DMX REFERENCE

# Rayzor 760

Light Action Fixtures




| | |
|---|---|
| **Manufacturer** | Light Action Fixtures |
| **GDTF file** | Light_Action_Fixtures_Rayzor_760_168533.gdtf |
| **GDTF revision** | LA V2 · 2026-11-09 |
| **Generated** | 2026-11-24 |

# Contents

**1 About this manual** 2
**2 Quick reference** 3
**3 Safety instructions** 4
**4 Product description** 5
**5 Installation** 6
**6 Connections** 6
**7 Operation** 7
**8 Functions at a glance** 8
**9 DMX channels** 11
Mode Extended 360Pan/Tilt 11
Mode Pixels 360Pan/Tilt 31
Mode Standard 360Pan/Tilt 32
Mode SparkLED 34
**10 Technical specifications** 35
**11 Maintenance and cleaning** 35
**12 Troubleshooting** 36
**13 Disposal** 36

# 1 About this manual

This document describes the Rayzor 760 by Light Action Fixtures. It was compiled from the GDTF file Light_Action_Fixtures_Rayzor_760_168533.gdtf from the GDTF-Share library.

File revision: “LA V2”.

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 Light Action Fixtures; 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 |
|---|---|
| Weight | 12.2 kg |

### DMX modes

| Mode | Channels | Units in one universe | First start addresses |
|---|---|---|---|
| Extended 360Pan/Tilt | 80 | 6 | 1, 81, 161, 241, ... |
| Pixels 360Pan/Tilt | 52 | 9 | 1, 53, 105, 157, ... |
| Standard 360Pan/Tilt | 25 | 20 | 1, 26, 51, 76, ... |
| SparkLED | 28 | 18 | 1, 29, 57, 85, ... |

### No light? Check these channels

- Extended 360Pan/Tilt: CH 9 Shutter 1 at 32, 224–255 “Open” or 33–63
- Pixels 360Pan/Tilt: CH 9 Shutter 1 at 32, 224–255 “Open” or 33–63; CH 51 Dimmer 2 above 0
- Standard 360Pan/Tilt: CH 9 Shutter 1 at 32, 224–255 “Open” or 33–63
- SparkLED: CH 1 Dimmer above 0 (the same in each of the 28 cells)


Read the manual before use


Do not stare into the light


Indoor use only

# 3 Safety instructions



Read the manual before use



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**

- 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.

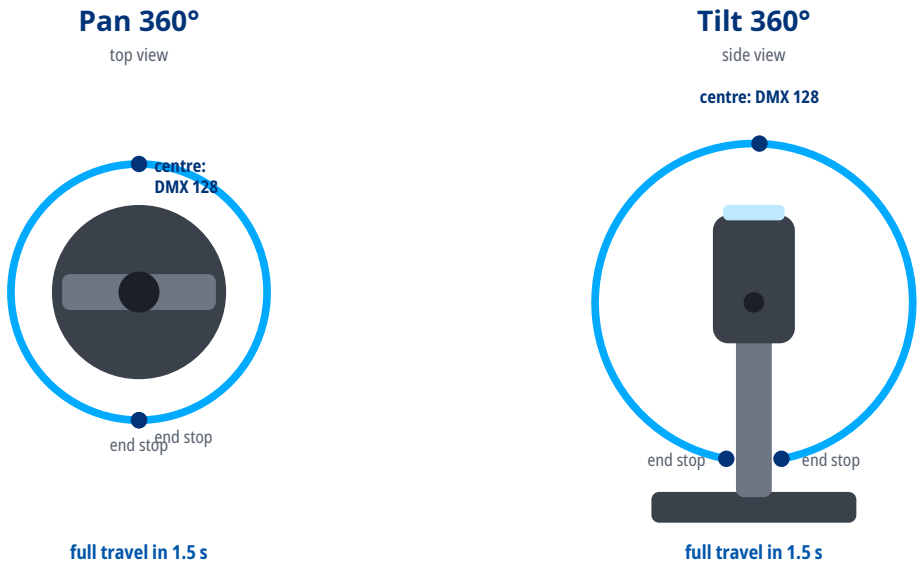
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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

“The Rayzor 760™ is a compact yet extremely powerful Wash Effects fixture featuring Elation’s unique SparkLED™ system and fast continuous Pan and Tilt motion. With its wide zoom range from 5° to 77° it provides intense and well-defined mid-air beams at over 8,000 lumens as well as an exceptionally wide and even wash coverage, making it a perfect tool for any application, even in adverse outdoor conditions. SparkLEDs offer a prominent and innovative LED pixel effect with dedicated high brightness pixels inside the large front lenses for additional layers of creativity.”

### Range of movement




Full-travel times as stated in the GDTF file.

# 5 Installation

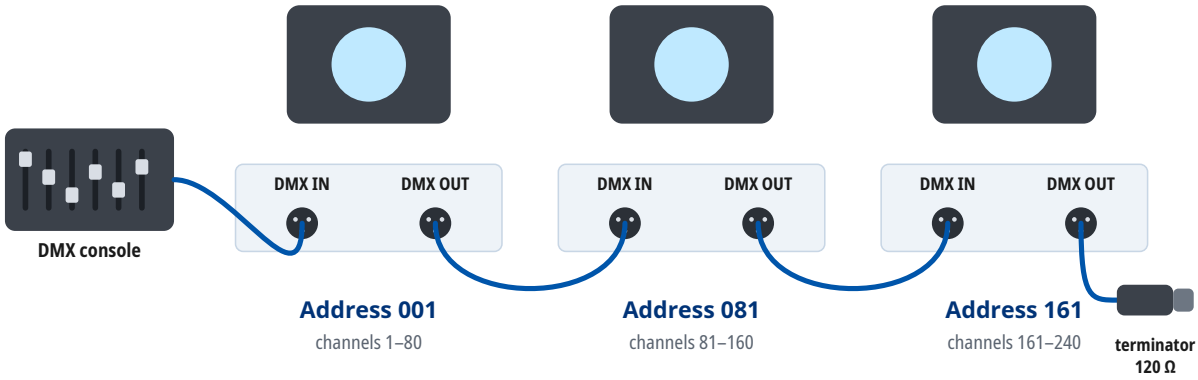
**⚠ WARNING**

- 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: 12.2 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 Extended 360Pan/Tilt: every unit occupies 80 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 “Extended 360Pan/Tilt”: 80.
- 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 “Extended 360Pan/Tilt”, you can use, for example, the start addresses 1, 81, 161, 241.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

# 8 Functions at a glance

## Functions in each DMX mode

| | Extended 360Pan/Tilt<br>80 channels | Pixels 360Pan/Tilt<br>52 channels | Standard 360Pan/Tilt<br>25 channels | SparkLED<br>28 channels |
|---|---|---|---|---|
| Pan / Tilt | **1, 3, 5, 6** | **1, 3, 5, 6** | **1, 3, 5, 6** | |
| Dimmer | **1–28, 51, 53–80** | **10, 51, 74** | **2, 10, 25** | **1–28, 53–80** |
| Dimmer resolution | 16 bit | 16 bit | 16 bit | 8 bit |
| Shutter / strobe | **9, 50** | **9, 50, 73** | **1, 9, 24** | |
| Color mixing | **22–49** | **22–49** | **20–23** | |
| Color temperature | **7** | **7** | **7** | |
| Color wheel | **8** | **8** | **8** | |
| Zoom | **13** | **13** | **13** | |
| Effects / macros | **17–21** | **17–21** | **15–19** | |
| Pixel control | **28 cells** | | | |

## Color wheel

1. Color Wheel: Open — **DMX 0–9**
2. Red — **DMX 10–14**
3. Red Orange — **DMX 15–19**
4. Light Amber — **DMX 20–24**
5. Yellow Amber — **DMX 25–29**
6. Greenish Yellow — **DMX 30–34**
7. Light Yellow Green — **DMX 35–39**
8. Dark Yellow Green — **DMX 40–44**
9. Green — **DMX 45–49**
10. Teal — **DMX 50–54**
11. Cyan — **DMX 55–59**
12. Light Blue — **DMX 60–64**
13. Aqua — **DMX 65–69**
14. Dark Aqua — **DMX 70–74**
15. Green Blue — **DMX 75–79**
16. Light Lavender — **DMX 80–84**
17. Dark Purple — **DMX 85–89**
18. Medium Purple — **DMX 90–94**
19. Mid Rose — **DMX 95–99**
20. Muave — **DMX 100–104**
21. Nice Magenta — **DMX 105–109**
22. Warm Magenta — **DMX 110–114**
23. Light Red — **DMX 115–119**
24. Straw — **DMX 120–124**

25 Dark CTB
**DMX 125–129**

26 Light Green
**DMX 130–134**

27 Purple
**DMX 135–139**

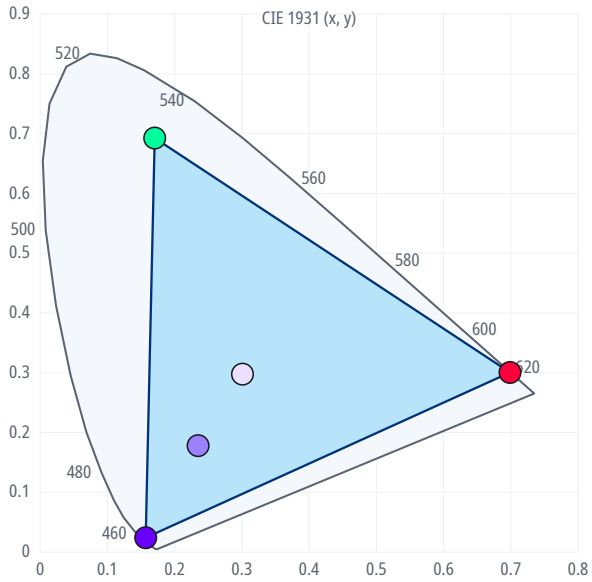
28 Lighter Purple
**DMX 140–144**

29 Pink
**DMX 145–149**

30 Rose
**DMX 150–154**

31 White
**DMX 155–159**

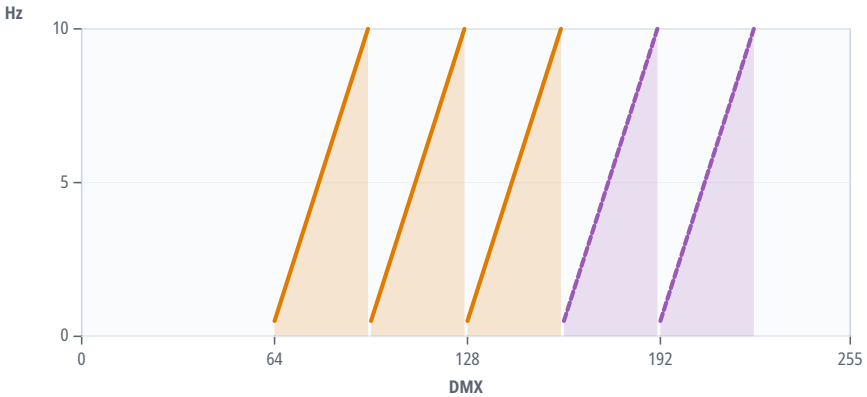
## LED colors and the colors they mix




| LED | x | y |
|---|---|---|
| Red | 0.699 | 0.300 |
| Green | 0.170 | 0.693 |
| Blue | 0.157 | 0.024 |
| White | 0.301 | 0.298 |
| Spark White | 0.235 | 0.178 |

The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

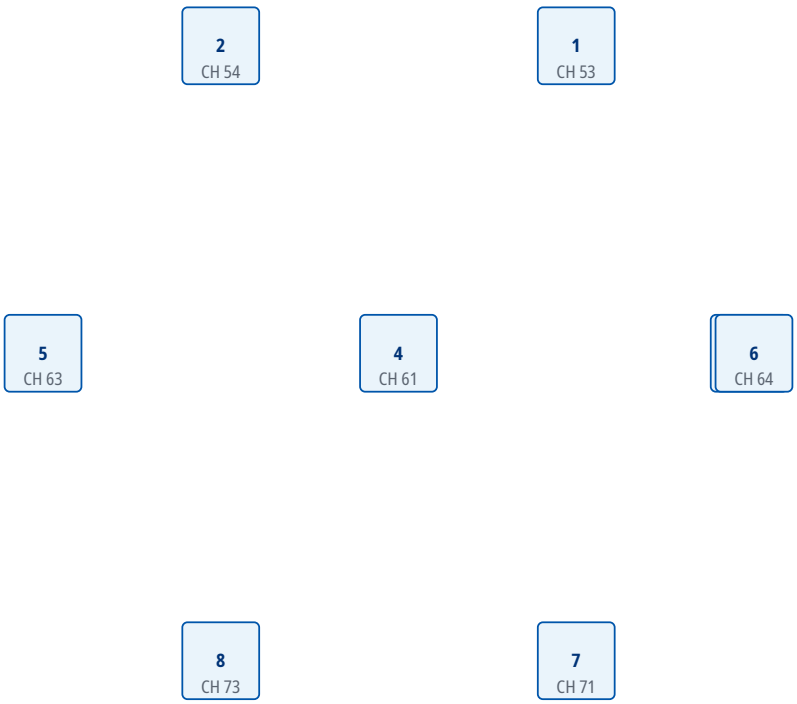
## Strobe rate




**CH 9 · Extended 360Pan/Tilt**

- 64–95: 0.5–10 Hz
  Strobe
- 96–127: 0.5–10 Hz
  Pulse Open
- 128–159: 0.5–10 Hz
  Pulse Close
- 160–191: 0.5–10 Hz
  Pulse Effects
- 192–223: 0.5–10 Hz
  Random Strobe

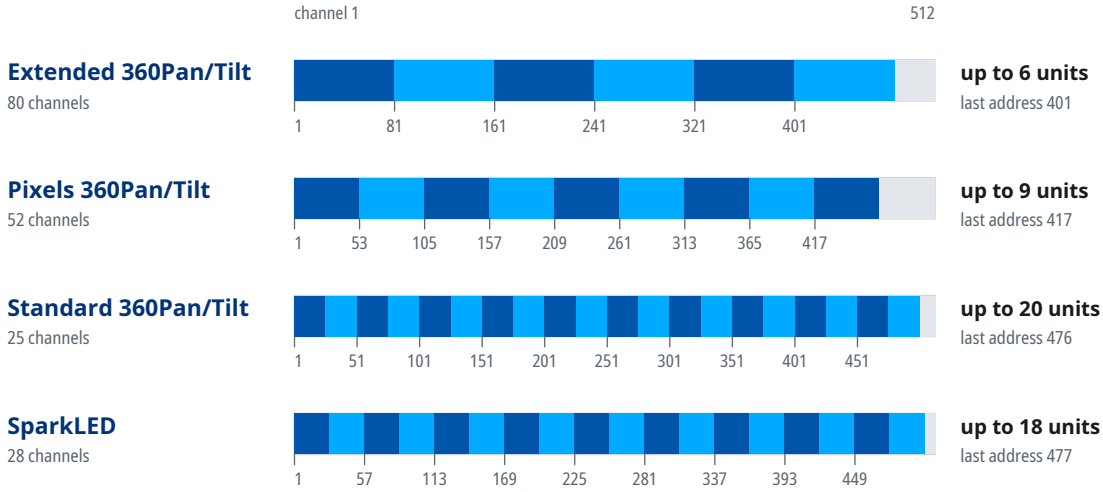
## Cells (pixels)




8 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Extended 360Pan/Tilt”.

# 9 DMX channels

### Units in one DMX universe




### Start addresses of 20 units in the mode “Extended 360Pan/Tilt”

| Unit | Start address | Unit | Start address | Unit | Start address | Unit | Start address |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 6 | 401 | 11 | U2 · 321 | 16 | U3 · 241 |
| 2 | 81 | 7 | U2 · 1 | 12 | U2 · 401 | 17 | U3 · 321 |
| 3 | 161 | 8 | U2 · 81 | 13 | U3 · 1 | 18 | U3 · 401 |
| 4 | 241 | 9 | U2 · 161 | 14 | U3 · 81 | 19 | U4 · 1 |
| 5 | 321 | 10 | U2 · 241 | 15 | U3 · 161 | 20 | U4 · 81 |

Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

## Mode Extended 360Pan/Tilt

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 9 Shutter 1 at 32, 224–255 “Open” or 33–63. The GDTF file gives these values for a console's Highlight function: CH 10 Dimmer 1 255, CH 22 Red 1 255, CH 23 Green 1 255, CH 24 Blue 1 255, CH 25 White 1 255, CH 26 Red 2 255, CH 27 Green 2 255, CH 28 Blue 2 255, CH 29 White 2 255, CH 30 Red 3 255, CH 31 Green 3 255, CH 32 Blue 3 255, CH 33 White 3 255, CH 34 Red 4 255, CH 35 Green 4 255, CH 36 Blue 4 255, CH 37 White 4 255, CH 38 Red 5 255, CH 39 Green 5 255, CH 40 Blue 5 255, CH 41 White 5 255, CH 42 Red 6 255, CH 43 Green 6 255, CH 44 Blue 6 255, CH 45 White 6 255, CH 46 Red 7 255, CH 47 Green 7 255, CH 48 Blue 7 255, CH 49 White 7 255, CH 51 Dimmer 2 255, CH 53 Dimmer 255 (the same in each of the 28 cells).

| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | 0–127 | Min … Center |
| | | 127 | Center |
| | | 128–255 | Center … Max |
| | | 255 | Max |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | 0–127 | Min … Center |
| | | 127 | Center |

| CH | Function | DMX | Description |
|---|---|---|---|
| **3** | Tilt (continued) | 128–255 | Center … Max |
| | | 255 | Max |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Pan Rotation | 0–2 | Disable |
| | | 3 | CW Fast |
| | | 4–64 | CW Fast … CW Med |
| | | 65 | CW Med |
| | | 66–125 | CW Med … CW Slow |
| | | 126 | CW Slow |
| | | 127–129 | Rot Stop |
| | | 130 | CCW Slow |
| | | 131–191 | CCW Slow … CCW Med |
| | | 192 | CCW Med |
| | | 193–252 | CCW Med … CCW Fast |
| | | 253 | CCW Fast |
| | | 254 | CCW Fast … Rot Stop |
| | | 255 | Rot Stop |
| **6** | Tilt Rotation | 0–2 | Disable |
| | | 3 | Forward Fast |
| | | 4–64 | Forward Fast … Forward Med |
| | | 65 | Forward Med |
| | | 66–125 | Forward Med … Forward Slow |
| | | 126 | Forward Slow |
| | | 127–129 | Rot Stop |
| | | 130 | Backward Slow |
| | | 131–191 | Backward Slow … Backward Med |
| | | 192 | Backward Med |
| | | 193–252 | Backward Med … Backward Fast |
| | | 253 | Backward Fast |
| | | 254 | Backward Fast … Rot Stop |
| | | 255 | Rot Stop |
| **7** | Color Temperature | 0 | Disabled |
| | | 1–10 | CTC Disabled |
| | | 11 | 2000k |
| | | 12 | 2050k |
| | | 13 | 2100k |
| | | 14 | 2150k |
| | | 15 | 2200k |
| | | 16 | 2250k |
| | | 17 | 2300k |
| | | 18 | 2350k |
| | | 19 | 2400k |

| CH | Function | DMX | Description |
|---|---|---|---|
| **7** | Color Temperature (continued) | 20 | 2450k |
| | | 21 | 2500k |
| | | 22 | 2550k |
| | | 23 | 2600k |
| | | 24 | 2650k |
| | | 25 | 2700k |
| | | 26 | 2750k |
| | | 27 | 2800k |
| | | 28 | 2850k |
| | | 29 | 2900k |
| | | 30 | 2950k |
| | | 31 | 3000k |
| | | 32 | 3050k |
| | | 33 | 3100k |
| | | 34 | 3150k |
| | | 35 | 3200k |
| | | 36 | 3250k |
| | | 37 | 3300k |
| | | 38 | 3350k |
| | | 39 | 3400k |
| | | 40 | 3450k |
| | | 41 | 3500k |
| | | 42 | 3550k |
| | | 43 | 3600k |
| | | 44 | 3650k |
| | | 45 | 3700k |
| | | 46 | 3750k |
| | | 47 | 3800k |
| | | 48 | 3850k |
| | | 49 | 3900k |
| | | 50 | 3950k |
| | | 51 | 4000k |
| | | 52 | 4050k |
| | | 53 | 4100k |
| | | 54 | 4150k |
| | | 55 | 4200k |
| | | 56 | 4250k |
| | | 57 | 4300k |
| | | 58 | 4350k |
| | | 59 | 4400k |
| | | 60 | 4450k |
| | | 61 | 4500k |

| CH | Function | DMX | Description |
|---|---|---|---|
| **7** | Color Temperature (continued) | 62 | 4550k |
| | | 63 | 4600k |
| | | 64 | 4650k |
| | | 65 | 4700k |
| | | 66 | 4750k |
| | | 67 | 4800k |
| | | 68 | 4850k |
| | | 69 | 4900k |
| | | 70 | 4950k |
| | | 71 | 5000k |
| | | 72 | 5050k |
| | | 73 | 73 |
| | | 74 | 5150k |
| | | 75 | 5200k |
| | | 76 | 5250k |
| | | 77 | 5300k |
| | | 78 | 5350k |
| | | 79 | 5400k |
| | | 80 | 5450k |
| | | 81 | 5500k |
| | | 82 | 5550k |
| | | 83 | 5600k |
| | | 84 | 5650k |
| | | 85 | 5700k |
| | | 86 | 5750k |
| | | 87 | 5800k |
| | | 88 | 5850k |
| | | 89 | 5900k |
| | | 90 | 5950k |
| | | 91 | 6000k |
| | | 92 | 6050k |
| | | 93 | 6100k |
| | | 94 | 6150k |
| | | 95 | 6200k |
| | | 96 | 6250k |
| | | 97 | 6300k |
| | | 98 | 6350k |
| | | 99 | 6400k |
| | | 100 | 6450k |
| | | 101 | 6500k |
| | | 102 | 6550k |
| | | 103 | 6600k |

| CH | Function | DMX | Description |
|---|---|---|---|
| **7** | Color Temperature (continued) | 104 | 6650k |
| | | 105 | 6700k |
| | | 106 | 6750k |
| | | 107 | 6800k |
| | | 108 | 6850k |
| | | 109 | 6900k |
| | | 110 | 6950k |
| | | 111 | 7000k |
| | | 112 | 7050k |
| | | 113 | 7100k |
| | | 114 | 7150k |
| | | 115 | 7200k |
| | | 116 | 7250k |
| | | 117 | 7300k |
| | | 118 | 7350k |
| | | 119 | 7400k |
| | | 120 | 7450k |
| | | 121 | 7500k |
| | | 122 | 7550k |
| | | 123 | 7600k |
| | | 124 | 7650k |
| | | 125 | 7700k |
| | | 126 | 7750k |
| | | 127 | 7800k |
| | | 128 | 7850k |
| | | 129 | 7900k |
| | | 130 | 7950k |
| | | 131 | 8000k |
| | | 132 | 8050k |
| | | 133 | 8100k |
| | | 134 | 8150k |
| | | 135 | 8200k |
| | | 136 | 8250k |
| | | 137 | 8300k |
| | | 138 | 8350k |
| | | 139 | 8400k |
| | | 140 | 8450k |
| | | 141 | 8500k |
| | | 142 | 8550k |
| | | 143 | 8600k |
| | | 144 | 8650k |
| | | 145 | 8700k |

| CH | Function | DMX | Description |
|---|---|---|---|
| **7** | Color Temperature (continued) | 146 | 8750k |
| | | 147 | 8800k |
| | | 148 | 8850k |
| | | 149 | 8900k |
| | | 150 | 8950k |
| | | 151 | 9000k |
| | | 152 | 9050k |
| | | 153 | 9100k |
| | | 154 | 9150k |
| | | 155 | 9200k |
| | | 156 | 9250k |
| | | 157 | 9300k |
| | | 158 | 9350k |
| | | 159 | 9400k |
| | | 160 | 9450k |
| | | 161 | 9500k |
| | | 162 | 9550k |
| | | 163 | 9600k |
| | | 164 | 9650k |
| | | 165 | 9700k |
| | | 166 | 9750k |
| | | 167 | 9800k |
| | | 168 | 9850k |
| | | 169 | 9900k |
| | | 170 | 9950k |
| | | 171 | 10000k |
| | | 172–255 | 9 k Range |
| **8** | Colors | 0–9 | Color Wheel: Open |
| | | 10–14 | Red |
| | | 15–19 | Red Orange |
| | | 20–24 | Light Amber |
| | | 25–29 | Yellow Amber |
| | | 30–34 | Greenish Yellow |
| | | 35–39 | Light Yellow Green |
| | | 40–44 | Dark Yellow Green |
| | | 45–49 | Green |
| | | 50–54 | Teal |
| | | 55–59 | Cyan |
| | | 60–64 | Light Blue |
| | | 65–69 | Aqua |
| | | 70–74 | Dark Aqua |
| | | 75–79 | Green Blue |

| CH | Function | DMX | Description |
|---|---|---|---|
| **8** | Colors (continued) | 80–84 | Light Lavender |
| | | 85–89 | Dark Purple |
| | | 90–94 | Medium Purple |
| | | 95–99 | Mid Rose |
| | | 100–104 | Muave |
| | | 105–109 | Nice Magenta |
| | | 110–114 | Warm Magenta |
| | | 115–119 | Light Red |
| | | 120–124 | Straw |
| | | 125–129 | Dark CTB |
| | | 130–134 | Light Green |
| | | 135–139 | Purple |
| | | 140–144 | Lighter Purple |
| | | 145–149 | Pink |
| | | 150–154 | Rose |
| | | 155–159 | White |
| | | 160–179 | Color Wheel |
| | | 180 | CW Fast |
| | | 181–189 | CW Fast ... CW Med |
| | | 190 | CW Med |
| | | 191–200 | CW Med ... CW Slow |
| | | 201 | CW Slow |
| | | 202–203 | CW Slow ... Rot Stop |
| | | 204 | Rot Stop |
| | | 205–207 | Rot Stop ... CCW Slow |
| | | 208 | CCW Slow |
| | | 209–218 | CCW Slow ... CCW Med |
| | | 219 | CCW Med |
| | | 220–228 | CCW Med ... CCW Fast |
| | | 229 | CCW Fast |
| | | 230 | Wheel Open: Open |
| | | 231–234 | Wheel Open |
| | | 235 | Random Fast |
| | | 236–239 | Random Fast ... Random Med |
| | | 240 | Random Med |
| | | 241–244 | Random Med ... Random Slow |
| | | 245 | Random Slow |
| | | 246–249 | Random Slots |
| | | 250 | Wheel Open: Open |
| | | 251–255 | Wheel Open 1 |
| **9** | Shutter 1 | 0 | Open / Closed: Closed |
| | | 1–31 | Open / Closed: Closed ... Open |

| CH | Function | DMX | Description |
|---|---|---|---|
| **9** | Shutter 1 (continued) | 32 | Open / Closed: Open |
| | | 33–63 | Open / Closed |
| | | 64 | Strobe: Slow |
| | | 65–78 | Strobe: Slow ... Med |
| | | 79 | Strobe: Med |
| | | 80–94 | Strobe: Med ... Fast |
| | | 95 | Strobe: Fast |
| | | 96 | Pulse Open Slow |
| | | 97–110 | Pulse Open Slow ... Pulse Open Med |
| | | 111 | Pulse Open Med |
| | | 112–126 | Pulse Open Med ... Pulse Open Fast |
| | | 127 | Pulse Open Fast |
| | | 128 | Pulse Close Slow |
| | | 129–142 | Pulse Close Slow ... Pulse Close Med |
| | | 143 | Pulse Close Med |
| | | 144–158 | Pulse Close Med ... Pulse Close Fast |
| | | 159 | Pulse Close Fast |
| | | 160 | Pulse Effects: Slow |
| | | 161–174 | Pulse Effects: Slow ... Med |
| | | 175 | Pulse Effects: Med |
| | | 176–190 | Pulse Effects: Med ... Fast |
| | | 191 | Pulse Effects: Fast |
| | | 192 | Random Slow |
| | | 193–206 | Random Slow ... Random Med |
| | | 207 | Random Med |
| | | 208–222 | Random Med ... Random Fast |
| | | 223 | Random Fast |
| | | 224–255 | Open |
| **10** | Dimmer 1 | 0–255 | Dimmer Min ... Dimmer Max |
| | | 255 | Dimmer Max |
| **11** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Dimmer Mode | 0–20 | Standard |
| | | 21–40 | Stage |
| | | 41–60 | TV |
| | | 61–80 | Architectual |
| | | 81–100 | Theater |
| | | 101–120 | Stage 2 |
| | | 121 | 0s |
| | | 122 | 0_1s |
| | | 123 | 0_2s |
| | | 124 | 0_3s |
| | | 125 | 0_4s |

| CH | Function | DMX | Description |
|---|---|---|---|
| **12** | Dimmer Mode (continued) | 126 | 0_5s |
| | | 127 | 0_6s |
| | | 128 | 0_7s |
| | | 129 | 0_8s |
| | | 130 | 0_9s |
| | | 131 | 1s |
| | | 132 | 1_5s |
| | | 133–141 | 2...10s |
| | | 142–254 | 10s ... Idle |
| | | 255 | Idle |
| **13** | Zoom | 0–110 | Wide ... Normal |
| | | 110–216 | Normal ... Narrow |
| | | 216 | Narrow |
| | | 216–255 | Overdrive Min ... Overdrive Max |
| | | 255 | Overdrive Max |
| **14** | Zoom Fine | 0–255 | Fine adjustment of CH 13 |
| **15** | Speed Pan/Tilt | 0 | P/T Speed: Max |
| | | 1–224 | P/T Speed: Max ... Min |
| | | 225 | P/T Speed: Min |
| | | 226 | Blackout P/T Move |
| | | 227–235 | Blackout P/T Move ... Blackout All Wheel Change |
| | | 236 | Blackout All Wheel Change |
| | | 237–255 | Blackout Mode |
| **16** | Control | 0–10 | Idle |
| | | 11–12 | P/T Shortest Path |
| | | 13–14 | P/T Continue Path |
| | | 15–16 | Pan Range 540 |
| | | 17–18 | Pan Range 360 |
| | | 19–20 | Tilt Range 270 |
| | | 21–22 | Tilt Range 360 |
| | | 23–39 | P/T Ranges |
| | | 40–59 | Silent |
| | | 60–79 | Auto |
| | | 80–84 | Reset All |
| | | 85–87 | Reset Movement |
| | | 88–99 | Reset Zoom |
| | | 100 | 900Hz |
| | | 101 | 910Hz |
| | | 102 | 920Hz |
| | | 103 | 930Hz |
| | | 104 | 940Hz |
| | | 105 | 950Hz |

| CH | Function | DMX | Description |
|---|---|---|---|
| **16** | Control (continued) | 106 | 960Hz |
| | | 107 | 970Hz |
| | | 108 | 980Hz |
| | | 109 | 990Hz |
| | | 110 | 1000Hz |
| | | 111 | 1010Hz |
| | | 112 | 1020Hz |
| | | 113 | 1030Hz |
| | | 114 | 1040Hz |
| | | 115 | 1050Hz |
| | | 116 | 1060Hz |
| | | 117 | 1070Hz |
| | | 118 | 1080Hz |
| | | 119 | 1090Hz |
| | | 120 | 1100Hz |
| | | 121 | 1110Hz |
| | | 122 | 1120Hz |
| | | 123 | 1130Hz |
| | | 124 | 1140Hz |
| | | 125 | 1150Hz |
| | | 126 | 1160Hz |
| | | 127 | 1170Hz |
| | | 128 | 1180Hz |
| | | 129 | 1190Hz |
| | | 130 | 1200Hz |
| | | 131 | 1210Hz |
| | | 132 | 1220Hz |
| | | 133 | 1230Hz |
| | | 134 | 1240Hz |
| | | 135 | 1250Hz |
| | | 136 | 1260Hz |
| | | 137 | 1270Hz |
| | | 138 | 1280Hz |
| | | 139 | 1290Hz |
| | | 140 | 1300Hz |
| | | 141 | 1310Hz |
| | | 142 | 1320Hz |
| | | 143 | 1330Hz |
| | | 144 | 1340Hz |
| | | 145 | 1350Hz |
| | | 146 | 1360Hz |
| | | 147 | 1370Hz |

| CH | Function | DMX | Description |
|---|---|---|---|
| **16** | Control (continued) | 148 | 1380Hz |
| | | 149 | 1390Hz |
| | | 150 | 1400Hz |
| | | 151 | 1410Hz |
| | | 152 | 1420Hz |
| | | 153 | 1430Hz |
| | | 154 | 1440Hz |
| | | 155 | 1450Hz |
| | | 156 | 1460Hz |
| | | 157 | 1470Hz |
| | | 158 | 1480Hz |
| | | 159 | 1490Hz |
| | | 160 | 1500Hz |
| | | 161 | 2500Hz |
| | | 162 | 4000Hz |
| | | 163 | 5000Hz |
| | | 164 | 6000Hz |
| | | 165 | 10000Hz |
| | | 166 | 15000Hz |
| | | 167 | 20000Hz |
| | | 168 | 25000Hz |
| | | 169–192 | Hibernate |
| | | 193–194 | Hibernate Off |
| | | 195–196 | Hibernate |
| | | 197–198 | Home Position Before Power Off |
| | | 199–200 | Home Position Off |
| | | 201–210 | Linear |
| | | 211–220 | Square |
| | | 221–230 | Inverse Square |
| | | 231–240 | S Curve |
| | | 241–255 | Dimming Curve |
| **17** | Color Macro | 0–10 | No Function |
| | | 11 | Single |
| | | 12 | Single Bounce |
| | | 13 | Snake |
| | | 14 | Snake Bounce |
| | | 15 | Rows |
| | | 16 | Rows Bounce |
| | | 17 | Column |
| | | 18 | Column Bounce |
| | | 19 | Columns 2 |
| | | 20 | RGBW Intensity FX: Slash |

| CH | Function | DMX | Description |
|---|---|---|---|
| **17** | Color Macro (continued) | 21 | RGBW Intensity FX: Backslash |
| | | 22 | Slash Back |
| | | 23 | <> |
| | | 24 | >< |
| | | 25 | >> |
| | | 26 | << |
| | | 27 | Rotating Bar |
| | | 28 | Rotating Dot |
| | | 29 | Rotating 2 Dot |
| | | 30 | Ring 2 Cell |
| | | 31 | Ring 2 Cell Overlap |
| | | 32 | Ring 3 Cell Blend |
| | | 33 | Ring - Center Fade |
| | | 34 | X - Bar |
| | | 35 | Diagonals |
| | | 36 | RGBW Intensity FX: Arrow Left |
| | | 37 | RGBW Intensity FX: Arrow Right |
| | | 38 | 2 Pixels |
| | | 39 | 3 Pixels |
| | | 40 | 4 Pixels |
| | | 41 | 1 2 3 4 Pixels |
| | | 42 | Ring Build |
| | | 43 | Ring Build Erase |
| | | 44 | Ring Build Erase 2 |
| | | 45–54 | Chase 1...10 |
| | | 55 | Center Chase |
| | | 56 | Center Chase 2 |
| | | 57 | Alternate |
| | | 58 | Burst SprakLED |
| | | 59 | Burst RGBW |
| | | 60 | Strobe Alternate |
| | | 61 | Strobe Alternate ... Lens/SparkLED Alternate |
| | | 62 | Lens/SparkLED Alternate |
| | | 63–100 | RGBW Intensity FX |
| | | 101 | Top 2 |
| | | 102 | RGBW Static FX Patterns: Center 3 |
| | | 103 | Bottom 2 |
| | | 104 | Top And Bottom |
| | | 105 | X |
| | | 106 | Ring |
| | | 107 | Center Dot |
| | | 108 | RGBW Static FX Patterns: Slash |

| CH | Function | DMX | Description |
|---|---|---|---|
| **17** | Color Macro (continued) | 109 | RGBW Static FX Patterns: Backslash |
| | | 110 | RGBW Static FX Patterns: Arrow Left |
| | | 111 | RGBW Static FX Patterns: Arrow Right |
| | | 112 | < |
| | | 113 | > |
| | | 114–130 | RGBW Static FX Patterns |
| | | 131 | RGBW Cells |
| | | 132 | RGBWCMY Cells |
| | | 133 | Color Wheel Cells |
| | | 134 | RGBW Rows |
| | | 135 | RGBWCMY Rows |
| | | 136 | Color Wheel Rows |
| | | 137 | RGBW Columns |
| | | 138 | RGBWCMY Columns |
| | | 139 | Color Wheel Columns |
| | | 140 | RGBW Single Row |
| | | 141 | RGBWCMY Single Row |
| | | 142 | Color Wheel Single Row |
| | | 143 | RGBW Single Columns |
| | | 144 | RGBWCMY Single Columns |
| | | 145 | Color Wheel Single Columns |
| | | 146 | RGB Rows |
| | | 147 | RGB Columns |
| | | 148 | Red White Cells |
| | | 149 | Green White Cells |
| | | 150 | Blue White Cells |
| | | 151 | Red Green Cells |
| | | 152 | Red Blue Cells |
| | | 153 | Blue Green Cells |
| | | 154 | Ring - Center Mix To Color Wheel |
| | | 155 | Random White Cell |
| | | 156 | Random White Row |
| | | 157 | Random White Column |
| | | 158 | White Flash |
| | | 159 | Red Flash |
| | | 160 | Green Flash |
| | | 161 | Blue Flash |
| | | 162 | Color Wheel Flash |
| | | 163 | Alternate Color |
| | | 164–255 | RGBW Color FX |
| **18** | Color Macro Speed | 0 | CW Fast |
| | | 1–56 | CW Fast ... CW Med |

| CH | Function | DMX | Description |
|---|---|---|---|
| **18** | Color Macro Speed (continued) | 57 | CW Med |
| | | 58–125 | CW Med ... CW Slow |
| | | 126 | CW Slow |
| | | 127 | Stop |
| | | 128 | Stop ... CCW Slow |
| | | 129 | CCW Slow |
| | | 130–184 | CCW Slow ... CCW Med |
| | | 185 | CCW Med |
| | | 186–254 | CCW Med ... CCW Fast |
| | | 255 | CCW Fast |
| **19** | Color Macro 2 | 0–10 | No Function |
| | | 11 | Starfield |
| | | 12 | 1 Pixel |
| | | 13 | Spark LED FX: 2 Pixels |
| | | 14 | Spark LED FX: 3 Pixels |
| | | 15 | Spark LED FX: 4 Pixels |
| | | 16 | 5 Pixels |
| | | 17 | 7 Pixels |
| | | 18 | 14 Pixels |
| | | 19 | Single Row |
| | | 20 | 3 Rows |
| | | 21 | Single Column |
| | | 22 | 3 Column |
| | | 23 | Pixel Ring Chase |
| | | 24 | Pixel Row Chase |
| | | 25 | Pixel Row Chase 2 |
| | | 26 | Center Out |
| | | 27 | Fireworks |
| | | 28 | Spark LED FX: Ring |
| | | 29 | Row |
| | | 30 | Spark LED FX: Snake |
| | | 31–90 | Spark LED FX |
| | | 91–100 | Spark LED Lens Combos |
| | | 101 | Single |
| | | 102 | Single Bounce |
| | | 103 | Full Lens Patterns: Snake |
| | | 104 | Snake Bounce |
| | | 105 | Rows |
| | | 106 | Rows Bounce |
| | | 107 | Column |
| | | 108 | Column Bounce |
| | | 109 | Columns 2 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **19** | Color Macro 2 (continued) | 110 | Full Lens Patterns: Slash |
| | | 111 | Full Lens Patterns: Backslash |
| | | 112 | Slash Back |
| | | 113 | <> |
| | | 114 | >< |
| | | 115 | >> |
| | | 116 | << |
| | | 117 | Rotating Bar |
| | | 118 | Rotating Dot |
| | | 119 | Rotating 2 Dot |
| | | 120 | Ring 2 Cell |
| | | 121 | Ring 2 Cell Overlap |
| | | 122 | Ring 3 Cell Blend |
| | | 123 | Ring - Center Fade |
| | | 124 | X - Bar |
| | | 125 | Diagonals |
| | | 126 | Full Lens Patterns: Arrow Left |
| | | 127 | Full Lens Patterns: Arrow Right |
| | | 128 | Full Lens Patterns: 2 Pixels |
| | | 129 | Full Lens Patterns: 3 Pixels |
| | | 130 | Full Lens Patterns: 4 Pixels |
| | | 131 | 1 2 3 4 Pixels |
| | | 132 | Ring Build |
| | | 133 | Ring Build Erase |
| | | 134 | Ring Build Erase 2 |
| | | 135–144 | Chase 1...10 |
| | | 145 | Center Chase |
| | | 146 | Center Chase 2 |
| | | 147–200 | Full Lens Patterns |
| | | 201 | Top 2 |
| | | 202 | Full Lens Static Patterns: Center 3 |
| | | 203 | Bottom 2 |
| | | 204 | Top And Bottom |
| | | 205 | X |
| | | 206 | Full Lens Static Patterns: Ring |
| | | 207 | Center Dot |
| | | 208 | Full Lens Static Patterns: Slash |
| | | 209 | Full Lens Static Patterns: Backslash |
| | | 210 | Full Lens Static Patterns: Arrow Left |
| | | 211 | Full Lens Static Patterns: Arrow Right |
| | | 212 | < |
| | | 213 | > |

| CH | Function | DMX | Description |
|---|---|---|---|
| **19** | Color Macro 2 (continued) | 214–225 | Full Lens Static Patterns |
| | | 226–232 | Row 1...7 |
| | | 233–239 | Column 1...7 |
| | | 240 | Ring 1 |
| | | 241 | Ring 2 |
| | | 242 | Ring 3 |
| | | 243–255 | Spark LED Pattern |
| **20** | Color Macro 2 Speed | 0 | CW Fast |
| | | 1–56 | CW Fast ... CW Med |
| | | 57 | CW Med |
| | | 58–125 | CW Med ... CW Slow |
| | | 126 | CW Slow |
| | | 127 | Stop |
| | | 128 | Stop ... CCW Slow |
| | | 129 | CCW Slow |
| | | 130–184 | CCW Slow ... CCW Med |
| | | 185 | CCW Med |
| | | 186–254 | CCW Med ... CCW Fast |
| | | 255 | CCW Fast |
| **21** | Effects | | FX Offset |
| | | 0 | FX Offset |
| | | 1 | 10 Degrees Offset |
| | | 2 | 20 Degrees Offset |
| | | 3 | 30 Degrees Offset |
| | | 4 | 40 Degrees Offset |
| | | 5 | 50 Degrees Offset |
| | | 6 | 60 Degrees Offset |
| | | 7 | 70 Degrees Offset |
| | | 8 | 80 Degrees Offset |
| | | 9 | 90 Degrees Offset |
| | | 10 | 100 Degrees Offset |
| | | 11 | 110 Degrees Offset |
| | | 12 | 120 Degrees Offset |
| | | 13 | 130 Degrees Offset |
| | | 14 | 140 Degrees Offset |
| | | 15 | 150 Degrees Offset |
| | | 16 | 160 Degrees Offset |
| | | 17 | 170 Degrees Offset |
| | | 18 | 180 Degrees Offset |
| | | 19 | 190 Degrees Offset |
| | | 20 | 200 Degrees Offset |
| | | 21 | 210 Degrees Offset |

| CH | Function | DMX | Description |
|---|---|---|---|
| **21** | Effects (continued) | 22 | 220 Degrees Offset |
| | | 23 | 230 Degrees Offset |
| | | 24 | 240 Degrees Offset |
| | | 25 | 250 Degrees Offset |
| | | 26 | 260 Degrees Offset |
| | | 27 | 270 Degrees Offset |
| | | 28 | 280 Degrees Offset |
| | | 29 | 290 Degrees Offset |
| | | 30 | 300 Degrees Offset |
| | | 31 | 310 Degrees Offset |
| | | 32 | 320 Degrees Offset |
| | | 33 | 330 Degrees Offset |
| | | 34 | 340 Degrees Offset |
| | | 35 | 350 Degrees Offset |
| | | 36 | Synchronized |
| | | 37–100 | Synchronized ... Random Fixtures |
| | | 101 | Random Fixtures |
| | | 102–120 | Random Fixtures ... Random Duration |
| | | 121 | Random Duration |
| | | 122–140 | Random Duration ... Random Pixels |
| | | 141 | Random Pixels |
| | | 142–255 | FX Offset |
| **22** | Red 1 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **23** | Green 1 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **24** | Blue 1 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **25** | White 1 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **26** | Red 2 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **27** | Green 2 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **28** | Blue 2 | 0 | Min |
| | | 1–254 | Min ... Max |

| CH | Function | DMX | Description |
|---|---|---|---|
| **28** | Blue 2 (continued) | 255 | Max |
| **29** | White 2 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **30** | Red 3 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **31** | Green 3 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **32** | Blue 3 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **33** | White 3 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **34** | Red 4 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **35** | Green 4 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **36** | Blue 4 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **37** | White 4 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **38** | Red 5 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **39** | Green 5 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **40** | Blue 5 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **41** | White 5 | 0 | Min |
| | | 1–254 | Min … Max |
| | | 255 | Max |
| **42** | Red 6 | 0 | Min |
| | | 1–254 | Min … Max |

| CH | Function | DMX | Description |
|---|---|---|---|
| **42** | Red 6 (continued) | 255 | Max |
| **43** | Green 6 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **44** | Blue 6 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **45** | White 6 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **46** | Red 7 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **47** | Green 7 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **48** | Blue 7 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **49** | White 7 | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **50** | Shutter 2 | 0 | SparkLED Closed |
| | | 1–62 | SparkLED Closed ... SparkLED Open |
| | | 63 | SparkLED Open |
| | | 64 | SparkLED Strobe Slow |
| | | 65–77 | SparkLED Strobe Slow ... SparkLED Strobe Medium |
| | | 78 | SparkLED Strobe Medium |
| | | 79–94 | SparkLED Strobe Medium ... SparkLED Strobe Fast |
| | | 95 | SparkLED Strobe Fast |
| | | 96 | SparkLED Pulse Open Slow |
| | | 97–110 | SparkLED Pulse Open Slow ... SparkLED Pulse Open Medium |
| | | 111 | SparkLED Pulse Open Medium |
| | | 112–126 | SparkLED Pulse Open Medium ... SparkLED Pulse Open Fast |
| | | 127 | SparkLED Pulse Open Fast |
| | | 128 | SparkLED Pulse Close Slow |
| | | 129–142 | SparkLED Pulse Close Slow ... SparkLED Pulse Close Medium |
| | | 143 | SparkLED Pulse Close Medium |
| | | 144–158 | SparkLED Pulse Close Medium ... SparkLED Pulse Close Fast |
| | | 159 | SparkLED Pulse Close Fast |
| | | 160 | SparkLED Pulse FX Fast |
| | | 161–173 | SparkLED Pulse FX Fast ... SparkLED Pulse FX Medium |

| CH | Function | DMX | Description |
|---|---|---|---|
| **50** | Shutter 2 (continued) | 174 | SparkLED Pulse FX Medium |
| | | 175–190 | SparkLED Pulse FX Medium … SparkLED Pulse FX Fast |
| | | 191 | SparkLED Pulse FX Fast |
| | | 192 | SparkLED Random Strobe Slow |
| | | 193–206 | SparkLED Random Strobe Slow … SparkLED Random Strobe Medium |
| | | 207 | SparkLED Random Strobe Medium |
| | | 208–222 | SparkLED Random Strobe Medium … SparkLED Random Strobe Fast |
| | | 223 | SparkLED Random Strobe Fast |
| | | 224 | SparkLED Random Pixel Strobe Slow |
| | | 225–238 | SparkLED Random Pixel Strobe Slow … SparkLED Random Pixel Strobe Medium |
| | | 239 | SparkLED Random Pixel Strobe Medium |
| | | 240–253 | SparkLED Random Pixel Strobe Medium … SparkLED Random Pixel Strobe Fast |
| | | 254 | SparkLED Random Pixel Strobe Fast |
| | | 255 | SparkLED SYNC Dimmer / Strobe To Main Module |
| **51** | Dimmer 2 | 0–255 | Master Min Sparkles Dimmer … Master Max Sparkles Dimmer |
| | | 255 | Master Max Sparkles Dimmer |
| **52** | Dimmer 2 Fine | 0–255 | Fine adjustment of CH 51 |
| **53** | Dimmer 3 | 0 | Min Sparkles Dimmer |
| | | 1–254 | Min Sparkles Dimmer … Max Sparkles Dimmer |
| | | 255 | Max Sparkles Dimmer |

CH 53–80: 28 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 53); the table below gives each cell's channel numbers.

| Cell | Dimmer | Cell | Dimmer | Cell | Dimmer | Cell | Dimmer | Cell | Dimmer | Cell | Dimmer |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 53 | 2 | 54 | 3 | 55 | 4 | 56 | 5 | 57 | 6 | 58 |
| 7 | 59 | 8 | 60 | 9 | 61 | 10 | 62 | 11 | 63 | 12 | 64 |
| 13 | 65 | 14 | 66 | 15 | 67 | 16 | 68 | 17 | 69 | 18 | 70 |
| 19 | 71 | 20 | 72 | 21 | 73 | 22 | 74 | 23 | 75 | 24 | 76 |
| 25 | 77 | 26 | 78 | 27 | 79 | 28 | 80 | | | | |

## Mode Pixels 360Pan/Tilt

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 9 Shutter 1 at 32, 224–255 “Open” or 33–63; CH 51 Dimmer 2 above 0. The GDTF file gives these values for a console's Highlight function: CH 10 Dimmer 1 255, CH 22 Red 1 255, CH 23 Green 1 255, CH 24 Blue 1 255, CH 25 White 1 255, CH 26 Red 2 255, CH 27 Green 2 255, CH 28 Blue 2 255, CH 29 White 2 255, CH 30 Red 3 255, CH 31 Green 3 255, CH 32 Blue 3 255, CH 33 White 3 255, CH 34 Red 4 255, CH 35 Green 4 255, CH 36 Blue 4 255, CH 37 White 4 255, CH 38 Red 5 255, CH 39 Green 5 255, CH 40 Blue 5 255, CH 41 White 5 255, CH 42 Red 6 255, CH 43 Green 6 255, CH 44 Blue 6 255, CH 45 White 6 255, CH 46 Red 7 255, CH 47 Green 7 255, CH 48 Blue 7 255, CH 49 White 7 255, CH 51 Dimmer 2 255.

| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | 0–255 | 360° |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | 0–255 | 360° |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Pan Rotation | | Same as CH 5 in the mode “Extended 360Pan/Tilt” (p. 12) |
| **6** | Tilt Rotation | | Same as CH 6 in the mode “Extended 360Pan/Tilt” (p. 12) |
| **7** | Color Temperature | | Same as CH 7 in the mode “Extended 360Pan/Tilt” (p. 12) |
| **8** | Colors | | Same as CH 8 in the mode “Extended 360Pan/Tilt” (p. 16) |
| **9** | Shutter 1 | | Same as CH 9 in the mode “Extended 360Pan/Tilt” (p. 17) |
| **10** | Dimmer 1 | | Same as CH 10 in the mode “Extended 360Pan/Tilt” (p. 18) |
| **11** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Dimmer Mode | | Same as CH 12 in the mode “Extended 360Pan/Tilt” (p. 18) |
| **13** | Zoom | 0–108 | Wide ... Normal |
| | | 108–216 | Normal ... Narrow |
| | | 216 | Narrow |
| | | 216–255 | Overdrive Min ... Overdrive Max |
| | | 255 | Overdrive Max |
| **14** | Zoom Fine | 0–255 | Fine adjustment of CH 13 |
| **15** | Speed Pan/Tilt | | Same as CH 15 in the mode “Extended 360Pan/Tilt” (p. 19) |
| **16** | Control | | Same as CH 16 in the mode “Extended 360Pan/Tilt” (p. 19) |
| **17** | Color Macro | | Same as CH 17 in the mode “Extended 360Pan/Tilt” (p. 21) |
| **18** | Color Macro Speed | | Same as CH 18 in the mode “Extended 360Pan/Tilt” (p. 23) |
| **19** | Color Macro 2 | | Same as CH 19 in the mode “Extended 360Pan/Tilt” (p. 24) |
| **20** | Color Macro 2 Speed | | Same as CH 20 in the mode “Extended 360Pan/Tilt” (p. 26) |
| **21** | Effects | | Same as CH 21 in the mode “Extended 360Pan/Tilt” (p. 26) |
| **22** | Red 1 | | Same as CH 22 in the mode “Extended 360Pan/Tilt” (p. 27) |
| **23** | Green 1 | | Same as CH 23 in the mode “Extended 360Pan/Tilt” (p. 27) |
| **24** | Blue 1 | | Same as CH 24 in the mode “Extended 360Pan/Tilt” (p. 27) |
| **25** | White 1 | | Same as CH 25 in the mode “Extended 360Pan/Tilt” (p. 27) |
| **26** | Red 2 | | Same as CH 26 in the mode “Extended 360Pan/Tilt” (p. 27) |
| **27** | Green 2 | | Same as CH 27 in the mode “Extended 360Pan/Tilt” (p. 27) |
| **28** | Blue 2 | | Same as CH 28 in the mode “Extended 360Pan/Tilt” (p. 27) |

| CH | Function | DMX | Description |
|---|---|---|---|
| **29** | White 2 | | Same as CH 29 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **30** | Red 3 | | Same as CH 30 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **31** | Green 3 | | Same as CH 31 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **32** | Blue 3 | | Same as CH 32 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **33** | White 3 | | Same as CH 33 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **34** | Red 4 | | Same as CH 34 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **35** | Green 4 | | Same as CH 35 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **36** | Blue 4 | | Same as CH 36 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **37** | White 4 | | Same as CH 37 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **38** | Red 5 | | Same as CH 38 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **39** | Green 5 | | Same as CH 39 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **40** | Blue 5 | | Same as CH 40 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **41** | White 5 | | Same as CH 41 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **42** | Red 6 | | Same as CH 42 in the mode “Extended 360Pan/Tilt” (p. 28) |
| **43** | Green 6 | | Same as CH 43 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **44** | Blue 6 | | Same as CH 44 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **45** | White 6 | | Same as CH 45 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **46** | Red 7 | | Same as CH 46 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **47** | Green 7 | | Same as CH 47 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **48** | Blue 7 | | Same as CH 48 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **49** | White 7 | | Same as CH 49 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **50** | Shutter 2 | | Same as CH 50 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **51** | Dimmer 2 | 0–255 | SparkLED Closed … SparkLED Open |
| | | 255 | SparkLED Open |
| **52** | Dimmer 2 Fine | 0–255 | Fine adjustment of CH 51 |

## Mode Standard 360Pan/Tilt

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 9 Shutter 1 at 32, 224–255 “Open” or 33–63. The GDTF file gives these values for a console's Highlight function: CH 10 Dimmer 1 255, CH 20 Red 255, CH 21 Green 255, CH 22 Blue 255, CH 23 White 255, CH 25 Dimmer 2 255.

| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | 0–255 | 360° |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | 0–255 | 360° |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Pan Rotation | | Same as CH 5 in the mode “Extended 360Pan/Tilt” (p. 12) |
| **6** | Tilt Rotation | | Same as CH 6 in the mode “Extended 360Pan/Tilt” (p. 12) |
| **7** | Color Temperature | | Same as CH 7 in the mode “Extended 360Pan/Tilt” (p. 12) |
| **8** | Colors | | Same as CH 8 in the mode “Extended 360Pan/Tilt” (p. 16) |

| CH | Function | DMX | Description |
|---|---|---|---|
| **9** | Shutter 1 | | Same as CH 9 in the mode “Extended 360Pan/Tilt” (p. 17) |
| **10** | Dimmer 1 | | Same as CH 10 in the mode “Extended 360Pan/Tilt” (p. 18) |
| **11** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Dimmer Mode | | Same as CH 12 in the mode “Extended 360Pan/Tilt” (p. 18) |
| **13** | Zoom | 0 | Wide |
| | | 1–106 | Wide ... Normal |
| | | 107 | Normal |
| | | 108–214 | Normal ... Narrow |
| | | 215 | Narrow |
| | | 216 | Overdrive Min |
| | | 217–254 | Overdrive Min ... Overdrive Max |
| | | 255 | Overdrive Max |
| **14** | Control | | Same as CH 16 in the mode “Extended 360Pan/Tilt” (p. 19) |
| **15** | Color Macro | | Same as CH 17 in the mode “Extended 360Pan/Tilt” (p. 21) |
| **16** | Color Macro Speed | | Same as CH 18 in the mode “Extended 360Pan/Tilt” (p. 23) |
| **17** | Color Macro 2 | | Same as CH 19 in the mode “Extended 360Pan/Tilt” (p. 24) |
| **18** | Color Macro 2 Speed | | Same as CH 20 in the mode “Extended 360Pan/Tilt” (p. 26) |
| **19** | Effects | | Same as CH 21 in the mode “Extended 360Pan/Tilt” (p. 26) |
| **20** | Red | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **21** | Green | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **22** | Blue | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **23** | White | 0 | Min |
| | | 1–254 | Min ... Max |
| | | 255 | Max |
| **24** | Shutter 2 | | Same as CH 50 in the mode “Extended 360Pan/Tilt” (p. 29) |
| **25** | Dimmer 2 | 0 | SparkLED Min |
| | | 1–254 | SparkLED Min ... SparkLED Max |
| | | 255 | SparkLED Max |

## Mode SparkLED

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0 (the same in each of the 28 cells). The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255 (the same in each of the 28 cells).

| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Dimmer 1 | 0 | SparkLED Closed |
| | | 1–254 | SparkLED Closed ... SparkLED Open |
| | | 255 | SparkLED Open |

CH 1–28: 28 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 1); the table below gives each cell's channel numbers.

| Cell | Dimmer | Cell | Dimmer | Cell | Dimmer | Cell | Dimmer | Cell | Dimmer | Cell | Dimmer |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 |
| 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | 12 |
| 13 | 13 | 14 | 14 | 15 | 15 | 16 | 16 | 17 | 17 | 18 | 18 |
| 19 | 19 | 20 | 20 | 21 | 21 | 22 | 22 | 23 | 23 | 24 | 24 |
| 25 | 25 | 26 | 26 | 27 | 27 | 28 | 28 | | | | |

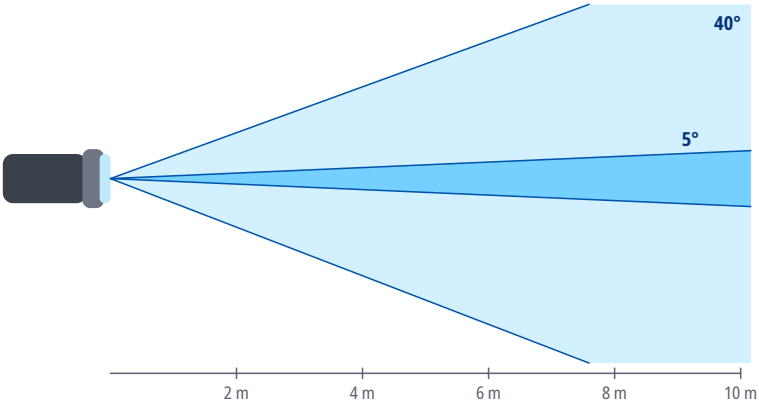
# 10 Technical specifications

| Parameter | Value |
|---|---|
| Light source | LED |
| Pan | 360° |
| Tilt | 360° |
| RDM | yes (manufacturer ID 0x22A6, device model ID 0x1543) |
| Weight | 12.2 kg |
| Operating temperature | -10 to 45 °C |

### Speeds and ranges

| Parameter | Value |
|---|---|
| Color temperature range | 2000–2950 K |
| Strobe frequency | 0.5–10 Hz |
| Color wheel rotation | up to 200 °/s (33 rpm) |

### Spot diameter




| Distance | Ø 5° | Ø 40° |
|---|---|---|
| 2 m | 0.17 m | 1.5 m |
| 4 m | 0.35 m | 2.9 m |
| 6 m | 0.52 m | 4.4 m |
| 8 m | 0.7 m | 5.8 m |
| 10 m | 0.87 m | 7.3 m |
| 15 m | 1.3 m | 10.9 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.