

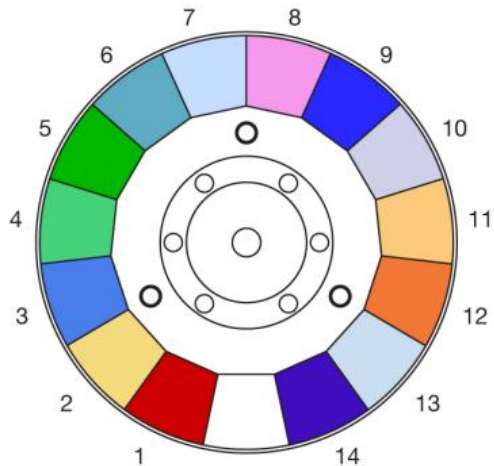
DMX PROTOCOL

<i>DMX Parameter</i>	<i>FUNCTION</i>
1	CYAN
2	MAGENTA
3	YELLOW
4	CTO
5	COLOR FUNCTION
6	COLOUR WHEEL
7	STROBE
8	DIMMER
9	DIMMER FINE
10	IRIS
11	STATIC GOBO
12	ANIMATION WHEEL INSERTION
13	ANIMATION WHEEL ROTATION
14	ROTATING GOBO INSERTION
15	GOBO ROTATION
16	GOBO ROTATION FINE
17	4 FACET PRISM INSERTION
18	4 FACET PRISM ROTATION
19	8 FACET PRISM INSERTION
20	8 FACET PRISM ROTATION
21	FROST
22	ZOOM

<i>DMX Parameter</i>	<i>FUNCTION</i>
23	FOCUS
24	FOCUS FINE
25	BEAM MODE
26	FRAMING BLADE 1 MOVEMENT
27	FRAMING BLADE 1 SWIVELLING
28	FRAMING BLADE 2 MOVEMENT
29	FRAMING BLADE 2 SWIVELLING
30	FRAMING BLADE 3 MOVEMENT
31	FRAMING BLADE 3 SWIVELLING
32	FRAMING BLADE 4 MOVEMENT
33	FRAMING BLADE 4 SWIVELLING
34	FRAMING ROTATION
35	FRAMING MACRO
36	FRAMING MACRO SPEED
37	PAN
38	PAN FINE
39	TILT
40	TILT FINE
41	FUNCTION
42	RESET
43	LAMP CONTROL
-	-

Function Details

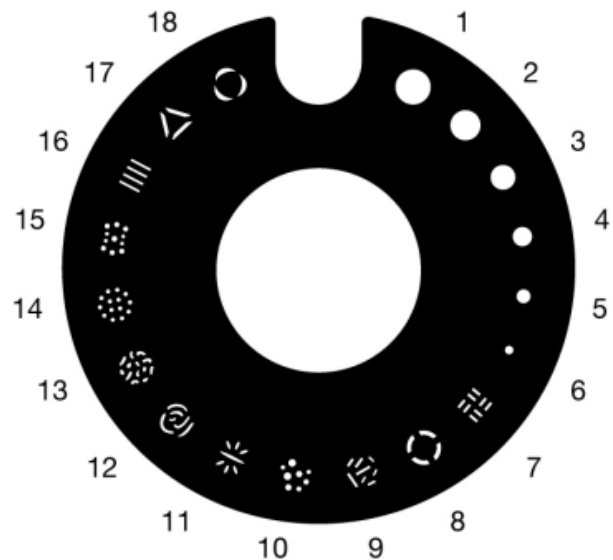
DMX Parameter	Bit Values	Function
1	000 – 255	CYAN Linear 0 – 100% from white to full (Colour Mixing → CMY) Linear 0 – 100% from full to white (Colour Mixing → RGB)
2	000 – 255	MAGENTA Linear 0 – 100% from white to full (Colour Mixing → CMY) Linear 0 – 100% from full to white (Colour Mixing → RGB)
3	000 – 255	YELLOW Linear 0 – 100% from white to full (Colour Mixing → CMY) Linear 0 – 100% from full to white (Colour Mixing → RGB)
4	000 – 255	CTO Linear 0 – 100% from white to full
5		COLOR Function
	000 – 085	Full Color
	086 – 170	Half Color
	171 – 255	Linear Path
6		COLOR WHEEL
		FULL COLOR (Parameter 5 – Bit 0 - 85)
	000 – 005	Empty position
	006 – 011	Dark Red
	012 – 017	2500K
	018 – 023	Brilliant Blue
	024 – 029	Light Green
	030 – 035	Dark Green
	036 – 041	Aquamarine
	042 – 047	Lavender
	048 – 053	Pink
	054 – 059	Navy Blue
	060 – 065	H.M. Green
	066 – 071	Light Orange
	072 – 077	Dark Orange
	078 – 083	CCT Blue
	084 – 089	UV
090 – 127	CW rotation from slow to fast	
128 – 255	Indexing position from 0 to 360°	







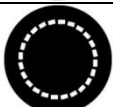
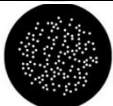


<i>DMX Parameter</i>	<i>Bit Values</i>	<i>Function</i>
6		HALF COLOR (Parameter 5 – Bit 86 - 170)
	000 – 002	Empty position
	003 – 005	Empty + Dark Red
	006 – 008	Dark Red
	009 – 011	Dark Red + 2500K
	012 – 014	2500K
	015 – 017	2500K + Brilliant Blue
	018 – 020	Brilliant Blue
	021 – 023	Brilliant Blue + Light Green
	024 – 026	Light Green
	027 – 029	Light Green + Dark Green
	030 – 032	Dark Green
	033 – 035	Dark Green + Aquamarine
	036 – 038	Aquamarine
	039 – 041	Aquamarine + Lavender
	042 – 044	Lavender
	045 – 047	Lavender + Pink
	048 – 050	Pink
	051 – 053	Pink + Navy Blue
	054 – 056	Navy Blue
	057 – 059	Navy Blue + H.M. Green
	060 – 062	H.M. Green
	063 – 065	H.M. Green + Light Orange
	066 – 068	Light Orange
	069 – 071	Light Orange + Dark Orange
	072 – 074	Dark Orange
	075 – 077	Dark Orange + CCT Blue
	078 – 080	CCT Blue
	081 – 083	CCT Blue + UV
	084 – 086	UV
087 – 089	UV + Empty	
090 – 127	CW rotation from slow to fast	
128 – 255	Indexing position from 0 to 360°	

DMX Parameter	Bit Values	Function
6		LINEAR PATH (Parameter 5 – Bit 171 - 255)
	000	Empty position
	006	Dark Red
	012	2500K
	018	Brilliant Blue
	024	Light Green
	030	Dark Green
	036	Aquamarine
	042	Lavender
	048	Pink
	054	Navy Blue
	060	H.M. Green
	066	Light Orange
	072	Dark Orange
	078	CCT Blue
	084	UV
	090 – 127	CW rotation from slow to fast
128 – 255	Indexing position from 0 to 360°	
7		STROBE
	000 – 003	Closed
	004 – 103	Linear Strobe from slow (1 flash/sec) to fast (12 flashes/sec)
	104 – 107	Open
	108 – 207	Linear Pulse from slow to fast
	208 – 212	Open
	213 – 225	Random Strobe at low frequency
	226 – 238	Random Strobe at medium frequency
	239 – 251	Random Strobe at high frequency
252 – 255	Open	
8	000 – 255	DIMMER 0-100%
9	000 – 255	DIMMER FINE (16 bit)
10		IRIS
	000 – 127	Linear Open from Min to Max
	128 – 131	Open
	132 – 171	Pulse from slow to fast
	172 – 211	Pulse from slow to fast - instant opening
	212 – 251	Pulse from slow to fast - instant closing
252 – 255	Open	

DMX Parameter	Bit Values	Function
11		STATIC GOBO WHEEL
	000 – 003	Empty position
	004 – 007	Gobo 1
	008 – 011	Gobo 2
	012 – 014	Gobo 3
	015 – 018	Gobo 4
	019 – 022	Gobo 5
	023 – 026	Gobo 6
	027 – 029	Gobo 7
	030 – 033	Gobo 8
	034 – 037	Gobo 9
	038 – 041	Gobo 10
	042 – 044	Gobo 11
	045 – 048	Gobo 12
	049 – 052	Gobo 13
	053 – 056	Gobo 14
	057 – 059	Gobo 15
	060 – 063	Gobo 16
	064 – 067	Gobo 17
	068 – 071	Gobo 18
	072 – 113	Linear CCW from fast to slow
	114 – 117	Stop
	118 – 159	Linear CW from slow to fast
	160 – 165	Gobo 1 shakes from slow to fast
	166 – 170	Gobo 2 shakes from slow to fast
	171 – 175	Gobo 3 shakes from slow to fast
	176 – 181	Gobo 4 shakes from slow to fast
	182 – 186	Gobo 5 shakes from slow to fast
	187 – 191	Gobo 6 shakes from slow to fast
	192 – 196	Gobo 7 shakes from slow to fast
	197 – 202	Gobo 8 shakes from slow to fast
	203 – 207	Gobo 9 shakes from slow to fast
208 – 212	Gobo 10 shakes from slow to fast	
213 – 218	Gobo 11 shakes from slow to fast	
219 – 223	Gobo 12 shakes from slow to fast	
224 – 228	Gobo 13 shakes from slow to fast	
229 – 233	Gobo 14 shakes from slow to fast	
234 – 239	Gobo 15 shakes from slow to fast	
240 – 244	Gobo 16 shakes from slow to fast	
245 – 249	Gobo 17 shakes from slow to fast	
250 – 255	Gobo 18 shakes from slow to fast	
12		ANIMATION WHEEL
	000 – 007	Animation wheel out
	008 – 255	Animation wheel linear insertion



DMX Parameter	Bit Values	Function
13		ANIMATION WHEEL ROTATION
	000 – 003	Stop
	004 – 127	Linear CCW rotation from slow to fast
	128 – 132	Stop
	133 – 255	Linear CW rotation from slow to fast
14		ROTATING GOBO CHANGE
	000 – 007	Empty position
	008 – 015	Gobo 1 
	016 – 023	Gobo 2 
	024 – 031	Gobo 3 
	032 – 039	Gobo 4 
	040 – 047	Gobo 5 
	048 – 055	Gobo 6 
	056 – 063	Gobo 7 
	064 – 071	Gobo 8 
	072 – 113	Linear CCW from fast to slow
	114 – 117	Stop
	118 – 159	Linear CW from slow to fast
	160 – 171	Gobo 1 shakes from slow to fast
	172 – 183	Gobo 2 shakes from slow to fast
	184 – 195	Gobo 3 shakes from slow to fast
	196 – 207	Gobo 4 shakes from slow to fast
	208 – 219	Gobo 5 shakes from slow to fast
	220 – 231	Gobo 6 shakes from slow to fast
	232 – 243	Gobo 7 shakes from slow to fast
	244 – 255	Gobo 8 shakes from slow to fast

DMX Parameter	Bit Values	Function
15		GOBO ROTATION
	000 – 127	Gobo Indexing: 0° to 540° range
	128 – 190	Linear CW from fast to slow
	191 – 192	Stop
	193 – 255	Linear CCW from slow to fast
16	000 – 255	FINE GOBO ROTATION
17		4 FACET PRISM INSERTION
	000 – 127	4 Prism Out
	128 – 255	4 facet Prism In
18		4 FACET PRISM ROTATION
	000 – 127	Prism indexing: 0° to 540° range
	128 – 190	Linear CW from fast to slow
	191 – 192	Stop
	193 – 255	Linear CCW from slow to fast
19		8 FACET PRISM INSERTION
	000 – 127	8 Prism Out
	128 – 255	8 facet Prism In
20		8 FACET PRISM ROTATION
	000 – 127	Prism indexing: 0° to 540° range
	128 – 190	Linear CW fast to slow
	191 – 192	Stop
	193 – 255	Linear CCW slow to fast
21	000 – 255	FROST 0-100% Linear
22	000 – 255	ZOOM
23	000 – 255	FOCUS
24	000 – 255	FOCUS FINE
25		BEAM MODE
	000 – 127	SPOT mode
	128 – 255	BEAM mode
26	000 – 255	BLADE 1 MOVEMENT
27		BLADE 1 SWIVELLING
	000 – 255	Swivelling from -25 degrees to +25 degrees
28	000 – 255	BLADE 2 MOVEMENT
29		BLADE 2 SWIVELLING
	000 – 255	Swivelling from -25 degrees to 0 +25 degrees
30	000 – 255	BLADE 3 MOVEMENT
31		BLADE 3 SWIVELLING
	000 – 127	Swivelling from -25 degrees to +25 degrees
32	000 – 255	BLADE 4 MOVEMENT
33		BLADE 4 SWIVELLING
	000 – 255	Swivelling from -25 degrees to +25 degrees



Ultimo Hybrid

DMX Chart

11/2025

<i>DMX Parameter</i>	<i>Bit Values</i>	<i>Function</i>
34		FRAMING ROTATION
	000 – 127	Left to Center
	128	Center
	129 – 255	Center to Right
35		FRAMING MACRO EFFECTS
	000 – 003	Macro OFF
	004 – 011	Macro 1
	012 – 018	Macro 2
	019 – 025	Macro 3
	026 – 032	Macro 4
	033 – 039	Macro 5
	040 – 047	Macro 6
	048 – 054	Macro 7
	055 – 061	Macro 8
	062 – 068	Macro 9
	069 – 075	Macro 10
	076 – 082	Macro 11
	083 – 090	Macro 12
	091 – 097	Macro 13
	098 – 104	Macro 14
	105 – 111	Macro 15
	112 – 118	Macro 16
	119 – 125	Macro 17
	126 – 133	Macro 18
	134 – 140	Macro 19
	141 – 147	Macro 20
	148 – 154	Macro 21
	155 – 161	Macro 22
	162 – 168	Macro 23
	169 – 176	Macro 24
	177 – 183	Macro 25
	184 – 190	Macro 26
	191 – 197	Macro 27
	198 – 204	Macro 28
	205 – 211	Macro 29
	212 – 219	Macro 30
	220 – 226	Macro 31
	227 – 233	Macro 32
	234 – 240	Macro 33
241 – 247	Macro 34	
248 – 255	Macro 35	
36	000 – 255	FRAMING MACRO EFFECTS SPEED
37		PAN
	000 – 255	from 0° to 540° (default setting)
38	000 – 255	PAN FINE

DMX Parameter	Bit Values	Function
39		TILT
	000 – 255	from 0° to 270° (default setting)
40	000 – 255	TILT FINE
041		FUNCTION
	000 – 050	Unused range
	051 – 060	Pan invert On
	061 – 070	Pan invert Off
	071 – 080	Tilt invert On
	081 – 090	Tilt invert Off
	091 – 100	Pan / Tilt at 0% (It bring the Pan / Tilt position at 0%)
	101 – 110	Pan / Tilt at 100% (It bring the Pan / Tilt position at 100%)
	111 – 120	CMY movement Normal speed
	121 – 130	CMY movement Fast speed (Default setting)
	131 – 140	Dimmer range STD (Default setting)
	141 – 150	Dimmer range Fast
	151 – 155	Pan/Tilt movement STD speed
	156 – 160	Pan/Tilt movement Boost speed
	161 – 170	Display OFF (Default setting)
	171 – 180	Display ON
	181 – 190	Framing dimming delay ON
	191 – 200	Framing dimming delay OFF (Default setting)
	201 – 210	CMY curve Standard (Default)
	211 – 220	CMY curve Linear
	221 – 225	Dimmer calibration Factory
	226 – 230	Dimmer calibration Customized
	231 – 235	Set customized dimmer calibration When this option is activated is possible to set dimmer calibration of the 2 blades controlling the Cyan and Magenta DMX parameters.
	236 – 240	Save customized dimmer calibration
	241 – 245	Safety Black Out On (Default) The dimmer is set automatically to zero in case of absence of DMX signal.
246 – 250	Safety Black Out OFF	
251 – 253	Dimmer reset at 0 (It does the reset of dimmer at 0% level)	
254 – 255	Dimmer reset at 100 (it does the reset of dimmer at 100% level)	
	IMPORTANT: Pan / Tilt at 0%, Pan / Tilt at 100%, Dimmer range STD, Dimmer range Fast activated immediately. Other functions are activated/selected staying in the necessary range for 3 seconds	
42		RESET
	000 – 025	Unused range
	026 – 076	Effects reset
	077 – 127	Pan / Tilt reset
	128 – 255	Complete fixture reset
	IMPORTANT: Reset sequence is activated staying in the range for 5 seconds	

DMX Parameter	Bit Values	Function
43		LAMP CONTROL
	000 – 025	Unused range
	026 – 100	Lamp OFF Lamp switch-off staying in this range for 3 seconds
	101 – 255	Lamp ON
		Lamp switch-on staying in this range for 3 seconds Important: Ultimo Hybrid is not provided with hot re-strike igniter After switching-off the lamp wait at least 2 minutes before switching-on it again

IMPORTANT NOTES

After switching-off the lamp we recommend waiting at least 2 minutes before switching-on it again

To prevent accidental breakage of the effects, which could collide with each other's during transport, before switching the projector OFF, check that all the fixture Channels have been excluded (DMX level = 0 bit.).

Remember to "Switch-Off" the lamp, before to "Switch-Off" the fixture.

To ensure reliable operation of the effects, it is suggested to keep the lamp of the projector switch-on for few minutes before moving the effects. Claypaky use a high-performance lubricant that is designed to work within the high temperature environment in Claypaky's modern moving light fixtures. In cold environments, it may take several minutes for the lubricant to reach optimum fluidity and all functions to reach optimum performance.