

# 13 - DMX CHARTS

## Fixture Engine

Ch	Basic	FX	Standard	Extended
1	Pan	Pan	Pan	Pan
2	Pan Fine	Pan Fine	Pan Fine	Pan Fine
3	Tilt	Tilt	Tilt	Tilt
4	Tilt Fine	Tilt Fine	Tilt Fine	Tilt Fine
5	Dimmer	Dimmer	Dimmer	Dimmer
6	Dimmer Fine	Dimmer Fine	Dimmer Fine	Dimmer Fine
7	Shutter / Strobe	Shutter / Strobe	Shutter / Strobe	Shutter / Strobe
8	Red	Red	Red	Red
9	Green	Green	Red Fine	Red Fine
10	Blue	Blue	Green	Green
11	White	White	Green Fine	Green Fine
12	Color Macro	CCT	Blue	Blue
13	CCT	Zoom	Blue Fine	Blue Fine
14	Zoom	Crossfade Pixel Engine Protocol	White	White
15	Crossfade Pixel Engine Protocol	Crossfade from Color to Pixel Engine	White Fine	White Fine
16	Crossfade from Color to Pixel Engine	Crossfade from White to Color	Color Macro	Color Macro
17	Crossfade from White to Color	Control	CCT	CCT
18	Control	Pattern	Zoom	Zoom
19	Ring Foreground Intensity	Pattern Speed	Zoom Fine	Zoom Fine
20	Ring Foreground Strobe	Pattern Fade	Crossfade Pixel Engine Protocol	Crossfade Pixel Engine Protocol
21	Ring Foreground Red	Pattern Transition	Crossfade from Color to Pixel Engine	Crossfade from Color to Pixel Engine
22	Ring Foreground Green	Foreground Intensity	Crossfade from White to Color	Crossfade from White to Color
23	Ring Foreground Blue	Foreground Strobe	Control	Control
24		Background Intensity	CTO on colors	CTO on colors
25		Background Strobe	Tint	Tint
26		Background Red	Ring Foreground Intensity	Pattern
27		Background Green	Ring Foreground Strobe	Pattern Speed
28		Background Blue	Ring Foreground Red	Pattern Fade
29		Background White	Ring Foreground Green	Pattern Transition
30		Ring Dimmer	Ring Foreground Blue	Foreground Intensity
31		Ring Pattern		Foreground Strobe
32		Ring Pattern Speed		Background Intensity
33		Ring Pattern Fade		Background Strobe
34		Ring Pattern Transition		Background Red
35		Ring Foreground Intensity		Background Green

## Fixture Engine

Ch	Basic	FX	Standard	Extended
36		Ring Foreground Strobe		Background Blue
37		Ring Foreground Red		Background White
38		Ring Foreground Green		Ring Dimmer
39		Ring Foreground Blue		Ring Pattern
40		Ring Background Intensity		Ring Pattern Speed
41		Ring Background Strobe		Ring Pattern Fade
42		Ring Background Red		Ring Pattern Transition
43		Ring Background Green		Ring Foreground Intensity
44		Ring Background Blue		Ring Foreground Strobe
45				Ring Foreground Red
46				Ring Foreground Green
47				Ring Foreground Blue
48				Ring Background Intensity
49				Ring Background Strobe
50				Ring Background Red
51				Ring Background Green
52				Ring Background Blue

## Pixel Engine

Channel	Off	Ring	Pixel
1		Red 1	Red 1
2		Green 1	Green 1
3		Blue 1	Blue 1
4		White 1	White 1
5		Red 2	Red 2
6		Green 2	Green 2
7		Blue 2	Blue 2
8		White 2	White 2
9		Red 3	Red 3
10		Green 3	Green 3
11		Blue 3	Blue 3
12		White 3	White 3
13		Red 4	Red 4
14		Green 4	Green 4
15		Blue 4	Blue 4
16		White 4	White 4
17			Red 5
18			Green 5
19			Blue 5
20			White 5
21			Red 6
22			Green 6
23			Blue 6
24			White 6
25			Red 7
26			Green 7
27			Blue 7
28			White 7
...			...
145			Red 37
146			Green 37
147			Blue 37
148			White 37

Bas	FX	Std	Ext	Function	DMX Value	Default
1	1	1	1	<b>PAN</b> Lineary from 0% to 100%	000 ÷ 255	128
2	2	2	2	<b>PAN FINE</b> Lineary from 0% to 100%	000 ÷ 255	128
3	3	3	3	<b>TILT</b> Lineary from 0% to 100%	000 ÷ 255	128
4	4	4	4	<b>TILT FINE</b> Lineary from 0% to 100%	000 ÷ 255	128
5	5	5	5	<b>DIMMER</b> Lineary from close to open	000 ÷ 255	000
6	6	6	6	<b>DIMMER FINE</b> Lineary from close to open	000 ÷ 255	000
7	7	7	7	<b>SHUTTER</b> Close Strobe from slow to fast Open Pulse in from slow to fast Open Pulse out from slow to fast Open Random from slow to fast Open	000 ÷ 001 002 ÷ 062 063 ÷ 064 065 ÷ 125 126 ÷ 127 128 ÷ 188 189 ÷ 190 191 ÷ 251 252 ÷ 255	255
8	8	8	8	<b>RED</b> Lineary from 0% to 100%	000 ÷ 255	255
		9	9	<b>RED FINE</b> Lineary from 0% to 100%	000 ÷ 255	255
9	9	10	10	<b>GREEN</b> Lineary from 0% to 100%	000 ÷ 255	255
		11	11	<b>GREEN FINE</b> Lineary from 0% to 100%	000 ÷ 255	255
10	10	12	12	<b>BLUE</b> Lineary from 0% to 100%	000 ÷ 255	255
		13	13	<b>BLUE FINE</b> Lineary from 0% to 100%	000 ÷ 255	255
11	11	14	14	<b>WHITE</b> Lineary from 0% to 100%	000 ÷ 255	255
		15	15	<b>WHITE FINE</b> Lineary from 0% to 100%	000 ÷ 255	255
12		16	16	<b>COLOR MACRO</b> Open Red Green Blue Cyan Magenta Yellow Dirty White Alice Blue Congo Blue Dark Steel Blue Deep Lavender Lilac Ting Daylight Blue Flame Red Bastard Amber Deep Orange Pale Gold Apricot Bright Blue Primary Green Special Lavender Pale Lavender Deep Golden Amber Medium Blue Bright Pink Mauve Dark Green Lee Green Dark Blue	000 ÷ 001 002 ÷ 003 004 ÷ 005 006 ÷ 007 008 ÷ 009 010 ÷ 011 012 ÷ 013 014 ÷ 015 016 ÷ 017 018 ÷ 019 020 ÷ 021 022 ÷ 023 024 ÷ 025 026 ÷ 027 028 ÷ 029 030 ÷ 031 032 ÷ 033 034 ÷ 035 036 ÷ 037 038 ÷ 039 040 ÷ 041 042 ÷ 043 044 ÷ 045 046 ÷ 047 048 ÷ 049 050 ÷ 051 052 ÷ 053 054 ÷ 055 056 ÷ 057 058 ÷ 059	000

Bas	FX	Std	Ext	Function	DMX Value	Default
12		16	16	<b>COLOR MACRO</b>		
				Light Blue	060 ÷ 061	
				Steel Blue	062 ÷ 063	
				Medium Blue+Green	064 ÷ 065	
				Peacock Blue	066 ÷ 067	
				Magenta	068 ÷ 069	
				Dark Pink	070 ÷ 071	
				Middle Rose	072 ÷ 073	
				Light Salmon	074 ÷ 075	
				English Rose	076 ÷ 077	
				Light Rose	078 ÷ 079	
				Orange	080 ÷ 081	
				Deep Amber	082 ÷ 083	
				Straw	084 ÷ 085	
				Light Amber	086 ÷ 087	
				Spring Yellow	088 ÷ 089	
				Dark Yellow Green	090 ÷ 091	
				Just Blue	092 ÷ 093	
				Sky Blue	094 ÷ 095	
				Lavender	096 ÷ 097	
				Light Lavender	098 ÷ 099	
				Pink Carnation	100 ÷ 101	
				Medium Pink	102 ÷ 103	
				Light Pink	104 ÷ 105	
				Sunset Red	106 ÷ 107	
				Dark Amber	108 ÷ 109	
				Gold Amber	110 ÷ 111	
				Medium Amber	112 ÷ 113	
				Fire	114 ÷ 115	
				Surprise Peach	116 ÷ 117	
				Straw Tint	118 ÷ 119	
				Medium Yellow	120 ÷ 121	
				Lee Minus Green	122 ÷ 123	
				Pale Gold	124 ÷ 125	
				Orange	126 ÷ 127	
				Deep Straw	128 ÷ 129	
				Rose Purple	130 ÷ 131	
				Deep Purple	132 ÷ 133	
				Soft Green	134 ÷ 135	
				Reserved	136 ÷ 211	
				2800K	212 ÷ 213	
3000K	214 ÷ 215					
3200K	216 ÷ 217					
3400K	218 ÷ 219					
3600K	220 ÷ 221					
3800K	222 ÷ 223					
4000K	224 ÷ 225					
4200K	226 ÷ 227					
4400K	228 ÷ 229					
4600K	230 ÷ 231					
4800K	232 ÷ 233					
5000K	234 ÷ 235					
5200K	236 ÷ 237					
5400K	238 ÷ 239					
5600K	240 ÷ 241					
6000K	242 ÷ 243					
6500K	244 ÷ 245					
7000K	246 ÷ 247					
8000K	248 ÷ 249					
9000K	250 ÷ 251					
10000K	252 ÷ 253					
Full On	254 ÷ 255					
13	12	17	17	<b>CCT</b> Linear from 2800K to 10000K	000 ÷ 255	000
14	13	18	18	<b>ZOOM</b> Lineary from 0% to 100%	000 ÷ 255	000
		19	19	<b>ZOOM FINE</b> Lineary from 0% to 100%	000 ÷ 255	000
15	14	20	20	<b>CROSSFADE PIXEL ENGINE PROTOCOL</b> Fades from 1 <sup>st</sup> to 2 <sup>nd</sup> protocol according to the combination choosed	000 ÷ 255	000

Bas	FX	Std	Ext	Function	DMX Value	Default
16	15	21	21	<b>CROSSFADE FROM COLOR ENGINE TO PIXEL ENGINE</b> Linear from Color Engine to Pixel Engine	000 ÷ 255	000
17	16	22	22	<b>CROSSFADE FROM WHITE TO COLOR</b> Linear from CCT to Color engine	000 ÷ 255	255
18	17	23	23	<b>CONTROL</b> No Function KLINGNET ON KLINGNET OFF PAN REVERSE ON PAN REVERSE OFF TILT REVERSE ON TILT REVERSE OFF PAN/TILT MODE FAST PAN/TILT MODE MEDIUM PAN/TILT MODE SLOW PAN/TILT MODE SYNC MOVEMENT IN BLACKOUT ON MOVEMENT IN BLACKOUT OFF HOME POSITION STANDARD HOME POSITION CUSTOM DISPLAY ON DISPLAY 10S DISPLAY 20S DISPLAY 30S FLIP DISPLAY ON FLIP DISPLAY OFF FLIP DISPLAY AUTO KEY LOCK ON KEY LOCK OFF FAN MODE AUTO FAN MODE SILENT FAN MODE HIGH WHITE CALIBRATION OFF WHITE CALIBRATION STUDIO WHITE CALIBRATION 8000K NO SIGNAL HOLD NO SIGNAL BLACKOUT STATUS LED ON STATUS LED OFF DIMMER CURVE LINEAR DIMMER CURVE S+CURVE DIMMER CURVE SQUARE LAW DIMMER CURVE INVERSE SQUARE LAW DIMMER SPEED AUTO DIMMER SPEED FAST DIMMER SPEED MEDIUM DIMMER SPEED SLOW LED FREQUENCY 600HZ LED FREQUENCY 1200HZ LED FREQUENCY 2000HZ LED FREQUENCY 4000HZ LED FREQUENCY 6000HZ LED FREQUENCY 25KHZ LED FREQUENCY 50KHZ INVERT MAPPING ON INVERT MAPPING OFF ZOOM MODE STANDARD ZOOM MODE PIXELS INVERT ZOOM OFF INVERT ZOOM ON TUNGSTEN EMULATION ON TUNGSTEN EMULATION OFF RESET ALL RESET PAN RESET TILT RESET PAN/TILT RESET ZOOM Reserved ETH TO DMX OFF ETH TO DMX ON (MAIN FIXTURE TO DMX) ETH TO DMX ON (PIXEL ENGINE TO DMX) WDMX TO DMX OFF WDMX TO DMX ON IN TO WDMX OFF IN TO WDMX ON (MAIN FIXTURE TO WDMX) IN TO WDMX ON (PIXEL ENGINE TO WDMX) Reserved FACTORY DEFAULT OF CONTROL FUNCTIONS	000 ÷ 001 002 ÷ 003 004 ÷ 005 006 ÷ 007 008 ÷ 009 010 ÷ 011 012 ÷ 013 014 ÷ 015 016 ÷ 017 018 ÷ 019 020 ÷ 021 022 ÷ 023 024 ÷ 025 026 ÷ 027 028 ÷ 029 030 ÷ 031 032 ÷ 033 034 ÷ 035 036 ÷ 037 038 ÷ 039 040 ÷ 041 042 ÷ 043 044 ÷ 045 046 ÷ 047 048 ÷ 049 050 ÷ 051 052 ÷ 053 054 ÷ 055 056 ÷ 057 058 ÷ 059 060 ÷ 061 062 ÷ 063 064 ÷ 065 066 ÷ 067 068 ÷ 069 070 ÷ 071 072 ÷ 073 074 ÷ 075 076 ÷ 077 078 ÷ 079 080 ÷ 081 082 ÷ 083 084 ÷ 085 086 ÷ 087 088 ÷ 089 090 ÷ 091 092 ÷ 093 094 ÷ 095 096 ÷ 097 098 ÷ 099 100 ÷ 101 102 ÷ 103 104 ÷ 105 106 ÷ 107 108 ÷ 109 110 ÷ 111 112 ÷ 113 114 ÷ 115 116 ÷ 117 118 ÷ 119 120 ÷ 121 122 ÷ 123 124 ÷ 125 126 ÷ 127 128 ÷ 129 130 ÷ 131 132 ÷ 133 134 ÷ 135 136 ÷ 137 138 ÷ 139 140 ÷ 141 142 ÷ 253 254 ÷ 255	000

Bas	FX	Std	Ext	Function	DMX Value	Default
		24	24	<b>CTO ON COLORS</b> Lineary from 0% to 100%	000 ÷ 255	000
		25	25	<b>TINT</b> +25 % to +0 % magenta balanced +0 % to +25 % green	000 ÷ 127 128 129 ÷ 255	128
	18		26	<b>PATTERN</b> No FX All rings In & Out All rings In & Out Bouncing Single Ring In & Out Single Ring In & Out Bouncing All Pixels In & Out in Right Direction Single Line In & Out in Right Direction Single Line In & Out Bouncing in Left / Right Direction All Pixels In & Out in Bottom Direction Single Line In & Out in Bottom Direction Single Line In & Out Bouncing in Top / Bottom Direction Half Pixels rotating clockwise Fixture divided into 2 parts ring effect Random with 1px Density Random with 2px Density Random with 4px Density Random with 5px Density Random with 7px Density Pixel Going around Ring 1 Pixel Going around Ring 1 Pixel Going around Ring 2 Pixel Going around Ring 2 Pixel Going around Ring 2 Pixel Going around Ring 2 Clock rotating anti-clockwise Two squares rotating while moving from center Wiggling Line Two rotating 2x2px squares Pixels In & Out on Ring 2 side to side Triangle from 9 pixels rotate to right Wiggling clock 2 hands moving up and down Aperture effect Aperture Effect with 1 px only 2 Pixels Going around Ring 2 3 Pixels Going around Ring 2 Bottom Half Open / Close than Top Half Open Close Moving Fists Pixels coming in zigzak shape 2 Arc's rotating 2 2px wide lines rotating	000 ÷ 016 017 ÷ 022 023 ÷ 028 029 ÷ 034 035 ÷ 040 041 ÷ 046 047 ÷ 052 053 ÷ 058 059 ÷ 064 065 ÷ 070 071 ÷ 076 077 ÷ 082 083 ÷ 088 089 ÷ 094 095 ÷ 100 101 ÷ 106 107 ÷ 112 113 ÷ 118 119 ÷ 124 125 ÷ 130 131 ÷ 136 137 ÷ 142 143 ÷ 148 149 ÷ 154 155 ÷ 160 161 ÷ 166 167 ÷ 172 173 ÷ 178 179 ÷ 184 185 ÷ 190 191 ÷ 196 197 ÷ 202 203 ÷ 208 209 ÷ 214 215 ÷ 220 221 ÷ 226 227 ÷ 232 233 ÷ 238 239 ÷ 244 245 ÷ 250 251 ÷ 255	000
	19		27	<b>PATTERN SPEED</b> Indexing CW from fast to slow Stop CCW from slow to fast	000 ÷ 127 128 ÷ 190 191 ÷ 192 193 ÷ 255	000
	20		28	<b>PATTERN FADE</b> Lineary from 0% to 100%	000 ÷ 255	000
	21		29	<b>PATTERN TRANSITION</b> Lineary from 0% to 100%	000 ÷ 255	000
	22		30	<b>FOREGROUND INTENSITY</b> Lineary from 0% to 100%	000 ÷ 255	000
	23		31	<b>FOREGROUND STROBE</b> Close Strobe from slow to fast Open Pulse in from slow to fast Open Pulse out from slow to fast Open Random from slow to fast Open	000 ÷ 001 002 ÷ 062 063 ÷ 064 065 ÷ 125 126 ÷ 127 128 ÷ 188 189 ÷ 190 191 ÷ 251 252 ÷ 255	255

Bas	FX	Std	Ext	Function	DMX Value	Default
	24		32	<b>BACKGROUND INTENSITY</b> Lineary from 0% to 100%	000 ÷ 255	000
	25		33	<b>BACKGROUND STROBE</b> Close Strobe from slow to fast Open Pulse in from slow to fast Open Pulse out from slow to fast Open Random from slow to fast Open	000 ÷ 001 002 ÷ 062 063 ÷ 064 065 ÷ 125 126 ÷ 127 128 ÷ 188 189 ÷ 190 191 ÷ 251 252 ÷ 255	255
	26		34	<b>BACKGROUND RED</b> Lineary from 0% to 100%	000 ÷ 255	000
	27		35	<b>BACKGROUND GREEN</b> Lineary from 0% to 100%	000 ÷ 255	000
	28		36	<b>BACKGROUND BLUE</b> Lineary from 0% to 100%	000 ÷ 255	000
	29		37	<b>BACKGROUND WHITE</b> Lineary from 0% to 100%	000 ÷ 255	000
	30		38	<b>RING DIMMER</b> Lineary from 0% to 100%	000 ÷ 255	000
	31		39	<b>RING PATTERN</b> No FX Single Line going around Ring 1 Single Line going around Ring 2 Single Line going around Ring 3 Single Line going around Ring 4 Single Line going around Ring 5 Two Lines going around Ring 1 Two Lines going around Ring 2 Two Lines going around Ring 3 Two Lines going around Ring in opposed direction 1 Two Lines going around Ring in opposed direction 2 Two Lines going around Ring in opposed direction 3 Three Lines going around Ring 1 Three Lines going around Ring 2 Six Lines going around Ring Random Pixels 20 steps 1 Random Pixels 20 steps 2 Random Pixels 20 steps 3 Random Pixels 20 steps 4 Random Pixels 20 steps 5 Ring Opening and closing in horizontal axis Ring Opening and closing in vertical axis Ring Opening and closing in horizontal and vertical axis Ring Opening in horizontal axis and closing in vertical axis Ring divided into 4 parts chase Ring divided into 8 parts chase 2 Lines going from Left to Right Loop 2 Lines going from Top to Bottom Loop Ring divided into 4 parts doing chase Ring divided into 4 parts doing chase Ring divided into 4 parts doing chase Reserved TopBottomLeftRight 2 Lines Swing Random Open of pixels Pixel 1 thru 102 On than 102 thru 1 Off Pixel 1 thru 102 On than 1 thru 102 Off Moving anchor Anchor rotated 180 degree	000 ÷ 016 017 ÷ 022 023 ÷ 028 029 ÷ 034 035 ÷ 040 041 ÷ 046 047 ÷ 052 053 ÷ 058 059 ÷ 064 065 ÷ 070 071 ÷ 076 077 ÷ 082 083 ÷ 088 089 ÷ 094 095 ÷ 100 101 ÷ 106 107 ÷ 112 113 ÷ 118 119 ÷ 124 125 ÷ 130 131 ÷ 136 137 ÷ 142 143 ÷ 148 149 ÷ 154 155 ÷ 160 161 ÷ 166 167 ÷ 172 173 ÷ 178 179 ÷ 184 185 ÷ 190 191 ÷ 196 197 ÷ 214 215 ÷ 220 221 ÷ 226 227 ÷ 232 233 ÷ 238 239 ÷ 244 245 ÷ 250 251 ÷ 255	000
	32		40	<b>RING PATTERN SPEED</b> Indexing CW from fast to slow Stop CCW from slow to fast	000 ÷ 127 128 ÷ 190 191 ÷ 192 193 ÷ 255	000
	33		41	<b>RING PATTERN FADE</b> Lineary from 0% to 100%	000 ÷ 255	000



Bas	FX	Std	Ext	Function	DMX Value	Default
	34		42	<b>RING PATTERN TRANSITION</b> Lineary from 0% to 100%	000 + 255	000
19	35	26	43	<b>RING FOREGROUND INTENSITY</b> Lineary from 0% to 100%	000 + 255	000
20	36	27	44	<b>RING FOREGROUND STROBE</b> Close Strobe from slow to fast Open Pulse in from slow to fast Open Pulse out from slow to fast Open Random from slow to fast Open	000 + 001 002 + 062 063 + 064 065 + 125 126 + 127 128 + 188 189 + 190 191 + 251 252 + 255	255
21	37	28	45	<b>RING FOREGROUND RED</b> Lineary from 0% to 100%	000 + 255	000
22	38	29	46	<b>RING FOREGROUND GREEN</b> Lineary from 0% to 100%	000 + 255	000
23	39	30	47	<b>RING FOREGROUND BLUE</b> Lineary from 0% to 100%	000 + 255	000
	40		48	<b>RING BACKGROUND INTENSITY</b> Lineary from 0% to 100%	000 + 255	000
	41		49	<b>RING BACKGROUND STROBE</b> Close Strobe from slow to fast Open Pulse in from slow to fast Open Pulse out from slow to fast Open Random from slow to fast Open	000 + 001 002 + 062 063 + 064 065 + 125 126 + 127 128 + 188 189 + 190 191 + 251 252 + 255	255
	42		50	<b>RING BACKGROUND RED</b> Lineary from 0% to 100%	000 + 255	000
	43		51	<b>RING BACKGROUND GREEN</b> Lineary from 0% to 100%	000 + 255	000
	44		52	<b>RING BACKGROUND BLUE</b> Lineary from 0% to 100%	000 + 255	000

## 14 - RING LAYOUT

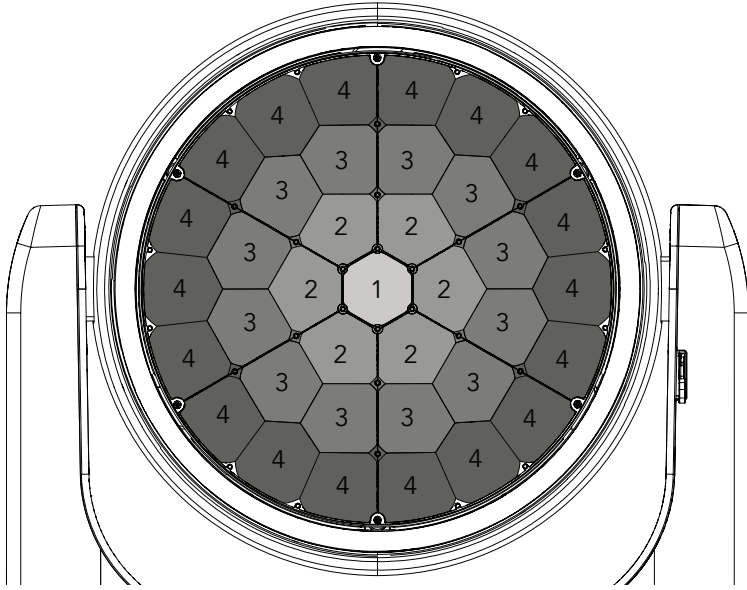


Fig. 08

## 15 - PIXEL LAYOUT

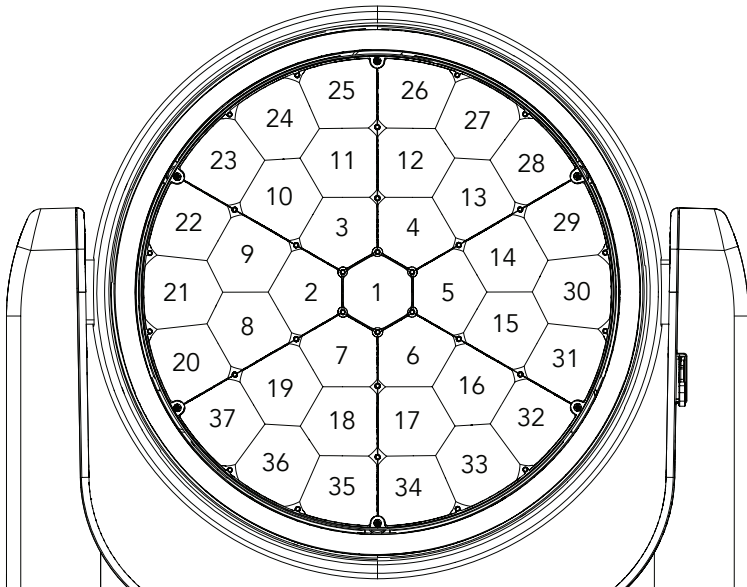


Fig. 09