

# DMX PROTOCOL



Channel	Value	Percent	Function
1	<b>Shutter, Strobe, Reset, Lamp On/Off</b>		
	0 - 19	0 - 7	Shutter closed
	20 - 49	8 - 19	Shutter open
	50 - 72	20 - 28	Strobe, fast→slow
	73 - 79	29 - 31	Shutter open
	80 - 99	31 - 39	Opening pulse, fast →slow
	100 - 119	39 - 47	Closing pulse, fast →slow
	120 - 127	47 - 50	Shutter open
	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: time > 5 seconds, see note 1
	218 - 227	85 - 89	Shutter open
	228 - 237	89 - 93	Lamp on
238 - 247	93 - 97	Shutter open	
248 - 255	97 - 100	Lamp off: time > 5 seconds, see note 1	
2	<b>Dimmer</b>		
	0 - 255	0 - 100	Closed → open
3	<b>Color</b>		
	Continuous Scroll: full color positions:		
	0	0	White
	12	5	CTC
	24	9	Yellow 603
	36	14	Blue 104
	48	19	Pink 312
	60	23	Green 206
	72	28	Blue 108
	84	33	Red 301
	96	37	Magenta 507
	108	42	Blue 101
	120	47	Orange 306
	132	42	Dark green
	144	56	Purple 502
	Stepped Scroll		
	156 - 159	61 - 63	Purple 502
	160 - 163	63 - 64	Dark green
	164 - 167	64 - 65	Orange 306
	168 - 171	66 - 67	Blue 101
	172 - 175	67 - 68	Magenta 507
	176 - 179	69 - 70	Red 301
	180 - 183	70 - 72	Blue 108
	184 - 187	72 - 73	Green 206
	188 - 191	74 - 75	Pink 312
	192 - 195	75 - 76	Blue 104
	196 - 199	77 - 78	Yellow 603
	200 - 203	78 - 79	CTC
	204 - 207	80 - 81	White
	Continuous Rotation		
	208 - 226	82 - 88	CW, fast → slow
	227 - 245	89 - 96	CCW, slow → fast
	Random color		
	246 - 248	96 - 97	Fast
	249 - 251	98 - 98	Medium
	252 - 255	99 - 100	Slow

<sup>1</sup>If this command is disabled in the menu, it can be executed only if the CTC filter, prism with no rotation, and open gobo are selected.

Channel	Value	Percent	Function
4	<b>Gobo selection and shake</b>		
	Indexing: set position on channel 5		
	0 - 4	0 - 1	Open gobo
	5 - 9	1 - 3	Gobo 1
	10 - 14	3 - 5	Gobo 2
	15 - 19	6 - 7	Gobo 3
	20 - 24	7 - 9	Gobo 4
	25 - 29	9 - 11	Gobo 5
	30 - 34	11 - 13	Gobo 6
	35 - 39	13 - 15	Gobo 7
	40 - 44	15 - 17	Gobo 8
	Rotation: set velocity on channel 5		
	45 - 49	17 - 19	Open gobo
	50 - 54	19 - 21	Gobo 1
	55 - 59	21 - 23	Gobo 2
	60 - 64	23 - 25	Gobo 3
	65 - 69	25 - 27	Gobo 4
	70 - 74	27 - 29	Gobo 5
	75 - 79	29 - 31	Gobo 6
	80 - 84	31 - 33	Gobo 7
85 - 89	33 - 35	Gobo 8	
Rotation with shake, slow → fast: set velocity on ch. 5			
90 - 104	35 - 40	Gobo 8	
105 - 119	41 - 46	Gobo 7	
120 - 134	47 - 52	Gobo 6	
135 - 149	53 - 58	Gobo 5	
150 - 164	59 - 64	Gobo 4	
165 - 179	65 - 70	Gobo 3	
180 - 194	70 - 76	Gobo 2	
195 - 209	76 - 82	Gobo 1	
Continuous scroll: set velocity of gobo rotation on ch. 5			
210 - 232	82 - 91	CW slow → fast	
233 - 255	91 - 100	CCW fast → slow	
5	<b>Gobo rotation (select gobo on channel 4)</b>		
	Index position		
	0 - 255	0 - 100	0 - 395°
	Continuous rotation (direction and speed)		
	0 - 2	0 - 1	No rotation
3 - 127	1 - 50	CW, slow → fast	
128 - 252	50 - 98	CCW, fast → slow	
253 - 255	99 - 100	No rotation	
6	<b>Focus</b>		
	0 - 255	0 - 100	Infinity → 2 meters
7	<b>Prism</b>		
	0 - 19	0 - 7	Prism off
	20 - 79	8 - 31	Rotating prism, CCW fast → slow
	80 - 89	31 - 35	No rotation
	90 - 149	35 - 58	Rotating prism, CW slow → fast
	150 - 215	59 - 84	Prism off
	Prism/Gobo Macros		
	216 - 220	84 - 86	Macro 1
	221 - 225	87 - 88	Macro 2
	226 - 230	89 - 90	Macro 3
	231 - 235	91 - 92	Macro 4
	236 - 240	93 - 94	Macro 5
	241 - 245	95 - 96	Macro 6
	246 - 250	96 - 98	Macro 7
251 - 255	98 - 100	Macro 8	
8	<b>Pan</b>		
	0 - 255	0 - 100	Left → right (128 = neutral)
9	<b>Pan Fine (LSB)</b>		
	0 - 255	0 - 100	Left → right
10	<b>Tilt</b>		
	0 - 255	0 - 100	Up → down (128 = neutral)

Channel	Value	Percent	Function
11	0 - 255	0 - 100	<b>Tilt Fine (LSB)</b> Up → down
12	0 - 2 3 - 245 246 - 248 249 - 251 252 - 255	0 - 1 1 - 96 96 - 97 98 - 98 99 - 100	<b>Pan/Tilt Speed</b> Tracking Fast → slow Tracking, PTSP NORM (menu override) Tracking, PTSP FAST (menu override) Blackout while moving
13	0 - 2 3 - 245 246 - 251 252 - 255	0 - 1 1 - 96 96 - 98 99 - 100	<b>Effects Speed</b> Dimmer, focus Tracking mode Fast → slow Tracking Maximum speed
	0 - 2 3 - 245 246 - 248 249 - 251 252 - 255	0 - 1 1 - 96 96 - 97 98 - 98 99 - 100	Color Tracking mode Speed, fast → slow Tracking, SCUT OFF (menu override) Tracking, SCUT ON (menu override) Blackout while moving
	0 - 245 246 - 248 249 - 251 252 - 255	0 - 96 96 - 97 98 - 98 99 - 100	Gobo selection Normal (no blackout) Normal, SCUT OFF (menu override) Normal, SCUT ON (menu override) Blackout while moving
	0 - 2 3 - 245 246 - 251 252 - 255	0 - 1 1 - 96 96 - 98 99 - 100	Indexed gobo rotation Tracking mode Fast → slow Tracking Blackout while moving
	0 - 251 252 - 255	0 - 98 99 - 100	Prism Normal (no blackout) Blackout while moving