

# JDC Burst 1



Document revision: 20250331-02

**Firmware Version V0.2.0-rc.1 (0.2.0.1) – ( NEW DMX LAYOUT )**



## Document revisions

Revision number	Notes	Released
20250118-02	First public release version Covers firmware version v0.1.2 and v0.1.3-rc.2	January 2025
20250331-02	Update DMX modes Covers firmware version v0.2.0-rc.1 (0.2.0.1)	March 2025

GLP® JDC Burst 1 DMX Channel Index

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Manufacturer's head office:  
German Light Products GmbH (GLP),  
Industriestrasse 2, 76307 Karlsbad,  
Germany  
Tel (Germany): +49 7248 92719 – 0

Service & Support EMEA:  
GLP, Industriestrasse 2,  
76307 Karlsbad, Germany  
Tel. (Germany): +49 7248 9271955  
Email: support@glp.de  
www.glp.de

Service & Support USA:  
GLP USA, 16170 Stagg Street,  
91406 Van Nuys, California  
Tel (USA): +1 818 767 8899  
Support (US): info@germanlightproducts.com  
www.germanlightproducts.com

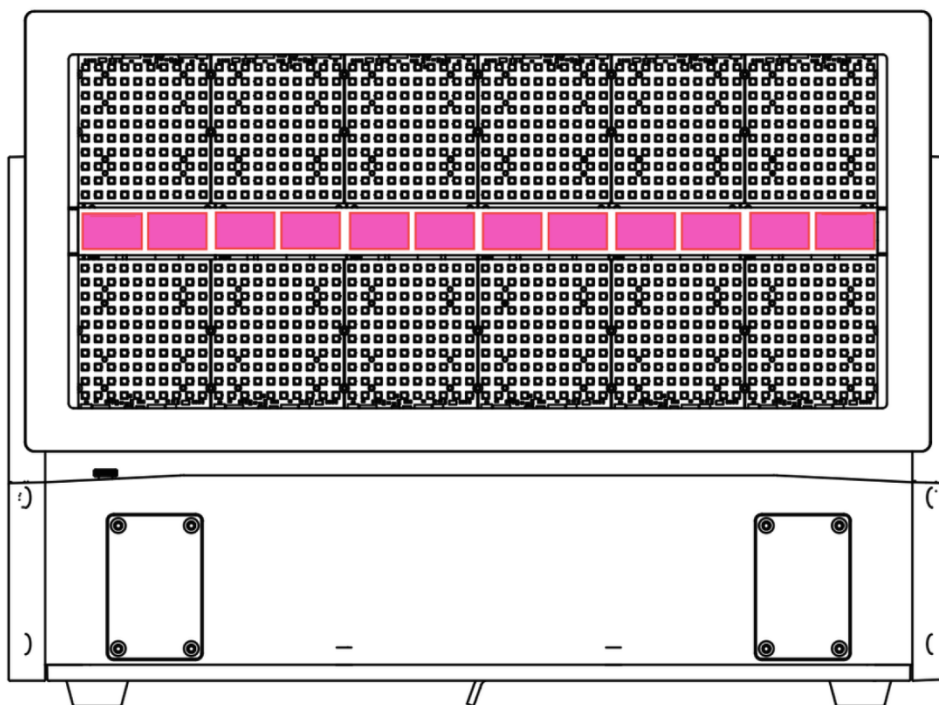
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## 1. Pixel/segment layout

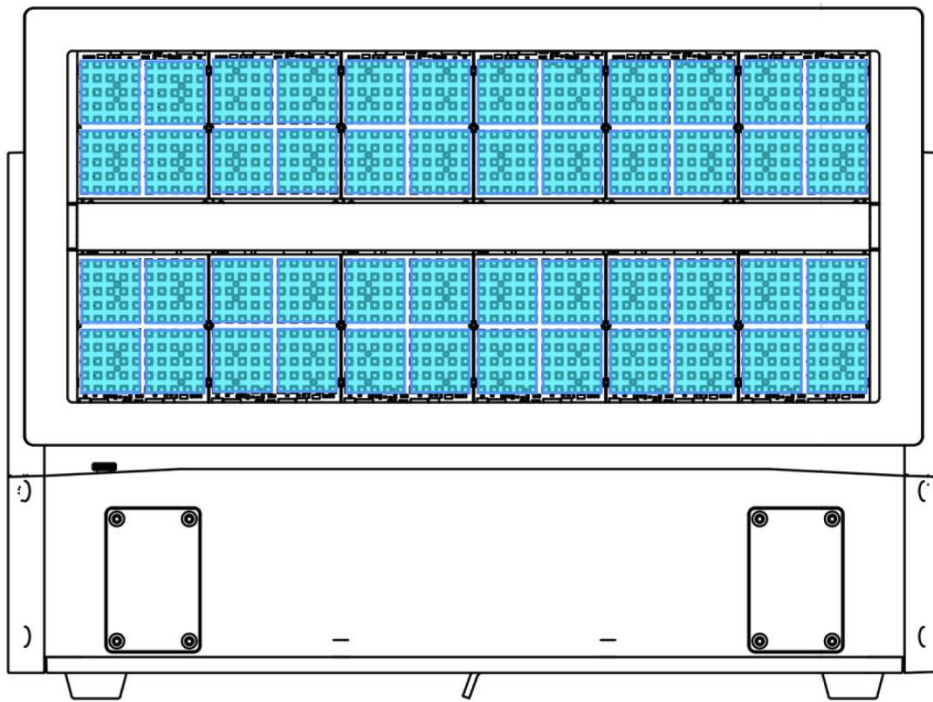
The JDC Burst 1 pixels/segments are arranged as shown below, seen from the front of the fixture (connectors and display facing away from you) with tilt at >50% and **Pixel mirror** set to **Off**.

### *Beam segments*



1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

**Plate segments**



Number of segments is set by DMX mode.

**12 segments**

1	1	2	2	3	3	4	4	5	5	6	6
1	1	2	2	3	3	4	4	5	5	6	6
7	7	8	8	9	9	10	10	11	11	12	12
7	7	8	8	9	9	10	10	11	11	12	12

**24 segments**

1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
13	14	15	16	17	18	19	20	21	22	23	24

**48 segments**

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	48

## 2. DMX control modes overview

You can choose from eight different DMX control modes.

### Mode 1 – Basic (19 channels)

- a.) White Beam module: Dimmer, Shutter, Duration, Rate
- b.) RGBW Plate module: Dimmer, Shutter, Duration, Rate, RGB(W)-Colormix

### Mode 2 – FX (37 channels)

- a.) White Beam module: Dimmer, Shutter, Duration, Rate
- b.) RGBW Plate module: Dimmer, Shutter, Duration, Rate, RGB(W)-Colormix
- c.) Pattern Module Beam (2nd Layer Fixture): Dimmer, Shutter, Pattern select, Pattern Speed, Pattern Xfade, Pattern Transition
- d.) Pattern Module Plate (2nd Layer Fixture): Dimmer, Shutter, RGB(W), Pattern select, Pattern Speed, Pattern Xfade, Pattern Transition

1	General Fixture Control
1.1	White Beam Module <i>(all beam segments linked as one group)</i>
1.2	RGBW Plate Module <i>(all beam segments linked as one group)</i>
1.3	Pattern Module Beam <i>(fx on all beam segments)</i>
1.4	Pattern Module Plate <i>(fx on all plate segments)</i>

**Mode 3, 4, 5 – 12, 24, 48-Segment (87, 135, 231 channels)**

*Main Personality*

- a.) White Beam module: Dimmer, Shutter, Duration, Rate
- b.) RGBW Plate module: Dimmer, Shutter, Duration, Rate, RGB(W)-Colormix
- c.) Pixel Engine Beam (2nd Layer Fixture): Master Dimmer for beam segments
- d.) Pixel Engine Plate (2nd Layer Fixture): Master Dimmer for plate segments

*Segment Engine Personality*

- e.) Segment Engine Beam subfixture: Intensity for each segment
- f.) Segment Engine Plate subfixture: RGB(W) Colormix for each segment

1	General Fixture Control
1.1	White Beam Module <i>(all beam segments linked as one group)</i>
1.2	RGBW Plate Module <i>(all beam segments linked as one group)</i>
1.3	Segment Engine Beam Master
1.4	Segment Engine Plate Master
2	Segment Engine Control
2.1	Beam Segment 1
...	...
2.12	Beam Segment 12
2.2	RGBW [s] 1
...	...
2.n	RGBW [s] n



**Mode 6, 7, 8 – Full Segment 12, 24, 48 (105, 153, 249 channels)**

*Main Personality*

- a.) White Beam module: Dimmer, Shutter, Duration, Rate
- b.) RGBW Plate module: Dimmer, Shutter, Duration, Rate, RGB(W)-Colormix
- c.) Pattern Module Beam (2nd Layer Fixture): Dimmer, Shutter, Pattern select, Pattern Speed, Pattern Xfade, Pattern Transition
- d.) Pattern Module Plate (2nd Layer Fixture): Dimmer, Shutter, RGB(W), Pattern select, Pattern Speed, Pattern Xfade, Pattern Transition
- e.) Segment Engine Beam (2nd Layer Fixture): Master Dimmer for beam segments
- f.) Segment Engine Plate (2nd Layer Fixture): Master Dimmer for plate segments

*Segment Engine Personality*

- g.) Segment Engine Beam (3rd Layer Fixture): Dimmer, Intensity for each segment
- h.) Segment Engine Plate (3rd Layer Fixture): Dimmer, RGB(W) Colormix for each segment

1	General Fixture Control
1.1	White Beam Module <i>(all beam segments linked as one group)</i>
1.2	RGBW Plate Module <i>(all beam segments linked as one group)</i>
1.3	Pattern Module Beam <i>(fx on all beam segments)</i>
1.4	Pattern Module Plate <i>(fx on all plate segments)</i>
1.5	Segment Engine Beam Master
1.6	Segment Engine Plate Master
2	Segment Engine Control
2.1	Beam Segment 1
...	...
2.12	Beam Segment 12
2.2	RGBW [s] 1
...	...
2.n	RGBW [s] n

### 3. DMX Channel Index

This table lists the function of each channel in each DMX mode. The DMX values within each channel are listed in the next section.

[G]=General fixture control

[B]=Beam module (white LEDs)

[P]=Plate module (RGBW LEDs)

[b]=Pattern module Beam (white LEDs FX engine)

[p]=Pattern module Plate (RGBW LEDs FX engine)

[s]=Segment Engine (segment/individual control of Beam and Plate)

Ch	Mode1 Basic	Mode2 FX	Mode3 12 Seg	Mode4 24Seg	Mode5 48Seg	Mode6 Full 12Seg	Mode7 Full 24Seg	Mode8 Full 48Seg
	<i>19Ch</i>	<i>37Ch</i>	<i>87Ch</i>	<i>135Ch</i>	<i>231Ch</i>	<i>105Ch</i>	<i>153Ch</i>	<i>249Ch</i>
1	Tilt Coarse [G]	Tilt Coarse [G]	Tilt Coarse [G]	Tilt Coarse [G]	Tilt Coarse [G]	Tilt Coarse [G]	Tilt Coarse [G]	Tilt Coarse [G]
2	Tilt Fine [G]	Tilt Fine [G]	Tilt Fine [G]	Tilt Fine [G]	Tilt Fine [G]	Tilt Fine [G]	Tilt Fine [G]	Tilt Fine [G]
3	Control [G]	Control [G]	Control [G]	Control [G]	Control [G]	Control [G]	Control [G]	Control [G]
4	Not used	Mix Prio Beam [G]	Mix Prio Beam [G]	Mix Prio Beam [G]	Mix Prio Beam [G]	Mix Prio Beam [G]	Mix Prio Beam [G]	Mix Prio Beam [G]
5	Not used	Mix Prio Plate [G]	Mix Prio Plate [G]	Mix Prio Plate [G]	Mix Prio Plate [G]	Mix Prio Plate [G]	Mix Prio Plate [G]	Mix Prio Plate [G]
6	Intensity [B]	Intensity [B]	Intensity [B]	Intensity [B]	Intensity [B]	Intensity [B]	Intensity [B]	Intensity [B]
7	Intensity Fine [B]	Intensity Fine [B]	Intensity Fine [B]	Intensity Fine [B]	Intensity Fine [B]	Intensity Fine [B]	Intensity Fine [B]	Intensity Fine [B]
8	Duration [B]	Duration [B]	Duration [B]	Duration [B]	Duration [B]	Duration [B]	Duration [B]	Duration [B]
9	Rate [B]	Rate [B]	Rate [B]	Rate [B]	Rate [B]	Rate [B]	Rate [B]	Rate [B]
10	Shutter Mode [B]	Shutter Mode [B]	Shutter Mode [B]	Shutter Mode [B]	Shutter Mode [B]	Shutter Mode [B]	Shutter Mode [B]	Shutter Mode [B]
11	Intensity [P]	Intensity [P]	Intensity [P]	Intensity [P]	Intensity [P]	Intensity [P]	Intensity [P]	Intensity [P]
12	Intensity Fine [P]	Intensity Fine [P]	Intensity Fine [P]	Intensity Fine [P]	Intensity Fine [P]	Intensity Fine [P]	Intensity Fine [P]	Intensity Fine [P]
13	Duration [P]	Duration [P]	Duration [P]	Duration [P]	Duration [P]	Duration [P]	Duration [P]	Duration [P]
14	Rate [P]	Rate [P]	Rate [P]	Rate [P]	Rate [P]	Rate [P]	Rate [P]	Rate [P]
15	Shutter Mode [P]	Shutter Mode [P]	Shutter Mode [P]	Shutter Mode [P]	Shutter Mode [P]	Shutter Mode [P]	Shutter Mode [P]	Shutter Mode [P]
16	Red [P]	Red [P]	Red [P]	Red [P]	Red [P]	Red [P]	Red [P]	Red [P]
17	Green [P]	Green [P]	Green [P]	Green [P]	Green [P]	Green [P]	Green [P]	Green [P]
18	Blue [P]	Blue [P]	Blue [P]	Blue [P]	Blue [P]	Blue [P]	Blue [P]	Blue [P]
19	White [P]	White [P]	White [P]	White [P]	White [P]	White [P]	White [P]	White [P]
20		[b] Int. coarse	[s] Int. Beam coarse	[s] Int. Beam coarse	[s] Int. Beam coarse	[b] Int. coarse	[b] Int. coarse	[b] Int. coarse
21		[b] Int. fine	[s] Int. Beam fine	[s] Int. Beam fine	[s] Int. Beam fine	[b] Int. fine	[b] Int. fine	[b] Int. fine

Ch	Mode1 Basic	Mode2 FX	Mode3 12 Seg	Mode4 24Seg	Mode5 48Seg	Mode6 Full 12Seg	Mode7 Full 24Seg	Mode8 Full 48Seg
22		[b] Shutter	[s] Duration Beam	[s] Duration Beam	[s] Duration Beam	[b] Shutter	[b] Shutter	[b] Shutter
23		[b] Select	[s] Rate Beam	[s] Rate Beam	[s] Rate Beam	[b] Select	[b] Select	[b] Select
24		[b] Speed	[s] Int. Plate coarse	[s] Int. Plate coarse	[s] Int. Plate coarse	[b] Speed	[b] Speed	[b] Speed
25		[b] X-Fade	[s] Int. Plate fine	[s] Int. Plate fine	[s] Int. Plate fine	[b] X-Fade	[b] X-Fade	[b] X-Fade
26		[b] Transition	[s] Duration Plate	[s] Duration Plate	[s] Duration Plate	[b] Transition	[b] Transition	[b] Transition
27		[p] Int. coarse	[s] Rate Plate	[s] Rate Plate	[s] Rate Plate	[p] Int. coarse	[p] Int. coarse	[p] Int. coarse
28		[p] Int. fine	[s] Beam1	[s] Beam1	[s] Beam1	[p] Int. fine	[p] Int. fine	[p] Int. fine
29		[p] Shutter	[s] Beam2	[s] Beam2	[s] Beam2	[p] Shutter	[p] Shutter	[p] Shutter
30		[p] Red	[s] Beam3	[s] Beam3	[s] Beam3	[p] Red	[p] Red	[p] Red
31		[p] Green	[s] Beam4	[s] Beam4	[s] Beam4	[p] Green	[p] Green	[p] Green
32		[p] Blue	[s] Beam5	[s] Beam5	[s] Beam5	[p] Blue	[p] Blue	[p] Blue
33		[p] White	[s] Beam6	[s] Beam6	[s] Beam6	[p] White	[p] White	[p] White
34		[p] Select	[s] Beam7	[s] Beam7	[s] Beam7	[p] Select	[p] Select	[p] Select
35		[p] Speed	[s] Beam8	[s] Beam8	[s] Beam8	[p] Speed	[p] Speed	[p] Speed
36		[p] X-Fade	[s] Beam9	[s] Beam9	[s] Beam9	[p] X-Fade	[p] X-Fade	[p] X-Fade
37		[p] Transition	[s] Beam10	[s] Beam10	[s] Beam10	[p] Transition	[p] Transition	[p] Transition
38			[s] Beam11	[s] Beam11	[s] Beam11	[s] Int. Beam coarse	[s] Int. Beam coarse	[s] Int. Beam coarse
39			[s] Beam12	[s] Beam12	[s] Beam12	[s] Int. Beam fine	[s] Int. Beam fine	[s] Int. Beam fine
40			[s] 1 Red	[s] 1 Red	[s] 1 Red	[s] Duration Beam	[s] Duration Beam	[s] Duration Beam
41			[s] 1 Green	[s] 1 Green	[s] 1 Green	[s] Rate Beam	[s] Rate Beam	[s] Rate Beam
42			[s] 1 Blue	[s] 1 Blue	[s] 1 Blue	[s] Int. Plate coarse	[s] Int. Plate coarse	[s] Int. Plate coarse
43			[s] 1 White	[s] 1 White	[s] 1 White	[s] Int. Plate fine	[s] Int. Plate fine	[s] Int. Plate fine
44			[s] 2 Red	[s] 2 Red	[s] 2 Red	[s] Duration Plate	[s] Duration Plate	[s] Duration Plate
45			[s] 2 Green	[s] 2 Green	[s] 2 Green	[s] Rate Plate	[s] Rate Plate	[s] Rate Plate
46			[s] 2 Blue	[s] 2 Blue	[s] 2 Blue	[s] Beam1	[s] Beam1	[s] Beam1
47			[s] 2 White	[s] 2 White	[s] 2 White	[s] Beam2	[s] Beam2	[s] Beam2
48			...	...	...	[s] Beam3	[s] Beam3	[s] Beam3
49			(RGBW control for 12 seg)	(RGBW control for 24 seg)	(RGBW control for 48 seg)	[s] Beam4	[s] Beam4	[s] Beam4
50						[s] Beam5	[s] Beam5	[s] Beam5
51						[s] Beam6	[s] Beam6	[s] Beam6

Ch	Mode1 Basic	Mode2 FX	Mode3 12 Seg	Mode4 24Seg	Mode5 48Seg	Mode6 Full 12Seg	Mode7 Full 24Seg	Mode8 Full 48Seg
52						[s] Beam7	[s] Beam7	[s] Beam7
53						[s] Beam8	[s] Beam8	[s] Beam8
54						[s] Beam9	[s] Beam9	[s] Beam9
55						[s] Beam10	[s] Beam10	[s] Beam10
56						[s] Beam11	[s] Beam11	[s] Beam11
57						[s] Beam12	[s] Beam12	[s] Beam12
58						[s] 1 Red	[s] 1 Red	[s] 1 Red
59						[s] 1 Green	[s] 1 Green	[s] 1 Green
60						[s] 1 Blue	[s] 1 Blue	[s] 1 Blue
61						[s] 1 White	[s] 1 White	[s] 1 White
62						[s] 2 Red	[s] 2 Red	[s] 2 Red
63						[s] 2 Green	[s] 2 Green	[s] 2 Green
64						[s] 2 Blue	[s] 2 Blue	[s] 2 Blue
65						[s] 2 White	[s] 2 White	[s] 2 White
...						...	...	...
...						(RGBW control for 12 seg)	(RGBW control for 24 seg)	(RGBW control for 48 seg)

Note: **[s] Beam Segments** shows where the individual segment controls start for the Beam element. Each Beam segment is controlled by 1 channel (intensity).

The control channels for Beam Segments normally follow on after the other control channels, but if option **Segment Engine Beam → Separate Patch** is set to ON, the Beam Segment controls may be independently addressed in a different part of the patch.

**[s] Plate Segments** controls start after the end of the Beam Segment controls. Each Plate segment is controlled by 4 channels (Red, Green, Blue, White). There may be 12, 24 or 48 sets of RGB/RGBW controls for the Plate segments as set by the DMX mode.

The control channels for Plate Segments normally follow on after the other control channels, but if option **Segment Engine Plate → Separate Patch** is set to ON, the [s] controls may be independently addressed in a different part of the patch.

## 4. Channel details

The Home/Default value to be sent by the console is normally zero. If the Home/Default value is non-zero, the value is given at the end of the table.

### Tilt (16 bits)

Feature	Command	DMX range		Fade
Tilt coarse	Tilt back → front	0	65535	Fade
Tilt fine				

Home/Default value: 32768

### Control/Settings

- Fixture Option Default settings are indicated with **bold type**.
- Where commands are marked **(3s hold)**, you must send that DMX value continuously for 3 seconds (or other duration if indicated in the table) to apply the command.

Feature	DMX range	fade	Note
Idle	0	9	snap
No function	10	11	
iQ.Service Connect ON	12	13	snap Will wake up the GLP iQ.Mesh Module for 5 Minutes and enable the connectivity to the GLP iQ.Service App. As long as this value is active it will extend the 5 min period.
No function	14	19	
<b>Dimmer Curve: Soft (Square)</b>	20	21	snap (3s hold) (DEFAULT)
Dimmer Curve: Linear	22	23	snap (3s hold)
Dimmer Curve: S-Curve	24	25	snap (3s hold)
No function	26	29	
Display Mode: OFF	30	31	snap (3s hold)
<b>Display Mode: Auto</b>	32	33	snap (3s hold) (DEFAULT)
Display Mode : ON	34	35	snap (3s hold)
No function	36	37	
<b>Display Orientation: Auto</b>	38	39	snap (3s hold) (DEFAULT)
Display Orientation: Normal	40	41	snap (3s hold)
Display Orientation: Flip	42	43	snap (3s hold)
No function	44	45	
<b>No Signal: Blackout</b>	46	47	snap (3s hold) (DEFAULT)
No Signal: Hold	48	49	snap (3s hold)
No Signal: Houselight	50	51	snap (3s hold)
No Signal: Scene	52	53	snap (3s hold)
Capture DMX Scene	54	55	snap (3s hold)
Fan Mode : Minimum	56	57	snap (3s hold)
<b>Fan Mode: Regulated</b>	58	59	snap (3s hold) (DEFAULT)
Fan Mode: High	60	61	snap (3s hold)
Fan Mode : Medium	62	63	snap (3s hold)
Fan Mode: Low	64	65	snap (3s hold)
No function	66	69	
<b>Pixel Mirror: Off</b>	70	71	snap (3s hold) (DEFAULT)
Pixel Mirror: x-mirror	72	73	snap (3s hold)
Pixel Mirror: y-mirror	74	75	snap (3s hold)
Pixel Mirror: x;y-mirror	76	77	snap (3s hold)

Feature	DMX range		fade	Note
No function	78	79		
<b>Duration Control: Normal (Default)</b>	80	81	snap	(3s hold) (DEFAULT)
Duration Control: Percentage	82	83	snap	(3s hold)
No function	84	91		
Position Feedback: OFF	92	93	snap	(3s hold)
<b>Position Feedback: ON</b>	94	95	snap	(3s hold) (DEFAULT)
No function	96	97		
<b>Tilt invert OFF</b>	98	99	snap	(3s hold) (DEFAULT)
Tilt invert ON	100	101	snap	(3s hold)
No function	102	103		
<b>Tilt Disable: Off</b>	104	105	snap	(3s hold) (DEFAULT)
Tilt Disable: Current Disabled	106	107	snap	(3s hold)
No function	108	135		
<b>Color Gamut D65 RGB(W)+</b>	136	137		(3s hold) (DEFAULT) White point 6500K Color mix RGB with auto White additive
Color Gamut D65 RGB(W)-	138	139	snap	(3s hold) White point 6500K Color mix RGB with auto White additive
Color Gamut D65 RGB	140	141	snap	(3s hold) White point 6500K Color mix RGB without White
Color Gamut RAW	142	143	snap	(3s hold) White point NO-RAW Color mix RGB without White
No function	144	147		
<b>White Beam: Normal</b>	148	149		White Plate LEDs follow RGB pixels according to Color Gamut
White Beam: Expanded white	150	151		White Plate LEDs follow Beam pixels to have more white punch
No function	152	165		
PWM Frequency: Max (M)	166	167		(3s hold)
PWM Frequency: High 2 (H2)	168	169		(3s hold)
PWM Frequency: High 1 (H1)	170	171		(3s hold)
<b>PWM Frequency: Optimal (O)</b>	<b>172</b>	<b>173</b>		(3s hold) (DEFAULT)
No function	182	189		
<b>Hibernation: OFF</b>	190	191	snap	(3s hold) (DEFAULT)
Hibernation: ON	192	193	snap	(3s hold)
No function	194	199		
Main Link [b]: OFF	200	201		Menu main link settings
<b>Main Link [b]: ON</b>	202	203		Menu main link settings
Main Link [p]: OFF	204	205		Menu main link settings
<b>Main Link [p]: ON</b>	206	207		Menu main link settings
Main Link Pixel Beam: OFF	208	209		Menu main link settings
<b>Main Link Pixel Beam: ON</b>	210	211		Menu main link settings
Main Link Pixel Plate: OFF	212	213		Menu main link settings
<b>Main Link Pixel Plate: ON</b>	214	215		Menu main link settings
No function	216	243		
Load Settings Default	244	245	snap	(3s hold)
No function	246	251		
Reset Tilt	252	253	snap	(3s Hold) - To reset again, set to zero first for 3s (to avoid continuous reset).
Reset ALL	254	255	snap	(3s Hold) - To reset again, set to zero first for 3s (to avoid continuous reset).

### Mix Priority Beam + Plate

Feature	Dmx range		Fade	Description
Main Module & Pattern & Pixel Engine (HTP)	0	9	snap	the highest value of main- or pattern or pixel engine defines the resulting value.
Main Module Only	10	19	snap	The value of the pattern and pixel fixture will be ignored. The resulting value is the values of the main value.
Pattern Module Only	20	29	snap	The value of the main and pixel engine will be ignored. The resulting value is the values of the Pattern value.
Pixel Module Only	30	39	snap	The value of the main and pattern will be ignored. The resulting value is the values of the Pattern value.
Main & Pattern HTP + Pixel Module Module additive	40	49	snap	The main value and pattern will function HTP The value of the pixel engine will be added to this. The resulting value is the sum of both values.
Main & Pattern HTP - Pixel Module subtractive	50	59	snap	The main value and pattern will function HTP The value of the pixel engine will be subtracted from this.
Pixel Module - (Main & Pattern HTP) subtractive	60	69	snap	The main value and pattern will function HTP This value will be subtracted from the value of the pixel engine value.
Main Module over Pixel Module Snap	70	79	snap	Output from the Pixel Engine Module stays in the background. Output from the Main fixture Module has higher priority and will not mix with the Pixel Engine color. As soon the output value of the main module is >0 the Pixel Engine will black out and the Main value will appear. Pattern Engine will HTP into the result
Pixel Module over Main & Pattern Module Snap	80	89	snap	Output from the Main & Pattern (HTP) fixture Module stays in the background. Output from the Pixel Modules has higher priority and will not mix with the main value. As soon the output value of the Pixel module is >0 the main & pattern value will black out and the pixel engine will appear.
Main & Pattern over Pixel Crossfade	90	99	snap	Output value from the Pixel fixture Modules stays in the background and the Output value from the Main & Pattern (HTP) module has higher priority. If you fade in a Main & Pattern (HTP) value, the Pixel value will crossfade to the Main value.
Pixel Module over Pixel Module Crossfade	100	109	snap	Output value from the Main & Pattern Module stays in the background and the Output value from the Pixel Modules has higher priority. If you fade in a Main value, the Pixel value will crossfade to the Main & Pattern value.
Not Used	110	127		Not used = Main & Sub (HTP)
Main & Pattern (HTP) Module only	128	130	snap	

Feature	Dmx range		Fade	Description
Crossfade ...	...	...	fade	smooth fading
Main Module & Pattern & Pixel Module (HTP)	191	192	snap	(default value)
Crossfade ...	...	...	fade	smooth fading
Pixel Module only	253	255	snap	

## Intensity (Dimmer)

(Beam Module, Plate Module, Pixel engine)

Feature	DMX range		Fade
Intensity coarse	0	65535	Fade
Intensity fine			

Home/Default value: 65535

## Duration

(Beam Module, Plate Module)

Feature	DMX range	Fade	Notes
Duration	0	255	fade

## Rate (Shutter)

(Beam Module, Plate Module)

Function	DMX range		fade	Notes
Close	0	4	snap	
slow..fast	5	250	fade	
Open	251	255	snap	

Home/Default value: 255



**Shutter Mode**

(Beam Module, Plate Module)

<b>Function</b>	<b>DMX range</b>		<b>fade</b>	<b>Notes</b>
Off	0	4	snap	
Single Flash	5	9	snap	One Single Flash with each Flash Rate Value Change
Spread FX	10	14	snap	Timing Offset to create amazing flash chaser
Random (All)	15	19	snap	Random Flashes between multiple fixtures with all Pixel Synchron / Set flash intensity, duration, and rate as normal.
Random (Segments)	20	24	snap	Random Flashes of random Pixel/Segment within a fixture and between multiple fixtures. Low Rate = low quantity of pixel / High rate = higher quantity of pixel. Duration will set the flash duration.
Pulse (All) (Ramp up/down)	25	29	snap	Light gradually increases and decreases / all Fixture synchro / Duration will set the ON time / Set intensity and rate as normal
Pulse Random (All)	30	34	snap	Light gradually increases and decreases / randomly between multiple Fixture / Duration will set the ON time / Set intensity and rate as normal
Pulse Random (Segments)	35	39	snap	
Pulse Open (All)	40	44	snap	Light gradually increases in intensity, then blacks out / all Fixture synchro / Duration will set the ON time / Set intensity and rate as normal
Pulse Open Random (All)	45	49	snap	Light gradually increases in intensity, then blacks out / randomly between multiple Fixture / Duration will set the ON time / Set intensity and rate as normal
Pulse Open Random (Segments)	50	54	snap	
Pulse Close (All)	55	59	snap	Light flashes to full intensity, then gradually fades / all Fixture synchro / Duration will set the ON time / Set intensity and rate as normal
Pulse Close Random (All)	60	64	snap	Light flashes to full intensity, then gradually fades / randomly between multiple Fixture / Duration will set the ON time / Set intensity and rate as normal
Pulse Close Random (Segments)	65	69	snap	
Double-Flash (All)	70	74	snap	Quick Double-Flash / all Fixture synchro / Duration will set the length of the flashes but there will always be a blackout in between the flashes / Set intensity and rate as normal
Double-Flash Random (All)	75	79	snap	Quick Double-Flash / randomly between multiple Fixture / Duration will set the length of the flashes but there will always be a blackout in between the flashes / Set intensity and rate as normal
Triple-Flash (All)	80	84	snap	Quick Triple-Flash / all Fixture synchro / Duration will set the length of the flashes but there will always be a blackout in between the flashes / Set intensity and rate as normal
Triple-Flash Random (All)	85	89	snap	Quick Triple-Flash / randomly between multiple Fixture / Duration will set the length of the flashes but there will always be a blackout in between the flashes / Set intensity and rate as normal
Lightning	90	94	snap	The flashes simulate lightning. Duration is not adjustable / Set intensity and rate as normal
Paparazzi	95	99	snap	Flashes like Paparazzi photographs

Function	DMX range		fade	Notes
Spikes (All) (Light over Lowlight)	100	104	snap	The LEDs remains dimly illuminated between flashes. Rate will set the flash period and duration the flash length. All LED-Segments will act as one group.
Spikes (Segments) (Light Segments over Lowlight)	105	109	snap	The lamp remains dimly illuminated between flashes. Rate will set the flash period and duration the flash length. All LED-Segments will act individually.
Chaser Flash LR*	110	114	snap	Sync Chaser Flash Left to Right
Chaser Flash LR Random*	115	119	snap	random Chaser Flash Left to Right
Chaser Flash RL*	120	124	snap	Sync Chaser Flash Right to Left
Chaser Flash RL Random*	125	129	snap	Random Chaser Flash Right to Left
Bounce Flash LR*	130	134	snap	Sync Bounce, starting left
Bounce Flash LR Random*	135	139	snap	Random Bounce, starting left
Bounce Flash RL*	140	144	snap	Sync Bounce, starting right
Bounce Flash RL Random*	145	149	snap	Random Bounce, starting right
Bounce center to out *	150	154	snap	
Bounce center to out random*	155	159	snap	
Center to Out Flash*	160	164	snap	Sync Flash from Center to outside
Center to Out Flash Random*	165	169	snap	Random Flash from Center to outside
Out to Center Flash*	170	174	snap	Sync Flash from Outside to center
Out to Center Flash Random*	175	179	snap	Random Flash from Outside to center
Bounce Out to Center Flash*	180	184	snap	
Bounce Out to Center Flash Random*	185	189	snap	
not used	190	255	snap	

\* = Only Strobe Line

## RGBW channels

(Plate Module, Pixel Engine)

Function	DMX range		fade
Red	0	255	fade
Green	0	255	fade
Blue	0	255	fade
White	0	255	fade

### Pattern Select

Pattern Select	Beam	Plate	Pattern Editor	DMX range	fade	Notes
Idle			1	0	9	snap All Pixel
Static Pattern 01	All On	Row1	2	10	11	snap
Static Pattern 02	Cell 1	Row2	3	12	13	snap
Static Pattern 03	Cell 2	Row3	4	14	15	snap
Static Pattern 04	Cell 3	Row4	5	16	17	snap
Static Pattern 05	Cell 4	Top	6	18	19	snap
Static Pattern 06	Cell 5	Bottom	7	20	21	snap
Static Pattern 07	Cell 6	Left	8	22	23	snap
Static Pattern 08	Cell 7	Right	9	24	25	snap
Static Pattern 09	Cell 8	Col1	10	26	27	snap
Static Pattern 10	Cell 9	Col2	11	28	29	snap
Static Pattern 11	Cell 10	Col3	12	30	31	snap
Static Pattern 12	Cell 11	Col4	13	32	33	snap
Static Pattern 13	Cell 12	Col5	14	34	35	snap
Static Pattern 14	Cell 1 + 12	Col6	15	36	37	snap
Static Pattern 15	Cell 2 + 11	Col7	16	38	39	snap
Static Pattern 16	Cell 3 + 10	Col8	17	40	41	snap
Static Pattern 17	Cell 4 + 9	Col9	18	42	43	snap
Static Pattern 18	Cell 5 + 8	Col10	19	44	45	snap
Static Pattern 19	Cell 6 + 7	Col11	20	46	47	snap
Static Pattern 20	Center 4	Col12	21	48	49	snap
Static Pattern 21	Center 6	Q1	22	50	51	snap
Static Pattern 22	Center 8	Q2	23	52	53	snap
Static Pattern 23	Center 10	Q3	24	54	55	snap
Static Pattern 24	Center Invert 4	Q4	25	56	57	snap
Static Pattern 25	Center Invert 6	Odd	26	58	59	snap
Static Pattern 26	Center Invert 8	Even	27	60	61	snap
Static Pattern 27	Center Invert 10	Odd Col	28	62	63	snap
Static Pattern 28	Left	Even Col	29	64	65	snap
Static Pattern 29	Right	1/3 Col	30	66	67	snap
Static Pattern 30	Odd	2/3 Col	31	68	69	snap
Static Pattern 31	Even	3/3 Col	32	70	71	snap
Static Pattern 32	Odd2	1/4 Col	33	72	73	snap
Static Pattern 33	Even2	2/4 Col	34	74	75	snap
Static Pattern 34	Odd3	3/4 Col	35	76	77	snap
Static Pattern 35	Even3	4/4 Col	36	78	79	snap
Static Pattern 36	2-1 Flip	1/6 Col	37	80	81	snap
Static Pattern 37	2-1 Flop	2/6 Col	38	82	83	snap
Static Pattern 38	1-2 Flip	3/6 Col	39	84	85	snap
Static Pattern 39	1-2 Flop	4/6 Col	40	86	87	snap
Static Pattern 40	1-3 Flip	5/6 Col	41	88	89	snap
Static Pattern 41	1-3 Flop	6/6 Col	42	90	91	snap
Static Pattern 42	3-1 Flip	Outer Row	43	92	93	snap
Static Pattern 43	3-1 Flop	Inner Row	44	94	95	snap
Static Pattern 44	3-2-3 Flip	Outer Block	45	96	97	snap
Static Pattern 45	3-2-3 Flop	Inner Block	46	98	99	snap
Static Pattern 46	2-4-2 Flip	Odd 2Col	47	100	101	snap
Static Pattern 47	2-4-2 Flop	Even 2Col	48	102	103	snap
Static Pattern 48	2x3 Flip	Odd 3Col	49	104	105	snap
Static Pattern 49	2x3 Flop	Even 3Col	50	106	107	snap
Static Pattern 50		Odd Quadrant	51	108	109	snap
Static Pattern 51		Even Quadrant	52	110	111	snap
Static Pattern 52		Outer Double Block	53	112	113	snap

Pattern Select	Beam	Plate	Pattern Editor	DMX range	fade	Notes
Static Pattern 53		Inner Double Block	54	114	115	snap
Static Pattern 54		Outer Triple Block	55	116	117	snap
Static Pattern 55		Inner Triple Block	56	118	119	snap
Static Pattern 56		3Col 1/4	57	120	121	snap
Static Pattern 57		3Col 2/4	58	122	123	snap
Static Pattern 58		3Col 3/4	59	124	125	snap
Static Pattern 59		3Col 4/4	60	126	127	snap
Dynamic Pattern 01	1Px LR	LR Line	61	128	129	snap
Dynamic Pattern 02	1Px LR Invert	RL Line	62	130	131	snap
Dynamic Pattern 03	1Px LR Bounce	UD Line	63	132	133	snap
Dynamic Pattern 04	1Px LR Bounce Invert	DU Line	64	134	135	snap
Dynamic Pattern 05	2Px LR	Bounce LR Line	65	136	137	snap
Dynamic Pattern 06	2Px LR Invert	Bounce RL Line	66	138	139	snap
Dynamic Pattern 07	2Px LR Bounce	Bounce UD Line	67	140	141	snap
Dynamic Pattern 08	2Px LR Bounce Invert	Bounce DU Line	68	142	143	snap
Dynamic Pattern 09	3Px LR	Fill LR	69	144	145	snap
Dynamic Pattern 10	3Px LR Invert	Fill RL	70	146	147	snap
Dynamic Pattern 11	1Px LR Fill Wipe	Fill UD	71	148	149	snap
Dynamic Pattern 12	3x 2Px	Fill DU	72	150	151	snap
Dynamic Pattern 13	2x 3Px	Left/Right	73	152	153	snap
Dynamic Pattern 14	2x 1Px	Up/Down	74	154	155	snap
Dynamic Pattern 15	2x 2Px	Double Left/Right	75	156	157	snap
Dynamic Pattern 16	3Px LR Bounce	Double Up/Down	76	158	159	snap
Dynamic Pattern 17	3Px LR Bounce Invert	Triple Left/Right	77	160	161	snap
Dynamic Pattern 18	1Px LR Fill	Row Cross	78	162	163	snap
Dynamic Pattern 19	1Px RL Fill	Double Row Cross	79	164	165	snap
Dynamic Pattern 20	1Px LR Fill Up/Down	6Col UD Bounce	80	166	167	snap
Dynamic Pattern 21	1Px RL Fill Up/Down	12 Col UD Bounce	81	168	169	snap
Dynamic Pattern 22	2Px Center	4Col Jump	82	170	171	snap
Dynamic Pattern 23	2Px Center Invert	4Row Jump	83	172	173	snap
Dynamic Pattern 24	2Px Center Bounce	6Col Block LR	84	174	175	snap
Dynamic Pattern 25	2Px Center Bounce Invert	6Col Block RL	85	176	177	snap

Pattern Select	Beam	Plate	Pattern Editor	DMX range	fade	Notes
Dynamic Pattern 26	4Px Center	Quadrants	86	178	179	snap
Dynamic Pattern 27	4Px Center Invert	OE Pixels	87	180	181	snap
Dynamic Pattern 28	4Px Center Bounce	OE Cols	88	182	183	snap
Dynamic Pattern 29	4Px Center Bounce Invert	Double Quadrants	89	184	185	snap
Dynamic Pattern 30	2Px Center Fill	OE Quadrants	90	186	187	snap
Dynamic Pattern 31	2Px Center Fill Invert	OE Double Quadrants	91	188	189	snap
Dynamic Pattern 32	2Px Center Fill Up/Down	Inner/Outer Rows	92	190	191	snap
Dynamic Pattern 33	2Px Center Fill Up/Down Invert	Inner/Outer Blocks	93	192	193	snap
Dynamic Pattern 34	Odd/Even	Inner/Outer Double Blocks	94	194	195	snap
Dynamic Pattern 35	Odd/Even 2Px	Inner/Outer Triple Blocks	95	196	197	snap
Dynamic Pattern 36	Odd/Even 3Px	Top/Bottom Line Cross	96	198	199	snap
Dynamic Pattern 37	Odd/Even 4Px	Top/Bottom Line Bounce	97	200	201	snap
Dynamic Pattern 38	FlipFlop 2-1	Top/Bottom Line Fill	98	202	203	snap
Dynamic Pattern 39	FlipFlop 2-1 Sym	Random 1	99	204	205	snap
Dynamic Pattern 40	FlipFlop 3-1-1-3	Random 4	100	206	207	snap
Dynamic Pattern 41	Random1	Ver Snake Fill UL	101	208	209	snap
Dynamic Pattern 42	Random2	Ver Snake Fill Whipe UL	102	210	211	snap
Dynamic Pattern 43	Random3	Hor Snake Fill UL	103	212	213	snap
Dynamic Pattern 44	Random	Hor Snake Fill Whipe UL	104	214	215	snap
Dynamic Pattern 45	Left/Right	Diagonal UR	105	216	217	snap
Dynamic Pattern 46	3Px Jump	Diagonal UL	106	218	219	snap
Dynamic Pattern 47	-	Double Fan	107	220	221	snap
Dynamic Pattern 48	-	Single Fan	108	222	223	snap
Dynamic Pattern 49	-	Single Arrow L	109	224	225	snap
Dynamic Pattern 50	-	Single Arrow R	110	226	227	snap
Dynamic Pattern 51	-	Triple Fan	111	228	229	snap
not used				230	249	snap
Random Pixel				250	255	snap Random Pixel Pattern

**Pattern Step / Speed**

<b>Function</b>	<b>DMX range</b>		<b>fade</b>
Stop (First Pattern Step)	0	2	snap
CW fast - slow (run Pattern Step 1..n)	3	63	fade
Stop at current position	64	66	snap
CCW slow - fast (run Pattern Step n..1)	67	127	fade
Pattern Step 01	128	129	snap
Pattern Step 02	130	131	snap
Pattern Step 03	132	133	snap
Pattern Step 04	134	135	snap
Pattern Step 05	136	137	snap
Pattern Step 06	138	139	snap
Pattern Step 07	140	141	snap
Pattern Step 08	142	143	snap
Pattern Step 09	144	145	snap
Pattern Step 10	146	147	snap
Pattern Step 11	148	149	snap
Pattern Step 12	150	151	snap
Pattern Step 13	152	153	snap
Pattern Step 14	154	155	snap
Pattern Step 15	156	157	snap
Pattern Step 16	158	159	snap
Pattern Step 17	160	161	snap
Pattern Step 18	162	163	snap
Pattern Step 19	164	165	snap
Pattern Step 20	166	167	snap
Pattern Step 21	168	169	snap
Pattern Step 22	170	171	snap
Pattern Step 23	172	173	snap
Pattern Step 24	174	175	snap
Pattern Step 25	176	177	snap
Pattern Step 26	178	179	snap
Pattern Step 27	180	181	snap
Pattern Step 28	182	183	snap
Pattern Step 29	184	185	snap
Pattern Step 30	186	187	snap
Pattern Step 31	188	189	snap
Pattern Step 32	190	191	snap
Pattern Step 33	192	193	snap
Pattern Step 34	194	195	snap
Pattern Step 35	196	197	snap
Pattern Step 36	198	199	snap
Pattern Step 37	200	201	snap
Pattern Step 38	202	203	snap
Pattern Step 39	204	205	snap
Pattern Step 40	206	207	snap
Pattern Step 41	208	209	snap
Pattern Step 42	210	211	snap
Pattern Step 43	212	213	snap
Pattern Step 44	214	215	snap
Pattern Step 45	216	217	snap
Pattern Step 46	218	219	snap
Pattern Step 47	220	221	snap
Pattern Step 48	222	223	snap
Pattern Step 49	224	225	snap
Pattern Step 50	226	227	snap

<b>Function</b>	<b>DMX range</b>		<b>fade</b>
Pattern Step 51	228	229	snap
Pattern Step 52	230	231	snap
Pattern Step 53	232	233	snap
Pattern Step 54	234	235	snap
Pattern Step 55	236	237	snap
Pattern Step 56	238	239	snap
Pattern Step 57	240	241	snap
Pattern Step 58	242	243	snap
Pattern Step 59	244	245	snap
Pattern Step 60	246	247	snap
Step direction control			
Next Step A	248	249	snap
Next Step B	250	251	snap
Previous Step A	252	253	snap
Previous Step B	254	255	snap

## Pattern Step Crossfade

Sets the fade time between pattern steps

Function	DMX range		Slot Style
Off (no Crossfade = Snap)	0	9	snap
XFade = Snap .. min. XFade .. max. XFade (Fade in and fade out time is identical)	10	127	fade
Off (no Crossfade = Snap)	128	137	snap
XFade with Tail = Snap .. min. XFade with Tail .. max. XFade with Tail (Fade-In time is shorter than Fade out time - this creates a shadow effect)	138	255	fade

## Pattern Transition

Sets a fade when a different pattern is selected

Function	DMX range		fade	
Off (Snap between different Patterns)	0	9	snap	Pattern A to Pattern B will snap
Normal Transition (snap .. fade 5s)	10	63	fade	Pattern A to Pattern B will crossfade 0-5s
Off (Snap between different Patterns)	64	73	snap	Pattern A to Pattern B will snap
FOB Transition / Fade over Blackout (snap .. fade 5s)	74	127	fade	Pattern A to Pattern B will crossfade over Blackout 0-5s
Off (Snap between different Patterns)	128	137	snap	Pattern A to Pattern B will snap
FOF Transition / Fade over Full (snap .. fade 5s)	138	191	fade	Pattern A to Pattern B will crossfade over Full 0-5s
Off - reserved for additional feature	192	201		
No Transition Time - reserved for additional feature	202	255		



-GLP-