DMX REFERENCE

Luma1500SH

Prolights



Manufacturer	Prolights
GDTF file	Prolights_Luma1500SH_88266.gdtf
GDTF revision	Rev 04 - Added Snap Feature · 2025-03-04
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1 About this manual

This document describes the Luma1500SH by Prolights. It was compiled from the GDTF file Prolights_Luma1500SH_88266.gdtf from the GDTF-Share library.

File revision: “Rev 04 - Added Snap Feature”.

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 Prolights; 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	31 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
EXT_38ch	38	13	1, 39, 77, 115, ...

No light? Check these channels

- EXT_38ch: CH 9 Dimmer above 0



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.

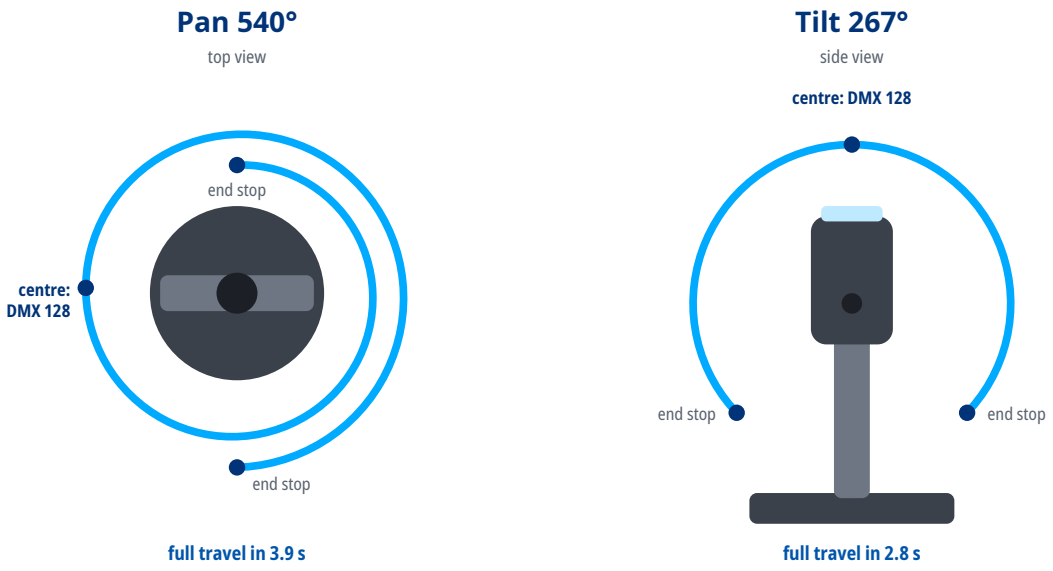
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

“Luma 1500SH is a 440W 6.500 K LED profile light designed to replace the 1.200W discharge fixture used in theatres, concerts, events and broadcast. The custom optical system delivers a consistent output with a flat-field and crisp gobo projection right through the massive 5° to 50° zoom range.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

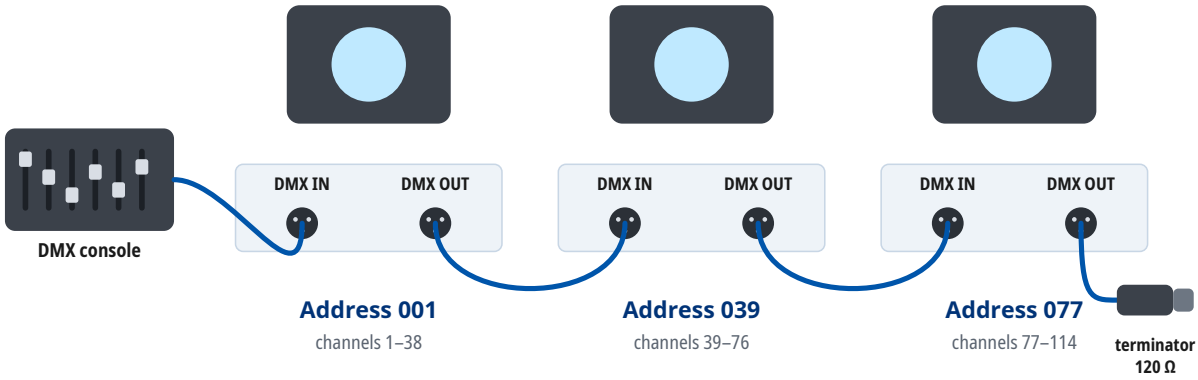
⚠ **WARNING**

- 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: 31 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 EXT_38ch: every unit occupies 38 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 “EXT_38ch”: 38.
- 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 “EXT_38ch”, you can use, for example, the start addresses 1, 39, 77, 115.
- 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

	EXT_38ch 38 channels
Pan / Tilt	1, 3
Dimmer	9
Shutter / strobe	8 *
Color mixing	12–14
Color temperature	15
Color wheel	11 *
Gobo wheel	17, 21 *
Gobo rotation	18, 19
Prism	22
Frost	23
Zoom	26
Focus	25 *
Iris	28 *

* The function works only when another channel switches it on; see the DMX table.

Color wheel

1. Open
   DMX 0–15
2. Dark Red
   DMX 32–47
3. Pink
   DMX 64–79
4. Amber
   DMX 96–111
5. Light Green
   DMX 128–143
6. Dark Blue
   DMX 160–175
7. Aquamarine
   DMX 192–207
8. Congo Blue
   DMX 224–239

Gobo wheel 1

1. Open
   DMX 0–35
2. Gobo1
   DMX 36–71
3. Gobo2
   DMX 72–107
4. Gobo3
   DMX 108–143
5. Gobo4
   DMX 144–179
6. Gobo5
   DMX 180–215
7. Gobo6
   DMX 216

Gobo wheel 2

1 Open
DMX 0–31

2 
Gobo1
DMX 32–63

3 
Gobo2
DMX 64–95

4 
Gobo3
DMX 96–127

5 
Gobo4
DMX 128–159

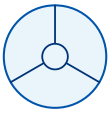
6 
Gobo5
DMX 160–191

7 
Gobo6
DMX 192–223

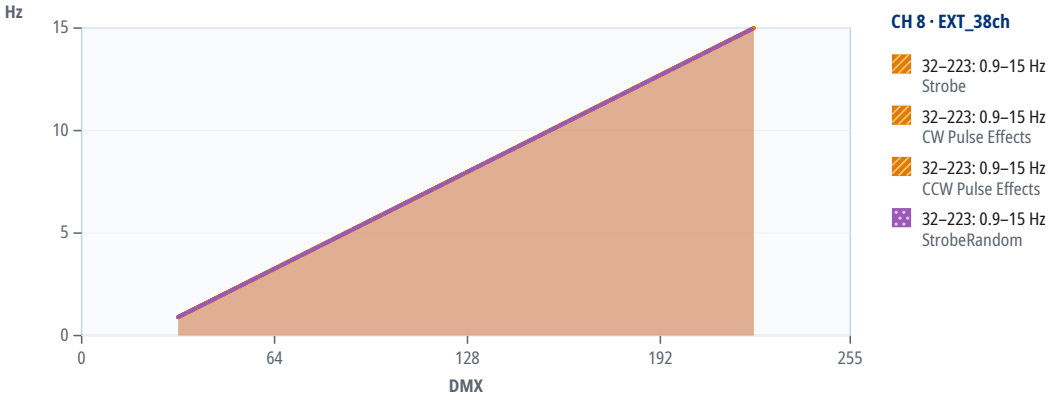
8 
Gobo7
DMX 224

Prism

1 Open
DMX 0–4

2 
3 facets
Prism 3Facet
DMX 4–128

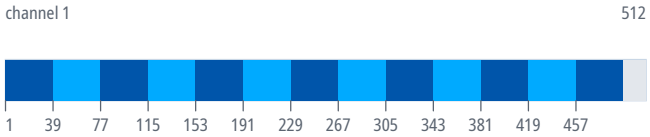
Strobe rate



9 DMX channels

Units in one DMX universe

EXT_38ch
38 channels



up to 13 units
last address 457

Start addresses of 20 units in the mode “EXT_38ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	191	11	381	16	U2 · 77
2	39	7	229	12	419	17	U2 · 115
3	77	8	267	13	457	18	U2 · 153
4	115	9	305	14	U2 · 1	19	U2 · 191
5	153	10	343	15	U2 · 39	20	U2 · 229

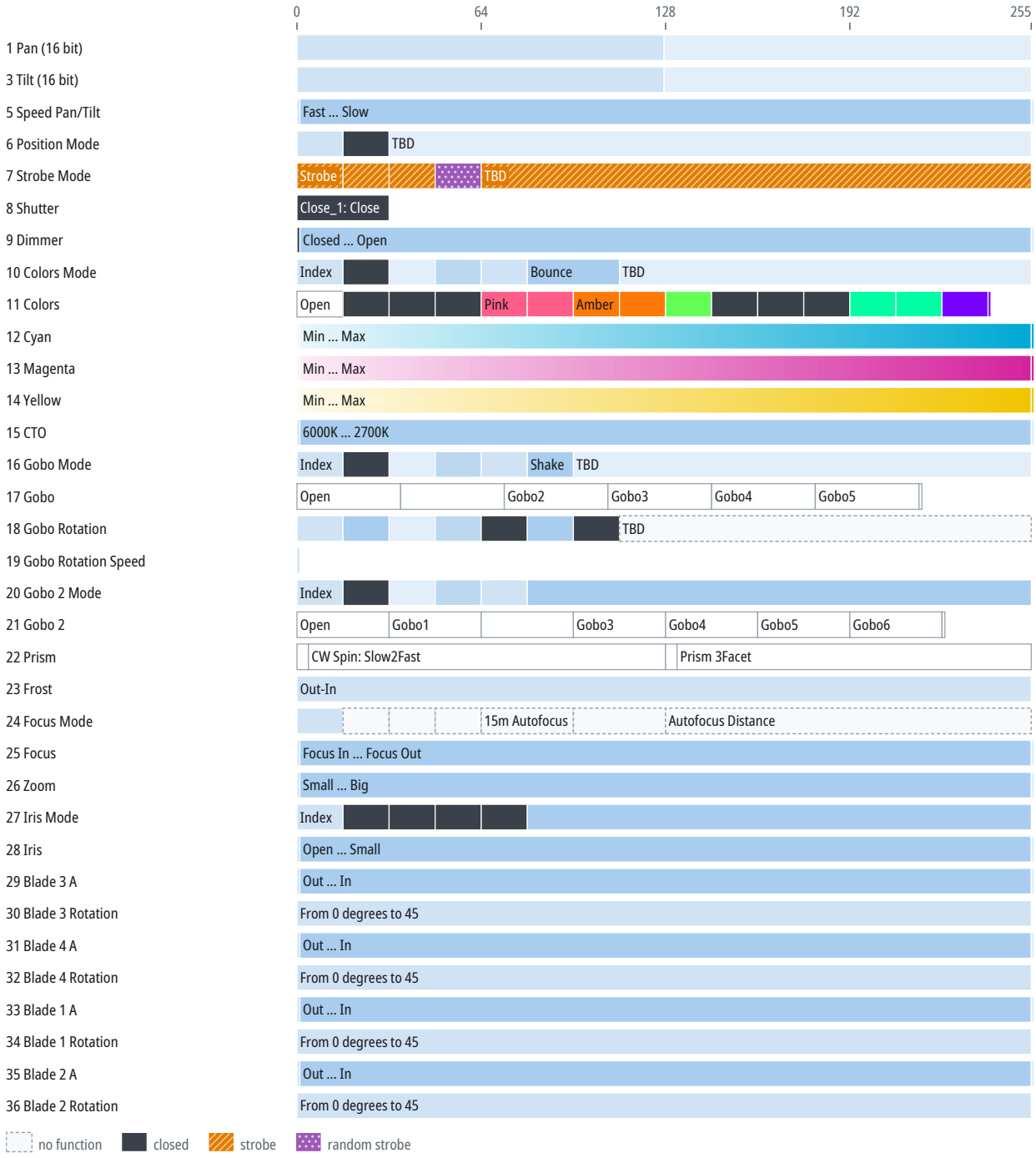
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode EXT_38ch

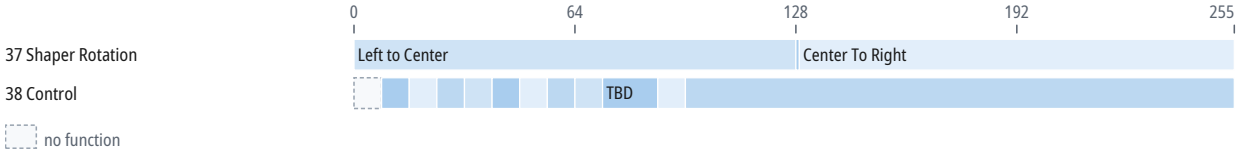
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 9 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 9 Dimmer 255, CH 11 Colors 0, CH 12 Cyan 0, CH 13 Magenta 0, CH 14 Yellow 0, CH 15 CTO 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Pan 1
		128	Center
		128–255	Pan 1
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Tilt 1
		128	Center
		128–255	Tilt 1
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0	Fast
		1–254	Fast ... Slow
		255	Slow
6	Position Mode	0–15	Normal
		16–31	BlackOut Mode
		32–255	TBD
7	Strobe Mode	0–15	Strobe
		16–31	CW Pulse Effect
		32–47	CCW Pulse Effect
		48–63	Random Strobe
		64–255	TBD
8	Shutter		When CH 7 is 0–15:
		0–31	Close_1: Close
		32	Slow Strobe
		33–222	Slow Strobe ... Fast Strobe
		223	Fast Strobe
		224–255	Open_1: Open
			When CH 7 is 16–31:
		0–31	Close_2: Close
		32	CW Pulse Effects Slow
		33–222	CW Pulse Effects Slow ... CW Pulse Effects Fast
		223	CW Pulse Effects Fast
		224–255	Open_2: Open
			When CH 7 is 32–47:
		0–31	Close_3: Close
		32	CCW Pulse Effects Slow
		33–222	CCW Pulse Effects Slow ... CCW Pulse Effects Fast

CH	Function	DMX	Description
8	Shutter (continued)	223	CCW Pulse Effects Fast
		224–255	Open_3: Open
			When CH 7 is 48–63:
		0–31	Close_4: Close
		32	StrobeRandom Slow
		33–222	StrobeRandom Slow ... StrobeRandom Fast
		223	StrobeRandom Fast
		224–255	Open_4: Open
9	Dimmer	0	Closed
		1–254	Closed ... Open
		255	Open
10	Colors Mode		Color Function
		0–15	Index
		16–31	Index with BlackOut
		32–47	CW Spin
		48–63	CCW Spin
		64–79	Continuous
		80–111	Bounce
		112–255	TBD
11	Colors		When CH 10 is 0–15:
		0–15	Open
		16–31	Open + Dark Red
		32–47	Dark Red
		48–63	Dark Red + Pink
		64–79	Pink
		80–95	Pink + Amber
		96–111	Amber
		112–127	Amber + Light Green
		128–143	Light Green
		144–159	Light Green + Dark Blue
		160–175	Dark Blue
		176–191	Dark Blue + Aquamarine
		192–207	Aquamarine
		208–223	Aquamarine + Congo Blue
		224–239	Congo Blue
		240–255	Congo Blue + Open
			When CH 10 is 16–31:
		0–15	Open
		16–31	Open + Dark Red
		32–47	Dark Red
		48–63	Dark Red + Pink
		64–79	Pink

CH	Function	DMX	Description
11	Colors (continued)	80–95	Pink + Amber
		96–111	Amber
		112–127	Amber + Light Green
		128–143	Light Green
		144–159	Light Green + Dark Blue
		160–175	Dark Blue
		176–191	Dark Blue + Aquamarine
		192–207	Aquamarine
		208–223	Aquamarine + Congo Blue
		224–239	Congo Blue
		240–255	Congo Blue + Open
			When CH 10 is 32–47:
		0	Stop
		1–254	Stop ... CW Spin Fast
		255	CW Spin Fast
			When CH 10 is 48–63:
		0	Stop
		1–254	Stop ... CcW Spin Fast
		255	CcW Spin Fast
			When CH 10 is 64–79:
		0–31	Open
		32–63	Dark Red
		64–95	Pink
		96–127	Amber
		128–159	Light Green
		160–191	Dark Blue
		192–223	Aquamarine
		224–255	Congo Blue
			When CH 10 is 80–111:
		0–15	Open
		16–31	Open + Dark Red
		32–47	Dark Red
		48–63	Dark Red + Pink
		64–79	Pink
		80–95	Pink + Amber
		96–111	Amber
		112–127	Amber + Light Green
		128–143	Light Green
		144–159	Light Green + Dark Blue
		160–175	Dark Blue
		176–191	Dark Blue + Aquamarine
		192–207	Aquamarine

CH	Function	DMX	Description
11	Colors (continued)	208–223	Aquamarine + Congo Blue
		224–239	Congo Blue
		240–255	Congo Blue + Open
12	Cyan	0	Min
		1–254	Min ... Max
		255	Max
13	Magenta	0	Min
		1–254	Min ... Max
		255	Max
14	Yellow	0	Min
		1–254	Min ... Max
		255	Max
15	CTO	0	6000K
		1–254	6000K ... 2700K
		255	2700K
16	Gobo Mode	0–15	Index
		16–31	Index with BlackOut
		32–47	CWSpin
		48–63	CCWSpin
		64–79	Continuous
		80–95	Shake
		96–255	TBD
17	Gobo		When CH 16 is 0–15:
		0–35	Open
		36–71	Gobo1
		72–107	Gobo2
		108–143	Gobo3
		144–179	Gobo4
		180–215	Gobo5
		216–255	Gobo6
			When CH 16 is 16–31:
		0–35	Open
		36–71	Gobo1
		72–107	Gobo2
		108–143	Gobo3
		144–179	Gobo4
		180–215	Gobo5
		216–255	Gobo6
			When CH 16 is 32–47:
		0–255	CWSpin Stop2fast (0–780 °/s)
			When CH 16 is 48–63:
		0–255	CCWSpin Stop2Fast (0–780 °/s)

CH	Function	DMX	Description
17	Gobo (continued)		When CH 16 is 64–79:
		0–255	Wheel Index
			When CH 16 is 80–95:
		0–35	Open
		36–71	Gobo1 (2–12 Hz)
		72–107	Gobo2 (2–12 Hz)
		108–143	Gobo3 (2–12 Hz)
		144–179	Gobo4 (2–12 Hz)
		180–215	Gobo5 (2–12 Hz)
		216–255	Gobo6 (2–12 Hz)
18	Gobo Rotation	0–15	Continuous
		16–31	CWSpin
		32–47	CCWSpin
		48–63	CW Animate
		64–79	CW Animate with BlackOut
		80–95	CCW Animate
		96–111	CCW Animate with BlackOut
		112–255	TBD
19	Gobo Rotation Speed		When CH 18 is 0–15:
		0–255	Index 0-360 (360°)
			When CH 18 is 16–31:
		0–255	CWSpin Stop2Fast (720–0 °/s)
			When CH 18 is 32–47:
		0–255	CCWSpin Stop2Fast (0–720 °/s)
			When CH 18 is 48–79:
		0–255	CW Animate Slow2Fast (30–1 °/s)
			When CH 18 is 80–111:
		0–255	CCW Animate Slow2Fast (1–30 °/s)
20	Gobo 2 Mode	0–15	Index
		16–31	Index with BlackOut
		32–47	CWSpin
		48–63	CCWSpin
		64–79	Continuous
		80–255	Gobo 2 Wheel Mode
21	Gobo 2		When CH 20 is 0–31:
		0–31	Open
		32–63	Gobo1
		64–95	Gobo2
		96–127	Gobo3
		128–159	Gobo4
		160–191	Gobo5
		192–223	Gobo6

CH	Function	DMX	Description
21	Gobo 2 (continued)	224–255	Gobo7
			When CH 20 is 32–47:
		0–255	CWSpin Stop2Fast (720–0 °/s)
			When CH 20 is 48–63:
		0–255	CCW Spin Stop2Fast (0–720 °/s)
			When CH 20 is 64–79:
		0	Continuous 0 degree
		1–254	Continuous 0 degree ... Continuous 360 degree
		255	Continuous 360 degree
			When CH 20 is 80–95:
		0–31	Open
		32–63	Gobo1 (2–12 Hz)
		64–95	Gobo2 (2–12 Hz)
		96–127	Gobo3 (2–12 Hz)
		128–159	Gobo4 (2–12 Hz)
		160–191	Gobo5 (2–12 Hz)
		192–223	Gobo6 (2–12 Hz)
		224–255	Gobo7 (2–12 Hz)
22	Prism	0–3	Prism: Open
		4–127	CW Spin: Slow2Fast (1–360 °/s)
		128–131	Stop: Open
		132–255	Prism 3Facet (360–1 °/s)
23	Frost	0–255	Out-In
24	Focus Mode	0–15	Focus Continuous
		16–31	5m Autofocus
		32–47	7point5 m Autofocus
		48–63	10m Autofocus
		64–95	15m Autofocus
		96–127	Greater than 20m Autofocus
		128–255	Autofocus Distance
25	Focus		When CH 24 is 0–15:
		0	Focus In
		1–254	Focus In ... Focus Out
		255	Focus Out
			When CH 24 is 16–127:
		0–255	Focus Adjust
26	Zoom	0	Small
		1–254	Small ... Big
		255	Big
27	Iris Mode	0–15	Index
		16–31	Pulse opening w CW Blackout
		32–47	Pulse opening w CCW Blackout

CH	Function	DMX	Description
27	Iris Mode (continued)	48–63	Pulse closing w CW Blackout
		64–79	Pulse closing w CCW Blackout
		80–255	Iris Mode 1
28	Iris		When CH 27 is 0–15:
		0	Open
		1–254	Open ... Small
		255	Small
			When CH 27 is 16–31:
		0	Slow2Fast-1 (0.01–0.02 Hz)
		1–126	Slow2Fast-1 ... Slow2Fast-2
		127	Slow2Fast-2 (0.2–0.25 Hz)
		128–254	Slow2Fast-2 ... Slow2Fast-3
		255	Slow2Fast-3 (1–2.9 Hz)
			When CH 27 is 32–47:
		0	Slow2Fast-1-1 (0.01–0.02 Hz)
		1–126	Slow2Fast-1-1 ... Slow2Fast-1-2
		127	Slow2Fast-1-2 (0.2–0.25 Hz)
		128–254	Slow2Fast-1-2 ... Slow2Fast-1-3
		255	Slow2Fast-1-3 (1–2.9 Hz)
			When CH 27 is 48–63:
		0	Slow2Fast-1-1 (0.01–0.02 Hz)
		1–126	Slow2Fast-1-1 ... Slow2Fast-12
		127	Slow2Fast-12 (0.2–0.25 Hz)
		128–254	Slow2Fast-12 ... Slow2Fast-1-3
		255	Slow2Fast-1-3 (1–2.9 Hz)
			When CH 27 is 64–79:
		0	Slow2Fast-1 (0.01–0.02 Hz)
		1–126	Slow2Fast-1 ... Slow2Fast-2
		127	Slow2Fast-2 (0.2–0.25 Hz)
		128–254	Slow2Fast-2 ... Slow2Fast-3
		255	Slow2Fast-3 (1–2.9 Hz)
29	Blade 3 A	0	Out
		1–254	Out ... In
		255	In
30	Blade 3 Rotation	0–255	From 0 degrees to 45
31	Blade 4 A	0	Out
		1–254	Out ... In
		255	In
32	Blade 4 Rotation	0–255	From 0 degrees to 45
33	Blade 1 A	0	Out
		1–254	Out ... In
		255	In

CH	Function	DMX	Description
34	Blade 1 Rotation	0–255	From 0 degrees to 45
35	Blade 2 A	0	Out
		1–254	Out ... In
		255	In
36	Blade 2 Rotation	0–255	From 0 degrees to 45
37	Shaper Rotation	0–127	Left to Center
		128	Center
		129–255	Center To Right
38	Control	0–7	No function
		8–15	ResetAll
		16–23	Position Reset
		24–31	ColorWheel Reset
		32–39	Gobo Wheels Reset
		40–47	TBD
		48–55	Other Reset
		56–63	DisplayOff
		64–71	DisplayOn
		72–87	TBD
		88–95	Hibernation
		96–255	Control 1 1

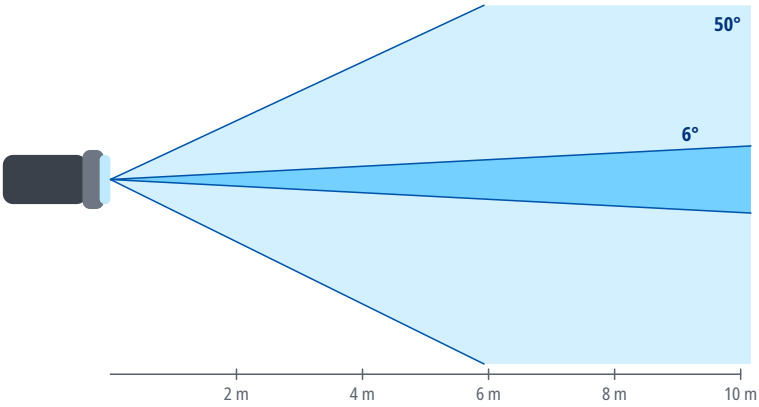
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	440 W
Luminous flux	6,000 lm
Color temperature	6,500 K
Color rendering index (CRI)	65
Optics	
Zoom	6–50°
Movement	
Pan	540°
Tilt	267°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RDM	yes (manufacturer ID 0x15D0, device model ID 0x004B)
Electrical	
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	31 kg
Operating environment	
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–6000 K
Strobe frequency	0.9–15 Hz
Color wheel rotation	up to 360 °/s (60 rpm)
Gobo wheel 1 rotation	up to 780 °/s (130 rpm)
Gobo wheel 2 rotation	up to 720 °/s (120 rpm)
Gobo 1 rotation	up to 720 °/s (120 rpm)
Prism rotation	up to 360 °/s (60 rpm)

Spot diameter



Distance	Ø 6°	Ø 50°
2 m	0.21 m	1.9 m
4 m	0.42 m	3.7 m
6 m	0.63 m	5.6 m
8 m	0.84 m	7.5 m
10 m	1 m	9.3 m
15 m	1.6 m	14 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.