DMX REFERENCE

# HAVOCS150

Event Lighting



| | |
|---|---|
| **Manufacturer** | Event Lighting |
| **GDTF file** | Event_Lighting_HAVOCS150_134741.gdtf |
| **GDTF revision** | Rev 2-3 · 2026-03-23 |
| **Generated** | 2026-11-24 |

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# 1 About this manual

This document describes the HAVOCS150 by Event Lighting. It was compiled from the GDTF file Event_Lighting_HAVOCS150_134741.gdtf from the GDTF-Share library.

File revision: “Rev 2-3”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by Event Lighting; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

# 2 Quick reference

| Parameter | Value |
|---|---|
| Power consumption | 180 W |
| Weight | 12.4 kg |

### DMX modes

| Mode | Channels | Units in one universe | First start addresses |
|---|---|---|---|
| Standard | 21 | 24 | 1, 22, 43, 64, ... |
| Basic | 17 | 30 | 1, 18, 35, 52, ... |

### No light? Check these channels

- Standard: CH 6 Shutter at 63–64 or 126–127 or 189–190 or 252–255; CH 7 Dimmer above 0
- Basic: CH 6 Shutter at 63–64 or 126–127 or 189–190 or 252–255; CH 7 Dimmer above 0


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

# 3 Safety instructions


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

**⚠ WARNING**

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

**⚠ WARNING**

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 100–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

**⚠ WARNING**

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

**⚠ CAUTION**

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

> ⚠ **CAUTION**
>
> - Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
> - Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
> - Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

# 4 Product description

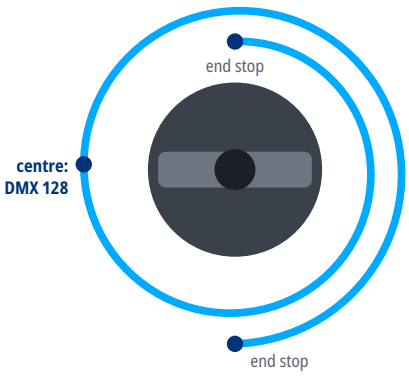
**Description in the GDTF file**

“HAVOCS150 is a zoomable and compact moving spotlight, making it a perfect fit for various venues and corporate events with its compact form factors HAVOCS150 delivers remarkable flexibility with its motorized zoom, which ranges from 10° to 45°. The 150W white LED source produces a surprising 4.882 lumen fixture output.”

**Range of movement**

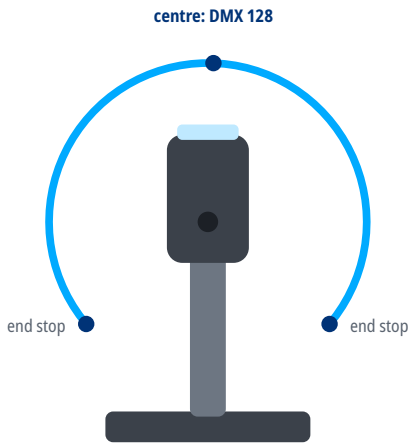
**Pan 540°**

top view




**Tilt 260°**

side view



# 5 Installation

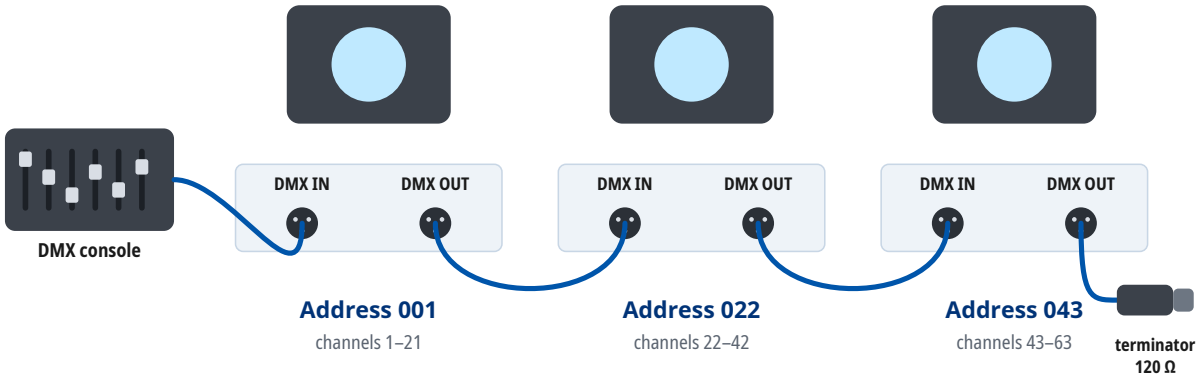
⚠ **WARNING**

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 12.36 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

# 6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

### DMX line




Mode Standard: every unit occupies 21 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

## 7 Operation

### Setting the DMX address

- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Standard”: 21.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “Standard”, you can use, for example, the start addresses 1, 22, 43, 64.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

# 8 Functions at a glance

## Functions in each DMX mode

| | Standard<br>21 channels | Basic<br>17 channels |
|---|---|---|
| Pan / Tilt | 1, 3, 21 | 1, 3, 17 |
| Dimmer | 7 | 7 |
| Dimmer resolution | 16 bit | 8 bit |
| Shutter / strobe | 6 | 6 |
| Color wheel | 9 | 8 |
| Gobo wheel | 10, 13 | 9, 11 |
| Gobo rotation | 11 | 10 |
| Prism | 14, 15 | 12, 13 |
| Frost | 16 | 14 |
| Zoom | 17 | 15 |
| Focus | 19 | 16 |

## Color wheel

1. Color 1 Pos: Open
   DMX 0–11
2. DARK RED
   DMX 24–35
3. YELLOW
   DMX 48–59
4. MAGENTA
   DMX 72–83
5. CYAN
   DMX 96–107
6. DEEP ORANGE
   DMX 120–131
7. FOREST GREEN
   DMX 144–155
8. CTO 3200K
   DMX 168–179
9. DEEP BLUE
   DMX 192–203

## Gobo wheel 1

1. Gobo 1 Index: Open
   DMX 0–9
2. Gobo 1 Index: Gobo 1
   DMX 10–19
3. Gobo 1 Index: Gobo 2
   DMX 20–29
4. Gobo 1 Index: Gobo 3
   DMX 30–39
5. Gobo 1 Index: Gobo 4
   DMX 40–49
6. Gobo 1 Index: Gobo 5
   DMX 50–59
7. Gobo 1 Index: Gobo 6
   DMX 60–69
8. Gobo 7
   DMX 70–80

## Gobo wheel 2

1

Fixed Gobo: Open
DMX 0–6

2

Fixed Gobo: Gobo 1
DMX 7–13

3

Fixed Gobo: Gobo 2
DMX 14–20

4

Fixed Gobo: Gobo 3
DMX 21–27

5

Fixed Gobo: Gobo 4
DMX 28–34

6

Fixed Gobo: Gobo 5
DMX 35–41

7

Fixed Gobo: Gobo 6
DMX 42–48

8

Fixed Gobo: Gobo 7
DMX 49–55

9

Fixed Gobo: Gobo 8
DMX 56–62

10

Fixed Gobo: Gobo 9
DMX 63–69

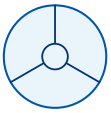
11

Gobo 10
DMX 70–77

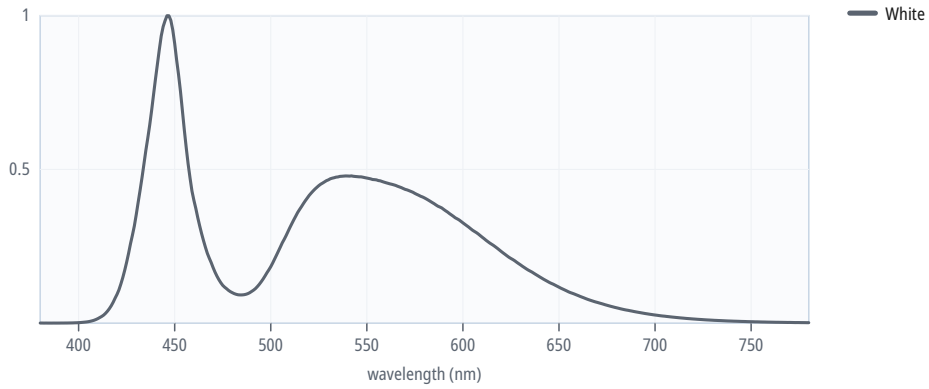
## Prism

1

Open
DMX 0–127

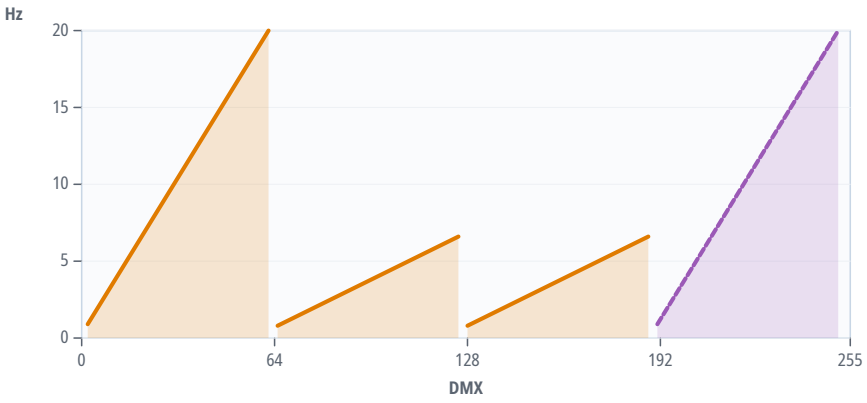
2

3 facets
Prism
DMX 128–255

## Spectra of the light sources




Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

## Strobe rate

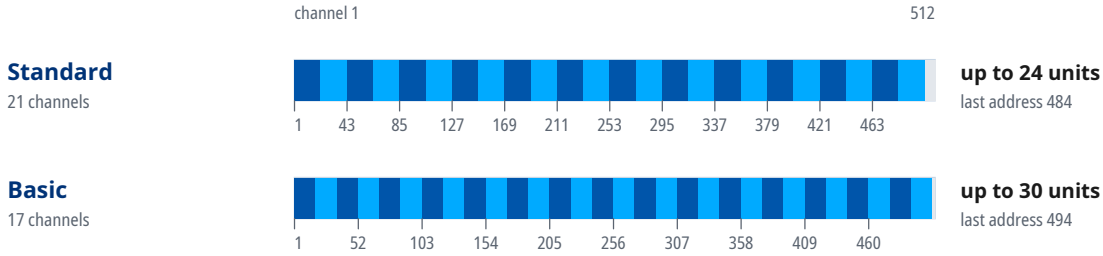



**CH 6 · Standard**

- 2–62: 0.9–20 Hz
  Strobe from slow to fast
- 65–125: 0.8–6.6 Hz
  Pulse In Strobe from slow to fast
- 128–188: 0.8–6.6 Hz
  Pulse Out Strobe from slow to fast
- 191–251: 0.9–20 Hz
  Random Strobe slow to fast

# 9 DMX channels

### Units in one DMX universe




### Start addresses of 20 units in the mode “Standard”

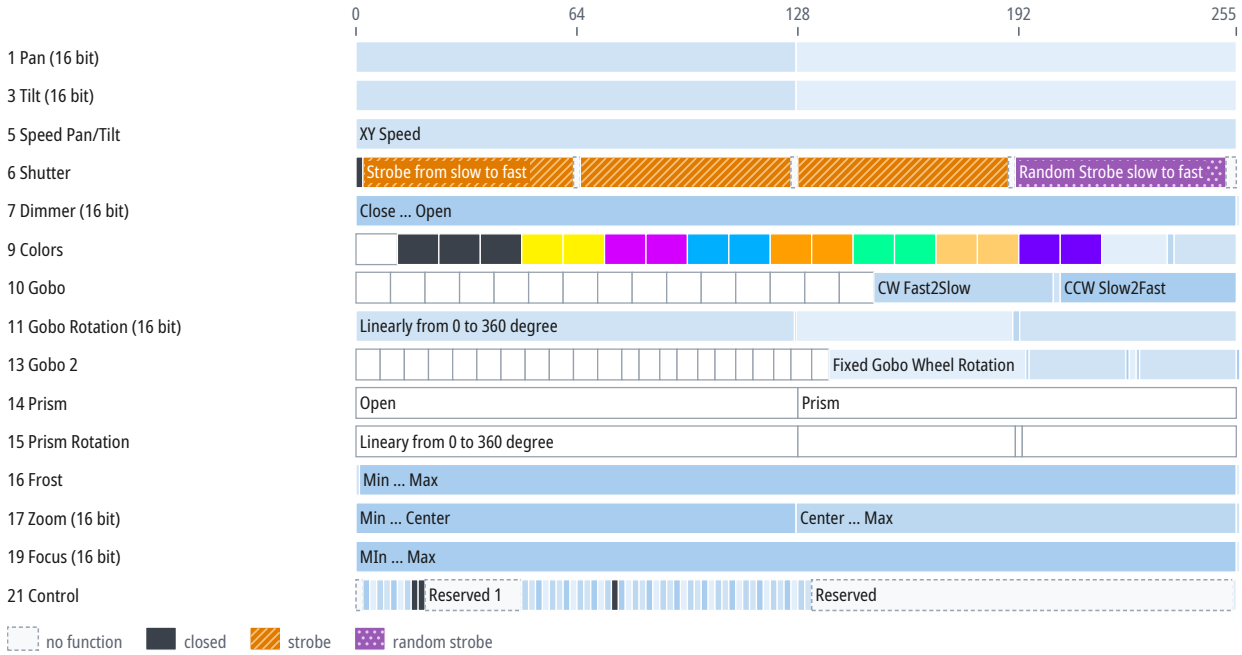
| Unit | Start address | Unit | Start address | Unit | Start address | Unit | Start address |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 6 | 106 | 11 | 211 | 16 | 316 |
| 2 | 22 | 7 | 127 | 12 | 232 | 17 | 337 |
| 3 | 43 | 8 | 148 | 13 | 253 | 18 | 358 |
| 4 | 64 | 9 | 169 | 14 | 274 | 19 | 379 |
| 5 | 85 | 10 | 190 | 15 | 295 | 20 | 400 |

## Mode Standard

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 6 Shutter at 63–64 or 126–127 or 189–190 or 252–255; CH 7 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Shutter 255, CH 7 Dimmer 0, CH 9 Colors 0.

### Channel functions at a glance



| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | 0–127 | Pan |
| | | 128 | Center |
| | | 128–255 | Pan |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | 0–127 | Tilt |
| | | 128 | Center |
| | | 128–255 | Tilt |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | | XY Speed |
| | | 0–255 | XY Speed |
| **6** | Shutter | 0–1 | Close |
| | | 2–62 | Strobe from slow to fast (0.9–20 Hz) |
| | | 63–64 | Open 1 |
| | | 65–125 | Pulse In Strobe from slow to fast (0.8–6.6 Hz) |
| | | 126–127 | Open 2 |
| | | 128–188 | Pulse Out Strobe from slow to fast (0.8–6.6 Hz) |
| | | 189–190 | Open 3 |
| | | 191–251 | Random Strobe slow to fast (0.9–20 Hz) |
| | | 252–255 | Open 4 |
| **7** | Dimmer | 0–255 | Close … Open |
| | | 255 | Open |
| **8** | Dimmer Fine | 0–255 | Fine adjustment of CH 7 |
| **9** | Colors | 0–11 | Color 1 Pos: Open |
| | | 12–23 | OPEN+DARK RED |
| | | 24–35 | DARK RED |
| | | 36–47 | DARK RED+YELLOW |
| | | 48–59 | YELLOW |
| | | 60–71 | YELLOW+MAGENTA |
| | | 72–83 | MAGENTA |
| | | 84–95 | MAGENTA+CYAN |
| | | 96–107 | CYAN |
| | | 108–119 | CYAN+DEEP ORANGE |
| | | 120–131 | DEEP ORANGE |
| | | 132–143 | DEEP ORANGE+FOREST GREEN |
| | | 144–155 | FOREST GREEN |
| | | 156–167 | FOREST GREEN+CTO 3200K |
| | | 168–179 | CTO 3200K |
| | | 180–191 | CTO 3200K+DEEP BLUE |
| | | 192–203 | DEEP BLUE |
| | | 204–215 | DEEP BLUE+OPEN |

| CH | Function | DMX | Description |
|---|---|---|---|
| **9** | Colors (continued) | 216–234 | CW Fast2Slow (360–45.8 °/s) |
| | | 235–236 | Color 1 Wheel Spin: Stop |
| | | 237–255 | CCW Slow2Fast (45.8–360 °/s) |
| **10** | Gobo | 0–9 | Gobo 1 Index: Open |
| | | 10–19 | Gobo 1 Index: Gobo 1 |
| | | 20–29 | Gobo 1 Index: Gobo 2 |
| | | 30–39 | Gobo 1 Index: Gobo 3 |
| | | 40–49 | Gobo 1 Index: Gobo 4 |
| | | 50–59 | Gobo 1 Index: Gobo 5 |
| | | 60–69 | Gobo 1 Index: Gobo 6 |
| | | 70–79 | Gobo 1 Index: Gobo 7 |
| | | 80–89 | Gobo 1 Shake: Gobo 1 (0.85–4 Hz) |
| | | 90–99 | Gobo 1 Shake: Gobo 2 (0.85–4 Hz) |
| | | 100–109 | Gobo 1 Shake: Gobo 3 (0.85–4 Hz) |
| | | 110–119 | Gobo 1 Shake: Gobo 4 (0.85–4 Hz) |
| | | 120–129 | Gobo 1 Shake: Gobo 5 (0.85–4 Hz) |
| | | 130–139 | Gobo 1 Shake: Gobo 6 (0.85–4 Hz) |
| | | 140–149 | Gobo 1 Shake: Gobo 7 (0.85–4 Hz) |
| | | 150–201 | CW Fast2Slow (360–8.57 °/s) |
| | | 202–203 | Spin Stop |
| | | 204–255 | CCW Slow2Fast (8.57–360 °/s) |
| **11** | Gobo Rotation | 0–127 | Linearly from 0 to 360 degree |
| | | 128–190 | Gobo 1 Pos Rotate: From fast to slow (360–0 °/s) |
| | | 191–192 | Gobo 1 Pos Rotate: Stop |
| | | 193–255 | Gobo 1 Pos Rotate: From slow to fast (0–360 °/s) |
| **12** | Gobo Rotation Fine | 0–255 | Fine adjustment of CH 11 |
| **13** | Gobo 2 | 0–6 | Fixed Gobo: Open |
| | | 7–13 | Fixed Gobo: Gobo 1 |
| | | 14–20 | Fixed Gobo: Gobo 2 |
| | | 21–27 | Fixed Gobo: Gobo 3 |
| | | 28–34 | Fixed Gobo: Gobo 4 |
| | | 35–41 | Fixed Gobo: Gobo 5 |
| | | 42–48 | Fixed Gobo: Gobo 6 |
| | | 49–55 | Fixed Gobo: Gobo 7 |
| | | 56–62 | Fixed Gobo: Gobo 8 |
| | | 63–69 | Fixed Gobo: Gobo 9 |
| | | 70–76 | Fixed Gobo: Gobo 10 |
| | | 77–81 | Fixed Gobo Shake: Open |
| | | 82–87 | Fixed Gobo Shake: Gobo 1 (1–0.182 Hz) |
| | | 88–92 | Fixed Gobo Shake: Gobo 2 (2–0.273 Hz) |
| | | 93–98 | Fixed Gobo Shake: Gobo 3 (3–0.364 Hz) |

| CH | Function | DMX | Description |
|---|---|---|---|
| **13** | Gobo 2 (continued) | 99–103 | Fixed Gobo Shake: Gobo 4 (4–0.455 Hz) |
| | | 104–109 | Fixed Gobo Shake: Gobo 5 (5–0.545 Hz) |
| | | 110–114 | Fixed Gobo Shake: Gobo 6 (6–0.636 Hz) |
| | | 115–120 | Fixed Gobo Shake: Gobo 7 (7–0.727 Hz) |
| | | 121–125 | Fixed Gobo Shake: Gobo 8 (8–0.818 Hz) |
| | | 126–131 | Fixed Gobo Shake: Gobo 9 (9–0.909 Hz) |
| | | 132–136 | Fixed Gobo Shake: Gobo 10 (0.909–1 Hz) |
| | | 137–193 | Fixed Gobo Wheel Rotation |
| | | 194 | CW Fast |
| | | 195–222 | CW Fast2Slow (351.4–17.1 °/s) |
| | | 223 | CW Slow |
| | | 224–225 | Spin Stop |
| | | 226 | CCW Slow |
| | | 227–254 | CCW Slow2Fast (17.1–351.4 °/s) |
| | | 255 | CCW Fast |
| **14** | Prism | | 3 F Prism |
| | | 0–127 | Open |
| | | 128–255 | Prism |
| **15** | Prism Rotation | 0–127 | Lineary from 0 to 360 degree (360°) |
| | | 128–190 | Prism 1 Pos Rotate: From fast to slow |
| | | 191–192 | Prism 1 Pos Rotate: Stop (7.09–177.2 °/s) |
| | | 193–255 | Prism 1 Pos Rotate: From slow to fast |
| **16** | Frost | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **17** | Zoom | 0–127 | Min ... Center |
| | | 127 | Center |
| | | 128–255 | Center ... Max |
| | | 255 | Max |
| **18** | Zoom Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Focus | 0–255 | MIn ... Max |
| | | 255 | Max |
| **20** | Focus Fine | 0–255 | Fine adjustment of CH 19 |
| **21** | Control | 0–1 | No function |
| | | 2–3 | Pan Reverse ON |
| | | 4–5 | Pan Resverse OFF |
| | | 6–7 | Tilt Reverse ON |
| | | 8–9 | Tilt Reverse OFF |
| | | 10–11 | P/T Mode Fast |
| | | 12–13 | P/T Mode Mid |
| | | 14–15 | P/T Mode Slow |

| CH | Function | DMX | Description |
|---|---|---|---|
| **21** | Control (continued) | 16–17 | MOVEMENT IN BLACKOUT ON |
| | | 18–19 | MOVEMENT IN BLACKOUT OFF |
| | | 20–47 | Reserved 1 |
| | | 48–49 | DISPLAY ON |
| | | 50–51 | DISPLAY 10S |
| | | 52–53 | DISPLAY 20S |
| | | 54–55 | DISPLAY 30S |
| | | 56–57 | FLIP DISPLAY ON |
| | | 58–59 | FLIP DISPLAY OFF |
| | | 60–61 | FLIP DISPLAY AUTO |
| | | 62–63 | KEY LOCK ON |
| | | 64–65 | KEY LOCK OFF |
| | | 66–67 | Fan Mode: AUTO |
| | | 68–69 | SILENT |
| | | 70–71 | Fan Mode: HIGH |
| | | 72–73 | NO SIGNAL HOLD |
| | | 74–75 | NO SIGNAL BLACKOUT |
| | | 76–77 | STATUS LED ON |
| | | 78–79 | STATUS LED OFF |
| | | 80–81 | LINEAR |
| | | 82–83 | S-CURVE |
| | | 84–85 | SQUARE LAW |
| | | 86–87 | INVERSE SQUARE LAW |
| | | 88–89 | Dimmer Speed: AUTO |
| | | 90–91 | Dimmer Speed: FAST |
| | | 92–93 | MEDIUM |
| | | 94–95 | Dimmer Speed: SLOW |
| | | 96–97 | 600Hz |
| | | 98–99 | 1200Hz |
| | | 100–101 | 2000Hz |
| | | 102–103 | 4000Hz |
| | | 104–105 | 6000Hz |
| | | 106–107 | 25kHz |
| | | 108–109 | 50kHz |
| | | 110–111 | Invert Zoom OFF |
| | | 112–113 | Invert Zoom ON |
| | | 114–115 | RESET ALL |
| | | 116–117 | RESET PAN/TILT |
| | | 118–119 | RESET COLOR WHEEL |
| | | 120–121 | RESET ROTATING GOBO |
| | | 122–123 | RESET FIXED GOBO |

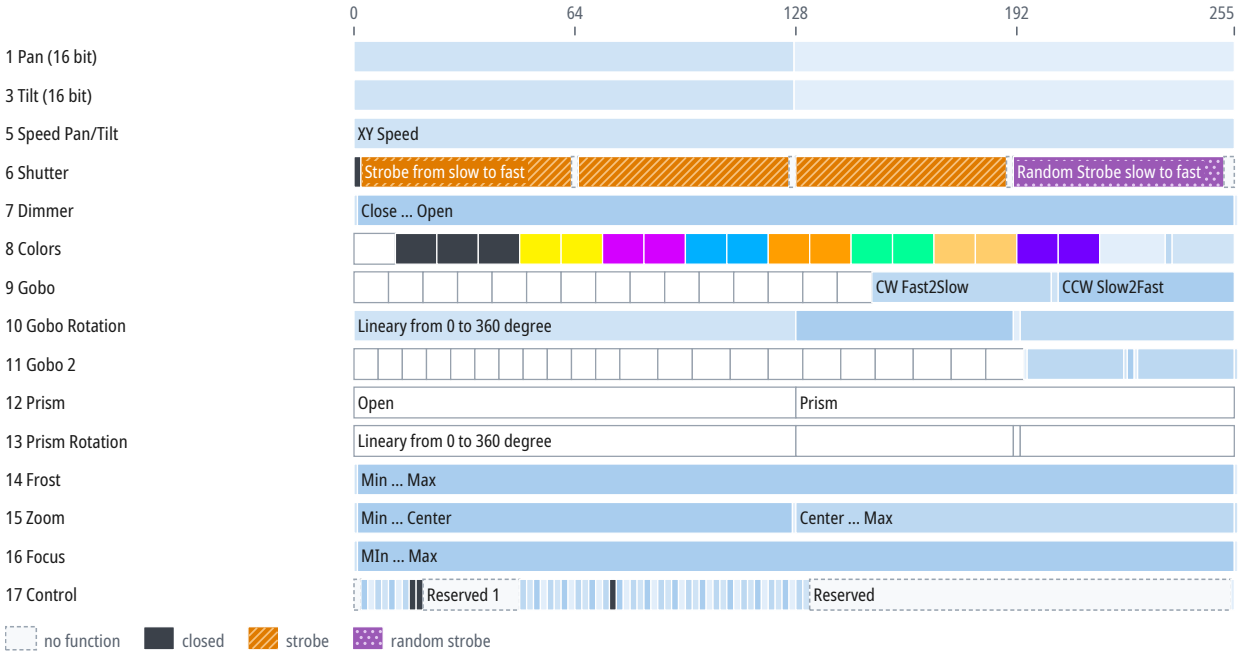
| CH | Function | DMX | Description |
|---|---|---|---|
| **21** | Control (continued) | 124–125 | RESET ZOOM |
| | | 126–127 | RESET FOCUS |
| | | 128–129 | RESET PRISM |
| | | 130–131 | RESET FROST |
| | | 132–253 | Reserved |
| | | 254–255 | FACTORY DEFAULT OF CONTROL FUNCTIONS |

## Mode Basic

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 6 Shutter at 63–64 or 126–127 or 189–190 or 252–255; CH 7 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Shutter 255, CH 8 Colors 0.

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Standard” (p. 11) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Standard” (p. 11) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | | Same as CH 5 in the mode “Standard” (p. 11) |
| **6** | Shutter | | Same as CH 6 in the mode “Standard” (p. 11) |
| **7** | Dimmer | 0 | Close |
| | | 1–254 | Close ... Open |
| | | 255 | Open |
| **8** | Colors | | Same as CH 9 in the mode “Standard” (p. 11) |
| **9** | Gobo | | Same as CH 10 in the mode “Standard” (p. 12) |
| **10** | Gobo Rotation | 0–127 | Lineary from 0 to 360 degree (360°) |

| CH | Function | DMX | Description |
|---|---|---|---|
| **10** | Gobo Rotation (continued) | 128–190 | Gobo 1 Pos Rotate: From fast to slow (360–0 °/s) |
| | | 191–192 | Gobo 1 Pos Rotate: Stop |
| | | 193–255 | Gobo 1 Pos Rotate: From slow to fast (0–360 °/s) |
| **11** | Gobo 2 | 0–6 | Fixed Gobo: Open |
| | | 7–13 | Fixed Gobo: Gobo 1 |
| | | 14–20 | Fixed Gobo: Gobo 2 |
| | | 21–27 | Fixed Gobo: Gobo 3 |
| | | 28–34 | Fixed Gobo: Gobo 4 |
| | | 35–41 | Fixed Gobo: Gobo 5 |
| | | 42–48 | Fixed Gobo: Gobo 6 |
| | | 49–55 | Fixed Gobo: Gobo 7 |
| | | 56–62 | Fixed Gobo: Gobo 8 |
| | | 63–69 | Fixed Gobo: Gobo 9 |
| | | 70–76 | Fixed Gobo: Gobo 10 |
| | | 77–87 | Fixed Gobo Shake: Open (0–0.091 Hz) |
| | | 88–97 | Fixed Gobo Shake: Gobo 1 (0.091–0.182 Hz) |
| | | 98–108 | Fixed Gobo Shake: Gobo 2 (0.182–0.273 Hz) |
| | | 109–119 | Fixed Gobo Shake: Gobo 3 (0.273–0.364 Hz) |
| | | 120–129 | Fixed Gobo Shake: Gobo 4 (0.364–0.455 Hz) |
| | | 130–140 | Fixed Gobo Shake: Gobo 5 (0.455–0.545 Hz) |
| | | 141–150 | Fixed Gobo Shake: Gobo 6 (0.545–0.636 Hz) |
| | | 151–161 | Fixed Gobo Shake: Gobo 7 (0.636–0.727 Hz) |
| | | 162–172 | Fixed Gobo Shake: Gobo 8 (0.727–0.818 Hz) |
| | | 173–182 | Fixed Gobo Shake: Gobo 9 (0.818–0.909 Hz) |
| | | 183–193 | Fixed Gobo Shake: Gobo 10 (0.909–1 Hz) |
| | | 194 | CW Fast |
| | | 195–222 | CW Fast2Slow (351.4–17.1 °/s) |
| | | 223 | CW Slow |
| | | 224–225 | Spin Stop |
| | | 226 | CCW Slow |
| | | 227–254 | CCW Slow2Fast (17.1–351.4 °/s) |
| | | 255 | CCW Fast |
| **12** | Prism | | Same as CH 14 in the mode “Standard” (p. 13) |
| **13** | Prism Rotation | | Same as CH 15 in the mode “Standard” (p. 13) |
| **14** | Frost | | Same as CH 16 in the mode “Standard” (p. 13) |
| **15** | Zoom | 0 | Min |
| | | 1–126 | Min ... Center |
| | | 127 | Center |
| | | 128–254 | Center ... Max |
| | | 255 | Max |

| CH | Function | DMX | Description |
|---|---|---|---|
| **16** | Focus | 0 | MIn |
| | | 1–254 | MIn ... Max |
| | | 255 | Max |
| **17** | Control | | Same as CH 21 in the mode “Standard” (p. 13) |

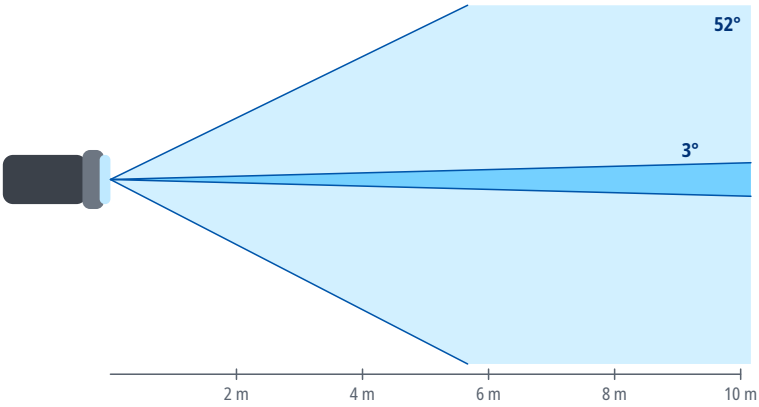
# 10 Technical specifications

| Parameter | Value |
|---|---|
| **Light** | |
| Light source | LED |
| LED power | 150 W |
| Luminous flux | 5,019 lm |
| Color temperature | 6,500 K |
| Color rendering index (CRI) | 70 |
| **Optics** | |
| Zoom | 3–52° |
| **Movement** | |
| Pan | 540° |
| Tilt | 260° |
| **Control** | |
| DMX connection | 5-pin XLR IN/OUT |
| **Electrical** | |
| Power supply | 100–240 V, 50/60 Hz |
| Power consumption | 180 W |
| Power connectors | powerCON TRUE1 IN/OUT |
| **Dimensions and construction** | |
| Weight | 12.4 kg |
| **Operating environment** | |
| Operating temperature | -10 to 45 °C |

### Speeds and ranges

| Parameter | Value |
|---|---|
| Strobe frequency | 0.9–20 Hz |
| LED frequency | 600–50000 Hz |
| Color wheel rotation | up to 360 °/s (60 rpm) |
| Gobo wheel 1 rotation | up to 360 °/s (60 rpm) |
| Gobo wheel 2 rotation | up to 360 °/s (60 rpm) |
| Gobo 1 rotation | up to 360 °/s (60 rpm) |
| Prism rotation | up to 180 °/s (30 rpm) |

### Spot diameter




| Distance | Ø 3° | Ø 52° |
|---|---|---|
| 2 m | 0.1 m | 2 m |
| 4 m | 0.21 m | 3.9 m |
| 6 m | 0.31 m | 5.9 m |
| 8 m | 0.42 m | 7.8 m |
| 10 m | 0.52 m | 9.8 m |
| 15 m | 0.79 m | 14.6 m |

Spot diameter square to the beam axis, calculated from the beam angle.

# 11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

# 12 Troubleshooting

| Problem | Remedy |
|---|---|
| The device does not switch on | Check the supply voltage, the cables and the fuse, if the device has one. |
| The device does not respond to DMX | Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe). |
| The device behaves erratically or flickers | Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter. |
| Only some devices on the line respond | Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on. |
| Devices respond to the wrong channels or affect each other | Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller. |
| The device or the connected load does not light up although it receives DMX | Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open. |
| Movement is reversed | Check whether Pan/Tilt inversion is enabled in the device menu or in the controller. |
| Moving parts do not reach the correct position after power-on or transport | Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center. |
| Movement is jerky | Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal. |

# 13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.