

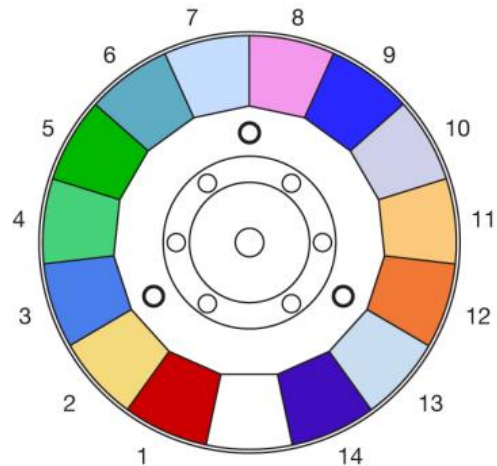
DMX PROTOCOL

| <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 Detail

| 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 – 089 | Full Color |
| | 090 – 170 | Half Color |
| | 171 – 255 | Linear Path |
| 6 | | COLOR WHEEL |
| | | FULL COLOR (Parameter 5 – Bit 0 - 89) |
| | 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° | |

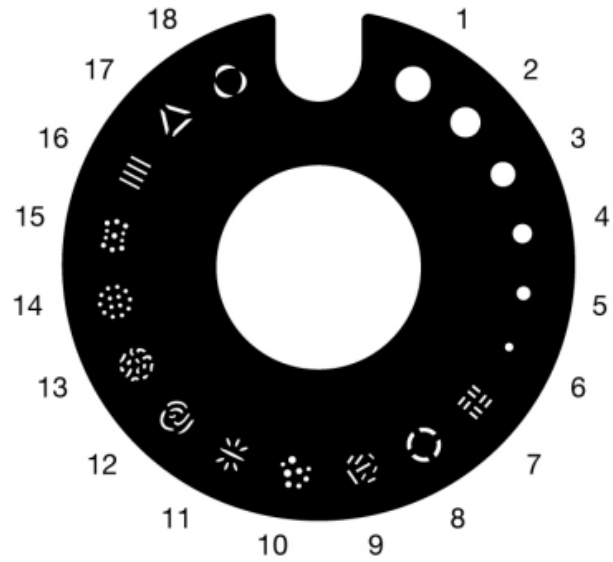


| DMX Parameter | Bit Values | Function |
|----------------------|----------------------------------|--|
| 6 | | HALF COLOR (Parameter 5 – Bit 90 - 170) |
| | 000 – 002 | Empty position |
| | 003 – 005 | Empty + Dark Red |
| | 006 – 008 | Dark Red |
| | 009 – 011 | Dark Red + 2500K |
| | 012 – 014 | 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° | |







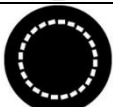
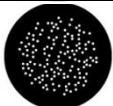
DMX Chart

| 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 Chart

| DMX Parameter | Bit Values | Function |
|---------------|------------|--|
| 13 | | ANIMATION WHEEL ROTATION |
| | 000 – 003 | Stop |
| | 004 – 127 | Linear CCW rotation from slow to fast |
| | 128 – 131 | Stop |
| | 132 – 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 – 062 | Gobo 7  |
| | 063 – 071 | Gobo 8  |
| | 072 – 113 | Linear CW from fast to slow |
| | 114 – 117 | Stop |
| | 118 – 159 | Linear CCW 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 Chart

| 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 |

DMX Chart

| DMX Parameter | Bit Values | Function |
|----------------------|-------------------|------------------------------------|
| 34 | | FRAMING ROTATION |
| | 000 – 127 | Left to Center |
| | 128 – 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 Chart

| 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 – 150 | Unused range |
| | 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 | Record 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: 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 |
| | | |

DMX Chart

| 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: SHARPY X Frame 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.