	Ramp up
		043-085	Ramp down
		086-128	Ramp up-down
		129-171	Random
		172-214	Lightning
		215-255	Spikes
14	Plates foreground	000-000	No function
		001-002	White(2700K)
		003-004	White(3200K)
		005-006	White(4200K)
		007-008	White(5600K)
		009-010	White(8000K)
		011	Blue R:0 G:0 B:255 W:0
		012-048	Green+/Blue R:0 G:+ B:255 W:0
		049	Cyan R:0 G:255 B:255 W:0
		050-086	Green/Blue- R:0 G:255 B:- W:0
		087	Green R:0 G:255 B:0 W:0
		088-124	Red+/Green R:+ G:255 B:0 W:0
		125	Yellow R:255 G:255 B:0 W:0
		126-162	Red/Green- R:255 G:- B:0 W:0
		163	Red R:255 G:0 B:0 W:0
		164-200	Red/Blue+ R:255 G:0 B:+ W:0
		201	Magenta R:255 G:0 B:255 W:0
		202-238	Red-/Blue R:- G:0 B:255 W:0
		239	Blue R:0 G:0 B:255 W:0
		240-247	Color index,fast to slow
		248-255	Color snap,fast to slow
15	Plates foreground dimmer	000-255	0-100%
16	Plates background	000-000	No function
		001-002	White(2700K)
		003-004	White(3200K)
		005-006	White(4200K)
		007-008	White(5600K)
		009-010	White(8000K)
		011	Blue R:0 G:0 B:255 W:0
		012-048	Green+/Blue R:0 G:+ B:255 W:0
		049	Cyan R:0 G:255 B:255 W:0
		050-086	Green/Blue- R:0 G:255 B:- W:0
		087	Green R:0 G:255 B:0 W:0
		088-124	Red+/Green R:+ G:255 B:0 W:0
		125	Yellow R:255 G:255 B:0 W:0
		126-162	Red/Green- R:255 G:- B:0 W:0
		163	Red R:255 G:0 B:0 W:0
		164-200	Red/Blue+ R:255 G:0 B:+ W:0
		201	Magenta R:255 G:0 B:255 W:0
		202-238	Red-/Blue R:- G:0 B:255 W:0
		239	Blue R:0 G:0 B:255 W:0
		240-247	Color index,fast to slow
		248-255	Color snap,fast to slow
17	Plates background dimmer	000-255	0-100%
18	Plates 1&2 FX select (see Pixel Mapping)	000-002	Plate FX All select(all on) see Plate Patterns
		003-255	
19	Plates 1&2 FX movement speed & direction (see Pixel Mapping)	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
20	Plates 1&2 FX crossfade (see Pixel Mapping)	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
21	Beams 1&2 FX select (see Pixel Mapping)	000-002	Beam FX All select(all on) see Beam Patterns
		003-255	
22	Beams 1&2 FX movement speed & direction (see Pixel Mapping)	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
23	Beams 1&2 FX crossfade (see Pixel Mapping)	000-002	Snap from cell to cell
		003-255	Fade duration:short to long

DMX PROTOCOL 24CH

24	Control*	000-005	No function
		006-010	Off (dimmer mode)
		011-015	Dimmer 1
		016-020	Dimmer 2
		021-025	Dimmer 3
		026-030	600 Hz
		031-035	1200 Hz
		036-040	2000 Hz
		041-045	4000 Hz
		046-050	6000 Hz
		051-055	25 KHz
		056-060	Fan mode auto
		060-065	Fan mode on
		066-070	Tilt reset
		071-075	Plate 1 invert off
		076-080	Plate 1 invert on
		081-085	Plate 2 invert off
		086-090	Plate 2 invert on
		091-095	Beam 1 invert off
		096-100	Beam 1 invert on
		101-105	Beam 2 invert off
		106-110	Beam 2 invert on
		111-115	Plate swap on
		116-120	Plate swap off
		121-125	Beam swap on
		126-130	Beam swap off
		131-255	No function

DMX PROTOCOL 30CH

Channel	Function	Value	Percent/Setting
1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Master dimmer	000-255	0-100%
4	Plate dimmer	000-255	0-100%
5	Beam dimmer	000-255	0-100%
6	Plate flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
7	Plate flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
8	Beam flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
9	Beam flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
10	Plates red	000-255	0-100%
11	Plates green	000-255	0-100%
12	Plates blue	000-255	0-100%
13	Beam FX	000-005	No function
		006-042	Ramp up
		043-085	Ramp down
		086-128	Ramp up-down
		129-171	Random
		172-214	Lightning
		215-255	Spikes
14	Plates foreground	000-000	No function
		001-002	White(2700K)
		003-004	White(3200K)
		005-006	White(4200K)
		007-008	White(5600K)
		009-010	White(8000K)
		011	Blue R:0 G:0 B:255 W:0
		012-048	Green+/Blue R:0 G:+ B:255 W:0
		049	Cyan R:0 G:255 B:255 W:0
		050-086	Green/Blue- R:0 G:255 B:- W:0
		087	Green R:0 G:255 B:0 W:0
		088-124	Red+/Green R:+ G:255 B:0 W:0
		125	Yellow R:255 G:255 B:0 W:0
		126-162	Red/Green- R:255 G:- B:0 W:0
		163	Red R:255 G:0 B:0 W:0
		164-200	Red/Blue+ R:255 G:0 B:+ W:0
		201	Magenta R:255 G:0 B:255 W:0
		202-238	Red-/Blue R:- G:0 B:255 W:0
		239	Blue R:0 G:0 B:255 W:0
		240-247	Color index,fast to slow
		248-255	Color snap,fast to slow
15	Plates foreground dimmer	000-255	0-100%
16	Plates background	000-000	No function
		001-002	White(2700K)
		003-004	White(3200K)
		005-006	White(4200K)
		007-008	White(5600K)
		009-010	White(8000K)
		011	Blue R:0 G:0 B:255 W:0
		012-048	Green+/Blue R:0 G:+ B:255 W:0
		049	Cyan R:0 G:255 B:255 W:0
		050-086	Green/Blue- R:0 G:255 B:- W:0
		087	Green R:0 G:255 B:0 W:0
		088-124	Red+/Green R:+ G:255 B:0 W:0
		125	Yellow R:255 G:255 B:0 W:0
		126-162	Red/Green- R:255 G:- B:0 W:0
		163	Red R:255 G:0 B:0 W:0
		164-200	Red/Blue+ R:255 G:0 B:+ W:0
		201	Magenta R:255 G:0 B:255 W:0
		202-238	Red-/Blue R:- G:0 B:255 W:0
		239	Blue R:0 G:0 B:255 W:0
		240-247	Color index,fast to slow
		248-255	Color snap,fast to slow
17	Plates background dimmer	000-255	0-100%
18	Plate 1 (pixels 1-7) FX select (see Pixel Mapping)	000-002	Plate FX All select(all on) see Plate Patterns
		003-255	
19	Plate 1(pixels 1-7) FX movement speed & direction (see Pixel Mapping)	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
20	Plate 1(pixels 1-7) FX crossfade (see Pixel Mapping)	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
21	Plate 2(pixels 8-14) FX select (see Pixel Mapping)	000-002	Plate FX All select(all on) see Plate Patterns
		003-255	
22	Plate 2(pixels 8-14) FX movement speed & direction (see Pixel Mapping)	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
23	Plate 2(pixels 8-14) FX crossfade (see Pixel Mapping)	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
24	Beam 1(pixels 1-14) FX select (see Pixel Mapping)	000-002	Beam FX All select(all on) see Beam Patterns
		003-255	
25	Beam 1(pixels 1-14) FX movement speed & direction (see Pixel Mapping)	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function

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26	**Beam 1(pixels 1-14)**	000-002	Snap from cell to cell
	FX crossfade (see Pixel Mapping)	003-255	Fade duration:short to long
27	**Beam 2(pixels 15-28) FX select (see**	000-002	Beam FX All select(all on)
		003-255	see Beam Patterns
28	**Beam 2(pixels 15-28)FX movement speed & direction (see Pixel Mapping)**	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
29	**Beam 2(pixels 15-28) FX crossfade (see**	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
30	**Control***	000-005	No function
		006-010	Off (dimmer mode)
		011-015	Dimmer 1
		016-020	Dimmer 2
		021-025	Dimmer 3
		026-030	600 Hz
		031-035	1200 Hz
		036-040	2000 Hz
		041-045	4000 Hz
		046-050	6000 Hz
		051-055	25 KHz
		056-060	Fan mode auto
		060-065	Fan mode on
		066-070	Tilt reset
		071-075	Plate 1 invert off
		076-080	Plate 1 invert on
		081-085	Plate 2 invert off
		086-090	Plate 2 invert on
		091-095	Beam 1 invert off
		096-100	Beam 1 invert on
		101-105	Beam 2 invert off
		106-110	Beam 2 invert on
		111-115	Plate swap on
		116-120	Plate swap off
		121-125	Beam swap on
		126-130	Beam swap off
		131-255	No function

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1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Master dimmer	000-255	0-100%
4	Plate dimmer	000-255	0-100%
5	Beam dimmer	000-255	0-100%
6	Plate flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
7	Plate flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
8	Beam flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
9	Beam flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
10	Plate Invert	000-005	Normal alignment
		006-124	Invert Plate 1 and Plate 2
		125-130	Invert Plate 1,Plate 2
		131-249	Invert Plate 2,Plate 1
		250-255	No function
11	Beam Invert	000-005	Normal alignment
		006-124	Invert Beam 1 and Beam 2
		125-130	Invert Beam 1,Beam 2
		131-249	Invert Beam 2,Beam 1
		250-255	No function
12	Plate pixel 1+8 red	0-255	0-100%
13	Plate pixel 1+8 green	0-255	0-100%
14	Plate pixel 1+8 blue	0-255	0-100%
15	Plate pixel 2+9 red	0-255	0-100%
16	Plate pixel 2+9 green	0-255	0-100%
17	Plate pixel 2+9 blue	0-255	0-100%
18	Plate pixel 3+10 red	0-255	0-100%
19	Plate pixel 3+10 green	0-255	0-100%
20	Plate pixel 3+10 blue	0-255	0-100%
21	Plate pixel 4+11 red	0-255	0-100%
22	Plate pixel 4+11 green	0-255	0-100%
23	Plate pixel 4+11 blue	0-255	0-100%
24	Plate pixel 5+12 red	0-255	0-100%
25	Plate pixel 5+12 green	0-255	0-100%
26	Plate pixel 5+12 blue	0-255	0-100%
27	Plate pixel 6+13 red	0-255	0-100%
28	Plate pixel 6+13 green	0-255	0-100%
29	Plate pixel 6+13 blue	0-255	0-100%
30	Plate pixel 7+14 red	0-255	0-100%
31	Plate pixel 7+14 green	0-255	0-100%
32	Plate pixel 7+14 blue	0-255	0-100%
33	Beam pixel 1+15	0-255	0-100%
34	Beam pixel 2+16	0-255	0-100%
35	Beam pixel 3+17	0-255	0-100%
36	Beam pixel 4+18	0-255	0-100%
37	Beam pixel 5+19	0-255	0-100%
38	Beam pixel 6+20	0-255	0-100%
39	Beam pixel 7+21	0-255	0-100%
40	Beam pixel 8+22	0-255	0-100%
41	Beam pixel 9+23	0-255	0-100%
42	Beam pixel 10+24	0-255	0-100%
43	Beam pixel 11+25	0-255	0-100%
44	Beam pixel 12+26	0-255	0-100%
45	Beam pixel 13+27	0-255	0-100%
46	Beam pixel 14+28	0-255	0-100%

47	Control*	000-005	No function
		006-010	Off (dimmer mode)
		011-015	Dimmer 1
		016-020	Dimmer 2
		021-025	Dimmer 3
		026-030	600 Hz
		031-035	1200 Hz
		036-040	2000 Hz
		041-045	4000 Hz
		046-050	6000 Hz
		051-055	25 KHz
		056-060	Fan mode auto
		060-065	Fan mode on
		066-070	Tilt reset
		071-075	Plate 1 invert off
		076-080	Plate 1 invert on
		081-085	Plate 2 invert off
		086-090	Plate 2 invert on
		091-095	Beam 1 invert off
		096-100	Beam 1 invert on
		101-105	Beam 2 invert off
		106-110	Beam 2 invert on
		111-115	Plate swap on
		116-120	Plate swap off
		121-125	Beam swap on
		126-130	Beam swap off
		131-255	No function

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1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Dimmer	000-255	0-100%
4	Strobe	000-009	Open
		010-079	Strobe,slow to fast
		080-149	Pulse,slow to fast
		150-219	Random Strobe,slow to fast
		220-255	Open
5	Plate pixel 1 red	000-255	0-100%
6	Plate pixel 1 green	000-255	0-100%
7	Plate pixel 1 blue	000-255	0-100%
8	Plate pixel 2 red	000-255	0-100%
9	Plate pixel 2 green	000-255	0-100%
10	Plate pixel 2 blue	000-255	0-100%
11	Plate pixel 3 red	000-255	0-100%
12	Plate pixel 3 green	000-255	0-100%
13	Plate pixel 3 blue	000-255	0-100%
14	Plate pixel 4 red	000-255	0-100%
15	Plate pixel 4 green	000-255	0-100%
16	Plate pixel 4 blue	000-255	0-100%
17	Plate pixel 5 red	000-255	0-100%
18	Plate pixel 5 green	000-255	0-100%
19	Plate pixel 5 blue	000-255	0-100%
20	Plate pixel 6 red	000-255	0-100%
21	Plate pixel 6 green	000-255	0-100%
22	Plate pixel 6 blue	000-255	0-100%
23	Plate pixel 7 red	000-255	0-100%
24	Plate pixel 7 green	000-255	0-100%
25	Plate pixel 7 blue	000-255	0-100%
26	Plate pixel 8 red	000-255	0-100%
27	Plate pixel 8 green	000-255	0-100%
28	Plate pixel 8 blue	000-255	0-100%
29	Plate pixel 9 red	000-255	0-100%
30	Plate pixel 9 green	000-255	0-100%
31	Plate pixel 9 blue	000-255	0-100%
32	Plate pixel 10 red	000-255	0-100%
33	Plate pixel 10 green	000-255	0-100%
34	Plate pixel 10 blue	000-255	0-100%
35	Plate pixel 11 red	000-255	0-100%
36	Plate pixel 11 green	000-255	0-100%
37	Plate pixel 11 blue	000-255	0-100%
38	Plate pixel 12 red	000-255	0-100%
39	Plate pixel 12 green	000-255	0-100%
40	Plate pixel 12 blue	000-255	0-100%
41	Plate pixel 13red	000-255	0-100%
42	Plate pixel 13 green	000-255	0-100%
43	Plate pixel 13 blue	000-255	0-100%
44	Plate pixel 14 red	000-255	0-100%
45	Plate pixel 14 green	000-255	0-100%
46	Plate pixel 14 blue	000-255	0-100%
47	Beam pixel 1	000-255	0-100%
48	Beam pixel 2	000-255	0-100%
49	Beam pixel 3	000-255	0-100%
50	Beam pixel 4	000-255	0-100%
51	Beam pixel 5	000-255	0-100%
52	Beam pixel 6	000-255	0-100%
53	Beam pixel 7	000-255	0-100%
54	Beam pixel 8	000-255	0-100%
55	Beam pixel 9	000-255	0-100%
56	Beam pixel 10	000-255	0-100%
57	Beam pixel 11	000-255	0-100%
58	Beam pixel 12	000-255	0-100%
59	Beam pixel 13	000-255	0-100%
60	Beam pixel 14	000-255	0-100%
61	Beam pixel 15	000-255	0-100%
62	Beam pixel 16	000-255	0-100%
63	Beam pixel 17	000-255	0-100%
64	Beam pixel 18	000-255	0-100%
65	Beam pixel 19	000-255	0-100%
66	Beam pixel 20	000-255	0-100%
67	Beam pixel 21	000-255	0-100%
68	Beam pixel 22	000-255	0-100%
69	Beam pixel 23	000-255	0-100%
70	Beam pixel 24	000-255	0-100%
71	Beam pixel 25	000-255	0-100%
72	Beam pixel 26	000-255	0-100%
73	Beam pixel 27	000-255	0-100%
74	Beam pixel 28	000-255	0-100%

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1	Tilt	000-255	0-100%
2	Fine tilt	000-255	0-100%
3	Master dimmer	000-255	0-100%
4	Plate dimmer	000-255	0-100%
5	Beam dimmer	000-255	0-100%
6	Plate flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
7	Plate flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
8	Beam flash duration	000-009	Classic shutter mode:disables duration control
		010-250	Slow to fast
		251-255	100%On,no flash/strobe
9	Beam flash rate	000-009	100%
		010-250	Slow to fast
		251-255	100%
10	Plate pixel 1 red	000-255	0-100%
11	Plate pixel 1 green	000-255	0-100%
12	Plate pixel 1 blue	000-255	0-100%
13	Plate pixel 2 red	000-255	0-100%
14	Plate pixel 2 green	000-255	0-100%
15	Plate pixel 2 blue	000-255	0-100%
16	Plate pixel 3 red	000-255	0-100%
17	Plate pixel 3 green	000-255	0-100%
18	Plate pixel 3 blue	000-255	0-100%
19	Plate pixel 4 red	000-255	0-100%
20	Plate pixel 4 green	000-255	0-100%
21	Plate pixel 4 blue	000-255	0-100%
22	Plate pixel 5 red	000-255	0-100%
23	Plate pixel 5 green	000-255	0-100%
24	Plate pixel 5 blue	000-255	0-100%
25	Plate pixel 6 red	000-255	0-100%
26	Plate pixel 6 green	000-255	0-100%
27	Plate pixel 6 blue	000-255	0-100%
28	Plate pixel 7 red	000-255	0-100%
29	Plate pixel 7 green	000-255	0-100%
30	Plate pixel 7 blue	000-255	0-100%
31	Plate pixel 8 red	000-255	0-100%
32	Plate pixel 8 green	000-255	0-100%
33	Plate pixel 8 blue	000-255	0-100%
34	Plate pixel 9 red	000-255	0-100%
35	Plate pixel 9 green	000-255	0-100%
36	Plate pixel 9 blue	000-255	0-100%
37	Plate pixel 10 red	000-255	0-100%
38	Plate pixel 10 green	000-255	0-100%
39	Plate pixel 10 blue	000-255	0-100%
40	Plate pixel 11 red	000-255	0-100%
41	Plate pixel 11 green	000-255	0-100%
42	Plate pixel 11 blue	000-255	0-100%
43	Plate pixel 12 red	000-255	0-100%
44	Plate pixel 12 green	000-255	0-100%
45	Plate pixel 12 blue	000-255	0-100%
46	Plate pixel 13red	000-255	0-100%
47	Plate pixel 13 green	000-255	0-100%
48	Plate pixel 13 blue	000-255	0-100%
49	Plate pixel 14 red	000-255	0-100%
50	Plate pixel 14 green	000-255	0-100%
51	Plate pixel 14 blue	000-255	0-100%
52	Beam pixel 1	000-255	0-100%
53	Beam pixel 2	000-255	0-100%
54	Beam pixel 3	000-255	0-100%
55	Beam pixel 4	000-255	0-100%
56	Beam pixel 5	000-255	0-100%
57	Beam pixel 6	000-255	0-100%
58	Beam pixel 7	000-255	0-100%
59	Beam pixel 8	000-255	0-100%
60	Beam pixel 9	000-255	0-100%
61	Beam pixel 10	000-255	0-100%
62	Beam pixel 11	000-255	0-100%
63	Beam pixel 12	000-255	0-100%
64	Beam pixel 13	000-255	0-100%
65	Beam pixel 14	000-255	0-100%
66	Beam pixel 15	000-255	0-100%
67	Beam pixel 16	000-255	0-100%
68	Beam pixel 17	000-255	0-100%
69	Beam pixel 18	000-255	0-100%
70	Beam pixel 19	000-255	0-100%
71	Beam pixel 20	000-255	0-100%
72	Beam pixel 21	000-255	0-100%
73	Beam pixel 22	000-255	0-100%
74	Beam pixel 23	000-255	0-100%
75	Beam pixel 24	000-255	0-100%
76	Beam pixel 25	000-255	0-100%
77	Beam pixel 26	000-255	0-100%
78	Beam pixel 27	000-255	0-100%
79	Beam pixel 28	000-255	0-100%
80	Beam FX	000-005	No function
		006-042	Ramp up
		043-085	Ramp down
		086-128	Ramp up-down
		129-171	Random
		172-214	Lightning
		215-255	Spikes
81	Plates foreground	000-000	No function
		001-002	White(2700K)
		003-004	White(3200K)
		005-006	White(4200K)
		007-008	White(5600K)
		009-010	White(8000K)
		011	Blue R:0 G:0 B:255 W:0
		012-048	Green+/Blue R:0 G:+ B:255 W:0
		049	Cyan R:0 G:255 B:255 W:0
		050-086	Green/Blue- R:0 G:255 B:- W:0
		087	Green R:0 G:255 B:0 W:0
		088-124	Red+/Green R:+ G:255 B:0 W:0
		125	Yellow R:255 G:255 B:0 W:0
		126-162	Red/Green- R:255 G:- B:0 W:0
		163	Red R:255 G:0 B:0 W:0
		164-200	Red/Blue+ R:255 G:0 B:+ W:0
		201	Magenta R:255 G:0 B:255 W:0
		202-238	Red-/Blue R:- G:0 B:255 W:0
		239	Blue R:0 G:0 B:255 W:0
		240-247	Color index,fast to slow
		248-255	Color snap,fast to slow

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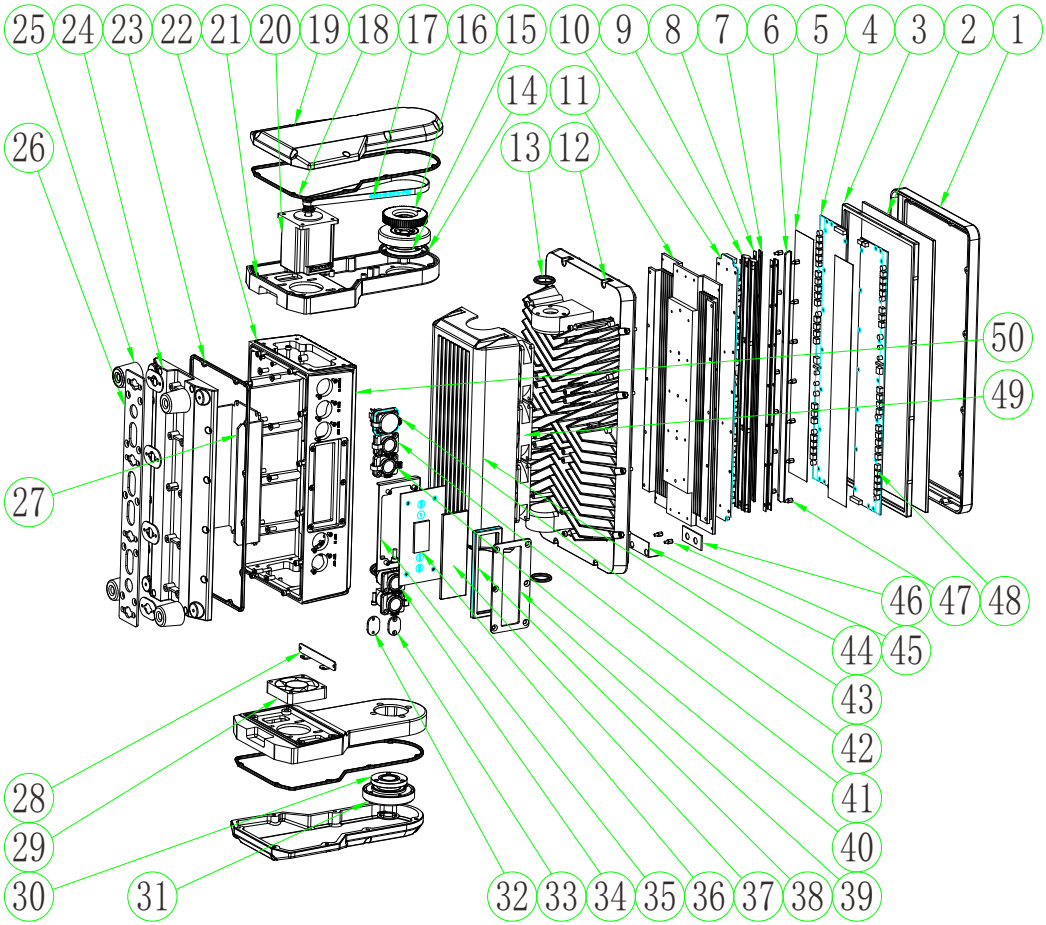
82	**Plate foreground dimmer**	000-255	0-100%
83	**Plate background**	000-000	No function
		001-002	White(2700K)
		003-004	White(3200K)
		005-006	White(4200K)
		007-008	White(5600K)
		009-010	White(8000K)
		011	Blue R:0 G:0 B:255 W:0
		012-048	Green+/Blue R:0 G:+ B:255 W:0
		049	Cyan R:0 G:255 B:255 W:0
		050-086	Green/Blue- R:0 G:255 B:- W:0
		087	Green R:0 G:255 B:0 W:0
		088-124	Red+/Green R:+ G:255 B:0 W:0
		125	Yellow R:255 G:255 B:0 W:0
		126-162	Red/Green- R:255 G:- B:0 W:0
		163	Red R:255 G:0 B:0 W:0
		164-200	Red/Blue+ R:255 G:0 B:+ W:0
		201	Magenta R:255 G:0 B:255 W:0
		202-238	Red-/Blue R:- G:0 B:255 W:0
		239	Blue R:0 G:0 B:255 W:0
		240-247	Color index,fast to slow
		248-255	Color snap,fast to slow
84	**Plate background dimmer**	000-255	0-100%
85	**Plate 1(pixels 1-7) FX select (see Pixel Mapping)**	000-002	Plate FX All select(all on) see Plate Patterns
		003-255	
86	**Plate 1(pixels 1-7) FX movement speed & direction (see Pixel Mapping)**	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
87	**Plate 1(pixels 1-7) FX crossfade (see Pixel Mapping)**	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
88	**Plate 2(pixels 8-14) FX select (see Pixel Mapping)**	000-002	Plate FX All select(all on) see Plate Patterns
		003-255	
89	**Plate 2(pixels 8-14) FX movement speed & direction (see Pixel Mapping)**	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
90	**Plate 2(pixels 8-14) FX crossfade (see Pixel Mapping)**	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
91	**Beam 1(pixels 1-14) FX select (see Pixel Mapping)**	000-002	Beam FX All select(all on) see Beam Patterns
		003-255	
92	**Beam 1(pixels 1-14) FX movement speed & direction (see Pixel Mapping)**	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
93	**Beam 1(pixels 1-14) FX crossfade (see Pixel Mapping)**	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
94	**Beam 2(pixels 15-28) FX select (see**	000-002	Beam FX All select(all on)
		003-255	see Beam Patterns
95	**Beam 2(pixels 15-28)FX movement speed & direction (see Pixel Mapping)**	000-005	No function
		006-124	Left to right,fast to slow
		125-130	No function
		131-249	Right to left,slow to fast
		250-255	No function
96	**Beam 2(pixels 15-28) FX crossfade (see**	000-002	Snap from cell to cell
		003-255	Fade duration:short to long
97	**Control***	000-005	No function
		006-010	Off (dimmer mode)
		011-015	Dimmer 1
		016-020	Dimmer 2
		021-025	Dimmer 3
		026-030	600 Hz
		031-035	1200 Hz
		036-040	2000 Hz
		041-045	4000 Hz
		046-050	6000 Hz
		051-055	25 KHz
		056-060	Fan mode auto
		060-065	Fan mode on
		066-070	Tilt reset
		071-075	Plate 1 invert off
		076-080	Plate 1 invert on
		081-085	Plate 2 invert off
		086-090	Plate 2 invert on
		091-095	Beam 1 invert off
		096-100	Beam 1 invert on
		101-105	Beam 2 invert off
		106-110	Beam 2 invert on
		111-115	Plate swap on
		116-120	Plate swap off
		121-125	Beam swap on
		126-130	Beam swap off
		131-255	No function

SPECIFICATIONS

Physical;	
Sizes;	411 x 322 x 166 mm
Weight:	13,68 kg
AC power:	
Input voltage:	100 – 240 VAC 50/60Hz
Total power:	1400W
Power In/out:	Powercon true 1 (yellow)
LED:	
LED:	392 pcs white beam Strobe LED & 784 pcs RGB ambient led
Color temperature:	6000K with CRI off ≥90
RGB LED photometric:	Red: 623NM Green: 525NM Blue: 455NM
Beam angle:	117°
Display:	
Display:	O-LED display for easy reading in sunny situations with touchscreen.
DMX:	
Control mode:	DMX 512, RDM, Art-Net/sACN
Channels:	8,11,13,24,30,74,97 channels (16 bit control)
Dynamic Effects:	
Electronic dimming:	0-100% linear
Tilt:	180°
Pixelmapping:	28 segment zone for strobe and 14 segment RGB ambient zone
Output:	≥9000Lm
Connections:	
Power:	REAN (by Neutrik) Powercon true 1 (yellow)
DMX:	REAN (by Neutrik) 5 Pin XLR
Network:	REAN (by Neutrik) RJ45 in/output with special line termination relays
Rating:	
IP rating:	IP65 (when rubber covers are used properly)
Working range:	-20°C to 40°C

EXPLODED VIEW



EXPLODED VIEW

No	Model Number	Quantity
1	CLF-31-008	1
2	CLF-31-029	1
3	CLF-31-018	1
4	CLF-31-044 (A)	1
5	CLF-31-035	2
6	CLF-31-017	1
7	CLF-31-016	2
8	CLF-31-038	2
9	CLF-31-014	2
10	CLF-31-043	1
11	CLF-31-015	1
12	CLF-31-007	1
13	CLF-31-023	2
14	CLF-31-022	2
15	CLF-31-026	1
16	CLF-31-028	1
17	CLF-31-048	1
18	CLF-31-020	2
19	CLF-31-011	2
20	CLF-31-037	1
21	CLF-31-010	2
22	CLF-31-021	2
23	CLF-31-019	1
24	CLF-31-013	1
25	CLF-31-049	4
26	CLF-31-031	1
27	CLF-31-042	1
28	CLF-31-034	1
29	CLF-31-039	1
30	CLF-31-027	1
31	CLF-31-025	2
32	CLF-31-051	1
33	CLF-31-052	1
34	CLF-31-006	2
35	CLF-31-032	1
36	CLF-31-045	1
37	CLF-31-030	1
38	CLF-31-024	1
39	CLF-31-033	1
40	CLF-31-005	1
41	CLF-31-004	1
42	CLF-31-001	1
43	CLF-31-003	1
44	CLF-31-036	4
45	Screw 1 Nero	8
46	Screw support	4
47	Screw 2 Nero	4
48	CLF-31-045 (B)	1
49	CLF-31-040	3
50	CLF-31-006	1
	ArtNet board:	
	CLF-31-049	


NERO