Black Light Design

Martin MAC Quantum Profile



Manufacturer	**Black Light Design**
Type	**Profile spot**
DMX modes	**2**
DMX footprint	**19, 27 channels**
Beam angle	**12-36°**
Pan range	**540°**
Tilt range	**268°**
Size (W × H × D)	**297 × 459 × 226 mm**
GDTF fixture type	**4D70D938-EEA9-4C64-82B2-4E…**

Controls

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

Safety-relevant functions

Fixture reset · Service functions · Built-in effect programmes

DMX modes

Basic	19 ch
Extended	27 ch

Basic

19 channels

Ch	Function	Default	DMX values
1	Shutter / Strobe	30	0–19 Closed 20–49 Open 50–124 Strobe · Slow 1–10.4 Hz 125–199 Strobe · Medium 10.5–19.9 Hz 200–200 Strobe · Fast 20 Hz 201–210 Open 211–232 Strobe Random · Slow 1–10.1 Hz 233–254 Strobe Random · Medium 10.5–19.6 Hz 255–255 Strobe Random · Fast 20 Hz
2	Dimmer	0	0–63 Closed 64–127 25% 128–191 50% 192–254 75% 255–255 Open
3	Cyan	0	0–63 Min 64–127 25% 128–191 50% 192–254 75% 255–255 Max
4	Magenta	0	0–63 Min 64–127 25% 128–191 50% 192–254 75% 255–255 Max
5	Yellow	0	0–63 Min 64–127 25% 128–191 50% 192–254 75% 255–255 Max
6	Color Wheel	0	0–7 Open (wheel slot 1) 8–22 Blue (wheel slot 2) 23–37 Green (wheel slot 3) 38–52 CTO (wheel slot 4) 53–67 Deep Magenta (wheel slot 5) 68–82 Congo Blue (wheel slot 6) 83–97 Red (wheel slot 7) 98–105 Open (wheel slot 1) 106–160 No Function 161–163 Blue (wheel slot 2) 164–166 Green (wheel slot 3) 167–169 CTO (wheel slot 4) 170–172 Deep Magenta (wheel slot 5) 173–175 Congo Blue (wheel slot 6) 176–178 Red (wheel slot 7) 179–192 Open (wheel slot 1) 193–202 CW Max 203–213 CW Med 214–214 CW Min 215–221 Stop 222–232 CCW Min 233–242 CCW Med 243–243 CCW Max 244–248 Fast 249–254 Medium 255–255 Slow

Basic (continued)

Ch	Function	Default	DMX values
7	Gobo	0	0–4 Open (wheel slot 1) 5–9 Gobo 1 (wheel slot 2) 10–14 Gobo 2 (wheel slot 3) 15–19 Gobo 3 (wheel slot 4) 20–24 Gobo 4 (wheel slot 5) 25–29 Gobo 5 (wheel slot 6) 30–34 Gobo 6 (wheel slot 7) 35–39 Gobo 1 (wheel slot 2) 40–44 Gobo 2 (wheel slot 3) 45–49 Gobo 3 (wheel slot 4) 50–54 Gobo 4 (wheel slot 5) 55–59 Gobo 5 (wheel slot 6) 60–64 Gobo 6 (wheel slot 7) 65–88 Gobo 1 (wheel slot 2) 89–112 Gobo 2 (wheel slot 3) 113–136 Gobo 3 (wheel slot 4) 137–160 Gobo 4 (wheel slot 5) 161–184 Gobo 5 (wheel slot 6) 185–209 Gobo 6 (wheel slot 7) 210–220 CW Max 221–231 CW Med 232–232 CW Min 233–243 CCW Min 244–254 CCW Med 255–255 CCW Max
8	Gobo Rotation	128	0–1 197 deg 2–10 CW Max 11–62 180 deg 63–68 CW Med 69–124 90 deg 125–127 CW Min 128–185 0 deg 186–189 -90 deg 190–243 CCW Med 244–251 -180 deg 252–254 CCW Max 255–255 -197 deg
9	Gobo Rotation Fine	0	Fine byte of Gobo Rotation

Basic (continued)

Ch	Function	Default	DMX values
10	Gobo 2	0	0–7 Open (wheel slot 1) 8–22 Gobo 1 (wheel slot 2) 23–37 Gobo 2 (wheel slot 3) 38–52 Gobo 3 (wheel slot 4) 53–67 Gobo 4 (wheel slot 5) 68–82 Gobo 5 (wheel slot 6) 83–97 Gobo 6 (wheel slot 7) 98–112 Gobo 7 (wheel slot 8) 113–127 Gobo 8 (wheel slot 9) 128–142 Gobo 9 (wheel slot 10) 143–157 Gobo 10 (wheel slot 11) 158–165 Open (wheel slot 1) 166–167 Gobo 1 (wheel slot 2) 168–169 Gobo 2 (wheel slot 3) 170–171 Gobo 3 (wheel slot 4) 172–173 Gobo 4 (wheel slot 5) 174–175 Gobo 5 (wheel slot 6) 176–177 Gobo 6 (wheel slot 7) 178–179 Gobo 7 (wheel slot 8) 180–181 Gobo 8 (wheel slot 9) 182–183 Gobo 9 (wheel slot 10) 184–185 Gobo 10 (wheel slot 11) 186–192 Open (wheel slot 1) 193–202 CW Max 203–213 CW Med 214–214 CW Min 215–221 Stop 222–232 CCW Min 233–242 CCW Med 243–243 CCW Max 244–248 Fast 249–254 Medium 255–255 Slow
11	Prism	0	0–2 Open (wheel slot 1) 3–3 CW Max (wheel slot 2) 4–125 CW Med (wheel slot 2) 126–126 CW Min (wheel slot 2) 127–129 Stop (wheel slot 2) 130–130 CCW Min (wheel slot 2) 131–252 CCW Med (wheel slot 2) 253–253 CCW Max (wheel slot 2) 254–255 Open (wheel slot 1)
12	Iris	0	0–49 Open 50–99 25% 100–149 50% 150–199 75% 200–200 Closed 201–212 Fast 213–224 Medium 225–225 Slow 226–230 Pulse Stop 231–242 Slow 243–254 Medium 255–255 Fast
13	Zoom	128	0–127 Wide 128–254 Medium 255–255 Narrow
14	Focus	128	0–127 Far 128–254 Medium 255–255 Near
15	Pan	128	

Basic (continued)

Ch	Function	Default	DMX values
16	Pan Fine	0	Fine byte of Pan
17	Tilt	128	
18	Tilt Fine	0	Fine byte of Tilt
19	Control1	0	0–9 Idle 10–14 Reset Entire Fixture (5s) 15–15 No Function 1 16–16 Reset Color Only (5s) 17–17 Reset Beam Only (5s) 18–18 Reset Pan and Tilt Only (5s) 19–22 No Function 2 23–23 Linear (1s) 24–24 Square (1s) 25–25 Inverse Square (1s) 26–26 S-Curve (1s) 27–27 No Function 3 28–28 Fast (1s) 29–29 Smooth (1s) 30–30 Shortcuts ON 31–31 Shortcuts OFF 32–32 Off (1s) 33–33 Near Distance (1s) 34–34 Medium Distance (1s) 35–35 Far Distance (1s) 36–51 No Function 4 52–52 Control Panel Display ON (1s) 53–53 Control Panel Display OFF (1s) 54–54 Regulated Fan Speed (1s) 55–55 Full Fan Speed (1s) 56–56 Medium Fan Speed (1s) 57–57 Low Fan Speed (1s) 58–58 Ultra Low Fan Speed (1s) 59–99 No Function 5 100–100 Enable Calibration (5s) 101–101 Store Pan and Tilt Calibration (5s) 102–102 Store Dimmer Calibration (5s) 103–103 Store Cyan Calibration (5s) 104–104 Store Magenta Calibration (5s) 105–106 Store Yellow Calibration (5s) 107–107 Store All CMY Calibration (5s) 108–109 Store Roto Gobo Calibration (5s) 110–111 Store Stat Gobo Calibration (5s) 112–112 Store Iris Calibration (5s) 113–113 Store Focus Calibration (5s) 114–198 Store Zoom Calibration (5s) 199–199 Reset All Calibration To Factory Default (5s) 200–255 No Function 6

Extended

27 channels

Ch	Function	Default	DMX values
1	Shutter / Strobe	30	0–19 Closed 20–49 Open 50–124 Strobe · Slow 1–10.4 Hz 125–199 Strobe · Medium 10.5–19.9 Hz 200–200 Strobe · Fast 20 Hz 201–210 Open 211–232 Strobe Random · Slow 1–10.1 Hz 233–254 Strobe Random · Medium 10.5–19.6 Hz 255–255 Strobe Random · Fast 20 Hz

Extended (continued)

Ch	Function	Default	DMX values
2	Dimmer	0	0–63 Closed 64–127 25% 128–191 50% 192–254 75% 255–255 Open
3	Dimmer Fine	0	Fine byte of Dimmer
4	Cyan	0	0–63 Min 64–127 25% 128–191 50% 192–254 75% 255–255 Max
5	Magenta	0	0–63 Min 64–127 25% 128–191 50% 192–254 75% 255–255 Max
6	Yellow	0	0–63 Min 64–127 25% 128–191 50% 192–254 75% 255–255 Max
7	Color Wheel	0	0–7 Open (wheel slot 1) 8–22 Blue (wheel slot 2) 23–37 Green (wheel slot 3) 38–52 CTO (wheel slot 4) 53–67 Deep Magenta (wheel slot 5) 68–82 Congo Blue (wheel slot 6) 83–97 Red (wheel slot 7) 98–105 Open (wheel slot 1) 106–160 No Function 161–163 Blue (wheel slot 2) 164–166 Green (wheel slot 3) 167–169 CTO (wheel slot 4) 170–172 Deep Magenta (wheel slot 5) 173–175 Congo Blue (wheel slot 6) 176–178 Red (wheel slot 7) 179–192 Open (wheel slot 1) 193–202 CW Max 203–213 CW Med 214–214 CW Min 215–221 Stop 222–232 CCW Min 233–242 CCW Med 243–243 CCW Max 244–248 Fast 249–254 Medium 255–255 Slow

Extended (continued)

Ch	Function	Default	DMX values
8	Gobo	0	0–4 Open (wheel slot 1) 5–9 Gobo 1 (wheel slot 2) 10–14 Gobo 2 (wheel slot 3) 15–19 Gobo 3 (wheel slot 4) 20–24 Gobo 4 (wheel slot 5) 25–29 Gobo 5 (wheel slot 6) 30–34 Gobo 6 (wheel slot 7) 35–39 Gobo 1 (wheel slot 2) 40–44 Gobo 2 (wheel slot 3) 45–49 Gobo 3 (wheel slot 4) 50–54 Gobo 4 (wheel slot 5) 55–59 Gobo 5 (wheel slot 6) 60–64 Gobo 6 (wheel slot 7) 65–88 Gobo 1 (wheel slot 2) 89–112 Gobo 2 (wheel slot 3) 113–136 Gobo 3 (wheel slot 4) 137–160 Gobo 4 (wheel slot 5) 161–184 Gobo 5 (wheel slot 6) 185–209 Gobo 6 (wheel slot 7) 210–220 CW Max 221–231 CW Med 232–232 CW Min 233–243 CCW Min 244–254 CCW Med 255–255 CCW Max
9	Gobo Rotation	128	0–1 197 deg 2–10 CW Max 11–62 180 deg 63–68 CW Med 69–124 90 deg 125–127 CW Min 128–185 0 deg 186–189 -90 deg 190–243 CCW Med 244–251 -180 deg 252–254 CCW Max 255–255 -197 deg
10	Gobo Rotation Fine	0	Fine byte of Gobo Rotation

Extended (continued)

Ch	Function	Default	DMX values
11	Gobo 2	0	0–7 Open (wheel slot 1) 8–22 Gobo 1 (wheel slot 2) 23–37 Gobo 2 (wheel slot 3) 38–52 Gobo 3 (wheel slot 4) 53–67 Gobo 4 (wheel slot 5) 68–82 Gobo 5 (wheel slot 6) 83–97 Gobo 6 (wheel slot 7) 98–112 Gobo 7 (wheel slot 8) 113–127 Gobo 8 (wheel slot 9) 128–142 Gobo 9 (wheel slot 10) 143–157 Gobo 10 (wheel slot 11) 158–165 Open (wheel slot 1) 166–167 Gobo 1 (wheel slot 2) 168–169 Gobo 2 (wheel slot 3) 170–171 Gobo 3 (wheel slot 4) 172–173 Gobo 4 (wheel slot 5) 174–175 Gobo 5 (wheel slot 6) 176–177 Gobo 6 (wheel slot 7) 178–179 Gobo 7 (wheel slot 8) 180–181 Gobo 8 (wheel slot 9) 182–183 Gobo 9 (wheel slot 10) 184–185 Gobo 10 (wheel slot 11) 186–192 Open (wheel slot 1) 193–202 CW Max 203–213 CW Med 214–214 CW Min 215–221 Stop 222–232 CCW Min 233–242 CCW Med 243–243 CCW Max 244–248 Fast 249–254 Medium 255–255 Slow
12	Prism	0	0–2 Open (wheel slot 1) 3–3 CW Max (wheel slot 2) 4–125 CW Med (wheel slot 2) 126–126 CW Min (wheel slot 2) 127–129 Stop (wheel slot 2) 130–130 CCW Min (wheel slot 2) 131–252 CCW Med (wheel slot 2) 253–253 CCW Max (wheel slot 2) 254–255 Open (wheel slot 1)
13	Iris	0	0–49 Open 50–99 25% 100–149 50% 150–199 75% 200–200 Closed 201–212 Fast 213–224 Medium 225–225 Slow 226–230 Pulse Stop 231–242 Slow 243–254 Medium 255–255 Fast
14	Zoom	128	0–127 Wide 128–254 Medium 255–255 Narrow
15	Zoom Fine	0	Fine byte of Zoom
16	Focus	128	0–127 Far 128–254 Medium 255–255 Near

Extended (continued)

Ch	Function	Default	DMX values
17	Focus Fine	0	Fine byte of Focus
18	Pan	128	
19	Pan Fine	0	Fine byte of Pan
20	Tilt	128	
21	Tilt Fine	0	Fine byte of Tilt
22	Control1	0	0–9 Idle 10–14 Reset Entire Fixture (5s) 15–15 No Function 1 16–16 Reset Color Only (5s) 17–17 Reset Beam Only (5s) 18–18 Reset Pan and Tilt Only (5s) 19–22 No Function 2 23–23 Linear (1s) 24–24 Square (1s) 25–25 Inverse Square (1s) 26–26 S-Curve (1s) 27–27 No Function 3 28–28 Fast (1s) 29–29 Smooth (1s) 30–30 Shortcuts ON 31–31 Shortcuts OFF 32–32 Off (1s) 33–33 Near Distance (1s) 34–34 Medium Distance (1s) 35–35 Far Distance (1s) 36–51 No Function 4 52–52 Control Panel Display ON (1s) 53–53 Control Panel Display OFF (1s) 54–54 Regulated Fan Speed (1s) 55–55 Full Fan Speed (1s) 56–56 Medium Fan Speed (1s) 57–57 Low Fan Speed (1s) 58–58 Ultra Low Fan Speed (1s) 59–99 No Function 5 100–100 Enable Calibration (5s) 101–101 Store Pan and Tilt Calibration (5s) 102–102 Store Dimmer Calibration (5s) 103–103 Store Cyan Calibration (5s) 104–104 Store Magenta Calibration (5s) 105–106 Store Yellow Calibration (5s) 107–107 Store All CMY Calibration (5s) 108–109 Store Roto Gobo Calibration (5s) 110–111 Store Stat Gobo Calibration (5s) 112–112 Store Iris Calibration (5s) 113–113 Store Focus Calibration (5s) 114–198 Store Zoom Calibration (5s) 199–199 Reset All Calibration To Factory Default (5s) 200–255 No Function 6

Extended (continued)

Ch	Function	Default	DMX values
23	Effect	0	0–0 No Effect 1–1 Gobo X-Fade 2–2 Bad Stepper 3–7 No Function 1 8–8 Tick Tick Tick 9–9 Tick Tock 10–10 Wave 11–11 Step 12–12 Pulse 13–13 2x Strobe 14–14 3x Strobe 15–15 Up Down Flash 16–16 Up Flash Down Flash 17–20 Random Levels 21–21 Electric Arc 22–22 Atomic Lighting 23–23 Thunderstorm 24–24 Welding 25–29 No Function 2 30–30 Stop Motion 31–31 Movie Flicker 32–32 Cross Chase 33–33 Random Dimmers 34–34 Shakey Dimmers 35–35 Center Out Chase 36–36 Negative Pulse 37–37 Positive Pulse 38–49 No Function 3 50–50 Rainbow Wave 51–51 Rainbow Step 52–52 Rainbow Pulse 53–53 RGB Wave 54–54 RGB Step 55–55 RGB Pulse 56–56 CMY Wave 57–57 CMY Step 58–58 CMY Pulse 59–59 Mix to White Wave 60–60 Mix to White Step 61–61 Mix to White Pulse 62–62 Random Mix Wave 63–63 Random Mix Step 64–64 Random Mix Pulse 65–65 Random Subtle Wave 66–66 RedWhiteBlue Wave 67–69 RedWhiteBlue Step 70–70 Color Wheel Full Step 71–71 Color Wheel All Step 72–72 Color Wheel Split Step 73–73 Color Wheel Random Split Step 74–74 Color Wheel Shaker 75–75 Fire 76–76 Water 77–77 Ice 78–78 Hot and Cold 79–79 Warm and Fuzzy 80–80 Iris Wave 81–81 Iris Step 82–82 Iris Pulse 83–83 Zoom Wave 84–84 Zoom Step 85–85 Zoom Pulse 86–86 Random Size Wave 87–89 Random Size Step

Extended (continued)

Ch	Function	Default	DMX values
24	Effect Speed	128	0–63 Rev Max 64–125 Rev Med 126–126 Rev Min 127–128 Stop 129–191 Fwd Min 192–254 Fwd Med 255–255 Fwd Max

Extended (continued)

Ch	Function	Default	DMX values
25	Effect 2	0	0–0 No Effect 1–1 Gobo X-Fade 2–2 Bad Stepper 3–7 No Function 1 8–8 Tick Tick Tick 9–9 Tick Tock 10–10 Wave 11–11 Step 12–12 Pulse 13–13 2x Strobe 14–14 3x Strobe 15–15 Up Down Flash 16–16 Up Flash Down Flash 17–20 Random Levels 21–21 Electric Arc 22–22 Atomic Lighting 23–23 Thunderstorm 24–24 Welding 25–29 No Function 2 30–30 Stop Motion 31–31 Movie Flicker 32–32 Cross Chase 33–33 Random Dimmers 34–34 Shakey Dimmers 35–35 Center Out Chase 36–36 Negative Pulse 37–37 Positive Pulse 38–49 No Function 3 50–50 Rainbow Wave 51–51 Rainbow Step 52–52 Rainbow Pulse 53–53 RGB Wave 54–54 RGB Step 55–55 RGB Pulse 56–56 CMY Wave 57–57 CMY Step 58–58 CMY Pulse 59–59 Mix to White Wave 60–60 Mix to White Step 61–61 Mix to White Pulse 62–62 Random Mix Wave 63–63 Random Mix Step 64–64 Random Mix Pulse 65–65 Random Subtle Wave 66–66 RedWhiteBlue Wave 67–69 RedWhiteBlue Step 70–70 Color Wheel Full Step 71–71 Color Wheel All Step 72–72 Color Wheel Split Step 73–73 Color Wheel Random Split Step 74–74 Color Wheel Shaker 75–75 Fire 76–76 Water 77–77 Ice 78–78 Hot and Cold 79–79 Warm and Fuzzy 80–80 Iris Wave 81–81 Iris Step 82–82 Iris Pulse 83–83 Zoom Wave 84–84 Zoom Step 85–85 Zoom Pulse 86–86 Random Size Wave 87–89 Random Size Step

Extended (continued)

Ch	Function	Default	DMX values
26	Effect Speed 2	128	0–63 Rev Max 64–125 Rev Med 126–126 Rev Min 127–128 Stop 129–191 Fwd Min 192–254 Fwd Med 255–255 Fwd Max
27	Effects Sync	36	0–0 No Sync 1–1 Fixture Offset 10deg 2–2 Fixture Offset 20deg 3–3 Fixture Offset 30deg 4–4 Fixture Offset 40deg 5–5 Fixture Offset 50deg 6–6 Fixture Offset 60deg 7–7 Fixture Offset 70deg 8–8 Fixture Offset 80deg 9–9 Fixture Offset 90deg 10–10 Fixture Offset 100deg 11–11 Fixture Offset 110deg 12–12 Fixture Offset 120deg 13–13 Fixture Offset 130deg 14–14 Fixture Offset 140deg 15–15 Fixture Offset 150deg 16–16 Fixture Offset 160deg 17–17 Fixture Offset 170deg 18–18 Fixture Offset 180deg 19–19 Fixture Offset 190deg 20–20 Fixture Offset 200deg 21–21 Fixture Offset 210deg 22–22 Fixture Offset 220deg 23–23 Fixture Offset 230deg 24–24 Fixtrue Offset 240deg 25–25 Fixture Offset 250deg 26–26 Fixture Offset 260deg 27–27 Fixture Offset 270deg 28–28 Fixture Offset 280deg 29–29 Fixture Offset 290deg 30–30 Fixture Offset 300deg 31–31 Fixture Offset 310deg 32–32 Fixture Offset 320deg 33–33 Fixture Offset 330deg 34–34 Fixture Offset 340deg 35–35 Fixture Offset 350deg 36–100 Synchronized 101–120 Random Start 121–255 Random Duration