JB-Lighting

Sparx9



Manufacturer	**JB-Lighting**
Type	**Moving head**
DMX modes	**6**
DMX footprint	**21, 32, 46, 49, 60, 74 channels**
Beam angle	**2.2-60°**
Pan range	**540.73°**
Tilt range	**237.78°**
Heads / cells	**9**
Size (W × H × D)	**240 × 280 × 240 mm**
GDTF fixture type	**4A955883-0D78-486A-B080-B9…**

Controls

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

Safety-relevant functions

Built-in effect programmes

DMX modes

Mode3 (21)	21 ch
Mode1 (32)	32 ch
Mode2 (46)	46 ch
Mode3 single pixel (49)	49 ch
Mode1 single pixel (60)	60 ch
Mode2 single pixel (74)	74 ch

Mode3 (21)

21 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Control1	0	
6	Shutter / Strobe	16	0–15 closed 16–95 open 96–97 StrobePulseOpen · 20Hz 20–18.6 Hz 98–99 StrobePulseOpen · 15Hz 17.2–15.7 Hz 100–101 StrobePulseOpen · 10Hz 14.3–12.9 Hz 102–104 StrobePulseOpen · 5Hz 11.5–8.63 Hz 105–109 StrobePulseOpen · 1Hz 7.21–1.52 Hz 110–110 StrobePulseOpen · 1/10Hz 0.1 Hz 111–111 open (2) 112–124 Shutter Fade Effect strobe · fade effect slow 1–18.5… 125–125 Shutter Fade Effect strobe · fade effect fast 20 Hz 126–126 open (3) 127–127 closed (2) 128–141 pulse open fast 142–142 pulse open slow 143–143 open (4) 144–157 pulse close fast 158–158 pulse close slow 159–159 closed (3) 160–173 Shutter Fade close strobe · fade close fast 20–1.52 … 174–174 Shutter Fade close strobe · fade close slow 0.1 Hz 175–175 open (5) 176–189 fade open fast 190–190 fade open slow 191–191 closed (4) 192–205 rnd open fast 206–206 rnd open slow 207–207 open (6) 208–221 Shutter Rnd Close strobe · rnd close fast 20–1.52 Hz 222–222 Shutter Rnd Close strobe · rnd close slow 0.1 Hz 223–223 closed (5) 224–238 rnd pulse close fast 239–239 open (7) 240–254 rnd pulse open fast 255–255 open (8)
7	Dimmer	0	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
8	Zoom	128	0–127 narrow 128–254 medium 255–255 wide

Mode3 (21) (continued)

Ch	Function	Default	DMX values
9	C TO	0	0–63 0% cto 64–127 25% cto 128–190 50% cto 191–254 75% cto 255–255 100% cto
10	Color Wheel	0	0–0 inactive colors rgb (wheel slot 1) 1–3 white (wheel slot 1) 4–7 white / red (wheel slot 19) 8–11 red (wheel slot 2) 12–15 red / yellow (wheel slot 20) 16–19 yellow (wheel slot 3) 20–23 yellow / magenta (wheel slot 21) 24–27 magenta (wheel slot 4) 28–31 magenta / green (wheel slot 22) 32–35 green (wheel slot 5) 36–39 green / orange (wheel slot 23) 40–43 orange (wheel slot 6) 44–47 orange / blue (wheel slot 24) 48–51 blue (wheel slot 7) 52–55 blue / turquoise (wheel slot 25) 56–59 turquoise (wheel slot 8) 60–63 turquoise / white (wheel slot 26) 64–64 2700K (wheel slot 9) 65–65 2700K tungsten dimming (wheel slot 10) 66–66 3200K (wheel slot 11) 67–67 3200K tungsten dimming (wheel slot 12) 68–68 4200K (wheel slot 13) 69–69 5600K (wheel slot 14) 70–70 6000K (wheel slot 15) 71–71 6500K (wheel slot 16) 72–72 7000K (wheel slot 17) 73–191 8000K (wheel slot 18) 192–222 spin >>> fast 223–223 spin >>> slow 224–254 spin <<< slow 255–255 spin <<< fast
11	Red	255	0–63 0% red 64–127 25% red 128–190 50% red 191–254 75% red 255–255 100% red
12	Green	255	0–63 0% green 64–127 25% green 128–190 50% green 191–254 75% green 255–255 100% green
13	Blue	255	0–63 0% blue 64–127 25% blue 128–190 50% blue 191–254 75% blue 255–255 100% blue
14	White	0	0–63 0% white 64–127 25% white 128–190 50% white 191–254 75% white 255–255 100% white
15	Sparkle	0	0–63 0% sparkle 64–127 25% sparkle 128–190 50% sparkle 191–254 75% sparkle 255–255 100% sparkle

Mode3 (21) (continued)

Ch	Function	Default	DMX values
16	Sparkle Speed	0	0–0 sparkle faded slow 1–14 sparkle faded 1__99% 15–15 sparkle faded fast 16–16 sparkle switched slow 17–30 sparkle switched 1__99% 31–31 sparkle switched fast 32–32 sparkle faded slow 33–46 sparkle faded 1__99% 47–47 sparkle faded fast 48–48 sparkle switched slow 49–62 sparkle switched 1__99% 63–63 sparkle switched fast 64–64 sparkle faded slow 65–78 sparkle faded 1__99% 79–79 sparkle faded fast 80–80 sparkle switched slow 81–94 sparkle switched 1__99% 95–95 sparkle switched fast 96–96 sparkle faded slow 97–110 sparkle faded 1__99% 111–111 sparkle faded fast 112–112 sparkle switched slow 113–126 sparkle switched 1__99% 127–127 sparkle switched fast 128–128 sparkle faded slow 129–142 sparkle faded 1__99% 143–143 sparkle faded fast 144–144 sparkle switched slow 145–158 sparkle switched 1__99% 159–159 sparkle switched fast 160–160 sparkle faded slow 161–174 sparkle faded 1__99% 175–175 sparkle faded fast 176–176 sparkle switched slow 177–190 sparkle switched 1__99% 191–255 sparkle switched fast
17	Effects1Mode	0	

Mode3 (21) (continued)

Ch	Function	Default	DMX values
18	Effect	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode3 (21) (continued)

Ch	Function	Default	DMX values
19	Effect Speed	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
20	Tint	0	
21	Transition	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%

Mode1 (32)

32 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Control1	0	

Mode1 (32) (continued)

Ch	Function	Default	DMX values
6	Shutter / Strobe	16	0–15 closed 16–95 open 96–97 StrobePulseOpen · 20Hz 20–18.6 Hz 98–99 StrobePulseOpen · 15Hz 17.2–15.7 Hz 100–101 StrobePulseOpen · 10Hz 14.3–12.9 Hz 102–104 StrobePulseOpen · 5Hz 11.5–8.63 Hz 105–109 StrobePulseOpen · 1Hz 7.21–1.52 Hz 110–110 StrobePulseOpen · 1/10Hz 0.1 Hz 111–111 open (2) 112–124 Shutter Fade Effect strobe · fade effect slow 1–18.5… 125–125 Shutter Fade Effect strobe · fade effect fast 20 Hz 126–126 open (3) 127–127 closed (2) 128–141 pulse open fast 142–142 pulse open slow 143–143 open (4) 144–157 pulse close fast 158–158 pulse close slow 159–159 closed (3) 160–173 Shutter Fade close strobe · fade close fast 20–1.52 … 174–174 Shutter Fade close strobe · fade close slow 0.1 Hz 175–175 open (5) 176–189 fade open fast 190–190 fade open slow 191–191 closed (4) 192–205 rnd open fast 206–206 rnd open slow 207–207 open (6) 208–221 Shutter Rnd Close strobe · rnd close fast 20–1.52 Hz 222–222 Shutter Rnd Close strobe · rnd close slow 0.1 Hz 223–223 closed (5) 224–238 rnd pulse close fast 239–239 open (7) 240–254 rnd pulse open fast 255–255 open (8)
7	Dimmer	0	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
8	Zoom	128	0–127 narrow 128–254 medium 255–255 wide
9	C TO	0	0–63 0% cto 64–127 25% cto 128–190 50% cto 191–254 75% cto 255–255 100% cto

Mode1 (32) (continued)

Ch	Function	Default	DMX values
10	Blackout Mode	0	0–0 not used (1_0) 1–70 segment selection for shutter 71–95 not used (1_1) 96–126 bo at p/t slow 127–127 bo at p/t fast 128–158 bo at co rgbw slow 159–159 bo at co rgbw fast 160–223 not used (1_2) 224–254 bo at p/t co rgbw slow 255–255 bo at p/t co rgbw fast
11	Effects Sync	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
12	Dimmer	255	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
13	Dimmer	255	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open

Mode1 (32) (continued)

Ch	Function	Default	DMX values
14	Color Wheel	0	0–0 inactive colors rgb (wheel slot 1) 1–3 white (wheel slot 1) 4–7 white / red (wheel slot 19) 8–11 red (wheel slot 2) 12–15 red / yellow (wheel slot 20) 16–19 yellow (wheel slot 3) 20–23 yellow / magenta (wheel slot 21) 24–27 magenta (wheel slot 4) 28–31 magenta / green (wheel slot 22) 32–35 green (wheel slot 5) 36–39 green / orange (wheel slot 23) 40–43 orange (wheel slot 6) 44–47 orange / blue (wheel slot 24) 48–51 blue (wheel slot 7) 52–55 blue / turquoise (wheel slot 25) 56–59 turquoise (wheel slot 8) 60–63 turquoise / white (wheel slot 26) 64–64 2700K (wheel slot 9) 65–65 2700K tungsten dimming (wheel slot 10) 66–66 3200K (wheel slot 11) 67–67 3200K tungsten dimming (wheel slot 12) 68–68 4200K (wheel slot 13) 69–69 5600K (wheel slot 14) 70–70 6000K (wheel slot 15) 71–71 6500K (wheel slot 16) 72–72 7000K (wheel slot 17) 73–191 8000K (wheel slot 18) 192–222 spin >>> fast 223–223 spin >>> slow 224–254 spin <<< slow 255–255 spin <<< fast
15	Red	255	0–63 0% red 64–127 25% red 128–190 50% red 191–254 75% red 255–255 100% red
16	Green	255	0–63 0% green 64–127 25% green 128–190 50% green 191–254 75% green 255–255 100% green
17	Blue	255	0–63 0% blue 64–127 25% blue 128–190 50% blue 191–254 75% blue 255–255 100% blue
18	White	0	0–63 0% white 64–127 25% white 128–190 50% white 191–254 75% white 255–255 100% white
19	Red	0	0–63 0% red 64–127 25% red 128–190 50% red 191–254 75% red 255–255 100% red
20	Green	0	0–63 0% green 64–127 25% green 128–190 50% green 191–254 75% green 255–255 100% green

Mode1 (32) (continued)

Ch	Function	Default	DMX values
21	Blue	0	0–63 0% blue 64–127 25% blue 128–190 50% blue 191–254 75% blue 255–255 100% blue
22	White	0	0–63 0% white 64–127 25% white 128–190 50% white 191–254 75% white 255–255 100% white
23	Sparkle	0	0–63 0% sparkle 64–127 25% sparkle 128–190 50% sparkle 191–254 75% sparkle 255–255 100% sparkle
24	Sparkle Speed	0	0–0 sparkle faded slow 1–14 sparkle faded 1__99% 15–15 sparkle faded fast 16–16 sparkle switched slow 17–30 sparkle switched 1__99% 31–31 sparkle switched fast 32–32 sparkle faded slow 33–46 sparkle faded 1__99% 47–47 sparkle faded fast 48–48 sparkle switched slow 49–62 sparkle switched 1__99% 63–63 sparkle switched fast 64–64 sparkle faded slow 65–78 sparkle faded 1__99% 79–79 sparkle faded fast 80–80 sparkle switched slow 81–94 sparkle switched 1__99% 95–95 sparkle switched fast 96–96 sparkle faded slow 97–110 sparkle faded 1__99% 111–111 sparkle faded fast 112–112 sparkle switched slow 113–126 sparkle switched 1__99% 127–127 sparkle switched fast 128–128 sparkle faded slow 129–142 sparkle faded 1__99% 143–143 sparkle faded fast 144–144 sparkle switched slow 145–158 sparkle switched 1__99% 159–159 sparkle switched fast 160–160 sparkle faded slow 161–174 sparkle faded 1__99% 175–175 sparkle faded fast 176–176 sparkle switched slow 177–190 sparkle switched 1__99% 191–255 sparkle switched fast
25	Effects1Mode	0	

Mode1 (32) (continued)

Ch	Function	Default	DMX values
26	Effect	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode1 (32) (continued)

Ch	Function	Default	DMX values
27	Effect Speed	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
28	Effects2Mode	0	

Mode1 (32) (continued)

Ch	Function	Default	DMX values
29	Effect 2	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode1 (32) (continued)

Ch	Function	Default	DMX values
30	Effect Speed 2	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
31	Tint	0	
32	Transition	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%

Mode2 (46)

46 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Control1	0	

Mode2 (46) (continued)

Ch	Function	Default	DMX values
6	Shutter / Strobe	16	0–15 closed 16–95 open 96–97 StrobePulseOpen · 20Hz 20–18.6 Hz 98–99 StrobePulseOpen · 15Hz 17.2–15.7 Hz 100–101 StrobePulseOpen · 10Hz 14.3–12.9 Hz 102–104 StrobePulseOpen · 5Hz 11.5–8.63 Hz 105–109 StrobePulseOpen · 1Hz 7.21–1.52 Hz 110–110 StrobePulseOpen · 1/10Hz 0.1 Hz 111–111 open (2) 112–124 Shutter Fade Effect strobe · fade effect slow 1–18.5… 125–125 Shutter Fade Effect strobe · fade effect fast 20 Hz 126–126 open (3) 127–127 closed (2) 128–141 pulse open fast 142–142 pulse open slow 143–143 open (4) 144–157 pulse close fast 158–158 pulse close slow 159–159 closed (3) 160–173 Shutter Fade close strobe · fade close fast 20–1.52 … 174–174 Shutter Fade close strobe · fade close slow 0.1 Hz 175–175 open (5) 176–189 fade open fast 190–190 fade open slow 191–191 closed (4) 192–205 rnd open fast 206–206 rnd open slow 207–207 open (6) 208–221 Shutter Rnd Close strobe · rnd close fast 20–1.52 Hz 222–222 Shutter Rnd Close strobe · rnd close slow 0.1 Hz 223–223 closed (5) 224–238 rnd pulse close fast 239–239 open (7) 240–254 rnd pulse open fast 255–255 open (8)
7	Dimmer	0	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
8	Dimmer Fine	0	Fine byte of Dimmer
9	Zoom	128	0–127 narrow 128–254 medium 255–255 wide
10	C TO	0	0–63 0% cto 64–127 25% cto 128–190 50% cto 191–254 75% cto 255–255 100% cto
11	C TO Fine	0	Fine byte of C TO

Mode2 (46) (continued)

Ch	Function	Default	DMX values
12	Blackout Mode	0	0–0 not used (1_0) 1–70 segment selection for shutter 71–95 not used (1_1) 96–126 bo at p/t slow 127–127 bo at p/t fast 128–158 bo at co rgbw slow 159–159 bo at co rgbw fast 160–223 not used (1_2) 224–254 bo at p/t co rgbw slow 255–255 bo at p/t co rgbw fast
13	Effects Sync	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
14	Effects Sync Fine	0	Fine byte of Effects Sync
15	Dimmer	255	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
16	Dimmer Fine	255	Fine byte of Dimmer
17	Dimmer	255	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
18	Dimmer Fine	255	Fine byte of Dimmer

Mode2 (46) (continued)

Ch	Function	Default	DMX values
19	Color Wheel	0	0–0 inactive colors rgb (wheel slot 1) 1–3 white (wheel slot 1) 4–7 white / red (wheel slot 19) 8–11 red (wheel slot 2) 12–15 red / yellow (wheel slot 20) 16–19 yellow (wheel slot 3) 20–23 yellow / magenta (wheel slot 21) 24–27 magenta (wheel slot 4) 28–31 magenta / green (wheel slot 22) 32–35 green (wheel slot 5) 36–39 green / orange (wheel slot 23) 40–43 orange (wheel slot 6) 44–47 orange / blue (wheel slot 24) 48–51 blue (wheel slot 7) 52–55 blue / turquoise (wheel slot 25) 56–59 turquoise (wheel slot 8) 60–63 turquoise / white (wheel slot 26) 64–64 2700K (wheel slot 9) 65–65 2700K tungsten dimming (wheel slot 10) 66–66 3200K (wheel slot 11) 67–67 3200K tungsten dimming (wheel slot 12) 68–68 4200K (wheel slot 13) 69–69 5600K (wheel slot 14) 70–70 6000K (wheel slot 15) 71–71 6500K (wheel slot 16) 72–72 7000K (wheel slot 17) 73–191 8000K (wheel slot 18) 192–222 spin >>> fast 223–223 spin >>> slow 224–254 spin <<< slow 255–255 spin <<< fast
20	Red	255	0–63 0% red 64–127 25% red 128–191 50% red 192–254 75% red 255–255 100% red
21	Red Fine	255	Fine byte of Red
22	Green	255	0–63 0% green 64–127 25% green 128–191 50% green 192–254 75% green 255–255 100% green
23	Green Fine	255	Fine byte of Green
24	Blue	255	0–63 0% blue 64–127 25% blue 128–191 50% blue 192–254 75% blue 255–255 100% blue
25	Blue Fine	255	Fine byte of Blue
26	White	0	0–63 0% white 64–127 25% white 128–191 50% white 192–254 75% white 255–255 100% white
27	White Fine	0	Fine byte of White

Mode2 (46) (continued)

Ch	Function	Default	DMX values
28	Red	0	0–63 0% red 64–127 25% red 128–191 50% red 192–254 75% red 255–255 100% red
29	Red Fine	0	Fine byte of Red
30	Green	0	0–63 0% green 64–127 25% green 128–191 50% green 192–254 75% green 255–255 100% green
31	Green Fine	0	Fine byte of Green
32	Blue	0	0–63 0% blue 64–127 25% blue 128–191 50% blue 192–254 75% blue 255–255 100% blue
33	Blue Fine	0	Fine byte of Blue
34	White	0	0–63 0% white 64–127 25% white 128–191 50% white 192–254 75% white 255–255 100% white
35	White Fine	0	Fine byte of White
36	Sparkle	0	0–63 0% sparkle 64–127 25% sparkle 128–190 50% sparkle 191–254 75% sparkle 255–255 100% sparkle

Mode2 (46) (continued)

Ch	Function	Default	DMX values
37	Sparkle Speed	0	0–0 sparkle faded slow 1–14 sparkle faded 1__99% 15–15 sparkle faded fast 16–16 sparkle switched slow 17–30 sparkle switched 1__99% 31–31 sparkle switched fast 32–32 sparkle faded slow 33–46 sparkle faded 1__99% 47–47 sparkle faded fast 48–48 sparkle switched slow 49–62 sparkle switched 1__99% 63–63 sparkle switched fast 64–64 sparkle faded slow 65–78 sparkle faded 1__99% 79–79 sparkle faded fast 80–80 sparkle switched slow 81–94 sparkle switched 1__99% 95–95 sparkle switched fast 96–96 sparkle faded slow 97–110 sparkle faded 1__99% 111–111 sparkle faded fast 112–112 sparkle switched slow 113–126 sparkle switched 1__99% 127–127 sparkle switched fast 128–128 sparkle faded slow 129–142 sparkle faded 1__99% 143–143 sparkle faded fast 144–144 sparkle switched slow 145–158 sparkle switched 1__99% 159–159 sparkle switched fast 160–160 sparkle faded slow 161–174 sparkle faded 1__99% 175–175 sparkle faded fast 176–176 sparkle switched slow 177–190 sparkle switched 1__99% 191–255 sparkle switched fast
38	Effects1Mode	0	

Mode2 (46) (continued)

Ch	Function	Default	DMX values
39	Effect	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode2 (46) (continued)

Ch	Function	Default	DMX values
40	Effect Speed	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
41	Effects2Mode	0	

Mode2 (46) (continued)

Ch	Function	Default	DMX values
42	Effect 2	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode2 (46) (continued)

Ch	Function	Default	DMX values
43	Effect Speed 2	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
44	Tint	0	
45	Transition	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
46	Transition Fine	0	Fine byte of Transition

Mode3 single pixel (49)

49 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Control1	0	

Mode3 single pixel (49) (continued)

Ch	Function	Default	DMX values
6	Shutter / Strobe	16	0–15 closed 16–95 open 96–97 StrobePulseOpen · 20Hz 20–18.6 Hz 98–99 StrobePulseOpen · 15Hz 17.2–15.7 Hz 100–101 StrobePulseOpen · 10Hz 14.3–12.9 Hz 102–104 StrobePulseOpen · 5Hz 11.5–8.63 Hz 105–109 StrobePulseOpen · 1Hz 7.21–1.52 Hz 110–110 StrobePulseOpen · 1/10Hz 0.1 Hz 111–111 open (2) 112–124 Shutter Fade Effect strobe · fade effect slow 1–18.5… 125–125 Shutter Fade Effect strobe · fade effect fast 20 Hz 126–126 open (3) 127–127 closed (2) 128–141 pulse open fast 142–142 pulse open slow 143–143 open (4) 144–157 pulse close fast 158–158 pulse close slow 159–159 closed (3) 160–173 Shutter Fade close strobe · fade close fast 20–1.52 … 174–174 Shutter Fade close strobe · fade close slow 0.1 Hz 175–175 open (5) 176–189 fade open fast 190–190 fade open slow 191–191 closed (4) 192–205 rnd open fast 206–206 rnd open slow 207–207 open (6) 208–221 Shutter Rnd Close strobe · rnd close fast 20–1.52 Hz 222–222 Shutter Rnd Close strobe · rnd close slow 0.1 Hz 223–223 closed (5) 224–238 rnd pulse close fast 239–239 open (7) 240–254 rnd pulse open fast 255–255 open (8)
7	Dimmer	0	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
8	Zoom	128	0–127 narrow 128–254 medium 255–255 wide
9	C TO	0	0–63 0% cto 64–127 25% cto 128–190 50% cto 191–254 75% cto 255–255 100% cto

Mode3 single pixel (49) (continued)

Ch	Function	Default	DMX values
10	Color Wheel	0	0–0 inactive colors rgb (wheel slot 1) 1–3 white (wheel slot 1) 4–7 white / red (wheel slot 19) 8–11 red (wheel slot 2) 12–15 red / yellow (wheel slot 20) 16–19 yellow (wheel slot 3) 20–23 yellow / magenta (wheel slot 21) 24–27 magenta (wheel slot 4) 28–31 magenta / green (wheel slot 22) 32–35 green (wheel slot 5) 36–39 green / orange (wheel slot 23) 40–43 orange (wheel slot 6) 44–47 orange / blue (wheel slot 24) 48–51 blue (wheel slot 7) 52–55 blue / turquoise (wheel slot 25) 56–59 turquoise (wheel slot 8) 60–63 turquoise / white (wheel slot 26) 64–64 2700K (wheel slot 9) 65–65 2700K tungsten dimming (wheel slot 10) 66–66 3200K (wheel slot 11) 67–67 3200K tungsten dimming (wheel slot 12) 68–68 4200K (wheel slot 13) 69–69 5600K (wheel slot 14) 70–70 6000K (wheel slot 15) 71–71 6500K (wheel slot 16) 72–72 7000K (wheel slot 17) 73–191 8000K (wheel slot 18) 192–222 spin >>> fast 223–223 spin >>> slow 224–254 spin <<< slow 255–255 spin <<< fast
11	Red	255	0–63 0% red 64–127 25% red 128–190 50% red 191–254 75% red 255–255 100% red
12	Green	255	0–63 0% green 64–127 25% green 128–190 50% green 191–254 75% green 255–255 100% green
13	Blue	255	0–63 0% blue 64–127 25% blue 128–190 50% blue 191–254 75% blue 255–255 100% blue
14	White	0	0–63 0% white 64–127 25% white 128–190 50% white 191–254 75% white 255–255 100% white
15	Sparkle	0	0–63 0% sparkle 64–127 25% sparkle 128–190 50% sparkle 191–254 75% sparkle 255–255 100% sparkle

Mode3 single pixel (49) (continued)

Ch	Function	Default	DMX values
16	Sparkle Speed	0	0–0 sparkle faded slow 1–14 sparkle faded 1__99% 15–15 sparkle faded fast 16–16 sparkle switched slow 17–30 sparkle switched 1__99% 31–31 sparkle switched fast 32–32 sparkle faded slow 33–46 sparkle faded 1__99% 47–47 sparkle faded fast 48–48 sparkle switched slow 49–62 sparkle switched 1__99% 63–63 sparkle switched fast 64–64 sparkle faded slow 65–78 sparkle faded 1__99% 79–79 sparkle faded fast 80–80 sparkle switched slow 81–94 sparkle switched 1__99% 95–95 sparkle switched fast 96–96 sparkle faded slow 97–110 sparkle faded 1__99% 111–111 sparkle faded fast 112–112 sparkle switched slow 113–126 sparkle switched 1__99% 127–127 sparkle switched fast 128–128 sparkle faded slow 129–142 sparkle faded 1__99% 143–143 sparkle faded fast 144–144 sparkle switched slow 145–158 sparkle switched 1__99% 159–159 sparkle switched fast 160–160 sparkle faded slow 161–174 sparkle faded 1__99% 175–175 sparkle faded fast 176–176 sparkle switched slow 177–190 sparkle switched 1__99% 191–255 sparkle switched fast
17	Effects1Mode	0	

Mode3 single pixel (49) (continued)

Ch	Function	Default	DMX values
18	Effect	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode3 single pixel (49) (continued)

Ch	Function	Default	DMX values
19	Effect Speed	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
20	Tint	0	
21	Transition	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
22	Red	0	
23	Green	0	
24	Blue	0	
25	White	0	
26	Red	0	
27	Green	0	
28	Blue	0	
29	White	0	
30	Red	0	
31	Green	0	
32	Blue	0	
33	White	0	
34	Red	0	
35	Green	0	
36	Blue	0	
37	White	0	
38	Red	0	
39	Green	0	
40	Blue	0	
41	White	0	
42	Red	0	
43	Green	0	
44	Blue	0	
45	White	0	
46	Red	0	
47	Green	0	
48	Blue	0	
49	White	0	

Mode1 single pixel (60)

60 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Control1	0	
6	Shutter / Strobe	16	0–15 closed 16–95 open 96–97 StrobePulseOpen · 20Hz 20–18.6 Hz 98–99 StrobePulseOpen · 15Hz 17.2–15.7 Hz 100–101 StrobePulseOpen · 10Hz 14.3–12.9 Hz 102–104 StrobePulseOpen · 5Hz 11.5–8.63 Hz 105–109 StrobePulseOpen · 1Hz 7.21–1.52 Hz 110–110 StrobePulseOpen · 1/10Hz 0.1 Hz 111–111 open (2) 112–124 Shutter Fade Effect strobe · fade effect slow 1–18.5… 125–125 Shutter Fade Effect strobe · fade effect fast 20 Hz 126–126 open (3) 127–127 closed (2) 128–141 pulse open fast 142–142 pulse open slow 143–143 open (4) 144–157 pulse close fast 158–158 pulse close slow 159–159 closed (3) 160–173 Shutter Fade close strobe · fade close fast 20–1.52 … 174–174 Shutter Fade close strobe · fade close slow 0.1 Hz 175–175 open (5) 176–189 fade open fast 190–190 fade open slow 191–191 closed (4) 192–205 rnd open fast 206–206 rnd open slow 207–207 open (6) 208–221 Shutter Rnd Close strobe · rnd close fast 20–1.52 Hz 222–222 Shutter Rnd Close strobe · rnd close slow 0.1 Hz 223–223 closed (5) 224–238 rnd pulse close fast 239–239 open (7) 240–254 rnd pulse open fast 255–255 open (8)
7	Dimmer	0	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
8	Zoom	128	0–127 narrow 128–254 medium 255–255 wide

Mode1 single pixel (60) (continued)

Ch	Function	Default	DMX values
9	C TO	0	0–63 0% cto 64–127 25% cto 128–190 50% cto 191–254 75% cto 255–255 100% cto
10	Blackout Mode	0	0–0 not used (1_0) 1–70 segment selection for shutter 71–95 not used (1_1) 96–126 bo at p/t slow 127–127 bo at p/t fast 128–158 bo at co rgbw slow 159–159 bo at co rgbw fast 160–223 not used (1_2) 224–254 bo at p/t co rgbw slow 255–255 bo at p/t co rgbw fast
11	Effects Sync	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
12	Dimmer	255	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open
13	Dimmer	255	0–24 closed 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 open

Mode1 single pixel (60) (continued)

Ch	Function	Default	DMX values
14	Color Wheel	0	0–0 inactive colors rgb (wheel slot 1) 1–3 white (wheel slot 1) 4–7 white / red (wheel slot 19) 8–11 red (wheel slot 2) 12–15 red / yellow (wheel slot 20) 16–19 yellow (wheel slot 3) 20–23 yellow / magenta (wheel slot 21) 24–27 magenta (wheel slot 4) 28–31 magenta / green (wheel slot 22) 32–35 green (wheel slot 5) 36–39 green / orange (wheel slot 23) 40–43 orange (wheel slot 6) 44–47 orange / blue (wheel slot 24) 48–51 blue (wheel slot 7) 52–55 blue / turquoise (wheel slot 25) 56–59 turquoise (wheel slot 8) 60–63 turquoise / white (wheel slot 26) 64–64 2700K (wheel slot 9) 65–65 2700K tungsten dimming (wheel slot 10) 66–66 3200K (wheel slot 11) 67–67 3200K tungsten dimming (wheel slot 12) 68–68 4200K (wheel slot 13) 69–69 5600K (wheel slot 14) 70–70 6000K (wheel slot 15) 71–71 6500K (wheel slot 16) 72–72 7000K (wheel slot 17) 73–191 8000K (wheel slot 18) 192–222 spin >>> fast 223–223 spin >>> slow 224–254 spin <<< slow 255–255 spin <<< fast
15	Red	255	0–63 0% red 64–127 25% red 128–190 50% red 191–254 75% red 255–255 100% red
16	Green	255	0–63 0% green 64–127 25% green 128–190 50% green 191–254 75% green 255–255 100% green
17	Blue	255	0–63 0% blue 64–127 25% blue 128–190 50% blue 191–254 75% blue 255–255 100% blue
18	White	0	0–63 0% white 64–127 25% white 128–190 50% white 191–254 75% white 255–255 100% white
19	Red	0	0–63 0% red 64–127 25% red 128–190 50% red 191–254 75% red 255–255 100% red
20	Green	0	0–63 0% green 64–127 25% green 128–190 50% green 191–254 75% green 255–255 100% green

Mode1 single pixel (60) (continued)

Ch	Function	Default	DMX values
21	Blue	0	0–63 0% blue 64–127 25% blue 128–190 50% blue 191–254 75% blue 255–255 100% blue
22	White	0	0–63 0% white 64–127 25% white 128–190 50% white 191–254 75% white 255–255 100% white
23	Sparkle	0	0–63 0% sparkle 64–127 25% sparkle 128–190 50% sparkle 191–254 75% sparkle 255–255 100% sparkle
24	Sparkle Speed	0	0–0 sparkle faded slow 1–14 sparkle faded 1__99% 15–15 sparkle faded fast 16–16 sparkle switched slow 17–30 sparkle switched 1__99% 31–31 sparkle switched fast 32–32 sparkle faded slow 33–46 sparkle faded 1__99% 47–47 sparkle faded fast 48–48 sparkle switched slow 49–62 sparkle switched 1__99% 63–63 sparkle switched fast 64–64 sparkle faded slow 65–78 sparkle faded 1__99% 79–79 sparkle faded fast 80–80 sparkle switched slow 81–94 sparkle switched 1__99% 95–95 sparkle switched fast 96–96 sparkle faded slow 97–110 sparkle faded 1__99% 111–111 sparkle faded fast 112–112 sparkle switched slow 113–126 sparkle switched 1__99% 127–127 sparkle switched fast 128–128 sparkle faded slow 129–142 sparkle faded 1__99% 143–143 sparkle faded fast 144–144 sparkle switched slow 145–158 sparkle switched 1__99% 159–159 sparkle switched fast 160–160 sparkle faded slow 161–174 sparkle faded 1__99% 175–175 sparkle faded fast 176–176 sparkle switched slow 177–190 sparkle switched 1__99% 191–255 sparkle switched fast
25	Effects1Mode	0	

Mode1 single pixel (60) (continued)

Ch	Function	Default	DMX values
26	Effect	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode1 single pixel (60) (continued)

Ch	Function	Default	DMX values
27	Effect Speed	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
28	Effects2Mode	0	

Mode1 single pixel (60) (continued)

Ch	Function	Default	DMX values
29	Effect 2	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode1 single pixel (60) (continued)

Ch	Function	Default	DMX values
30	Effect Speed 2	0	0–0 >>> 1–126 forward 100__1% 127–128 stop 129–254 backward -1__-100% 255–255 <<<
31	Tint	0	
32	Transition	0	0–24 0% 25–50 10% 51–63 20% 64–75 25% 76–101 30% 102–127 40% 128–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
33	Red	0	
34	Green	0	
35	Blue	0	
36	White	0	
37	Red	0	
38	Green	0	
39	Blue	0	
40	White	0	
41	Red	0	
42	Green	0	
43	Blue	0	
44	White	0	
45	Red	0	
46	Green	0	
47	Blue	0	
48	White	0	
49	Red	0	
50	Green	0	
51	Blue	0	
52	White	0	
53	Red	0	
54	Green	0	
55	Blue	0	
56	White	0	
57	Red	0	
58	Green	0	
59	Blue	0	
60	White	0	

Mode2 single pixel (74)

74 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Control1	0	
6	Shutter / Strobe	16	0–15 closed 16–95 open 96–97 StrobePulseOpen · 20Hz 20–18.6 Hz 98–99 StrobePulseOpen · 15Hz 17.2–15.7 Hz 100–101 StrobePulseOpen · 10Hz 14.3–12.9 Hz 102–104 StrobePulseOpen · 5Hz 11.5–8.63 Hz 105–109 StrobePulseOpen · 1Hz 7.21–1.52 Hz 110–110 StrobePulseOpen · 1/10Hz 0.1 Hz 111–111 open (2) 112–124 Shutter Fade Effect strobe · fade effect slow 1–18.5… 125–125 Shutter Fade Effect strobe · fade effect fast 20 Hz 126–126 open (3) 127–127 closed (2) 128–141 pulse open fast 142–142 pulse open slow 143–143 open (4) 144–157 pulse close fast 158–158 pulse close slow 159–159 closed (3) 160–173 Shutter Fade close strobe · fade close fast 20–1.52 … 174–174 Shutter Fade close strobe · fade close slow 0.1 Hz 175–175 open (5) 176–189 fade open fast 190–190 fade open slow 191–191 closed (4) 192–205 rnd open fast 206–206 rnd open slow 207–207 open (6) 208–221 Shutter Rnd Close strobe · rnd close fast 20–1.52 Hz 222–222 Shutter Rnd Close strobe · rnd close slow 0.1 Hz 223–223 closed (5) 224–238 rnd pulse close fast 239–239 open (7) 240–254 rnd pulse open fast 255–255 open (8)
7	Dimmer	0	
8	Dimmer Fine	0	Fine byte of Dimmer
9	Zoom	128	
10	C TO	0	
11	C TO Fine	0	Fine byte of C TO
12	Blackout Mode	0	
13	Effects Sync	0	
14	Effects Sync Fine	0	Fine byte of Effects Sync
15	Dimmer	255	
16	Dimmer Fine	255	Fine byte of Dimmer
17	Dimmer	255	
18	Dimmer Fine	255	Fine byte of Dimmer

Mode2 single pixel (74) (continued)

Ch	Function	Default	DMX values
19	Color Wheel	0	0–0 inactive colors rgb (wheel slot 1) 1–3 white (wheel slot 1) 4–7 white / red (wheel slot 19) 8–11 red (wheel slot 2) 12–15 red / yellow (wheel slot 20) 16–19 yellow (wheel slot 3) 20–23 yellow / magenta (wheel slot 21) 24–27 magenta (wheel slot 4) 28–31 magenta / green (wheel slot 22) 32–35 green (wheel slot 5) 36–39 green / orange (wheel slot 23) 40–43 orange (wheel slot 6) 44–47 orange / blue (wheel slot 24) 48–51 blue (wheel slot 7) 52–55 blue / turquoise (wheel slot 25) 56–59 turquoise (wheel slot 8) 60–63 turquoise / white (wheel slot 26) 64–64 2700K (wheel slot 9) 65–65 2700K tungsten dimming (wheel slot 10) 66–66 3200K (wheel slot 11) 67–67 3200K tungsten dimming (wheel slot 12) 68–68 4200K (wheel slot 13) 69–69 5600K (wheel slot 14) 70–70 6000K (wheel slot 15) 71–71 6500K (wheel slot 16) 72–72 7000K (wheel slot 17) 73–191 8000K (wheel slot 18) 192–222 spin >>> fast 223–223 spin >>> slow 224–254 spin <<< slow 255–255 spin <<< fast
20	Red	255	
21	Red Fine	255	Fine byte of Red
22	Green	255	
23	Green Fine	255	Fine byte of Green
24	Blue	255	
25	Blue Fine	255	Fine byte of Blue
26	White	0	
27	White Fine	0	Fine byte of White
28	Red	0	
29	Red Fine	0	Fine byte of Red
30	Green	0	
31	Green Fine	0	Fine byte of Green
32	Blue	0	
33	Blue Fine	0	Fine byte of Blue
34	White	0	
35	White Fine	0	Fine byte of White
36	Sparkle	0	
37	Sparkle Speed	0	
38	Effects1Mode	0	

Mode2 single pixel (74) (continued)

Ch	Function	Default	DMX values
39	Effect	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode2 single pixel (74) (continued)

Ch	Function	Default	DMX values
40	Effect Speed	0	
41	Effects2Mode	0	

Mode2 single pixel (74) (continued)

Ch	Function	Default	DMX values
42	Effect 2	0	0–0 no macro 1–1 2 color complete shutter 2–2 2 color inner shutter 3–3 2 color outer shutter 4–4 2 color no shutter 5–5 2 color complete shutter 6–6 2 color inner shutter 7–7 2 color outer shutter 8–8 2 color no shutter 9–10 2 color complete shutter 11–29 not used (2_0) 30–33 not used (3_0) 34–34 pattern beam 1 35–35 pattern beam 2 36–36 pattern beam 3 37–37 pattern beam 4 38–38 pattern beam 5 39–39 pattern beam 6 40–40 pattern beam 7 41–41 pattern beam 8 42–42 pattern beam 9 43–43 pattern beam 10 44–44 pattern beam 11 45–45 pattern beam 12 46–46 pattern beam 13 47–47 pattern beam 14 48–48 pattern beam 15 49–49 pattern beam 16 50–50 pattern beam 17 51–51 pattern beam 18 52–52 pattern beam 19 53–54 no pattern beam 55–59 circles 60–79 cake slices 80–86 lines horizontal 87–93 lines vertical 94–100 lines diagonal 1 101–107 lines diagonal 2 108–114 circle lines 115–122 half beam 123–129 dots 130–130 color spread circles 131–132 color spread cake slices 133–137 color spread lines 138–138 color spread dots 139–145 circles 146–165 cake slices 166–172 lines horizontal 173–179 lines vertical 180–186 lines diagonal 1 187–193 lines diagonal 2 194–200 circle lines 201–208 half beam 209–215 dots 216–216 color spread circles 217–218 color spread cake slices 219–223 color spread lines 224–224 color spread dots 225–245 dots 246–248 double dots 249–251 triple dots 252–252 color spread dots 253–253 color spread double dots 254–255 color spread triple dots

Mode2 single pixel (74) (continued)

Ch	Function	Default	DMX values
43	Effect Speed 2	0	
44	Tint	0	
45	Transition	0	
46	Transition Fine	0	Fine byte of Transition
47	Red	0	
48	Green	0	
49	Blue	0	
50	White	0	
51	Red	0	
52	Green	0	
53	Blue	0	
54	White	0	
55	Red	0	
56	Green	0	
57	Blue	0	
58	White	0	
59	Red	0	
60	Green	0	
61	Blue	0	
62	White	0	
63	Red	0	
64	Green	0	
65	Blue	0	
66	White	0	
67	Red	0	
68	Green	0	
69	Blue	0	
70	White	0	
71	Red	0	
72	Green	0	
73	Blue	0	
74	White	0	