

# appendix a DMX PROTOCOL

DMX channel				Start code = 0		
DMX1	DMX2	DMX3	DMX4	Value	Percent	Function
<p>1</p> <p>Note: Lamp Off is allowed with SPEC/dLoF set to ON, or with SPEC/dLoF set to OFF and cyan, magenta and yellow set between 230 and 232.</p> <p>Reset is allowed with SPEC/dRES set to ON, or with SPEC/dRES set to OFF and cyan, magenta and yellow set between 230 and 232.</p>				0 - 19	0 - 7	<b>Shutter, Strobe, Reset, Lamp On/Off</b> Shutter closed
				20 - 49	8 - 19	Shutter open
				50 - 112	20 - 44	Strobe on (fast->slow)
				113 - 115	44 - 45	Shutter closed
				116 - 122	45 - 48	Shutter open, reduced lamp power (MAC 600 E)
				123 - 127	48 - 50	Shutter closed
				128 - 147	50 - 58	Random Strobe Fast
				148 - 167	58 - 65	Random Strobe Medium
				168 - 187	66 - 73	Random Strobe Slow
				188 - 207	74 - 81	Shutter closed
				208 - 217	82 - 85	Reset Fixture
				218 - 227	85 - 89	Shutter closed
				228 - 237	89 - 93	Lamp power on
				238 - 247	93 - 97	Shutter closed
				248 - 255	97 - 100	Lamp power off <b>Note:</b> T ≥ 5 seconds
2				0 - 255	0 - 100	<b>Intensity</b> 0 → 100%
3				0-255	0 - 100	<b>Cyan</b> White → Cyan
4				0-255	0 - 100	<b>Magenta</b> White → Magenta
5				0-255	0 - 100	<b>Yellow</b> White → Yellow
6				0 - 40	0 - 16	<b>Color Wheel</b> Scroll White → Color 1
				40 - 80	16 - 31	Color 1 → Color 2
				80 - 120	31 - 47	Color 2 → Color 3
				120 - 160	47 - 63	Color 3 → Color 4
				161 - 165	63 - 65	Fixed Colors Color 4
				166 - 170	65 - 67	Color 3
				171 - 175	67 - 69	Color 2
				176 - 180	69 - 71	Color 1
				181 - 185	71 - 73	White
				186 - 214	73 - 84	Continuous Rotation CW, fast → slow
				215 - 243	84 - 95	CCW, slow → fast
				244 - 247	96 - 97	Random CMY Color Random color, fast
				248 - 251	97 - 98	Random color, medium
				252 - 255	99 - 100	Random color, slow
				7		
				1 - 255	0 - 100	Beam shaper left → right
8				0 - 2	0 - 1	<b>Beam Shaper 2</b> Open
				3 - 170	1 - 67	Beam shaper left → right
				171 - 255	67 - 100	Frost
9				0 - 255	0 - 100	<b>Pan Coarse (16-bit MSB)</b> Left → right (128 = neutral)
-	10	-	10	0 - 255	0 - 100	<b>Pan Fine (16-bit LSB)</b> Left → right

DMX channel				Start code = 0		
DMX1	DMX2	DMX3	DMX4	Value	Percent	Function
10	11	10	11	0 - 255	0 - 100	<b>Tilt Coarse (16-bit MSB)</b> Up → down (128 = neutral)
-	12	-	12	0 - 255	0 - 100	<b>Tilt Fine (16-bit LSB)</b> Up → down
-	-	11	13	0 - 2 3 - 245 246 - 248 249 - 251 252 - 255	0 - 1 1 - 96 96 - 97 98 - 98 99 - 100	<b>Speed: Pan, Tilt</b> Tracking Fast → slow Tracking, normal speed (override PTSP FAST) Tracking, fast speed (override PTSP NORM) Blackout
-	-	12	14	0 - 2 3 - 239 240 - 242 243 - 245 246 - 248 249 - 251 252 - 255	0 - 1 1 - 94 94 - 95 95 - 96 96 - 97 98 - 98 99 - 100	<b>Speed: Dimmer, CMY, Bm Shaper 1</b> Tracking Fast → slow Tracking, MOdE = NORM (studio mode off) Tracking, MOdE = STUd (studio mode on) Tracking, SCUT = OFF (shortcuts off) Tracking, SCUT = ON (shortcuts on) Fast  <b>Speed: Color, Beam Shaper 2</b> Tracking Fast → slow Tracking, MOdE = NORM (studio mode off) Tracking, MOdE = STUd (studio mode on) Tracking, SCUT = OFF (shortcuts off) Tracking, SCUT = ON (shortcuts on) Blackout