



 **Strand**

AURORA LED STRIP

12 CELL

USER MANUAL

1 DESCRIPTION

FEATURES

- **High output LED Strip with 4- and 12-cell versions** - modern theatrical strip with quality you can trust.
- **High CRI RGBALC Color System with SmartColor Control** - wide range of vivid color options that can be programmed using CYM
- **Independent color mixing and temperature controls** - match color pallet to color temperature without manual adjustment for simpler programming
- **Pixel control of each cell** - easily create split colors or gradients
- **Fanless design** - perfect for use in quiet environments
- **Adjustable frequency to exceed camera frame rates** - camera friendly fixtures for IMAG, event recordings, or TV and film applications
- **Adjustable beam angle** - optional lens accessory kit offers wider and shaped beams

Download the product datasheet from the Strand website at www.strandlighting.com for the full technical specifications.

COMPONENTS

The document provides installation and operation instructions for the following products:

- Strand Aurora LED Strip 12 Cell

Read all instructions before installing or using this product. Retain this manual for future reference. Additional product information and descriptions may be found on the product specification sheet.

INCLUDED ITEMS

Each Strand Aurora LED Strip luminaire includes the following items:

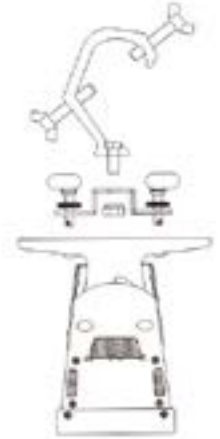
- Strand Aurora LED Strip 12 Cell
- Quick Start Guide

2 INSTALLATION

MOUNTING

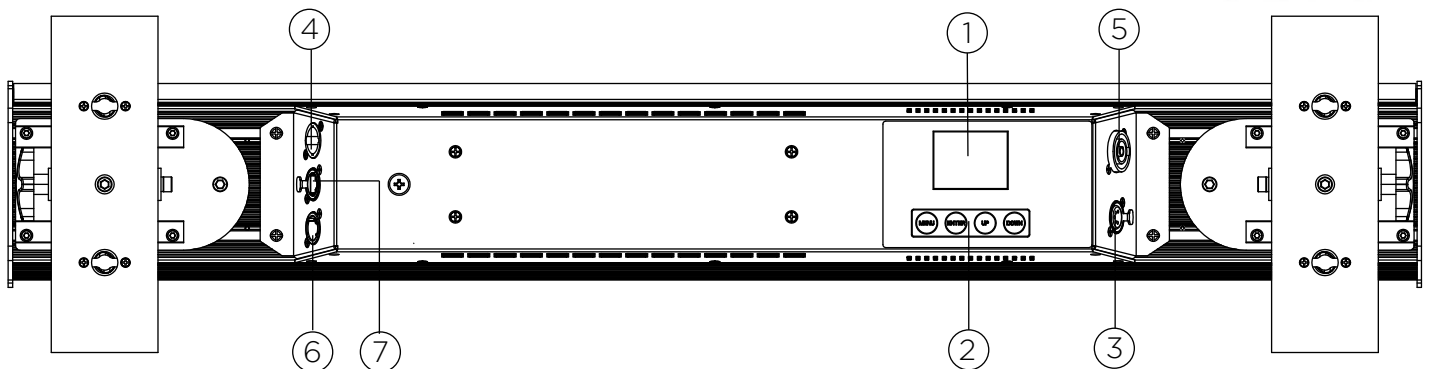
The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. When installing the fixture, always use a safety cable that is certified to hold up to 12 times the fixture's own weight.

The luminaire must be installed by qualified professionals.



SET UP

CONTROL PANEL



- | | |
|---|--|
| <p>① LCD DISPLAY. Shows the menu and selected function buttons.</p> <p>② BUTTONS.
 Menu. To select programming functions.
 Down. To go backward in the selected functions.
 Up. To go forward in the selected functions.
 Enter. To confirm the selected functions.</p> | <p>③ DMX IN. 5-pin XLR cable to link DMX console.</p> <p>④ DMX OUT. 5-pin XLR cable to to the next unit.</p> <p>⑤ POWER IN. Connects to power supply.</p> <p>⑥ POWER OUT. Connects to next fixture.</p> <p>⑦ Artnet/sACN. RJ45 connector to link Artnet/sACN from source.</p> |
|---|--|

MAIN FUNCTIONS

Press the MENU button to Choose any functions, until the required function is shown in the display. Choose the desired function by pressing ENTER, which will cause the display to blink. Use the UP and DOWN button to change the mode. Once the required mode has been Selected, press the ENTER button to accept the Selection, otherwise after a period of one minute wait, the the menu will return automatically to the main functions, without any changes having been made. Return to the main functions without making any changes by pressing the MENU button. The main functions are shown in **TABLE 1**.

TABLE 1. MENU FUNCTIONS

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	DEFAULT		
Address	001-512	(Default 001)						
Configure	LED	LED Hours	XXXXXX h					
		Reset LED Hour	Are you sure?					
		Dimming Curve	Square Curve				(Default)	
			S Curve					
			Linear Curve					
		Tungsten Fade	On					
			Off				(Default)	
		Dim Snap	On (Fast)					
			Off (Slow)				(Default)	
		LED Frequency	1200Hz				(Default)	
			2500Hz					
			5000Hz					
			10000Hz					
			20000Hz					
			25000Hz					
		White Balance	Red		125 - 255			Default 255
			Green		125 - 255			Default 255
			Blue		125 - 255			Default 255
			Amber		125 - 255			Default 255
			Lime		125 - 255			Default 255
			Cyan		125 - 255			Default 255
			Reset		YES/NO			
		Color Cal	On					
			Off					(Default)
		Disp Timeout	30 Sec					(Default)
			5 Min					
			10 Min					
On								
Reset to Factory Defaults								
Choose Signal	DMX Only							
	Art-Net							
	SACN							
Set Artnet/SACN	Set Universe	000-255				(Default 000)		
	Ethernet IP	XXX. XXX. XXX. XXX						
	Ether Mask IP	XXX. XXX. XXX. XXX						

TABLE 1. MENU FUNCTIONS

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	DEFAULT	
DMX	Address	001-512					
	DMX Mode	SSCC				(Default)	
		SQCC					
		SOCC					
	Pixel Group	Group 1				(Default)	
		Group 3					
		Group 12					
	Cell Direction	Normal				(Default)	
		Flipped					
	Data	Ch 1 - Intensity XXX (Value)					
Ch 2 - Intensity Fine XXX (Value)							
.....All functions							
Fixture	UID Number	RDM UID number					
	Status	(No Errors... or displays a list of errors)					
	Reboot Fixture	Are you sure?					
	Version	VXXX	MM/DD/YY	HH:MM			
	Fixture Hours	XXXXXX h					
	Crossload (Software)	Send					
	Service	Diagnostics	Board Check				
Manual Control	Red	0 - 255			(Default 0)		
	Green	0 - 255			(Default 0)		
	Blue	0 - 255			(Default 0)		
	Amber	0 - 255			(Default 0)		
	Lime	0 - 255			(Default 0)		
	Cyan	0 - 255			(Default 0)		
Color Preset	Preset Run	Choose preset		1 to 20			
		Intensity		0 - 255			
	Edit Programs				Intensity*	0 - 255	
					Red	0 - 255	
					Green	0 - 255	
					Blue	0 - 255	
					Amber	0 - 255	
					Lime	0 - 255	
					Cyan	0 - 255	
					Store	YES/NO	
			Clear	YES/NO			

ADDRESS MENU

Address — Choose DMX Address, press the ENTER button to confirm. Use the UP/DOWN button to adjust the address from 001 to max, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

CONFIGURE MENU

Choose Configure, press the ENTER button to confirm, use the UP/DOWN button to Choose LED, Color Cal, Disp Timeout, Choose Signal and Set Artnet / SACN.

LED

Choose LED, press the ENTER button to confirm. Use the UP/DOWN button to Choose LED Hours, Reset LED Hour, Dimming Curve, Tungsten Fade, Dim Snap, LED Frequency and White Balance. Press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

LED Hours — Choose LED Hours, press the ENTER button to confirm, LED Hours will show on the display Press the MENU button to return to previous menu.

Reset LED Hours — Choose Reset LED Hours, press the ENTER button to confirm, “Are you sure” will show on the display. Press the MENU button to return to previous menu.

Dimming Curve — To Choose Dimming Curve, press the ENTER button to confirm. Use the UP/DOWN button to Choose Square Law Curve, S Law Curve or Linear Law Curve, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Tungsten Fade — Choose Tungsten Fade, press the ENTER button to confirm, Use the UP/DOWN button to Choose ON or OFF; press ENTER to store. Press the MENU button to return to previous menu.

Dim Snap — Choose Dim Snap, press the ENTER button to confirm, Use the UP/DOWN button to Choose ON or OFF. Press the MENU button to return to previous menu.

LED Frequency — Choose LED Frequency, press the ENTER button to confirm. Use the UP/DOWN button to Choose 1200Hz, 2500Hz, 5000Hz, 10000Hz, 20000Hz , 25000Hz, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

White Balance — Choose White Balance; press the ENTER button to confirm. Use the UP/DOWN button to select Red, Green, Blue, Amber, Lime, Cyan and RESET; press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Color Cal

Choose Color Cal, press the ENTER button to confirm. Use the UP/DOWN button to Choose ON or OFF. Press the MENU button to return to previous menu.

Disp Timeout

Choose Disp Timeout, press the ENTER button to confirm. Use the UP/DOWN button to Choose 30 Sec, 5min, 10 min or ON Press the MENU button to return to previous menu.

Choose Signal

Choose Signal, press the ENTER button to confirm. Use the UP/DOWN button to Choose DMX Only, ArtNet or sACN. Press the MENU button to return to previous menu.

DMX MENU

Choose DMX, press the ENTER button to confirm, use the UP/DOWN button to Choose Address, DMX Mode, Pixel Group, Cell Direction or Data.

Address — Choose Address, press the ENTER button to confirm. Use the UP/DOWN button to Choose from 001 to 512. press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

DMX Mode — Choose DMX Mode, press the ENTER button to confirm. Use the UP/DOWN button to Choose SSSC, SQCC or SOCC, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Pixel Group — Choose Pixel Group, press the ENTER button to confirm. Use the UP/DOWN button to Choose Group 1, 4, or 12, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Cell Direction — Choose Cell Direction, press the ENTER button to confirm. Use the UP/DOWN button to Choose Normal or Flipped, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Data — Choose Data, press the ENTER button to confirm. Use the UP/DOWN button to Choose Ch1 – Intensity xxx(value), Ch2 – Intensity Fine xxx(Value), All functions, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

FIXTURE MENU

Choose Fixture, press the ENTER button to confirm, use the UP/DOWN button to Choose Status, Reboot fixture, Version, Fixture Hours, Crossload (Software), Service. Press the ENTER button to select.

Status

Choose Status, press the ENTER button to confirm, Status will show on the display Press the MENU button to return to previous menu.

Reboot Fixture

Choose Reboot Fixture, press the ENTER button to confirm, Are you sure? will show on the display, press the ENTER button to confirm.

Version

Choose Version, press the ENTER button to confirm, Version will show on the display. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Fixture Hours

Choose Fixture Hours, press the ENTER button to confirm, Fixture Hours will show on the display. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Crossload (Software)

Choose Crossload (Software), press the ENTER button to confirm, Send will show on the display. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

NOTE: Incoming DMX must be removed from the fixture or software crossload will not be activated.

Service

Choose Service, press the ENTER button to confirm. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

Diagnostics — Choose Diagnostics, press the ENTER button to confirm. Use the UP/DOWN button to Choose Board Check. Press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

MANUAL CONTROL MENU

Choose Manual Control, press the ENTER button to confirm, use the UP/DOWN button to Choose Red, Green, Blue, Amber, Lime and Cyan. Use the UP/DOWN button to adjust the value from 0 to 255, press the ENTER button to store. Press the MENU button to return to previous menu or let the unit idle one minute to exit menu mode.

COLOR PRESET MENU

Preset Run

Enter Color Preset mode, Choose Preset Run, press the ENTER button to confirm, use the UP/DOWN button to Choose “Choose Preset” or Intensity.

Edit Programs

Enter menu mode, choose Edit Programs, press the ENTER button to confirm, MODE will show up, use the UP/DOWN button to Choose Intensity, Red, Green, Blue, Amber, Lime, Cyan, Store or Clear. Use the UP/DOWN button to adjust the value from 0 to 100%. Press the ENTER button to confirm. Press the MENU button back to the last menu or let the unit idle one minute to exit.

3 DMX MAPPING

The fixture can be operated by a DMX controller. The following tables assumes a DMX start address of 1. When a different starting address is used, this address assumes the channel 1 function and other functions follow in sequence.

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control 0 - 100% Output Cell 1 in multi cell groups
2	Intensity (Low)			
3	Strobe	0	0 - 255	Strobe Control
			0 - 9	No Strobe Function - Shutter open
			10 - 99	Strobe S>>>>F
			100 - 109	No Strobe Function - Shutter open
			110 - 179	Lighting Strobe S>>>>F
			180 - 189	No Strobe Function - Shutter open
			190 - 255	Random Strobe S>>>>F
4	Color Preset	0	0 - 255	Calibrated color presets 01 to 33 User definable color preset 01 to 20
			0 - 10	Channel OFF Color Mixing takes priority
			11 - 14	Moroccan Pink
			15 - 18	Pink
			19 - 22	Flesh Pink
			23 - 26	Bright Rose
			27 - 30	Follies Pink
			31 - 34	Fuchsia Pink
			35 - 38	Surprise Pink
			39 - 42	Congo Blue
			43 - 46	Blue
			47 - 50	Virgin Blue
			51 - 54	Midnight Maya
			55 - 58	Double C.T Blue
			59 - 62	Slate Blue
			63 - 66	Regal Blue
			67 - 70	Full C.T Blue
			71 - 74	Steel Blue
			75 - 78	Lighter Blue
			79 - 82	Cyan
			83 - 86	Marine Blue
			87 - 90	Soft Green
			91 - 94	Moss Green
			95 - 98	Green
			99 - 102	Fem Green
			103 - 106	JAS Green
			107 - 110	Pale Green
111 - 114	Spring Yellow			
115 - 118	Yellow			

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
4	Color Preset continued	0	119 - 122	Deep Amber
			123 - 126	Chrome Orange
			127 - 130	Orange
			131 - 134	Magenta
			135 - 138	Flame Red
			139 - 142	Purple
			143 - 146	User Preset 1
			147 - 150	User Preset 2
			151 - 154	User Preset 3
			155 - 158	User Preset 4
			159 - 162	User Preset 5
			163 - 166	User Preset 6
			167 - 170	User Preset 7
			171 - 174	User Preset 8
			175 - 178	User Preset 9
			179 - 182	User Preset 10
			183 - 186	User Preset 11
			187 - 190	User Preset 12
			191 - 194	User Preset 13
			195 - 198	User Preset 14
199 - 202	User Preset 15			
203 - 206	User Preset 16			
207 - 210	User Preset 17			
211 - 214	User Preset 18			
215 - 218	User Preset 19			
219 - 222	User Preset 20			
223 - 255	Channel OFF Color Mixing takes priority			
5	Control Channel	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). **Function does not require 3 Second rule to active, setting output to value will automatically activate function
			0	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also used to wake the fixture up from shutdown.
			11 - 15	Fixture Shutdown
			16 - 20	Reserved Values
			21 - 25	Display - Menu ON
			26 - 30	Display - Menu OFF
			31 - 35	Tungsten Dimming On**
			36 - 40	Tungsten Dimming Off (Default)**
			41 - 45	Dimming Curve Linear**
			46 - 50	Dimming Curve S-Curve**
			51 - 55	Dimming Curve Square Law (Default)**
			56 - 60	Reserved
			61 - 65	Dimmer Snap On**
			66 - 70	Dimmer Snap Off (Default)**
			71 - 90	Reserved

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
5	Control Channel (continued)	0	91 - 95	Color Calibration on
			96 - 100	Color Calibration off (Default)
			101 - 150	Reserved Values
			151 - 155	Record User Color Preset**
			156 - 160	Cell Normal
			161 - 165	Cell Flipped
			166 - 170	Reserved
			171 - 175	Reset fixture to default
			176 - 255	Reserved
6	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
7	Cyan (Low)			
8	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
9	Yellow (Low)			
10	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
11	Magenta (Low)			
12	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. the channel should be mapped in such a way that the channel runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
SSCC Mode - 4 Cell Selected (4 Groups of 3) - Additional Channels Added				
6	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
7	Cyan (Low)			
8	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
9	Yellow (Low)			
10	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
11	Magenta (Low)			

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
12	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
Cell 2				
13	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control 0 - 100% Output
14	Intensity (Low)			
15	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
16	Cyan (Low)			
17	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
18	Yellow (Low)			
19	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
20	Magenta (Low)			
21	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
21	CTO continued	0	150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
Cell 3				
22	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control 0 - 100% Output
23	Intensity (Low)			
24	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
25	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
26	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
27	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
28	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
29	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
30	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K
Cell 4				
31	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control 0 - 100% Output
32	Intensity (Low)			
33	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
34	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
35	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
36	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
37	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
38	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
39	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
39	CTO (continued)	75	100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K
SSCC Mode - 12 Cell Selected - Additional Channels Added				
6	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
7	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum.
8	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
9	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum.
10	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
11	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum.
12	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
250 - 255	Reserved Hold 10000K			
Cell 2				
13	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
14	Intensity (Low)			0 - 100% Output
15	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
16	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum.
17	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
18	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum.
19	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
20	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum.

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
21	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
Cell 3				
22	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
23	Intensity (Low)			0 - 100% Output
24	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
25	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum.
26	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
27	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum.
28	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
29	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum.
30	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
30	CTO	75	150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K
Cell 4				
31	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
32	Intensity (Low)			0 - 100% Output

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
33	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
34	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum.
35	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
36	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum.
37	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
38	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum.
39	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K
Cell 5				
40	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
41	Intensity (Low)			0 - 100% Output
42	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
43	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum.
44	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
45	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum.
46	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
47	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum.
48	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
48	CTO (continued)	75	150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K
Cell 6				
49	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
50	Intensity (Low)			0 - 100% Output
51	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
52	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum.
53	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
54	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum.
55	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
56	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum.
57	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K
Cell 7				
58	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
59	Intensity (Low)			0 - 100% Output
60	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
61	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
61	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
63	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
64	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
65	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available spectrum

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
66	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
Cell 8				
67	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
68	Intensity (Low)			0 - 100% Output
69	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
70	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available spectrum
71	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
72	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available spectrum
73	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
74	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available spectrum
75	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
Cell 9				
76	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
77	Intensity (Low)			0 - 100% Output

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
78	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
79	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
80	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
81	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
82	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
83	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
84	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
Cell 10				
85	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
86	Intensity (Low)			0 - 100% Output
87	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
88	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
89	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
90	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
91	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
92	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
93	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			150	5000K

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
93	CTO (continued)	75	175	5600K
			200	6500K
			225	8000K
			250	10000K
			250 - 255	Reserved Hold 10000K
Cell 11				
94	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
95	Intensity (Low)			0 - 100% Output
96	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
97	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
98	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
99	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
100	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
101	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum
102	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
250 - 255	Reserved Hold 10000K			
Cell 12				
103	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
104	Intensity (Low)			0 - 100% Output
105	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
106	Cyan (Low)			The 6 color LED array auto-adjusts to meet Cyan / mixed color points of fully available color spectrum
107	Yellow (High)	0	0 - 65535	Yellow Color Level Control 0 - 100% Saturation
108	Yellow (Low)			The 6 color LED array auto-adjusts to meet Yellow / mixed color points of fully available color spectrum
109	Magenta (High)	0	0 - 65535	Magenta Color Level Control 0 - 100% Saturation
110	Magenta (Low)			The 6 color LED array auto-adjusts to meet Magenta / mixed color points of fully available color spectrum

TABLE 2. SSCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
111	CTO	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. Values stated below are for guidance only. The channel should be mapped in such a way, that the channel level runs are variable from 0 - 250.
			0	1800K
			25	2700K
			50	3000K
			75	3200K (Default)
			100	4000K
			125	4500K
			150	5000K
			175	5600K
			200	6500K
			225	8000K
			250	10000K
250 - 255	Reserved Hold 10000K			

TABLE 3. SQCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
2	Intensity (Low)			0 - 100% Output
3	Strobe	0	0 - 255	Strobe Control
			0 - 9	No Strobe Function - Shutter open
			10 - 99	Strobe S>>>>F
			100 - 109	No Strobe Function - Shutter open
			110 - 179	Lighting Strobe S>>>>F
			180 - 189	No Strobe Function - Shutter open
			190 - 255	Random Strobe S>>>>F
4	Color Preset	0	0 - 255	Calibrated color presets 01 to 33 User definable color preset 01 to 20
			0 - 10	Channel OFF Color Mixing takes priority
			11 - 14	Moroccan Pink
			15 - 18	Pink
			19 - 22	Flesh Pink
			23 - 26	Bright Rose
			27 - 30	Follies Pink
			31 - 34	Fuchsia Pink
			35 - 38	Surprise Pink
			39 - 42	Congo Blue
			43 - 46	Blue
			47 - 50	Virgin Blue
			51 - 54	Midnight Maya
			55 - 58	Double C.T Blue
			59 - 62	Slate Blue
63 - 66	Regal Blue			
67 - 70	Full C.T Blue			

TABLE 3. SQCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
4	Color Preset (continued)	0	71 - 74	Steel Blue
			75 - 78	Lighter Blue
			79 - 82	Cyan
			83 - 86	Marine Blue
			87 - 90	Soft Green
			91 - 94	Moss Green
			95 - 98	Green
			99 - 102	Fem Green
			103 - 106	JAS Green
			107 - 110	Pale Green
			111 - 114	Spring Yellow
			115 - 118	Yellow
			119 - 122	Deep Amber
			123 - 126	Chrome Orange
			127 - 130	Orange
			131 - 134	Magenta
			135 - 138	Flame Red
			139 - 142	Purple
			143 - 146	User Preset 1
			147 - 150	User Preset 2
			151 - 154	User Preset 3
			155 - 158	User Preset 4
			159 - 162	User Preset 5
			163 - 166	User Preset 6
			167 - 170	User Preset 7
			171 - 174	User Preset 8
			175 - 178	User Preset 9
			179 - 182	User Preset 10
			183 - 186	User Preset 11
			187 - 190	User Preset 12
191 - 194	User Preset 13			
195 - 198	User Preset 14			
199 - 202	User Preset 15			
203 - 206	User Preset 16			
207 - 210	User Preset 17			
211 - 214	User Preset 18			
215 - 218	User Preset 19			
219 - 222	User Preset 20			
223 - 255	Channel OFF Color Mixing takes priority			

TABLE 4. SOCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
1	Intensity (High)	0	0 - 65535	16-bit Intensity (Dimmer) Control
2	Intensity (Low)			0 - 100% Output
3	Strobe	0	0 - 255	Strobe Control
			0 - 9	No Strobe Function - Shutter open
			10 - 99	Strobe S>>>>F
			100 - 109	No Strobe Function - Shutter open
			110 - 179	Lighting Strobe S>>>>F
			180 - 189	No Strobe Function - Shutter open
			190 - 255	Random Strobe S>>>>F
4	Color Preset	0	0 - 255	Calibrated color presets 01 to 33 User definable color preset 01 to 20
			0 - 10	Channel OFF Color Mixing takes priority
			11 - 14	Moroccan Pink
			15 - 18	Pink
			19 - 22	Flesh Pink
			23 - 26	Bright Rose
			27 - 30	Follies Pink
			31 - 34	Fuchsia Pink
			35 - 38	Surprise Pink
			39 - 42	Congo Blue
			43 - 46	Blue
			47 - 50	Virgin Blue
			51 - 54	Midnight Maya
			55 - 58	Double C.T Blue
			59 - 62	Slate Blue
			63 - 66	Regal Blue
			67 - 70	Full C.T Blue
			71 - 74	Steel Blue
			75 - 78	Lighter Blue
			79 - 82	Cyan
			83 - 86	Marine Blue
			87 - 90	Soft Green
			91 - 94	Moss Green
			95 - 98	Green
			99 - 102	Fem Green
			103 - 106	JAS Green
			107 - 110	Pale Green
			111 - 114	Spring Yellow
			115 - 118	Yellow
			119 - 122	Deep Amber
123 - 126	Chrome Orange			
127 - 130	Orange			
131 - 134	Magenta			
135 - 138	Flame Red			
139 - 142	Purple			
143 - 146	User Preset 1			

TABLE 4. SOCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
4	Color Preset (continued)	0	147 - 150	User Preset 2
			151 - 154	User Preset 3
			155 - 158	User Preset 4
			159 - 162	User Preset 5
			163 - 166	User Preset 6
			167 - 170	User Preset 7
			171 - 174	User Preset 8
			175 - 178	User Preset 9
			179 - 182	User Preset 10
			183 - 186	User Preset 11
			187 - 190	User Preset 12
			191 - 194	User Preset 13
			195 - 198	User Preset 14
			199 - 202	User Preset 15
			203 - 206	User Preset 16
			207 - 210	User Preset 17
			211 - 214	User Preset 18
			215 - 218	User Preset 19
			219 - 222	User Preset 20
			223 - 255	Channel OFF Color Mixing takes priority
5	Control Channel	0	0 - 255	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). **Function does not require 3 Second rule to active, setting output to value will automatically activate function
			0 - 5	Idle (Default)
			6 - 10	Full Luminaire ReCal - Also used to wake the fixture up from shutdown.
			11 - 15	Fixture Shutdown
			16 - 20	Reserved
			21 - 25	Display - Menu ON
			26 - 30	Display - Menu OFF
			31 - 35	Tungsten Dimming On**
			36 - 40	Tungsten Dimming Off (Default)**
			41 - 45	Dimming Curve Linear**
			46 - 50	Dimming Curve S-Curve**
			51 - 55	Dimming Curve Square Law (Default)**
			56 - 60	Reserved
			61 - 65	Dimmer Snap On**
			66 - 70	Dimmer Snap Off (Default)**
			71 - 90	Reserved Values
			91 - 95	Color Calibration on
			96 - 100	Color Calibration off (Default)
101 - 150	Reserved Values			

TABLE 4. SOCC MODE

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
5	Control Channel (continued)	0	151 - 155	Record User Color Preset**
			156 - 160	Cell Normal 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
			161 - 165	Cell Flip 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1
			166 - 170	Reserved
			171 - 175	Reset fixture to default
			176 - 255	Reserved
6	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
7	Red (Low)			
8	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
10	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
11	Blue (Low)			
12	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
13	Amber (Low)			
14	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
15	Lime (Low)			
16	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
17	Cyan (Low)			

TABLE 5. SOCC MODE - 4-CELL SELECTED ADDITIONAL CHANNELS ADDED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
Cell 1				
6	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
7	Red (Low)			
8	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
9	Green (Low)			
10	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
11	Blue (Low)			
12	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
13	Amber (Low)			
14	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
15	Lime (Low)			
16	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
17	Cyan (Low)			
Cell 2				
18	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
19	Red (Low)			
20	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
21	Green (Low)			
22	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
23	Blue (Low)			
24	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
25	Amber (Low)			
26	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
27	Lime (Low)			
28	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
29	Cyan (Low)			

TABLE 5. SOCC MODE - 4-CELL SELECTED ADDITIONAL CHANNELS ADDED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
Cell 3				
30	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
31	Red (Low)			
32	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
33	Green (Low)			
34	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
35	Blue (Low)			
36	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
37	Amber (Low)			
38	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
39	Lime (Low)			
40	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
41	Cyan (Low)			
Cell 4				
42	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
43	Red (Low)			
44	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
45	Green (Low)			
46	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
47	Blue (Low)			
48	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
49	Amber (Low)			
50	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
51	Lime (Low)			
52	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
53	Cyan (Low)			

TABLE 6. SOCC MODE - 12-CELL SELECTED ADDITIONAL CHANNELS ADDED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
Cell 1				
6	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
7	Red (Low)			
8	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
9	Green (Low)			
10	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
11	Blue (Low)			
12	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
13	Amber (Low)			
14	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
15	Lime (Low)			
16	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
17	Cyan (Low)			
Cell 2				
18	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
19	Red (Low)			

TABLE 6. SOCC MODE - 12-CELL SELECTED ADDITIONAL CHANNELS ADDED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
20	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
21	Green (Low)			
22	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
23	Blue (Low)			
24	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
25	Amber (Low)			
26	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
27	Lime (Low)			
28	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
29	Cyan (Low)			
Cell 3				
30	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
31	Red (Low)			
32	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
33	Green (Low)			
34	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
35	Blue (Low)			
36	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
37	Amber (Low)			
38	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
39	Lime (Low)			
40	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
41	Cyan (Low)			
Cell 4				
42	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
43	Red (Low)			
44	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
45	Green (Low)			
46	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
47	Blue (Low)			
48	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
49	Amber (Low)			
50	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
51	Lime (Low)			
52	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
53	Cyan (Low)			
Cell 5				
54	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
55	Red (Low)			
56	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
57	Green (Low)			
58	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
59	Blue (Low)			
60	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
61	Amber (Low)			
62	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
63	Lime (Low)			

TABLE 6. SOCC MODE - 12-CELL SELECTED ADDITIONAL CHANNELS ADDED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
64	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
65	Cyan (Low)			
Cell 6				
66	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
67	Red (Low)			
68	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
69	Green (Low)			
70	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
71	Blue (Low)			
72	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
73	Amber (Low)			
74	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
75	Lime (Low)			
76	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
77	Cyan (Low)			
Cell 7				
78	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
79	Red (Low)			
80	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
81	Green (Low)			
82	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
83	Blue (Low)			
84	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
85	Amber (Low)			
86	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
87	Lime (Low)			
88	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
89	Cyan (Low)			
Cell 8				
90	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
91	Red (Low)			
92	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
93	Green (Low)			
94	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
95	Blue (Low)			
96	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
97	Amber (Low)			
98	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
99	Lime (Low)			
100	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
101	Cyan (Low)			
Cell 9				
102	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
103	Red (Low)			
104	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
105	Green (Low)			

TABLE 6. SOCC MODE - 12-CELL SELECTED ADDITIONAL CHANNELS ADDED

DMX CHANNEL	PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
106	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
107	Blue (Low)			
108	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
109	Amber (Low)			
110	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
111	Lime (Low)			
112	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
113	Cyan (Low)			
Cell 10				
114	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
115	Red (Low)			
116	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
117	Green (Low)			
118	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
119	Blue (Low)			
120	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
121	Amber (Low)			
122	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
123	Lime (Low)			
124	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
125	Cyan (Low)			
Cell 11				
126	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
127	Red (Low)			
128	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
129	Green (Low)			
130	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
131	Blue (Low)			
132	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
133	Amber (Low)			
134	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
135	Lime (Low)			
136	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
137	Cyan (Low)			
Cell 12				
138	Red (High)	0	0 - 65535	Red Color Level Control 0 - 100% Saturation
139	Red (Low)			
140	Green (High)	0	0 - 65535	Green Color Level Control 0 - 100% Saturation
141	Green (Low)			
142	Blue (High)	0	0 - 65535	Blue Color Level Control 0 - 100% Saturation
143	Blue (Low)			
144	Amber (High)	0	0 - 65535	Amber Color Level Control 0 - 100% Saturation
145	Amber (Low)			
146	Lime (High)	0	0 - 65535	Lime Color Level Control 0 - 100% Saturation
147	Lime (Low)			
148	Cyan (High)	0	0 - 65535	Cyan Color Level Control 0 - 100% Saturation
149	Cyan (Low)			

TABLE 7. COLOR PRESETS

RANGE DMX	COLOR	RANGE DMX	COLOR
0 - 255	Calibrated color presets 01 to 33 User definable color preset 01 to 20	115 - 118	Yellow
0 - 10	Channel OFF Color Mixing takes priority	119 - 122	Deep Amber
11 - 14	Moroccan Pink	123 - 126	Chrome Orange
15 - 18	Pink	127 - 130	Orange
19 - 22	Flesh Pink	131 - 134	Magenta
23 - 26	Bright Rose	135 - 138	Flame Red
27 - 30	Follies Pink	139 - 142	Purple
31 - 34	Fuchsia Pink	143 - 146	User Preset 1
35 - 38	Surprise Pink	147 - 150	User Preset 2
39 - 42	Congo Blue	151 - 154	User Preset 3
43 - 46	Blue	155 - 158	User Preset 4
47 - 50	Virgin Blue	159 - 162	User Preset 5
51 - 54	Midnight Maya	163 - 166	User Preset 6
55 - 58	Double C.T Blue	167 - 170	User Preset 7
59 - 62	Slate Blue	171 - 174	User Preset 8
63 - 66	Regal Blue	175 - 178	User Preset 9
67 - 70	Full C.T Blue	179 - 182	User Preset 10
71 - 74	Steel Blue	183 - 186	User Preset 11
75 - 78	Lighter Blue	187 - 190	User Preset 12
79 - 82	Cyan	191 - 194	User Preset 13
83 - 86	Marine Blue	195 - 198	User Preset 14
87 - 90	Soft Green	199 - 202	User Preset 15
91 - 94	Moss Green	203 - 206	User Preset 16
95 - 98	Green	207 - 210	User Preset 17
99 - 102	Fem Green	211 - 214	User Preset 18
103 - 106	JAS Green	215 - 218	User Preset 19
107 - 110	Pale Green	219 - 222	User Preset 20
111 - 114	Spring Yellow	223 - 255	Channel OFF Color Mixing takes priority

TABLE 8. CTO CHANNEL

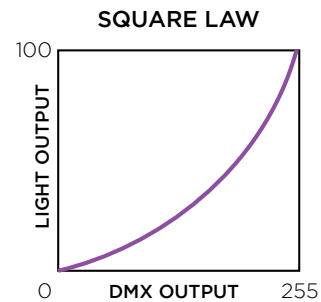
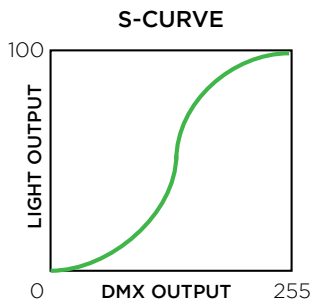
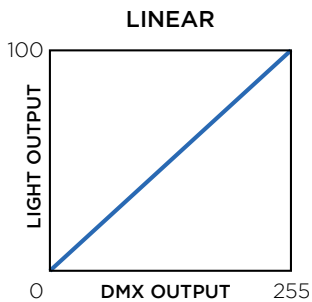
DMX CHANNEL	DEFAULT	RANGE DMX	COLOR TEMPE TRUE
	75	0 - 250	Variable color temperature control channel. The channel works independently of the color mixing channel and will adjust all mixed color from the selected color temperature level. values stated below are for guidance only. the channel should be mapped in such a way that the channel level runs are variable from 0 - 250.
		0	1800K
		25	2700K
		50	3000K
		75	3200K (Default)
		100	4000K
		125	4500K
		150	5000K
		175	5600K
		200	6500K
		225	8000K
		250	10000K
		250 - 255	Reserved Hold 10000K

TABLE 9. CONTROL CHANNEL

RANGE DMX	ITEMS	DESCRIPTION	POWER CYCLE RULES	FUNCTION SELECTION VIA UI
0 - 255	Control Channel	Control Channel used for full fixture settings, lamp controls, and miscellaneous modes. Set discrete value of desired effect, wait >3 seconds, then set value to 0 (Idle). **Function does not require 3 Second rule to active, setting output to value automatically activates function.	N/A	N/A
0 - 5	Idle (Default)	Default value used as return point to activate all control functions	N/A	N/A
6 - 10	Full Luminaire ReCal	Recalibrates all mechanical functions and sensor with in the fixture. Also used to wake the fixture up from shutdown.	N/A	N/A
11 - 15	Fixture Shutdown	Shuts down all fixture output and turns off all fans - fixture is activated by power cycle or ReCal command	Starts normally	N/A
16 - 20	Reserved Values		N/A	N/A
21 - 25	Display - Menu ON	Switches UI display backlight on remotely - Display will Time out from on after 5 mins	N/A	N/A
26 - 30	Display - Menu OFF		N/A	N/A
31 - 35	Tungsten Dimming On**	Remote switches Tungsten Dimming color shift on	Holds setting	Yes
36 - 40	Tungsten Dimming Off (Default)**	Remote switches Tungsten Dimming color shift off	Holds setting	Yes
41 - 45	Dimming Curve Linear**	Chooses Linear Dimming Curve Also used to wake the fixture up from shutdown.	Holds setting	Yes
46 - 50	Dimming Curve S-Curve**	Chooses S-Law Dimming Curve	Holds setting	Yes
51 - 55	Dimming Curve Square Curve (Default)**	Chooses Square-Law Dimming Curve	Holds setting	Yes
56 - 60	Reserved Values			
61 - 65	Dimmer Snap On**	Allows for fastest output changes between levels but reduces smoothness dimming LED	Holds setting	Yes

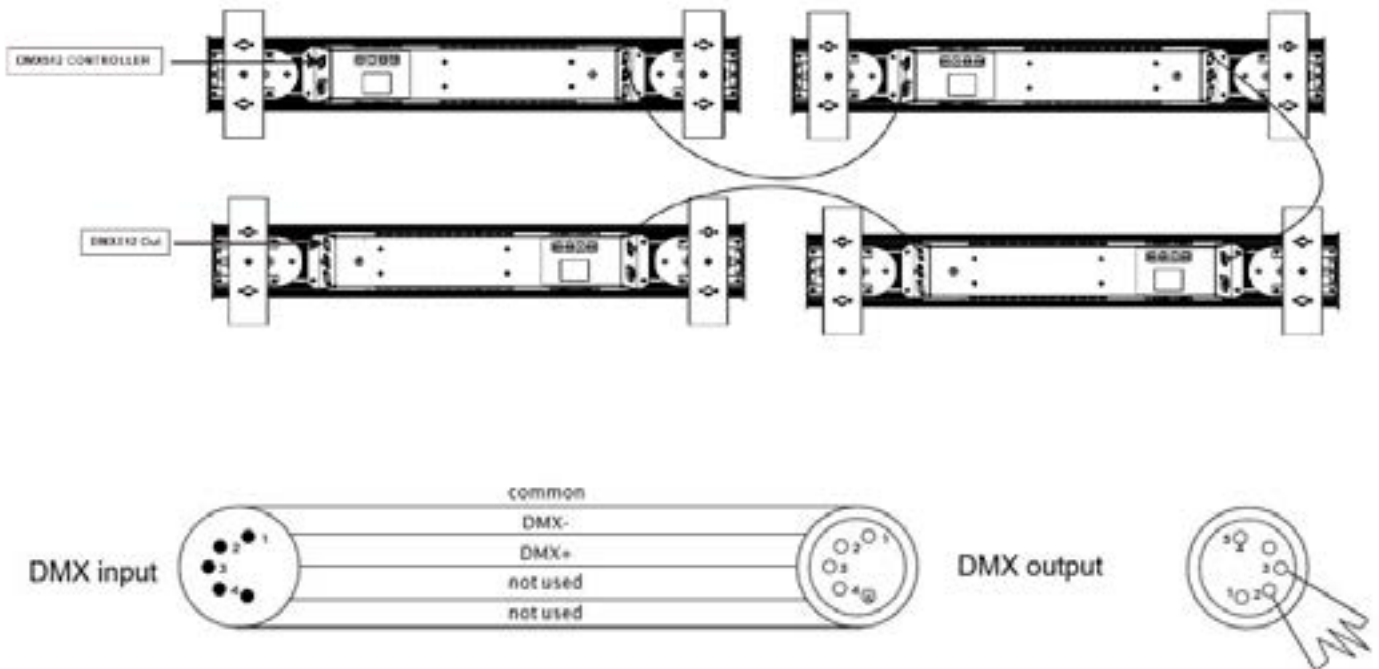
TABLE 9. CONTROL CHANNEL

RANGE DMX	ITEMS	DESCRIPTION	POWER CYCLE RULES	FUNCTION SELECTION VIA UI
66 - 70	Dimmer Snap Off (Default)**	Ensures all fades between output levels remain smooth and flicker free limits fast instant snaps between levels	Holds setting	Yes
71 - 90	Reserved Values		N/A	N/A
91 - 95	Color Calibration on	Turns Color calibration on. For fixture to fixture color matching on all mixed and preset colors between fixtures limits highest output and max saturation on some colors	Holds setting	Yes
96 - 100	Color Calibration off (Default)	Turns Color calibration off. Fixtures may not match from fixture to fixture. The function offers the highest output and deepest color saturation.	Holds setting	Yes
101 - 150	Reserved Values		N/A	N/A
151 - 155	Record User Color Preset**	Takes Current Color mixing values and stores to next available blank. User color preset - if the preset list is full, the preset will not record. The User will need to clear the preset via the fixture UI first.	N/A	N/A
156 - 160	Cell Flip Off	Cell Normal 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Holds setting	Yes
161 - 165	Cell Flip On	Cell Flip 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1	Holds setting	Yes
166 - 170	Reserved		N/A	N/A
171 - 175	Reset fixture to default	Will reset all parameters to default with the exception of the DMX address, fixture mode and Pixel / Zone Selection	N/A	Yes - Will reset DMX address, Mode and pixel group
176 - 255	Reserved		N/A	N/A



DMX512 CONNECTION

- The DMX cable should be terminated at the last unit in a run, using a DMX terminator. Solder a 120Ω 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 5-pin XLR-plug and plug it in the DMX-output of the last unit.
- Connect the unit together in a `daisy chain` by XLR plug from the output of the unit to the input of the next unit. The cable cannot be branched or split to a `Y` cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
- The DMX output and input are configured as pass-through connectors in order to maintain the DMX circuit, should the power to one of the unit's be disconnected.
- Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 1 - 512 (but not all starting addresses are available depending on DMX Mode).
- 5-pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin 4/Pin 5: Not used.



APPENDIX A

CARE AND MAINTENANCE

TROUBLESHOOTING

The following are some common issues that may occur.

The unit does not work - light and fan do not turn on

- Check power connection and main fuse.
- Measure the mains voltage on the main connector to ensure it is in the correct range.

Not responding to DMX controller

- DMX LED should be on. If not, check DMX connectors and cables to see if they link properly.
- If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
- If there are intermittent DMX signal problems, check the pins on the connectors or on the PCB of either this unit or the previous one.
- Try to use another DMX controller.
- Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to the DMX interface circuit.

CLEANING

Cleaning the inside of the luminaire must be carried out periodically in order to optimize the light output. Cleaning frequency depends on the environment in which the fixture operates damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the fixture's optics.

- Clean with a soft cloth using non-ammonia glass cleaning fluid.
- Always dry the parts carefully.
- Clean the external optics at least every 30 days.

ADDENDUM

Fan Speed and Control

All Vari-lite and Strand lighting luminaires will be governed by the same Fan speed v Noise levels v Maximum power output rules as details below. These noises related to these levels will confirm to Noise Criteria levels details of which are contained within the document.

There are 3 control parameters that can be selected separately or in conjunction when permitted to manage Fan speed v Noise levels v Maximum power output.

NOTE: Not all fixture have all modes or functions refer to DMX map and User interface menu tree to see if you product has one of more of these functions.

Item 1 - Fan 'v' Output Preset Modes

These modes are selectable at either / or the fixtures DMX control channel or via the fixture user interface screen. The section of the modes works in conjunction with Items 3 and will also active or deactivate the Item 2.

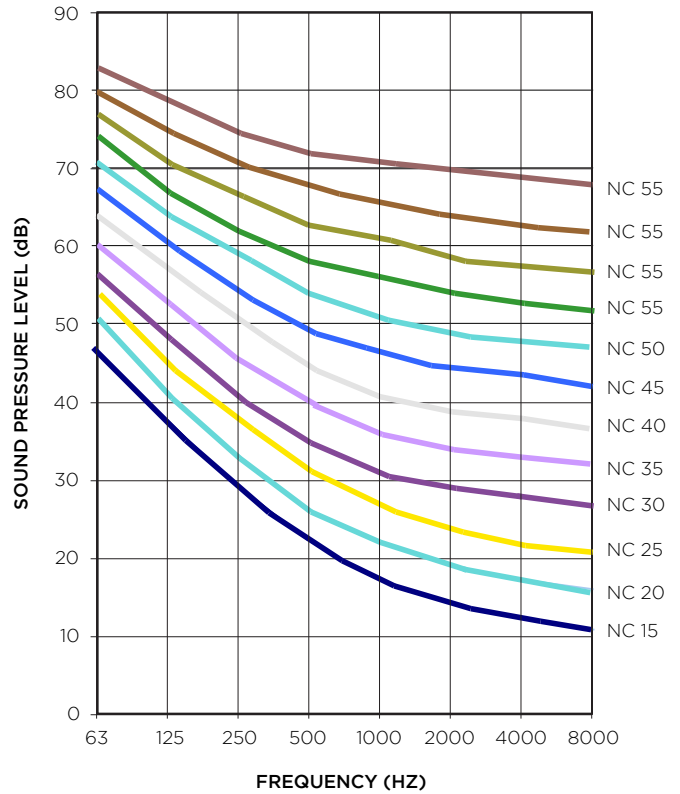
Boost mode - LED output boosted to >120% of standard output fan speeds increased manage heat level of LED (may be limited to only run for XXhrs). Fixture will not exceed NC45 - NC55 sound levels in this mode

Standard mode - Full LED Output + Fan Spin at top speed (loudest setting). Fixture will not exceed NC40 sound levels in this mode

Studio Mode - Fan speed reduced to appropriate amount to reduce dB levels >10% of full speed + LED @ max output approximately 80% of Standard output at appropriate level to ensure LED work at optimum temperature and output efficiency (fan speed remains at a constant speed and do not ramp up or down) NC35

Whisper mode - Fan speed reduced to appropriate amount to reduce dB levels to >30% of the full speed + LED Max output approximately 60% of Standard output at appropriate level to ensure LED work at optimum temperature and output efficiency (Fan speed remains at a constant speed and do not ramp up or down) NC25

Silent Mode - ideally Fans do not spin + output capped at appropriate level to ensure LED work at optimum temperature and output efficiency (Fan should never switch on in this mode or change speed if they on) NC15 target level.



MODE	LED OUTPUT	FAN SPEED	NOISE CRITERION	EQUIVALENT SOUND LEVEL DBA (@3M)
Boost Mode	>100%	Boosted fan speed constant	NC45	50
Standard Mode	Full 100%	Full 100% constant	NC40	45
Studio Mode	80%	Appropriate speed to reduce dB levels >10% of full speed	NC35	40
Whisper Mode	60%	Appropriate speed to reduce dB levels >30% of full speed	NC25	35
Silent Mode	TBC	Fan off	NC15	25

NOISE CRITERION	OCTAVE BAND CENTER FREQUENCY (HZ)							
	63	125	250	500	1000	2000	4000	8000
	SOUND PRESSURE LEVELS (DB)							
NC-15	47	36	29	22	17	14	12	11
NC-20	51	40	33	26	22	19	17	16
NC-25	54	44	37	31	27	24	22	21
NC-30	57	48	41	35	31	29	28	27
NC-35	60	52	45	40	36	34	33	32
NC-40	64	56	50	45	41	39	38	37
NC-45	67	60	54	49	46	44	43	42
NC-50	71	64	58	54	51	49	48	47
NC-55	74	67	62	58	56	54	53	52
NC-60	77	71	67	63	61	59	58	57
NC-65	80	75	71	68	66	64	63	62
NC-70	83	79	75	72	71	70	69	68

HOW TO OBTAIN WARRANTY SERVICE

A copy of the Strand Limited Warranty was included in the shipping package for this Strand product.

To obtain warranty service, please contact customer service at 1-214-647-7880, or entertainment.service@signify.com and request a Return Material Authorization (RMA) for warranty service. You will need to provide the model and serial number of the item being returned, a description of the problem or failure and the name of the registered user or organization. If available, you should have your sales invoice to establish the date of sale as the beginning of the warranty period. Once you obtain the RMA, pack the unit in a secure shipping container or in its original packing box. Be sure to clearly indicate the RMA number on all packing lists, correspondence, and shipping labels. If available, please include a copy of your invoice (as proof of purchase) in the shipping container.

With the RMA number written legibly on or near the shipping address label, return the unit, freight prepaid, to:

Strand
Attention: Warranty Service (RMA# _____)
10911 Petal Street
Dallas, Texas 75238
USA

As stated in the warranty, it is required that the shipment be insured and FOB our service center.

IMPORTANT! When returning products to Strand for repairs (warranty or out-of--warranty) from a country other than the USA, "Strand Lighting LLC", must appear in the address block as the Importer of Record (IOR) on all shipping documentation, Commercial Invoices, etc. This must be done in order to clear customs in a timely manner and prevent returns.

TECHNICAL SUPPORT

GLOBAL 24HR TECHNICAL SUPPORT:

Call: +1 214 647 7880

entertainment.service@signify.com

NORTH AMERICA SUPPORT:

Call: 877-VARI-LITE (877-827-4583)

entertainment.service@signify.com

EUROPEAN CUSTOMER SERVICE CENTER:

Call: +31 (0) 543 542 531

entertainment.europe@signify.com

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