

## appendix a

# DMX PROTOCOL

DMX Channel Offset												DMX Value	Effect
Pro 1220 CMYR - mode				Pro 1220 XR - mode				Pro 1220 RPR - mode					
1	2	3	4	1	2	3	4	1	2	3	4		
0 <i>NOTE!</i> Only with LoFF = on				0 <i>NOTE!</i> Only with LoFF = on				0 <i>NOTE!</i> Only with LoFF = on				0 - 49 50 - 177 178 - 199 200 - 243 244 - 247 248 - 251 252 - 255	<b>Strobe, Fan Speed, Reset, Lamp On/Off</b> No Function Strobe On Fast → Slow No Function Fan Low Lamp Off (T > 5 seconds) Reset Lamp On
0 <i>NOTE!</i> Only with LoFF = oFF				0 <i>NOTE!</i> Only with LoFF = oFF				0 <i>NOTE!</i> Only with LoFF = oFF				0 - 49 50 - 177 178 - 199 200 - 247 248 - 251 252 - 255	<b>Strobe, Fan Speed, Reset, Lamp On</b> No Function Strobe On Fast → Slow No Function Fan Low Reset Lamp On
1				1				1				0 - 255	<b>Intensity</b> 0 → 100%
2				-				2				0 - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 97 98 - 105 106 - 113 114 - 121 122 - 129 130 - 137 138 - 145 146 - 153 154 - 161  162 - 208 209 - 255	<b>Color 1 (Pro 1220 CMYR / RPR)</b> White → Amber → Fern Green → Light Blue → Flame Red → Primary Green → Blue → Orange → Turquoise → Purple Turquoise Orange Blue Primary Greens Flame Red Light Blue Fern Green Amber  Continuous Color Scroll CW (fast → slow) Continuous Color Scroll CCW (slow → fast)

DMX Channel Offset												DMX Value	Effect
Pro 1220 CMYR - mode				Pro 1220 XR - mode				Pro 1220 RPR - mode					
1	2	3	4	1	2	3	4	1	2	3	4		
-				2								0 - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 97 98 - 105 106 - 113 114 - 121 122 - 129 130 - 137 138 - 145 146 - 153 154 - 161	<b>Color 1 (Pro 1220 XR)</b> White → Flame Red → Pink → Cyan Blue → Yellow → Orange → Dark Blue → Magenta → Primary Green → Dark Lavender Primary Green Magenta Dark Blue Orange Yellow Cyan Blue Pink Flame Red
												162 - 208 209 - 255	Continuous Color Scroll CW (fast → slow) Continuous Color Scroll CCW (slow → fast)
3				-				3				0 - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 97 98 - 105 106 - 113 114 - 121 122 - 129 130 - 137 138 - 145 146 - 153 154 - 161	<b>Color 2 (Pro 1220 CMYR / RPR)</b> White → CTC 5500 - 3400 (Hot) → CTC 3500 - 5600 (Cold) → Dark Orange → Primary Red → UV Pass → Dark Blue → Dark Lavender → Pink Light Green → Pink Dark Lavender Dark Blue UV Pass Primary Red Dark Orange CTC 3500-5600 K (Cold) CTC 5500-3400 K (Hot)
												162 - 208 209 - 255	Continuous Color Scroll CW (fast → slow) Continuous Color Scroll CCW (slow → fast)
4				-				-				0 - 255	<b>White → Cyan</b>
5				-				-				0 - 255	<b>White → Magenta</b>
6				6				-				0 - 255	<b>White → Yellow</b>

DMX Channel Offset												DMX Value	Effect
Pro 1220 CMYR - mode				Pro 1220 XR - mode				Pro 1220 RPR - mode					
1	2	3	4	1	2	3	4	1	2	3	4		
												0 - 20 - 40 - 60 - 80 - 100 - 120 - 140 - 160 - 180 - 188 189 - 196 197 - 204 205 - 212 213 - 220 221 - 228 229 - 236 237 - 244 245 - 255	<b>Gobo1</b> Open → Stars → Star → Dots → Cone → Pling → Dot-Circle → Bells → Flower → Turbine Flower Bells Dot-Cone Pling Cone Dots Star Stars
7				3				4				0 - 24 25 - 49 50 - 74 75 - 99 100 - 125  126 - 157 158 - 189 190 - 221 222 - 255	<b>Rotating Gobo selection</b> Open Gobo - no Rotation Gobo 1 - Indexed Gobo 2 - Indexed Gobo 3 - Indexed Gobo 4 - Indexed  Gobo 4 - Continuous rotation Gobo 3 - Continuous rotation Gobo 2 - Continuous rotation Gobo 1 - Continuous rotation
8				4				5				0 - 126 127 128 - 255  0 1 - 127 128 - 254 255	<b>Rotating Gobo Orientation</b> Orientation CW Default (Index) Orientation CCW  <b>Continuous Rotation</b> Static CCW slow → fast CW fast → slow Static
9				5				6				0 - 9 10 - 177 178 - 255	<b>Focus</b> Default Near → Far Focus Far Focus
10				6				7				0 - 157 158 - 255	<b>Iris</b> Full Open → Full Close Full Close

DMX Channel Offset												DMX Value	Effect
Pro 1220 CMYR - mode				Pro 1220 XR - mode				Pro 1220 RPR - mode					
1	2	3	4	1	2	3	4	1	2	3	4		
12				-				-				0 - 49 50 - 99 100 - 149 150 - 255	<b>Prisms, Frost (Pro 1220 CMYR)</b> Open 3-Facet frost 5-Facet
-				8				-				0 - 42 43 - 84 85 - 127 128 - 170 171 - 212 213 - 255	<b>Prisms, Frost (Pro 1220 XR)</b> Open CTC 5500 - 3400 K (Hot) Frost 3-Facet Open 5-Facet
-				-				9  <b>NOTE!</b> <i>Orientation and continuous rotation parameters are programmed on channel 10</i>				0 - 24 25 - 49 50 - 74 75 - 99 100 - 125  126 - 157 158 - 189 190 - 221 222 - 255	<b>Rotting Prisms Selection (Pro 1220 RPR)</b> Open Prism - no Rotation Prism 1 - indexed Prism 2 - indexed Prism 3 - indexed Prism 4 - indexed  Prism 4 - Continuous rotation Prism 3 - Continuous rotation Prism 2 - Continuous rotation Prism 1 - Continuous rotation
-				-				10  <b>NOTE!</b> <i>The Pro 1220 will re-index the prism before moving the gobo to the programmed orientation.</i>				0 - 126 127 128 - 255  0 1 - 127 128 - 254 255	<b>Rotating Prism Orientation</b> Orientation CW Default (Index) Orientation CCW  <b>Continuous Rotation</b> Static CCW slow → fast CW fast → slow Static
13	-	13	-	9	-	9	-	11	-	11	-	0 - 255	<b>Pan</b> Left → Right (127 = Neutral)
14	-	14	-	10	-	10	-	12	-	12	-	0 - 255	<b>Tilt</b> Up → Down (127 = Neutral)
-	13	-	13	-	9	-	9	-	11	-	11	0 - 255	<b>Pan MSB</b> Left → Right (127 = Neutral)
-	14	-	14	-	10	-	10	-	12	-	12	0 - 255	<b>Pan LSB</b> Left → Right
-	15	-	15	-	11	-	11	-	13	-	13	0 - 255	<b>Tilt MSB</b> Up → Down (127 = Neutral)
-	16	-	16	-	12	-	12	-	14	-	14	0 - 255	<b>Tilt LSB</b> Up → Down

DMX Channel Offset												DMX Value	Effect
Pro 1220 CMYR - mode				Pro 1220 XR - mode				Pro 1220 RPR - mode					
1	2	3	4	1	2	3	4	1	2	3	4		
-	-	15	17	-	-	11	13	-	-	13	15	0 1 - 251 252 - 255	<b>Speed: Pan, Tilt</b> Tracking Speed Fast → Slow Blackout while moving
-	-	16	18	-	-	12	14	-	-	14	16	0 1 - 251 252 - 255	<b>Speed:</b> <b>Dimmer, Cyan, Magenta, Yellow, Iris, Focus</b> Tracking Speed Fast → Slow Fast Speed
-	-	16	18	-	-	12	14	-	-	14	16	0 1 - 251 252 - 255	<b>Speed: Color1, Color2, Gobo1, Prism</b> Tracking Speed Fast → Slow Blackout while moving
-	-	16	18	-	-	12	14	-	-	14	16	0 - 251 252 - 255	<b>Speed:</b> <b>Rotating Gobo Change, Prism Change</b> Shutter open while moving Blackout while moving