Black Light Design

ELATION Smarty Hybrid



Manufacturer	**Black Light Design**
Type	**Moving head**
DMX modes	**2**
DMX footprint	**20, 34 channels**
Beam angle	**3-33°**
Pan range	**540°**
Tilt range	**270°**
Size (W × H × D)	**240 × 405 × 208 mm**
GDTF fixture type	**FE3C073B-DA6D-47A5-A3A3-0…**

Controls

Focus · Frost · Prism · Prism rotation · Zoom · CMY colour mixing · Colour wheel · Strobe · Dimmer · Pan and tilt · Movement speed · Gobos · Gobo rotation

Safety-relevant functions

Lamp on and off · Fixture reset · Service functions

DMX modes

Standart (20Chan)	20 ch
Extended (34Chan)	34 ch

Standart (20Chan)

20 channels

Ch	Function	Default	DMX values
1	Pan	128	0–20 -270 21–41 -225 42–63 -180 64–84 -135 85–105 -90 106–127 -45 128–148 0 (center) 149–169 45 170–190 90 191–212 135 213–233 180 234–254 225 255–255 270
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	0–41 -135 42–84 -90 85–127 -45 128–169 0 (center) 170–212 45 213–254 90 255–255 135
4	Tilt Fine	0	Fine byte of Tilt
5	Cyan	0	
6	Magenta	0	
7	Yellow	0	
8	Color Wheel	0	0–10 Open / White (wheel slot 1) 11–19 Red (wheel slot 2) 20–28 Green (wheel slot 3) 29–37 Yellow (wheel slot 4) 38–46 Magenta (wheel slot 5) 47–55 Orange (wheel slot 6) 56–64 Aqua (wheel slot 7) 65–73 Pink (wheel slot 8) 74–82 Cyan (wheel slot 9) 83–91 RGBY (wheel slot 10) 92–100 CTB (wheel slot 11) 101–109 UV (wheel slot 12) 110–118 CTO (wheel slot 13) 119–127 Blue (wheel slot 14) 128–143 fast >>> 144–173 mid >> 174–189 slow > 190–193 No Rotation 194–209 < slow 210–229 << mid 230–255 <<< fast

Standart (20Chan) (continued)

Ch	Function	Default	DMX values
9	Gobo	0	0–9 Open (wheel slot 1) 10–17 G2-01 (Beam-Reducer TINY) (wheel slot 2) 18–25 G2-02 (Beam-Reducer LITTLE) (wheel slot 3) 26–33 G2-03 (Beam-Reducer SMALL) (wheel slot 4) 34–41 G2-04 (Beam-Reducer) (wheel slot 5) 42–49 G2-05 (Circle-Ovals) (wheel slot 6) 50–57 G2-06 (Bars) (wheel slot 7) 58–65 G2-08 (Round Star) (wheel slot 8) 66–73 G2-09 (4-Holes) (wheel slot 9) 74–81 G2-10 (Plus) (wheel slot 10) 82–89 G2-11 (4-Dots) (wheel slot 11) 90–97 G2-12 (Minus) (wheel slot 12) 98–105 G2-13 (Fan) (wheel slot 13) 106–109 G2-01 (Beam-Reducer TINY) slow (wheel slot 2) 110–112 G2-01 (Beam-Reducer TINY) fast (wheel slot 2) 113–116 G2-02 (Beam-Reducer LITTLE) slow (wheel slot 3) 117–119 G2-02 (Beam-Reducer LITTLE) fast (wheel slot 3) 120–123 G2-03 (Beam-Reducer SMALL) slow (wheel slot 4) 124–126 G2-03 (Beam-Reducer SMALL) fast (wheel slot 4) 127–130 G2-04 (Beam-Reducer) slow (wheel slot 5) 131–133 G2-04 (Beam-Reducer) fast (wheel slot 5) 134–137 G2-05 (Circle-Ovals) slow (wheel slot 6) 138–140 G2-05 (Circle-Ovals) fast (wheel slot 6) 141–144 G2-06 (Bars) slow (wheel slot 7) 145–147 G2-06 (Bars) fast (wheel slot 7) 148–151 G2-08 (Round Star) slow (wheel slot 8) 152–154 G2-08 (Round Star) fast (wheel slot 8) 155–158 G2-09 (4-Holes) slow (wheel slot 9) 159–161 G2-09 (4-Holes) fast (wheel slot 9) 162–165 G2-10 (Plus) slow (wheel slot 10) 166–168 G2-10 (Plus) fast (wheel slot 10) 169–172 G2-11 (4-Dots) slow (wheel slot 11) 173–175 G2-11 (4-Dots) fast (wheel slot 11) 176–179 G2-12 (Minus) slow (wheel slot 12) 180–182 G2-12 (Minus) fast (wheel slot 12) 183–186 G2-13 (Fan) slow (wheel slot 13) 187–189 G2-13 (Fan) fast (wheel slot 13) 190–198 Wheel2Spin >>> 199–212 Wheel2Spin >> 213–221 Wheel2Spin > 222–223 Wheel2Spin STOP 224–232 Wheel2Spin < 233–246 Wheel2Spin << 247–255 Wheel2Spin <<<
10	Gobo Rotation 2	64	0–14 180 15–30 135 31–46 90 47–62 45 63–77 0 78–93 -45 94–109 -90 110–124 -135 125–127 -180 128–143 Gobo Rotation >>> 144–173 Gobo Rotation >> 174–189 Gobo Rotation > 190–193 Gobo Rotation STOP 194–209 Gobo Rotation < 210–239 Gobo Rotation << 240–255 Gobo Rotation <<<

Standart (20Chan) (continued)

Ch	Function	Default	DMX values
11	Gobo 2	0	0–10 G1-00 (Beam Open) (wheel slot 1) 11–21 G1-00 (Spot Open) (wheel slot 2) 22–31 G1-01 (Sinus) (wheel slot 3) 32–41 G1-02 (Triangle) (wheel slot 4) 42–51 G1-03 (small Dots) (wheel slot 5) 52–61 G1-04 (Scrible) (wheel slot 6) 62–71 G1-05 (Circles) (wheel slot 7) 72–81 G1-06 (Florales) (wheel slot 8) 82–91 G1-07 (Shattered Glass) (wheel slot 9) 92–101 G1-08 (Efflux) (wheel slot 10) 102–107 G1-01 (Sinus) slow (wheel slot 3) 108–112 G1-01 (Sinus) fast (wheel slot 3) 113–118 G1-02 (Triangle) slow (wheel slot 4) 119–123 G1-02 (Triangle) fast (wheel slot 4) 124–129 G1-03 (small Dots) slow (wheel slot 5) 130–134 G1-03 (small Dots) fast (wheel slot 5) 135–140 G1-04 (Scrible) slow (wheel slot 6) 141–145 G1-04 (Scrible) fast (wheel slot 6) 146–151 G1-05 (Circles) slow (wheel slot 7) 152–156 G1-05 (Circles) fast (wheel slot 7) 157–162 G1-06 (Florales) slow (wheel slot 8) 163–167 G1-06 (Florales) fast (wheel slot 8) 168–173 G1-07 (Shattered Glass) slow (wheel slot 9) 174–178 G1-07 (Shattered Glass) fast (wheel slot 9) 179–184 G1-08 (Efflux) slow (wheel slot 10) 185–189 G1-08 (Efflux) fast (wheel slot 10) 190–197 <<< WheelSpin 198–213 << WheelSpin 214–221 < WheelSpin 222–223 WheelSpin STOP 224–231 WheelSpin > 232–247 WheelSpin >> 248–255 WheelSpin >>>
12	Prism	0	0–31 Open (wheel slot 1) 32–64 16-Facet Prism (wheel slot 2) 65–94 4-Facet Linear Prism (wheel slot 3) 95–127 16 + 4 Facet PRISM combined (wheel slot 4) 128–135 Prism / Gobo Macro 1 136–143 Prism / Gobo Macro 2 144–151 Prism / Gobo Macro 3 152–159 Prism / Gobo Macro 4 160–167 Prism / Gobo Macro 5 168–175 Prism / Gobo Macro 6 176–183 Prism / Gobo Macro 7 184–191 Prism / Gobo Macro 8 192–199 Prism / Gobo Macro 9 200–207 Prism / Gobo Macro 10 208–215 Prism / Gobo Macro 11 216–223 Prism / Gobo Macro 12 224–231 Prism / Gobo Macro 13 232–239 Prism / Gobo Macro 14 240–247 Prism / Gobo Macro 15 248–255 Prism / Gobo Macro 16

Standart (20Chan) (continued)

Ch	Function	Default	DMX values
13	Prism Rotation	64	0–14 180 15–30 135 31–46 90 47–62 45 63–77 0 78–93 -45 94–109 -90 110–124 -135 125–127 -180 128–143 Prism Rotation >>> 144–173 Prism Rotation >> 174–189 Prism Rotation > 190–193 Gobo Rotation STOP 194–209 < Prism Rotation 210–239 << Prism Rotation 240–255 <<< Prism Rotation
14	Focus	128	0–127 near 128–254 mid 255–255 far
15	Zoom	128	0–127 narrow (3 Deg) 128–254 medium (18 Deg) 255–255 wide (33 Deg)
16	Shutter / Strobe	50	0–31 Shutter closed (1) 32–63 Shutter open (1) 64–77 Strobe slow 78–92 Strobe mid 93–95 Strobe fast 96–127 Shutter open (2) 128–141 Pulse slow 142–156 Pulse mid 157–159 Pulse fast 160–191 Shutter open (3) 192–205 Shutter StrobeRandom · Rnd slow 1–8.13 Hz 206–219 Shutter StrobeRandom · Rnd mid 8.68–15.8 Hz 220–223 Shutter StrobeRandom · Rnd fast 16.4–18 Hz 224–255 Shutter open (4)
17	Dimmer	0	0–24 0% 25–50 10% 51–62 20% 63–75 25% 76–101 30% 102–126 40% 127–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
18	Dimmer Fine	0	Fine byte of Dimmer
19	Frost1	0	0–127 Frost Off 128–255 Frost On

Standart (20Chan) (continued)

Ch	Function	Default	DMX values
20	Color1Mode	0	0–19 COLOR Change Normal 20–29 COLOR Change to Any Position 30–39 Reserved (1) 40–49 Lamp On 50–59 Lamp Off 60–66 Lamp Power 190W 67–73 Lamp Power 240W 74–79 Lamp Power 280W 80–84 All Motors Reset 85–87 Movement Reset 88–90 Color Reset 91–93 Gobo Reset 94–96 Dimmer Reset 97–99 Other Motors Reset 100–119 internal Programm 1 120–139 internal Programm 2 140–159 internal Programm 3 160–179 internal Programm 4 180–199 internal Programm 5 200–219 internal Programm 6 220–239 internal Programm 7 240–243 reserved 244–246 Home Position before Power Off 247–249 Home Position Off 250–251 Display Off 252–253 Display On 254–255 reserved

Extended (34Chan)

34 channels

Ch	Function	Default	DMX values
1	Pan	128	0–20 -270 21–41 -225 42–63 -180 64–84 -135 85–105 -90 106–127 -45 128–148 0 (center) 149–169 45 170–190 90 191–212 135 213–233 180 234–254 225 255–255 270
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	0–41 -135 42–84 -90 85–127 -45 128–169 0 (center) 170–212 45 213–254 90 255–255 135
4	Tilt Fine	0	Fine byte of Tilt
5	Cyan	0	
6	Cyan Fine	0	Fine byte of Cyan
7	Magenta	0	
8	Magenta Fine	0	Fine byte of Magenta
9	Yellow	0	

Extended (34Chan) (continued)

Ch	Function	Default	DMX values
10	Yellow Fine	0	Fine byte of Yellow
11	Color Wheel	0	0–10 Open / White (wheel slot 1) 11–19 Red (wheel slot 2) 20–28 Green (wheel slot 3) 29–37 Yellow (wheel slot 4) 38–55 Orange (wheel slot 6) 56–64 Aqua (wheel slot 7) 65–73 Pink (wheel slot 8) 74–82 Cyan (wheel slot 9) 83–91 RGBY (wheel slot 10) 92–100 CTB (wheel slot 11) 101–109 UV (wheel slot 12) 110–118 CTO (wheel slot 13) 119–127 Blue (wheel slot 14) 128–143 fast >>> 144–173 mid >> 174–189 slow > 190–193 No Rotation 194–207 < slow 208–239 << mid 240–255 <<< fast
12	Color Wheel Fine	0	Fine byte of Color Wheel

Extended (34Chan) (continued)

Ch	Function	Default	DMX values
13	Gobo	0	0–9 Open (wheel slot 1) 10–17 G2-01 (Beam-Reducer TINY) (wheel slot 2) 18–25 G2-02 (Beam-Reducer LITTLE) (wheel slot 3) 26–33 G2-03 (Beam-Reducer SMALL) (wheel slot 4) 34–41 G2-04 (Beam-Reducer) (wheel slot 5) 42–49 G2-05 (Circle-Ovals) (wheel slot 6) 50–57 G2-06 (Bars) (wheel slot 7) 58–65 G2-08 (Round Star) (wheel slot 8) 66–73 G2-09 (4-Holes) (wheel slot 9) 74–81 G2-10 (Plus) (wheel slot 10) 82–89 G2-11 (4-Dots) (wheel slot 11) 90–97 G2-12 (Minus) (wheel slot 12) 98–105 G2-13 (Fan) (wheel slot 13) 106–109 G2-01 (Beam-Reducer TINY) slow (wheel slot 2) 110–112 G2-01 (Beam-Reducer TINY) fast (wheel slot 2) 113–116 G2-02 (Beam-Reducer LITTLE) slow (wheel slot 3) 117–119 G2-02 (Beam-Reducer LITTLE) fast (wheel slot 3) 120–123 G2-03 (Beam-Reducer SMALL) slow (wheel slot 4) 124–126 G2-03 (Beam-Reducer SMALL) fast (wheel slot 4) 127–130 G2-04 (Beam-Reducer) slow (wheel slot 5) 131–133 G2-04 (Beam-Reducer) fast (wheel slot 5) 134–137 G2-05 (Circle-Ovals) slow (wheel slot 6) 138–140 G2-05 (Circle-Ovals) fast (wheel slot 6) 141–144 G2-06 (Bars) slow (wheel slot 7) 145–147 G2-06 (Bars) fast (wheel slot 7) 148–151 G2-08 (Round Star) slow (wheel slot 8) 152–154 G2-08 (Round Star) fast (wheel slot 8) 155–158 G2-09 (4-Holes) slow (wheel slot 9) 159–161 G2-09 (4-Holes) fast (wheel slot 9) 162–165 G2-10 (Plus) slow (wheel slot 10) 166–168 G2-10 (Plus) fast (wheel slot 10) 169–172 G2-11 (4-Dots) slow (wheel slot 11) 173–175 G2-11 (4-Dots) fast (wheel slot 11) 176–179 G2-12 (Minus) slow (wheel slot 12) 180–182 G2-12 (Minus) fast (wheel slot 12) 183–186 G2-13 (Fan) slow (wheel slot 13) 187–189 G2-13 (Fan) fast (wheel slot 13) 190–198 Wheel2Spin >>> 199–212 Wheel2Spin >> 213–221 Wheel2Spin > 222–223 Wheel2Spin STOP 224–232 < Wheel2Spin 233–246 << Wheel2Spin 247–255 <<< Wheel2Spin
14	Gobo Rotation 2	64	0–15 180 16–31 135 32–47 90 48–63 45 64–79 0 80–95 -45 96–111 -90 112–127 -135 128–158 -180 159–188 Gobo Rotation >> 189–189 Gobo Rotation > 190–193 Gobo Rotation STOP 194–223 < Gobo Rotation 224–254 << Gobo Rotation 255–255 <<< Gobo Rotation
15	Gobo Rotation 2 Fine	64	Fine byte of Gobo Rotation 2

Extended (34Chan) (continued)

Ch	Function	Default	DMX values
16	Gobo 2	0	0–10 G1-00 (Beam Open) (wheel slot 1) 11–21 G1-00 (Spot Open) (wheel slot 2) 22–31 G1-01 (Sinus) (wheel slot 3) 32–41 G1-02 (Triangle) (wheel slot 4) 42–51 G1-03 (small Dots) (wheel slot 5) 52–61 G1-04 (Scrible) (wheel slot 6) 62–71 G1-05 (Circles) (wheel slot 7) 72–81 G1-06 (Florales) (wheel slot 8) 82–91 G1-07 (Shattered Glass) (wheel slot 9) 92–101 G1-08 (Efflux) (wheel slot 10) 102–107 G1-01 (Sinus) slow (wheel slot 3) 108–112 G1-01 (Sinus) fast (wheel slot 3) 113–118 G1-02 (Triangle) slow (wheel slot 4) 119–123 G1-02 (Triangle) fast (wheel slot 4) 124–129 G1-03 (small Dots) slow (wheel slot 5) 130–134 G1-03 (small Dots) fast (wheel slot 5) 135–140 G1-04 (Scrible) slow (wheel slot 6) 141–145 G1-04 (Scrible) fast (wheel slot 6) 146–151 G1-05 (Circles) slow (wheel slot 7) 152–156 G1-05 (Circles) fast (wheel slot 7) 157–162 G1-06 (Florales) slow (wheel slot 8) 163–167 G1-06 (Florales) fast (wheel slot 8) 168–173 G1-07 (Shattered Glass) slow (wheel slot 9) 174–178 G1-07 (Shattered Glass) fast (wheel slot 9) 179–184 G1-08 (Efflux) slow (wheel slot 10) 185–189 G1-08 (Efflux) fast (wheel slot 10) 190–197 <<< WheelSpin 198–213 << WheelSpin 214–221 < WheelSpin 222–223 WheelSpin STOP 224–231 WheelSpin > 232–247 WheelSpin >> 248–255 WheelSpin >>>
17	Gobo 2 Fine	0	Fine byte of Gobo 2
18	Prism	0	0–31 Open (wheel slot 1) 32–64 16-Facet Prism (wheel slot 2) 65–94 4-Facet Linear Prism (wheel slot 3) 95–127 16 + 4 Facet PRISM combined (wheel slot 4) 128–135 Prism / Gobo Macro 1 136–143 Prism / Gobo Macro 2 144–151 Prism / Gobo Macro 3 152–159 Prism / Gobo Macro 4 160–167 Prism / Gobo Macro 5 168–175 Prism / Gobo Macro 6 176–183 Prism / Gobo Macro 7 184–191 Prism / Gobo Macro 8 192–199 Prism / Gobo Macro 9 200–207 Prism / Gobo Macro 10 208–215 Prism / Gobo Macro 11 216–223 Prism / Gobo Macro 12 224–231 Prism / Gobo Macro 13 232–239 Prism / Gobo Macro 14 240–247 Prism / Gobo Macro 15 248–255 Prism / Gobo Macro 16

Extended (34Chan) (continued)

Ch	Function	Default	DMX values
19	Prism Rotation	64	0–15 180 16–31 135 32–47 90 48–63 45 64–78 0 79–94 -45 95–110 -90 111–126 -135 127–127 -180 128–143 Prism Rotation >>> 144–173 Prism Rotation >> 174–189 Prism Rotation > 190–193 Gobo Rotation STOP 194–209 < Prism Rotation 210–239 << Prism Rotation 240–255 <<< Prism Rotation
20	Prism Rotation Fine	64	Fine byte of Prism Rotation
21	Focus	127	0–127 near 128–254 mid 255–255 far
22	Focus Fine	255	Fine byte of Focus
23	Zoom	127	0–127 narrow (3 Deg) 128–254 medium (18 Deg) 255–255 wide (33 Deg)
24	Zoom Fine	255	Fine byte of Zoom
25	Focus1Distance	0	0–21 Auto Focus Off 22–39 26ft / 8m 40–57 29ft / 9m 58–59 32ft / 10m 60–75 29ft / 9m 76–87 36ft / 11m 88–93 32ft / 10m 94–111 39ft / 12m 112–115 42ft / 13m 116–129 36ft / 11m 130–143 46ft / 14m 144–147 39ft / 12m 148–165 49ft / 15m 166–171 52ft / 16m 172–183 42ft / 13m 184–199 55ft / 17m 200–201 46ft / 14m 202–227 59ft / 18m 228–236 49ft / 15m 237–237 62ft / 19m 238–255 65ft / 20m
26	Focus1Distance Fine	0	Fine byte of Focus1Distance

Extended (34Chan) (continued)

Ch	Function	Default	DMX values
27	Shutter / Strobe	50	0–31 Shutter closed (1) 32–63 Shutter open (1) 64–77 Strobe slow 78–92 Strobe mid 93–95 Strobe fast 96–127 Shutter open (2) 128–141 Pulse slow 142–156 Pulse mid 157–159 Pulse fast 160–191 Shutter open (3) 192–205 Shutter StrobeRandom · Rnd slow 1–8.13 Hz 206–219 Shutter StrobeRandom · Rnd mid 8.68–15.8 Hz 220–223 Shutter StrobeRandom · Rnd fast 16.4–18 Hz 224–255 Shutter open (4)
28	Dimmer	0	0–24 0% 25–50 10% 51–62 20% 63–75 25% 76–101 30% 102–126 40% 127–152 50% 153–178 60% 179–190 70% 191–203 75% 204–229 80% 230–254 90% 255–255 100%
29	Dimmer Fine	0	Fine byte of Dimmer
30	Frost1	0	0–127 Frost Off 128–255 Frost On
31	Color Macro1Rate	0	0–127 fast 128–254 mid 255–255 slow

Extended (34Chan) (continued)

Ch	Function	Default	DMX values
32	Color Macro1	0	0–31 Off 32–39 Macro 1 40–47 Macro 2 48–55 Macro 3 56–63 Macro 4 64–71 Macro 5 72–79 Macro 6 80–87 Macro 7 88–95 Macro 8 96–103 Macro 9 104–111 Macro 10 112–119 Macro 11 120–127 Macro 12 128–135 Macro 13 136–143 Macro 14 144–151 Macro 15 152–159 Macro 16 160–167 Macro 17 168–175 Macro 18 176–183 Macro 19 184–191 Macro 20 192–199 Macro 21 200–207 Macro 22 208–215 Macro 23 216–223 Macro 24 224–231 Macro 25 232–239 Macro 26 240–247 Macro 27 248–255 Random CMY
33	Position MSpeed	0	0–111 Pan/Tilt fast 112–224 Pan/Tilt mid 225–225 Pan/Tilt slow 226–235 Blackout by Pan/Tilt Movement 236–245 Blackout by All Wheel Movement 246–255 No Function
34	Color1Mode	0	0–19 COLOR Change Normal 20–29 COLOR Change to Any Position 30–39 Reserved (1) 40–49 Lamp On 50–59 Lamp Off 60–66 Lamp Power 190W 67–73 Lamp Power 240W 74–79 Lamp Power 280W 80–84 All Motors Reset 85–87 Movement Reset 88–90 Color Reset 91–93 Gobo Reset 94–96 Dimmer Reset 97–99 Other Motors Reset 100–119 internal Programm 1 120–139 internal Programm 2 140–159 internal Programm 3 160–179 internal Programm 4 180–199 internal Programm 5 200–219 internal Programm 6 220–239 internal Programm 7 240–243 reserved 244–246 Home Position before Power Off 247–249 Home Position Off 250–251 Display Off 252–253 Display On 254–255 reserved