

DMX protocol

8-bit mode	16-bit mode	DMX Value	Percent	Function	
1	1	0 - 14	0 - 5	Shutter, strobe, reset, lamp on/off Shutter closed	<p>*If Reset fixture is disabled under <i>PERS</i> → <i>dRES</i> in the control menu, the reset command only works if Color 8 is selected on channel 3 (cont. or scroll) and Gobo 6 is selected (rot. or indexed) on channel 4.</p> <p>A five-second delay for the Reset fixture command can be set in the control menu under <i>PERS</i> → <i>dRES</i>.</p> <p>**If DMX Lamp Off is disabled in <i>PERS</i> → <i>dLOF</i> in the control menu, a lamp off command can only be executed if Color 8 (cont. or scroll) is selected on channel 3 and Gobo 6 (rot. or indexed) is selected on channel 4.</p>
		15 - 29	6 - 11	Shutter open	
		30 - 39	12 - 15	Shutter fade in	
		40 - 49	16 - 19	Shutter fade out	
		50 - 72	20 - 28	Strobe, fast → slow	
		73 - 79	29 - 31	Shutter open	
		80 - 99	31 - 39	Opening pulse, fast → slow	
		100 - 119	40 - 47	Closing pulse, fast → slow	
		120 - 123	47 - 48	Shutter open	
		124 - 127	49 - 50	Music triggered shutter	
		128 - 147	50 - 58	Random strobe, fast	
		148 - 167	58 - 65	Random strobe, medium	
		168 - 187	66 - 73	Random strobe, slow	
		188 - 190	74 - 75	Shutter open	
		191 - 193	75 - 76	Random opening pulse, fast	
		194 - 196	76 - 77	Random opening pulse, slow	
		197 - 199	77 - 78	Random closing pulse, fast	
		200 - 202	78 - 79	Random closing pulse, slow	
		203 - 207	80 - 81	Shutter open	
		208 - 217	82 - 85	Reset fixture*	
218 - 227	85 - 89	Shutter open			
228 - 237	89 - 93	Lamp on			
238 - 247	93 - 97	Shutter open			
248 - 255	97 - 100	Lamp power off (hold for 5 sec.)**			
2	2	0 - 255	0 - 100	Shutter fading Shutter closed → open	

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8-bit mode	16-bit mode	DMX Value	Percent	Function
3	3			Color wheel position and rotation, music trig color chase
				Continuously scrolling color wheel positions
		0	0	Open (white)
		1-15	0 - 6	Open → Color 1
		16	6	Color 1 (Blue)
		17 - 31	7 - 12	Color 1 → Color 2
		32	13	Color 2 (Green)
		33 - 47	13 - 18	Color 2 → Color 3
		48	19	Color 3 (Orange)
		49 - 63	19 - 25	Color 3 → Color 4
		64	25	Color 4 (Yellow)
		65 - 79	25 - 31	Color 4 → Color 5
		80	31	Color 5 (Pink)
		81 - 95	32 - 37	Color 5 → Color 6
		96	38	Color 6 (Magenta)
		97 - 111	38 - 44	Color 6 → Color 7
		112	44	Color 7 (Congo)
		113 - 127	44 - 50	Color 7 → Color 8
		128	50	Color 8 (Red)
		129 - 143	51 - 56	Color 8 → Open
		144	56	Open
				Stepped scroll (indexed) color wheel positions
		145 - 148	57 - 58	Color 8 (Red)
		149 - 152	59 - 60	Color 7 (Congo)
		153 - 156	60 - 61	Color 6 (Magenta)
		157 - 160	62 - 63	Color 5 (Pink)
		161 - 164	63 - 64	Color 4 (Yellow)
		165 - 168	65 - 66	Color 3 (Orange)
		169 - 172	66 - 67	Color 2 (Green)
		173 - 176	68 - 69	Color 1 (Blue)
		177 - 180	69 - 71	Open
				Continuous color wheel rotation
		181 - 203	71 - 79	CW, fast → slow
		204 - 207	80	Color wheel stop
		208 - 230	81 - 90	CCW, slow → fast
				Music triggered color chase
231 - 235	91 - 92	Fast		
236 - 239	93 - 94	Medium		
240 - 243	94 - 95	Slow		
		Random color chase		
244 - 247	96 - 97	Fast		
248 - 251	97 - 98	Medium		
252 - 255	99 - 100	Slow		

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8-bit mode	16-bit mode	DMX Value	Percent	Function
4	4	0 - 3	0 - 1	Rotating gobo selection and shake
		4 - 7	2 - 3	Indexing (set position on channel 5; set fine position on channel 6 in 16 bit mode)
		8 - 11	3 - 4	Open gobo
		12 - 15	5 - 6	Gobo 1 (Ovals)
		16 - 19	6 - 7	Gobo 2 (Planets)
		20 - 23	8 - 9	Gobo 3 (Tear Drops)
		24 - 27	9 - 11	Gobo 4 (Fractal)
				Gobo 5 (Spyrograph)
				Gobo 6 (Blue Ripple)
				Rotation (set rotation speed on channel 5)
				Open gobo
				Gobo 1 (Ovals)
				Gobo 2 (Planets)
				Gobo 3 (Tear Drops)
				Gobo 4 (Fractal)
				Gobo 5 (Spyrograph)
				Gobo 6 (Blue Ripple)
				Indexed gobo shake (set indexed gobo position on channel 5)
				Gobo 1 shake, slow → fast
				Gobo 2 shake, slow → fast
				Gobo 3 shake, slow → fast
				Gobo 4 shake, slow → fast
				Gobo 5 shake, slow → fast
				Gobo 6 shake, slow → fast
		Rotating gobo shake (set rotation speed on channel 5)		
		Gobo 6 shake, slow → fast		
		Gobo 5 shake, slow → fast		
		Gobo 4 shake, slow → fast		
		Gobo 3 shake, slow → fast		
		Gobo 2 shake, slow → fast		
		Gobo 1 shake, slow → fast		
		Continuous gobo wheel scroll (set gobo rotation speed on channel 5)		
		CW slow → fast		
		CCW fast → slow		
		Music triggered gobo chase		
		Fast		
		Medium		
		Slow		
5	5	0 - 255	0 - 100	Gobo rotation (select gobo on channel 4)
				Indexed position
		0 - 2	0 - 1	0 - 395°
		3 - 121	1 - 47	Continuous rotation direction and speed
		122 - 240	48 - 94	No rotation
		241 - 243	95 - 95	CW, slow → fast
				CCW, fast → slow
		No rotation		
		Music triggered gobo rotation		
		Fast		
		Medium		
		Slow		
-	6	0 - 255	0 - 100	Gobo rotation, fine
6	7	0 - 255	0 - 100	Focus
				Infinity → 2 meters

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7	8	0 - 5	0 - 2	Pan/tilt macros No Macro
		6 - 11	2 - 4	Macro 1.1
		12 - 17	5 - 7	Macro 1.2
		18 - 23	7 - 9	Macro 1.3
		24 - 29	9 - 11	Macro 1.4
		30 - 35	12 - 14	Macro 2.1
		36 - 41	14 - 16	Macro 2.2
		42 - 47	16 - 18	Macro 2.3
		48 - 53	19 - 21	Macro 2.4
		54 - 59	21 - 23	Macro 3.1
		60 - 65	24 - 25	Macro 3.2
		66 - 71	26 - 28	Macro 3.3
		72 - 77	28 - 30	Macro 3.4
		78 - 83	31 - 33	Macro 4.1
		84 - 89	33 - 35	Macro 4.2
		90 - 95	35 - 37	Macro 4.3
		96 - 101	38 - 40	Macro 4.4
		102 - 107	40 - 42	Macro 5.1
		108 - 113	42 - 44	Macro 5.2
		114 - 119	45 - 47	Macro 5.3
		120 - 125	47 - 49	Macro 5.4
		126 - 131	49 - 51	Macro 6.1
		132 - 137	52 - 54	Macro 6.2
		138 - 143	54 - 56	Macro 6.3
		144 - 149	56 - 58	Macro 6.4
		150 - 155	59 - 61	Macro 7.1
		156 - 161	61 - 63	Macro 7.2
		162 - 167	64 - 65	Macro 7.3
		168 - 173	66 - 68	Macro 7.4
		174 - 179	68 - 70	Macro 8.1
		180 - 185	71 - 73	Macro 8.2
		186 - 191	73 - 75	Macro 8.3
192 - 197	75 - 77	Macro 8.4		
198 - 203	78 - 80	Macro 9.1		
204 - 209	80 - 82	Macro 9.2		
210 - 215	82 - 84	Macro 9.3		
216 - 221	85 - 87	Macro 9.4		
222 - 227	87 - 89	Macro 10.1		
228 - 233	89 - 91	Macro 10.2		
234 - 239	92 - 94	Macro 10.3		
240 - 245	94 - 96	Macro 10.4		
		246 - 255	96 - 100	Reserved (no effect)

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8-bit mode	16-bit mode	DMX Value	Percent	Function
8	9	0 - 5	0 - 2	Effects macros No Macro
		6 - 11	2 - 4	Macro 1.1
		12 - 17	5 - 7	Macro 1.2
		18 - 23	7 - 9	Macro 1.3
		24 - 29	9 - 11	Macro 1.4
		30 - 35	12 - 14	Macro 2.1
		36 - 41	14 - 16	Macro 2.2
		42 - 47	16 - 18	Macro 2.3
		48 - 53	19 - 21	Macro 2.4
		54 - 59	21 - 23	Macro 3.1
		60 - 65	24 - 25	Macro 3.2
		66 - 71	26 - 28	Macro 3.3
		72 - 77	28 - 30	Macro 3.4
		78 - 83	31 - 33	Macro 4.1
		84 - 89	33 - 35	Macro 4.2
		90 - 95	35 - 37	Macro 4.3
		96 - 101	38 - 40	Macro 4.4
		102 - 107	40 - 42	Macro 5.1
		108 - 113	42 - 44	Macro 5.2
		114 - 119	45 - 47	Macro 5.3
		120 - 125	47 - 49	Macro 5.4
		126 - 131	49 - 51	Macro 6.1
		132 - 137	52 - 54	Macro 6.2
		138 - 143	54 - 56	Macro 6.3
		144 - 149	56 - 58	Macro 6.4
		150 - 155	59 - 61	Macro 7.1
		156 - 161	61 - 63	Macro 7.2
162 - 167	64 - 65	Macro 7.3		
168 - 173	66 - 68	Macro 7.4		
174 - 179	68 - 70	Macro 8.1		
180 - 185	71 - 73	Macro 8.2		
186 - 191	73 - 75	Macro 8.3		
192 - 197	75 - 77	Macro 8.4		
198 - 203	78 - 80	Macro 9.1		
204 - 209	80 - 82	Macro 9.2		
210 - 215	82 - 84	Macro 9.3		
216 - 221	85 - 87	Macro 9.4		
222 - 227	87 - 89	Macro 10.1		
228 - 233	89 - 91	Macro 10.2		
234 - 239	92 - 94	Macro 10.3		
240 - 245	94 - 96	Macro 10.4		
		246 - 255	96 - 100	Reserved (no effect)
9	10	0 - 255	0 - 100	Pan Full left → full right (128 = neutral)
-	11	0 - 255	0 - 100	Pan, fine (least significant byte) Left → right
10	12	0 - 255	0 - 100	Tilt Full tilt → full opposite tilt (128 = neutral)
-	13	0 - 255	0 - 100	Tilt, fine (least significant byte) Tilt → opposite tilt
11	14	0 - 2 3 - 245 246 - 248 249 - 251 252 - 255	0 - 1 1 - 95 96 - 97 97 - 98 99 - 100	Pan/tilt speed Tracking mode Vector mode, fast → slow Tracking mode, <i>PTSP</i> = <i>NORM</i> (overrides speed set via control menu) Tracking mode, <i>PTSP</i> = <i>FAST</i> (overrides speed set via control menu) Blackout while moving

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8-bit mode	16-bit mode	DMX Value	Percent	Function
12	15	0 - 2	0 - 1	Effects speed
		3 - 245	1 - 96	Shutter, focus
		246 - 251	96 - 98	Tracking mode
		252 - 255	99 - 100	Vector mode, fast → slow
				Tracking mode
				Vector mode, maximum speed
				Color
		0 - 2	0 - 1	Tracking mode
		3 - 245	1 - 96	Vector mode, fast → slow
		246 - 248	96 - 97	Tracking mode, <i>SCUT = OFF</i> (overrides <i>ON</i> if set via control menu)
		249 - 251	98	Tracking mode, <i>SCUT = ON</i> (overrides <i>OFF</i> if set via control menu)
		252 - 255	99 - 100	Blackout while moving
				Gobo selection
		0 - 245	0 - 1	Normal (no blackout)
		246 - 248	1 - 96	Normal, <i>SCUT = OFF</i> (overrides <i>ON</i> if set via control menu)
		249 - 251	96 - 98	Normal, <i>SCUT = ON</i> (overrides <i>OFF</i> if set via control menu)
252 - 255	99 - 100	Blackout while moving		
		Indexed gobo rotation (if indexed position selected on channel 4)		
0 - 2	0 - 1	Tracking mode		
3 - 245	1 - 96	Vector mode, fast → slow		
246 - 251	96 - 98	Tracking mode		
252 - 255	99 - 100	Blackout while moving		

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