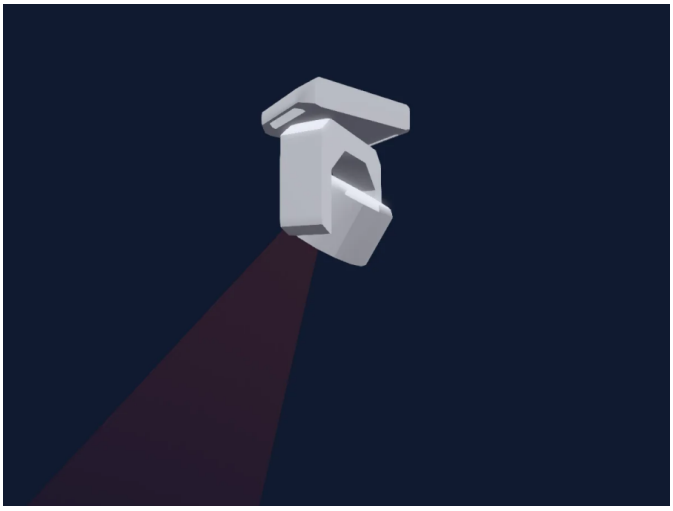
EK Lights

R2



Manufacturer	**EK Lights**
Type	**Moving head**
DMX modes	**4**
DMX footprint	**16, 17, 43, 86 channels**
Beam angle	**4-60°**
Pan range	**540°**
Tilt range	**270°**
Size (W × H × D)	**310 × 179 × 290 mm**
GDTF fixture type	**178292BD-41BC-4B4A-9681-2B…**

Controls

Zoom · Extra LED colours · RGB colour mixing · Colour temperature · Colour wheel · Effect speed · Strobe · Dimmer · Pan and tilt · Movement speed

Safety-relevant functions

Fixture reset · Service functions · Strobe · Built-in effect programmes

DMX modes

16CH	16 ch
17CH	17 ch
43CH	43 ch
86CH	86 ch

16CH

16 channels

Ch	Function	Default	DMX values
1	Pan	170	
2	Pan Fine	170	Fine byte of Pan
3	Tilt	127	
4	Tilt Fine	255	Fine byte of Tilt
5	Dimmer	0	0–254 Closed 255–255 Open
6	Dimmer Fine	0	Fine byte of Dimmer
7	Red	255	
8	Green	255	
9	Blue	255	
10	White	255	
11	C TO	0	0–10 No Function 11–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
12	Tint	0	0–127 Magenta to OFF 128–128 OFF 129–255 OFF to Green
13	Zoom	255	0–127 Max 128–254 Median 255–255 Min
14	Effect	0	0–5 No Function 6–10 Effect 1 11–15 Effect 2 16–20 Effect 3 21–25 Effect 4 26–30 Effect 5 31–35 Effect 6 36–40 Effect 7 41–45 Effect 8 46–50 Effect 9 51–55 Effect 10 56–60 Effect 11 61–65 Effect 12 66–70 Effect 13 71–75 Effect 14 76–80 Effect 15 81–85 Effect 16 86–90 Effect 17 91–95 Effect 18 96–100 Effect 19 101–255 All LEDs On
15	Effect Speed	0	0–5 Effect Pattern Speed Stop 6–127 Effect Pattern Speed slow > fast 128–255 Effect Pattern Speed fast > slow

16CH (continued)

Ch	Function	Default	DMX values
16	Control1	0	0–5 No Function 6–7 Blackout while Moving on (Hold 3s) 8–9 Blackout while Moving off (Hold 3s) 10–41 Spare 42–43 Invert Pan on (Hold 3s) 44–45 Invert Pan off (Hold 3s) 46–47 Invert Tilt on (Hold 3s) 48–49 Invert Tilt off (Hold 3s) 50–73 Spare 74–75 Dimmer Response LED (Hold 3s) 76–77 Dimmer Response Halogen (Hold 3s) 78–97 Spare 98–99 Silent Fan on (Hold 3s) 100–101 Auto Fan (Hold 3s) 102–119 Spare 120–121 LED Frequency 800Hz (hold 3s) 122–123 LED Frequency 1200Hz (hold 3s) 124–125 LED Frequency 2000Hz (hold 3s) 126–127 LED Frequency 3600Hz (hold 3s) 128–129 LED Frequency 12KHz (hold 3s) 130–131 LED Frequency 25KHz (hold 3s) 132–139 Spare 140–141 Display On(hold 3s) 142–143 Display Off(hold 3s) 144–159 Spare 160–161 LED direction normal (hold 3s) (Standard) 162–163 LED direction mirrowed (hold 3s) 164–165 Dimmer Curve Linear(hold 3s) 166–167 Dimmer Curve Exponential(hold 3s) 168–169 Dimmer Curve Logarithmic(hold 3s) 170–171 Dimmer Curve S-Curve(hold 3s) 172–201 Spare 202–203 RAW-Mode (Hold 3s) 204–205 User Calibrated-Mode (Hold 3s) 206–207 Factory Calibrated-Mode (Hold 3s) 208–221 Spare 222–223 Reset Pan / Tilt (Hold 3s) 224–227 Spare 228–229 Reset Zoom (Hold 3s) 230–235 Spare 236–237 Reset All Functions (Hold 3s) 238–245 Spare 246–255 No function

17CH

17 channels

Ch	Function	Default	DMX values
1	Pan	170	
2	Pan Fine	170	Fine byte of Pan
3	Tilt	127	
4	Tilt Fine	255	Fine byte of Tilt
5	Dimmer	0	0–254 Closed 255–255 Open
6	Dimmer Fine	0	Fine byte of Dimmer

17CH (continued)

Ch	Function	Default	DMX values
7	Shutter / Strobe	255	0–5 Open1 6–10 Closed 11–33 Pulse 34–102 Random 103–127 Strobe Break Effect 128–250 Strobe 251–255 Open 2
8	Red	255	
9	Green	255	
10	Blue	255	
11	White	255	
12	C TO	0	0–10 No Function 11–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
13	Tint	0	0–127 Magenta to OFF 128–128 OFF 129–255 OFF to Green
14	Zoom	255	0–127 Max 128–254 Median 255–255 Min
15	Effect	0	0–5 No Function 6–10 Effect 1 11–15 Effect 2 16–20 Effect 3 21–25 Effect 4 26–30 Effect 5 31–35 Effect 6 36–40 Effect 7 41–45 Effect 8 46–50 Effect 9 51–55 Effect 10 56–60 Effect 11 61–65 Effect 12 66–70 Effect 13 71–75 Effect 14 76–80 Effect 15 81–85 Effect 16 86–90 Effect 17 91–95 Effect 18 96–100 Effect 19 101–255 All LEDs On
16	Effect Speed	0	0–5 Effect Pattern Speed Stop 6–127 Effect Pattern Speed slow > fast 128–255 Effect Pattern Speed fast > slow

17CH (continued)

Ch	Function	Default	DMX values
17	Control1	0	0–5 No Function 6–7 Blackout while Moving on (Hold 3s) 8–9 Blackout while Moving off (Hold 3s) 10–41 Spare 42–43 Invert Pan on (Hold 3s) 44–45 Invert Pan off (Hold 3s) 46–47 Invert Tilt on (Hold 3s) 48–49 Invert Tilt off (Hold 3s) 50–73 Spare 74–75 Dimmer Response LED (Hold 3s) 76–77 Dimmer Response Halogen (Hold 3s) 78–97 Spare 98–99 Silent Fan on (Hold 3s) 100–101 Auto Fan (Hold 3s) 102–119 Spare 120–121 LED Frequency 800Hz (hold 3s) 122–123 LED Frequency 1200Hz (hold 3s) 124–125 LED Frequency 2000Hz (hold 3s) 126–127 LED Frequency 3600Hz (hold 3s) 128–129 LED Frequency 12KHz (hold 3s) 130–131 LED Frequency 25KHz (hold 3s) 132–139 Spare 140–141 Display On(hold 3s) 142–143 Display Off(hold 3s) 144–159 Spare 160–161 LED direction normal (hold 3s) (Standard) 162–163 LED direction mirrowed (hold 3s) 164–165 Dimmer Curve Linear(hold 3s) 166–167 Dimmer Curve Exponential(hold 3s) 168–169 Dimmer Curve Logarithmic(hold 3s) 170–171 Dimmer Curve S-Curve(hold 3s) 172–201 Spare 202–203 RAW-Mode (Hold 3s) 204–205 User Calibrated-Mode (Hold 3s) 206–207 Factory Calibrated-Mode (Hold 3s) 208–221 Spare 222–223 Reset Pan / Tilt (Hold 3s) 224–227 Spare 228–229 Reset Zoom (Hold 3s) 230–235 Spare 236–237 Reset All Functions (Hold 3s) 238–245 Spare 246–255 No function

43CH

43 channels

Ch	Function	Default	DMX values
1	Pan	171	
2	Pan Fine	184	Fine byte of Pan
3	Tilt	127	
4	Tilt Fine	255	Fine byte of Tilt
5	Dimmer	0	0–254 Closed 255–255 Open
6	Dimmer Fine	0	Fine byte of Dimmer

43CH (continued)

Ch	Function	Default	DMX values
7	Shutter / Strobe	255	0–5 Open1 6–10 Closed 11–33 Pulse 34–102 Random 103–127 Strobe Break Effect 128–250 Strobe 251–255 Open 2
8	Red	255	
9	Red Fine	255	Fine byte of Red
10	Green	255	
11	Green Fine	255	Fine byte of Green
12	Blue	255	
13	Blue Fine	255	Fine byte of Blue
14	White	255	
15	White Fine	255	Fine byte of White
16	Color Macro1	0	
17	Color Macro Crossfade	0	0–5 0s 6–255 0 1 -10s
18	C TO	0	0–10 No Function 11–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
19	Tint	128	0–127 Magenta to OFF 128–128 OFF 129–255 OFF to Green
20	Zoom	255	0–126 Max 127–254 Median 255–255 Min
21	Zoom Fine	255	Fine byte of Zoom
22	Selection Folder	0	0–5 No Function 6–64 Pattern 1 65–128 Pattern 2 129–255 Running Effect Pattern
23	Pattern1And Pattern2And Pattern Effects	0	
24	Pattern Speed	0	0–5 Effect Pattern Speed Stop 6–127 Effect Pattern Speed slow > fast 128–255 Effect Pattern Speed fast > slow
25	Pattern Transition	0	0–5 Stop 6–255 0 1-5s
26	Running Effect Pattern Fade Wake	0	0–5 No Function 6–127 Fade Effect Pattern less -> much 128–255 Wake Effect Pattern less -> much
27	B GDimmer	0	0–254 Closed 255–255 Open
28	B GDimmer Fine	0	Fine byte of B GDimmer

43CH (continued)

Ch	Function	Default	DMX values
29	B GShutter	5	0–5 Open1 6–10 Closed 11–33 Pulse 34–102 Random 103–127 Strobe Break Effect 128–250 Strobe 251–255 Open 2
30	B GR	0	
31	B GR Fine	0	Fine byte of B GR
32	B GG	0	
33	B GG Fine	0	Fine byte of B GG
34	B GB	0	
35	B GB Fine	0	Fine byte of B GB
36	B GW	0	
37	B GW Fine	0	Fine byte of B GW
38	B GColor Macro	0	
39	B GColor Macro Crossfade	0	0–5 0s 6–255 0 1-10s
40	B GCTO	0	0–10 No Function 11–40 2700K 41–70 3200K 71–100 4000K 101–130 5600K 131–160 6500K 161–190 7000K 191–220 7500K 221–255 8000K
41	B GTint	128	0–127 Magenta to OFF 128–128 OFF 129–255 OFF to Green
42	Position MSpeed	0	

43CH (continued)

Ch	Function	Default	DMX values
43	Control1	0	0–5 No Function 6–7 Blackout while Moving on (Hold 3s) 8–9 Blackout while Moving off (Hold 3s) 10–41 Spare 42–43 Invert Pan on (Hold 3s) 44–45 Invert Pan off (Hold 3s) 46–47 Invert Tilt on (Hold 3s) 48–49 Invert Tilt off (Hold 3s) 50–73 Spare 74–75 Dimmer Response LED (Hold 3s) 76–77 Dimmer Response Halogen (Hold 3s) 78–97 Spare 98–99 Silent Fan on (Hold 3s) 100–101 Auto Fan (Hold 3s) 102–119 Spare 120–121 LED Frequency 800Hz (hold 3s) 122–123 LED Frequency 1200Hz (hold 3s) 124–125 LED Frequency 2000Hz (hold 3s) 126–127 LED Frequency 3600Hz (hold 3s) 128–129 LED Frequency 12KHz (hold 3s) 130–131 LED Frequency 25KHz (hold 3s) 132–139 Spare 140–141 Display On(hold 3s) 142–143 Display Off(hold 3s) 144–159 Spare 160–161 LED direction normal (hold 3s) (Standard) 162–163 LED direction mirrowed (hold 3s) 164–165 Dimmer Curve Linear(hold 3s) 166–167 Dimmer Curve Exponential(hold 3s) 168–169 Dimmer Curve Logarithmic(hold 3s) 170–171 Dimmer Curve S-Curve(hold 3s) 172–201 Spare 202–203 RAW-Mode (Hold 3s) 204–205 User Calibrated-Mode (Hold 3s) 206–207 Factory Calibrated-Mode (Hold 3s) 208–221 Spare 222–223 Reset Pan / Tilt (Hold 3s) 224–227 Spare 228–229 Reset Zoom (Hold 3s) 230–235 Spare 236–237 Reset All Functions (Hold 3s) 238–245 Spare 246–255 No function

86CH

86 channels

Ch	Function	Default	DMX values
1	Pan	170	
2	Pan Fine	170	Fine byte of Pan
3	Tilt	127	
4	Tilt Fine	255	Fine byte of Tilt
5	Dimmer	0	
6	Dimmer Fine	0	Fine byte of Dimmer

86CH (continued)

Ch	Function	Default	DMX values
7	Shutter / Strobe	255	0–5 Open1 6–10 Closed 11–33 Pulse 34–102 Random 103–127 Strobe Break Effect 128–250 Strobe 251–255 Open 2
8	Reserved 8	0	
9	Reserved 9	0	
10	Reserved 10	0	
11	Reserved 11	0	
12	Reserved 12	0	
13	Reserved 13	0	
14	Reserved 14	0	
15	Reserved 15	0	
16	Reserved 16	0	
17	Reserved 17	0	
18	Reserved 18	0	
19	Reserved 19	0	
20	Reserved 20	0	
21	Reserved 21	0	
22	Reserved 22	0	
23	Reserved 23	0	
24	Reserved 24	0	
25	Reserved 25	0	
26	Reserved 26	0	
27	Reserved 27	0	
28	Reserved 28	0	
29	Reserved 29	0	
30	Reserved 30	0	
31	Reserved 31	0	
32	Reserved 32	0	
33	Reserved 33	0	
34	Reserved 34	0	
35	Reserved 35	0	
36	Reserved 36	0	
37	Reserved 37	0	
38	Reserved 38	0	
39	Reserved 39	0	
40	Reserved 40	0	
41	Reserved 41	0	
42	Reserved 42	0	
43	Reserved 43	0	
44	Reserved 44	0	
45	Reserved 45	0	
46	Reserved 46	0	
47	Reserved 47	0	

86CH (continued)

Ch	Function	Default	DMX values
48	Reserved 48	0	
49	Reserved 49	0	
50	Reserved 50	0	
51	Reserved 51	0	
52	Reserved 52	0	
53	Reserved 53	0	
54	Reserved 54	0	
55	Reserved 55	0	
56	Reserved 56	0	
57	Reserved 57	0	
58	Reserved 58	0	
59	Reserved 59	0	
60	Reserved 60	0	
61	Reserved 61	0	
62	Reserved 62	0	
63	Reserved 63	0	
64	Reserved 64	0	
65	Reserved 65	0	
66	Reserved 66	0	
67	Reserved 67	0	
68	Reserved 68	0	
69	Reserved 69	0	
70	Reserved 70	0	
71	Reserved 71	0	
72	Reserved 72	0	
73	Reserved 73	0	
74	Reserved 74	0	
75	Reserved 75	0	
76	Reserved 76	0	
77	Reserved 77	0	
78	Reserved 78	0	
79	Reserved 79	0	
80	Reserved 80	0	
81	Reserved 81	0	
82	Reserved 82	0	
83	Reserved 83	0	
84	Zoom	255	
85	Zoom Fine	255	Fine byte of Zoom
86	Control1	0	