

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
1	1	Intensity High	0	0-65535	16-Bit control of Dimming
2	2	Intensity Low			
3	3	Pan High	32767	0-65535	540° Total Pan Rotation
4	4	Pan Low			
5	5	Tilt High	32767	0-65535	270° Total Tilt
6	6	Tilt Low			
7	7	Focus High	32767	0-65535	Focus control Default value 50% Focus range
8	8	Focus Low			
9	9	Zoom High	32767	0-65535	Zoom control Default value 50% zoom range
10	10	Zoom Low			
11	11	Cyan	0	0 - 255	Cyan Color Control 0-100% saturation
12	12	Yellow	0	0 - 255	Yellow Color Control 0-100% saturation
13	13	Magenta	0	0 - 255	Magenta Color Control 0-100% saturation
14	14	CTO Wheel	0	0 - 255	CTO Color Control 0-100% saturation
15	15	Color Adjustment (Color Wheel 2)	0	0 - 255 0 - 30 31 - 60 61 - 90 91-120 121--180 181-255	8-bit control of Color Adjustment (Color Wheel 2) . Open CRI Booster 1/2 Minus Green 1/4 Minus Green CTB Reserved
16	16	Color Wheel 1 (Color Wheel)	0	0 - 255 0-31 32-63 64-95 96-127 128-159 160-191 192-223 224-255	8-bit control of Color Wheel. (spin speed slow to fast from control channel) OPEN (centered at 0) Open Red Center - 48 Dark Blue Center - 80 Yellow Center - 112 Kelly Green Center - 144 Amber Center - 176 Congo Blue Center - 208 Open

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
17	17	Color Wheel 1 Control	0	0 - 255 0 - 5 6 - 10 11 - 15 16 - 20 21 - 25 26 - 56 57 - 87 88 - 255	Linear Movement using shortest (quickest) path. Linear Movement using normal (longest) path. Wheel Spin CW (Forward) Wheel Spin STOP Wheel Spin CCW (Reverse) Color Shake Quickest Path (Slow to Fast) For fastest shake set color timing to 0 Color Shake Normal Path (Slow to Fast) For fastest shake set color timing to 0 Reserved Values
18	18	Gobo Wheel 1 (Fixed)	0	0-255 0 - 20 21 - 41 42 - 62 63 - 83 84 - 104 105 - 125 126 - 146 147 - 167 168 - 188 189 - 209 210 - 230 231 - 255	8-bit control of Gobo Wheel See channel 19 for control options Open - No Gobo Gobo 1 Leafy Breakup Gobo 2 Medium Circle Gobo 3 Square Pile Gobo 4 Confusion Gobo 5 Dust Gobo 6 Neurons Gobo 7 Radial Breakup Gobo 8 Staples Gobo 9 Blobs Gobo 10 Pipes Breakup Open - No Gobo
19	19	Gobo Wheel 1 Control	0	0 - 255 0 - 5 6 - 10 11 - 20 21 - 50 51 - 60 61 - 90 91 - 120 121 - 150 151 - 180 181 - 210 211 - 255	Used as a control channel for different movement options for Gobo Wheel 1 (Channel 18) Gobo Selection using shortest (quickest) path. Gobo Selection using normal (longest) path. Reserved Values Wheel Spin CW Forward (Fast to Slow) Wheel Spin STOP Wheel Spin CCW Reverse (Slow to Fast) Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 Reserved Values Reserved Values Reserved Values

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
20	20	Gobo Wheel 2	0	0 - 255	8-bit control of Gobo Wheel 2. See channel 21 for Index/Rotation See channel 23 for control options.
				0 - 5	Open - No Gobo
				6 - 10	Gobo 1 Night Sky Index
				11 - 15	Gobo 2 New Twirler Index
				16 - 20	Gobo 3 Bricked Out Index
				21 - 25	Gobo 4 Horizontal Slits Index
				26 - 30	Gobo 5 Super Alpha Rays Index
				31 - 35	Gobo 6 Honey Comb Reverse Index
				36 - 40	Gobo 7 On the Rocks Index
				41 - 45	Open - No Gobo
				46 - 50	Gobo 1 Night Sky Rotate
				51 - 55	Gobo 2 New Twirler Rotate
				56 - 60	Gobo 3 Bricked Out Rotate
				61 - 65	Gobo 4 Horizontal Slits Rotate
				66 - 70	Gobo 5 Super Alpha Rays Rotate
				71 - 75	Gobo 6 Honey Comb Reverse Rotate
				76 - 80	Gobo 7 On the Rocks Rotate
				81 - 85	Open - No Gobo
				86 - 90	Gobo 1 Night Sky Rotate Mega Stepping
				91 - 95	Gobo 2 New Twirler Rotate Mega Stepping
96 - 100	Gobo 3 Bricked Out Rotate Mega Stepping				
101 - 105	Gobo 4 Horizontal Slits Rotate Mega Stepping				
106 - 110	Gobo 5 Super Alpha Rays Rotate Mega Stepping				
111 - 115	Gobo 6 Honey Comb Reverse Rotate Mega Stepping				
116 - 120	Gobo 7 On the Rocks Rotate Mega Stepping				
121 - 255	Open - No Gobo				
21	21	Gobo Wheel 2 Rotate/Index High Byte	32767	0 - 65535	16-bit control of index and rotation of gobo wheel 2.
				0 - 32756	Rotate Fast to Slow <<<
22	22	Low Byte		32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
23	23	Gobo Wheel 2 Control	0	0 - 255 0 - 5 6 - 10 11 - 20 21 - 50 51 - 60 61 - 90 91 - 120 121 - 150 151 - 180 181 - 210 211 - 255	Used as a control channel for different movement options for Gobo Wheel 2 (Channel 20) Gobo Selection using shortest (quickest) path. Gobo Selection using normal (longest) path. Reserved Values Wheel Spin CW Forward (Fast to Slow) Wheel Spin STOP Wheel Spin CCW Reverse (Slow to Fast) Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 Reserved Values
24	24	VLFX (Gobo Wheel 3)	0	0 - 255 0 -10 11 -33 34 -56 57 -79 80 -90 91 -113 114 -136 137 -159 160 -170 171 -193 194 -216 217 -239 240 -255	8-bit control of VLFX (Gobo Wheel 3). See Channel 27 for control options. Open - No Gobo Gobo 1 Amoeboid chamber Index Gobo 2 Dichrofusion Index Gobo 3 Concurrent Index Open - No Gobo Gobo 1 Amoeboid chamber Rotate Gobo 2 Dichrofusion Rotate Gobo 3 Concurrent Rotate Open - No Gobo Gobo 1 Amoeboid chamber Rotate Mega Stepping Gobo 2 Dichrofusion Rotate Mega Stepping Gobo 3 Concurrent Rotate Mega Stepping Open - No Gobo
25	25	VLFX (Gobo Wheel 3) Rotate/Index High Byte	32767	0 - 65535 0 - 32756	16-bit control of index and rotation of VLFX (Gobo wheel 3). Rotate Fast to Slow <<<
26	26	Low Byte		32757 - 32780 32781 - 65535	Rotation STOP Rotate Slow to Fast >>>

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
27	27	VLFX Gobo Wheel 3 Control	0	0 - 255 0 - 5 6 - 10 11 - 20 21 - 50 51 - 60 61 - 90 91 - 120 121 - 150 151 - 180 181 - 210 211 - 255	Used as a control channel for different movement options for Gobo Wheel 3 (24) Gobo Selection using shortest (quickest) path. Gobo Selection using normal (longest) path. Reserved Values Wheel Spin CW Forward (Fast to Slow) Wheel Spin STOP Wheel Spin CCW Reverse (Slow to Fast) Gobo Shake Quickest Path (Slow to Fast) For fastest shake set gobo timing to 0 Gobo Shake Normal Path (Slow to Fast) For fastest shake set gobo timing to 0 Gobo Twist Quickest Path (Slow to Fast) For fastest twist set gobo timing to 0 Gobo Twist Normal Path (Slow to Fast) For fastest twist set gobo timing to 0 Reserved Values
28	28	Iris	0	0-255 0 - 200 201 - 255	Iris size control Iris beam size open to closed Iris pulse slow to fast
29	29	Frame 1A	0	0 - 255	Controls Framing Shutter 1A from Open (DMX 0) to Full (DMX 255).
30	30	Frame 1B	0	0 - 255	Controls Framing Shutter 1B from Open (DMX 0) to Full (DMX 255).
31	31	Frame 2A	0	0 - 255	Controls Framing Shutter 2A from Open (DMX 0) to Full (DMX 255).
32	32	Frame 2B	0	0 - 255	Controls Framing Shutter 2B from Open (DMX 0) to Full (DMX 255).
33	33	Frame 3A	0	0 - 255	Controls Framing Shutter 3A from Open (DMX 0) to Full (DMX 255).
34	34	Frame 3B	0	0 - 255	Controls Framing Shutter 3B from Open (DMX 0) to Full (DMX 255).
35	35	Frame 4A	0	0 - 255	Controls Framing Shutter 4A from Open (DMX 0) to Full (DMX 255).
36	36	Frame 4B	0	0 - 255	Controls Framing Shutter 4B from Open (DMX 0) to Full (DMX 255).
37	37	Frame Rotate	128	0 - 255	Controls Framing Shutter mechanism from +/- 60°
38	38	Prism 1 (Triangular)	0 - 255	0 - 255 0 - 5 6 - 10 11 - 15 16 - 20 21 - 255	Controls Prism mechanism with following values. Open Index Rotate Normal Rotate with Mega Stepping Reserved Values

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
39	39	Prism 1 (Index/Rotate) High Byte	32767	0 - 65535	16-bit control of prism rotation and index.
40	40	Low Byte		0 - 32756	Rotate Fast to Slow <<<
				32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>
41	41	Prism 2 (Flat)	0 - 255	0 - 255	Controls Prism mechanism with following values.
				0 - 5	Open
				6 - 10	Index
				11 - 15	Rotate Normal
				16 - 20	Rotate with Mega Stepping
				21 - 255	Reserved Values
42	42	Prism 2 (Index/Rotate) High Byte	32767	0 - 65535	16-bit control of prism rotation and index.
				0 - 32756	Rotate Fast to Slow <<<
43	43	Low Byte		32757 - 32780	Rotation STOP
				32781 - 65535	Rotate Slow to Fast >>>
44	44	Frost	0	0-255	Control of dual frost
				0 - 10	No Frost
				11 - 20	Frost 1
				21 - 25	Frost 1+2
				26 - 36	Frost 2
				37-255	Reserved
45	45	Strobe	9	0 - 5	Shutter closed
				6 - 10	Shutter open
				11 - 125	Strobe Slow>>>>>>>Fast 0.5Hz-30Hz
				126 - 130	Shutter open
				131 - 245	Strobe Random/Random Sync* Slow>>>>>>>Fast
				246 - 250	Shutter open
				251 - 255	Shutter closed *See Programmers channel for mode selection
46	46	Future use channel	0		Channel reserved for future use

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
47	47	Programmers Channel	0	0-40	Functions do not require 3 second DMX rule. Mode will change once DMX level is reached Idle
				41 - 45	Dimming Curve Linear
				46 - 50	Dimming Curve S-Curve
				51 - 55	Dimming Curve Square Curve (Default)**
				56 - 60	Dimmer Snap On
				61 - 65	Dimmer Snap Off (Default)
				66 - 70	Reserved Values
				71 - 75	Reserved Values
				76 - 80	Edge Tracking On
				81 - 85	Edge Tracking Off (Default)
				86 - 90	Reserved Values
				91 - 95	Color Snap Off (Default)
				96 - 100	Color Snap On (de-activates color timing channel)
				101 - 105	Reserved Values
				106 - 110	Strobe Random (Default)
				111 - 115	Strobe Random Sync
				116 - 120	Reserved Values
				121 - 125	Reserved Values
				126 - 130	Reserved Values
				131 - 135	Reserved Values
136 - 140	Reserved Values				
141 - 145	Reserved Values				
146 - 150	Reserved Values				
151 - 155	Reserved Values				
156 - 160	Reserved Values				
161 - 165	Reserved Values				
166 - 170	Reserved Values				
171 - 175	Reserved Values				
176 - 255	Reserved Values				
	48	Focus Timing	255	0 - 255	Adjustment of fixture timing to control Pan/Tilt mechanisms. See Timing Channel Values
	49	Optics Timing	255	0 - 255	Adjustment of fixture timing to control lensing mechanisms. See Timing Channel Values.
	50	Color Timing	255	0 - 255	Adjustment of fixture timing to control color mechanisms. See Timing Channel Values.
	51	Beam Timing	255	0 - 255	Adjustment of fixture timing to control beam shaping mechanisms. See Timing Channel Values.
	52	Gobo Timing	255	0 - 255	Adjustment of fixture timing to control gobo mechanisms. See Timing Channel Values.

DMX CHANNEL		PARAMETER	DEFAULTS	RANGE DMX	DESCRIPTION
16-BIT	16-BIT EXTENDED (DEFAULT)				
48	53	Fan Control	0	0 - 255 0-4 05 - 255	Dynamically control fan speed vs LED Output operation. Control values as follows . . . Automatic fan/output adjustment (Default) Linear control of fan speed and LED max output* DMX 5 =Highest Constant Fan Speed (Standard mode) DMX 255 = Lowest Constant Fan Speed (Whisper mode) * Standard mode only. Function is dec-activated if Studio or Boost modes are selected via Dmx or User Interface
49	54	Luminaire Control	0	0-255 0 - 5 6 - 10 11 - 15 16 - 20 21 - 25 26 - 30 31 - 85 86 - 90 91 - 95 96 - 100 101 - 110 111 - 115 116 - 120 121 - 125 126 - 135 136 - 140 141 - 145 146 - 150 151 - 155 156 - 160 161 - 165 166 - 170 171 - 175 176 - 180 181 - 185 186 - 190 191 - 255	Control Channel used for full fixture settings Set discrete value of desired effect, wait >3 sec then set value to 0 (Idle). Idle (Default) Full Luminaire ReCal - also used to wake from shutdown Fixture Shutdown ReBoot Display - Menu On Display - Menu Off Reserved Values Status Check Side Hang Disable (Default) Side Hang Enable Reserved Values Standard Mode (Default) - fan channel active Studio Mode Whisper Mode Reserved Values Fan On (Default) Fan Auto Reserved Values ReCal Position ReCal Color ReCal Beam ReCal Optics ReCal Gobo Reset Defaults CTB Correction Off (Default) CTB Correction On Reserved



## Timing Channel Values

DMX	% VALUES	TIME (SEC)
0		Full Speed
1		0.2
2		0.4
3	1	0.6
4		0.8
5	2	1
6		1.2
7		1.4
8	3	1.6
9		1.8
10	4	2
11		2.2
12		2.4
13	5	2.6
14		2.8
15	6	3
16		3.2
17		3.4
18	7	3.6
19		3.8
20	8	4
21		4.2
22		4.4
23	9	4.6
24		4.8
25	10	5
26		5.2
27		5.4
28	11	5.6
29		5.8
30		6
31	12	6.2
32		6.4
33	13	6.6
34		6.8
35		7
36	14	7.2
37		7.4
38	15	7.6
39		7.8
40		8
41	16	8.2
42		8.4
43	17	8.6
44		8.8

DMX	% VALUES	TIME (SEC)
45		9
46	18	9.2
47		9.4
48	19	9.6
49		9.8
50		10
51	20	10.2
52		10.4
53		10.6
54	21	11
55		11
56	22	12
57		12
58		13
59	23	13
60		14
61	24	14
62		14
63		15
64	25	15
65		16
66	26	16
67		16
68		17
69	27	17
70		18
71	28	18
72		18
73		19
74	29	19
75		20
76	30	20
77		20
78		21
79	31	21
80		21
81		22
82	32	22
83		23
84	33	23
85		23
86		24
87	34	24
88		25
89	35	25

DMX	% VALUES	TIME (SEC)
90		25
91		26
92	36	26
93		27
94	37	27
95		27
96		28
97	38	28
98		29
99	39	29
100		29
101		30
102	40	30
103		30
104		31
105	41	31
106		32
107	42	32
108		32
109		33
110	43	33
111		34
112	44	34
113		34
114		35
115	45	35
116		36
117	46	36
118		36
119		37
120	47	37
121		38
122	48	38
123		38
124		39
125	49	39
126		39
127		40
128	50	40
129		41
130	51	41
131		41
132		42
133	52	42
134		43

## Timing Channel Values - continued

DMX	% VALUES	TIME (SEC)
135	53	43
136		43
137		44
138	54	44
139		45
140	55	45
141		45
142		46
143	56	46
144		47
145	57	47
146		47
147		48
148	58	48
149		49
150	59	49
151		49
152		50
153	60	50
154		50
155		51
156	61	51
157		52
158	62	52
159		52
160		53
161	63	53
162		54
163	64	54
164		54
165		55
166	65	55
167		56
168	66	56
169		56
170		57
171	67	57
172		58
173	68	58
174		58
175		59
176	69	59
177		59
178		60
179	70	60

DMX	% VALUES	TIME (SEC)
180		65
181	71	65
182		65
183		70
184	72	70
185		75
186	73	75
187		75
188		80
189	74	80
190		85
191	75	85
192		85
193		90
194	76	90
195		95
196	77	95
197		95
198		100
199	78	100
200		110
201	79	110
202		110
203		120
204	80	120
205		120
206	81	130
207		130
208		140
209	82	140
210		140
211		150
212	83	150
213		160
214	84	160
215		160
216		170
217	85	170
218		180
219	86	180
220		180
221		190
222	87	190
223		200
224	88	200

DMX	% VALUES	TIME (SEC)
225		200
226		210
227	89	210
228		210
229		220
230	90	220
231		230
232	91	230
233		230
234		240
235	92	240
236		250
237	93	250
238		250
239		260
240	94	260
241		270
242	95	270
243		270
244		280
245	96	280
246		290
247	97	290
248		290
249		300
250	98	300
251		310
252	99	310
253		310
254		310
255	100	Follows Cue Data