Cems

# ak-650b



| | |
|---|---|
| Manufacturer | **Cems** |
| Type | **Moving head** |
| DMX modes | **1** |
| DMX footprint | **22 channels** |
| Beam angle | **3-10°** |
| Pan range | **540°** |
| Tilt range | **270°** |
| Size (W × H × D) | **240 × 450 × 220 mm** |
| GDTF fixture type | **B90AB3E6-0C5B-4D43-9F32-13…** |

## Controls

Focus · Frost · Prism · Prism rotation · Colour wheel · Strobe · Dimmer · Pan and tilt · Movement speed · Gobos

## Safety-relevant functions

Lamp on and off · Fixture reset · Strobe · Built-in effect programmes

## DMX modes

22 Channel Mode — 22 ch

## 22 Channel Mode

22 channels

| Ch | Function | Default | DMX values |
|---|---|---|---|
| 1 | Pan | 127 | |
| 2 | Tilt | 127 | |
| 3 | Pan Tilt Speed | 0 | |
| 4 | Dimmer | 0 | |
| 5 | Shutter / Strobe | 254 | 0–3 Closed<br>4–250 Strobe Rate<br>251–255 Open |
| 6 | Color Wheel | 0 | 0–4 Open (wheel slot 1)<br>5–9 Open/Red (wheel slot 1)<br>10–14 Red (wheel slot 2)<br>15–19 Red/Green (wheel slot 2)<br>20–24 Green (wheel slot 3)<br>25–29 Green/Blue (wheel slot 3)<br>30–34 Blue (wheel slot 4)<br>35–39 Blue/Yellow (wheel slot 4)<br>40–44 Yellow (wheel slot 5)<br>45–49 Yellow/Mag (wheel slot 5)<br>50–54 Magenta (wheel slot 6)<br>55–59 Mag/Orange (wheel slot 6)<br>60–64 Orange (wheel slot 7)<br>65–69 Orange/L Green (wheel slot 7)<br>70–74 L Green (wheel slot 8)<br>75–79 L Green/L Blue (wheel slot 8)<br>80–84 L Blue (wheel slot 9)<br>85–89 L Blue/Amber (wheel slot 9)<br>90–94 Amber (wheel slot 10)<br>95–99 Amber/CTO (wheel slot 10)<br>100–104 CTO (wheel slot 11)<br>105–109 CTO/Cyan (wheel slot 11)<br>110–114 Cyan (wheel slot 12)<br>115–119 Cyan/R33 (wheel slot 12)<br>120–124 R33 (wheel slot 13)<br>125–129 R33/CTB (wheel slot 13)<br>130–134 CTB (wheel slot 14)<br>135–139 CTB/Open (wheel slot 14)<br>140–200 Scroll >>><br>201–255 Scroll <<< |

## 22 Channel Mode (continued)

| Ch | Function | Default | DMX values |
|---|---|---|---|
| **7** | Gobo | 0 | 1–4 Open (wheel slot 1)<br>5–9 Gobo 1 (wheel slot 2)<br>10–14 Gobo 2 (wheel slot 3)<br>15–19 Gobo 3 (wheel slot 4)<br>20–24 Gobo 4 (wheel slot 5)<br>25–29 Gobo 5 (wheel slot 6)<br>30–34 Gobo 6 (wheel slot 7)<br>35–39 Gobo 7 (wheel slot 8)<br>40–44 Gobo 8 (wheel slot 9)<br>45–49 Gobo 9 (wheel slot 10)<br>50–54 Gobo 10 (wheel slot 11)<br>55–59 ScanToZero1<br>60–64 ScanToZero2<br>65–69 ScanToZero3<br>70–74 ScanToZero4<br>75–79 ScanToZero5<br>80–84 ScanToZero6<br>85–89 ScanToZero7<br>90–94 ScanToZero8<br>95–99 ScanToZero9<br>100–108 ScanToZero10<br>109–149 ScanToZero11<br>150–199 Scroll <<<<br>200–255 Scroll >>> |
| **8** | Frost1 | 0 | 0–127 Open<br>128–255 Frost |
| **9** | Color Wheel 2 | 0 | 0–127 Open (wheel slot 1)<br>128–255 CMY (wheel slot 2) |
| **10** | Prism | 0 | 0–127 Open (wheel slot 1)<br>128–255 Prism1 (wheel slot 2) |
| **11** | Prism Rotation | 0 | 0–0 Stop<br>1–127 Index<br>128–190 cw<br>191–192 stop<br>193–255 ccw |
| **12** | Prism | 0 | 0–127 Open (wheel slot 1)<br>128–255 Prism2 (wheel slot 2) |
| **13** | Prism Rotation | 0 | 0–0 Stop<br>1–127 Index<br>128–190 cw<br>191–222 stop<br>223–255 ccw |
| **14** | Focus | 0 | |
| **15** | Effect | 0 | 0–127 Open<br>128–255 PrismEffect1 |
| **16** | Effect 2 | 0 | 0–127 Open<br>128–255 PrismEffect2 |
| **17** | Effect 3 | 0 | 0–127 Open<br>128–255 PrismEffect3 |
| **18** | Zoom | 0 | 0–4 min<br>5–127 home<br>128–255 max |
| **19** | Lamp Control | 0 | 0–99 Unused1<br>100–110 Lamp Off<br>111–199 Unused2<br>200–210 Lamp On<br>211–255 Unused4 |

## 22 Channel Mode (continued)

| Ch | Function | Default | DMX values |
|---|---|---|---|
| **20** | Fixture Global Reset | 0 | 0–249 Unused<br>250–255 Reset |
| **21** | Pan Fine | 255 | Fine byte of Pan |
| **22** | Tilt Fine | 255 | Fine byte of Tilt |