DMX REFERENCE

Vader Profile 750

Vader Profile 750（550W LED，Spot/Beam/Wash/Profile）

Favolite



Manufacturer	Favolite
GDTF file	Favolite_Vader_Profile_750_169689.gdtf
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1 About this manual

This document describes the Vader Profile 750 (550W LED, Spot/Beam/Wash/Profile) by Favolite. It was compiled from the GDTF file Favolite_Vader_Profile_750_169689.gdtf from the GDTF-Share library.

File revision: “261118”.

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 Favolite; 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.

Note in the GDTF file

“5. Super Quiet. Made for noise-sensitive spaces like theaters”

2 Quick reference

Parameter	Value
Power consumption	800 W
Weight	22 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Extended-49CH	49	10	1, 50, 99, 148, ...
Standard-47CH	47	10	1, 48, 95, 142, ...
Basic-37CH	37	13	1, 38, 75, 112, ...

No light? Check these channels

- Extended-49CH: CH 15 Dimmer above 0; CH 17 Shutter at 0–3 “Open” or 4–67 or 100–131
- Standard-47CH: CH 15 Dimmer above 0; CH 17 Shutter at 0–3 “Open” or 4–67 or 100–131
- Basic-37CH: CH 14 Dimmer above 254; CH 15 Shutter at 0–3 “Open” or 4–67 or 100–131


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

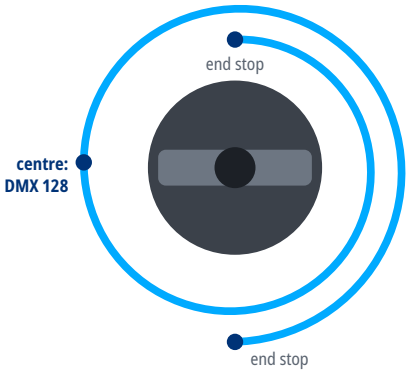
Description in the GDTF file

“1. Ultra Bright: 550W > 800W 2. All-in-one power: Hybrid with Profile, CMY, Animation Wheel, 2 frosts, 2 prisms 3. Dual HD gobo wheels for quick and tool-free gobo changes 4. Professional Dimming:Smooth Dimmer Curve+No Flicker 6.Compact Design, weighs only 22kg”

Range of movement

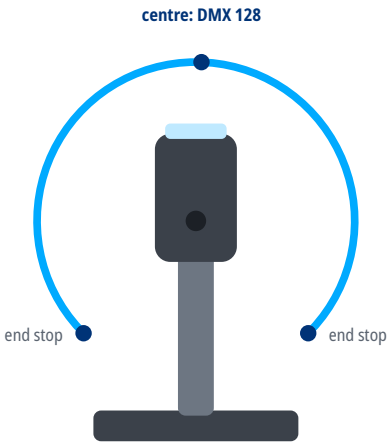
Pan 540°

top view



Tilt 270°

side view



5 Installation

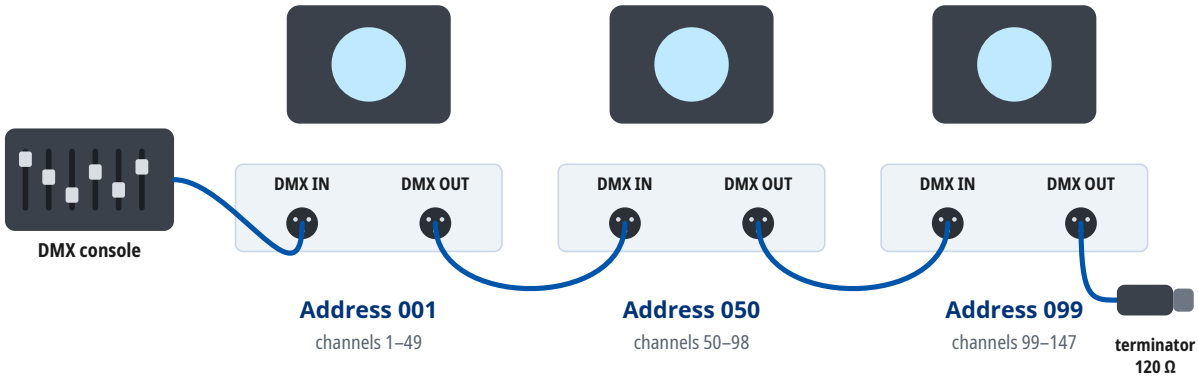
⚠ **WARNING**

- 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: 22 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-49CH: every unit occupies 49 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-49CH”: 49.
- 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-49CH”, you can use, for example, the start addresses 1, 50, 99, 148.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

8 Functions at a glance

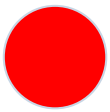
Functions in each DMX mode

	Extended-49CH 49 channels	Standard-47CH 47 channels	Basic-37CH 37 channels
Pan / Tilt	1, 3	1, 3	1, 3
Dimmer	15	15	14
Dimmer resolution	16 bit	16 bit	8 bit
Shutter / strobe	17	17	15
Color mixing	7–9	7–9	6–8
Color temperature	10	10	9
Color wheel	5	5	5
Gobo wheel	11, 12	11, 12	10, 11
Gobo rotation	13	13	12
Prism	20, 21, 23, 24	20–23	16–19
Frost	33, 34	31, 32	23, 24
Zoom	26	24	20
Focus	28, 30	26, 28	21
Iris	32	30	22
Animation wheel	35, 36	33, 34	25, 26
Effects / macros	47	45	36

Gobo wheel 1

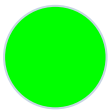
1 Color Wheel: No Colour
DMX 0–7

2 Color Wheel: Red
DMX 8–15

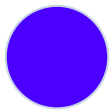


3 Color Wheel: Yellow
DMX 16–23

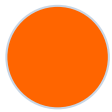
4 Color Wheel: Green
DMX 24–31



5 Color Wheel: Purple
DMX 32–39



6 Color Wheel: Orange Red
DMX 40–47



7



Four-Color(Yellow+Blue+Green+Purple)
DMX 48–56

Gobo wheel 2

1 R-Gobo: No Gobo
DMX 0–7

2 
Gobo1
DMX 8–15

3 
Gobo2
DMX 16–23

4 
Gobo3
DMX 24–31

5 
Gobo4
DMX 32–39

6 
Gobo5
DMX 40–47

7 
Gobo6
DMX 48–55

8 
Gobo7
DMX 56–63

Gobo wheel 3

1 No gobo
DMX 0–7

2 
Gobo 1
DMX 8–15

3 
Gobo 2
DMX 16–23

4 
Gobo 3
DMX 24–31

5 
Gobo 4
DMX 32–39

6 
Gobo 5
DMX 40–47

7 
Gobo 6
DMX 48–55

8 
Gobo 7
DMX 56–63

9 
Gobo 8
DMX 64–71

Prism 1

1 
1 facet
No Prism
DMX 0–31

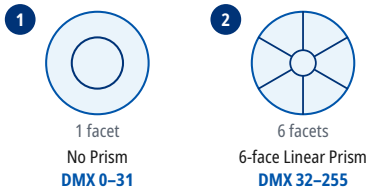
2 
4 facets
4-face Prism
DMX 32–255

Animation wheel

1
No Effect
DMX 0–7

2 
Animation Effect Linear Insertion
DMX 8–255

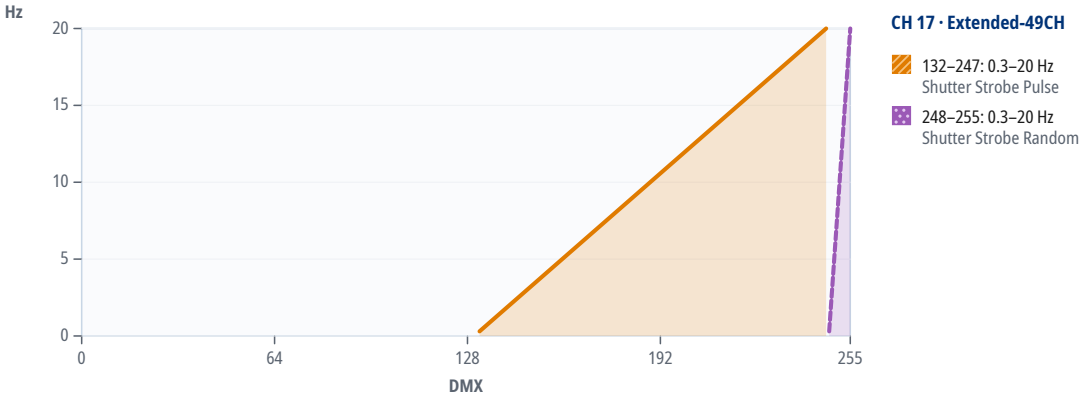
Prism 2



1 facet
No Prism
DMX 0–31

6 facets
6-face Linear Prism
DMX 32–255

Strobe rate



CH 17 · Extended-49CH

132–247: 0.3–20 Hz
Shutter Strobe Pulse

248–255: 0.3–20 Hz
Shutter Strobe Random

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended-49CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	246	11	U2 · 1	16	U2 · 246
2	50	7	295	12	U2 · 50	17	U2 · 295
3	99	8	344	13	U2 · 99	18	U2 · 344
4	148	9	393	14	U2 · 148	19	U2 · 393
5	197	10	442	15	U2 · 197	20	U2 · 442

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-49CH

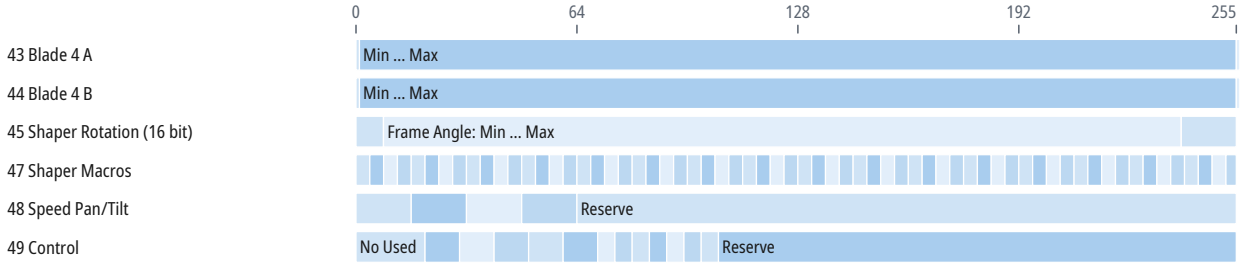
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 15 Dimmer above 0; CH 17 Shutter at 0–3 “Open” or 4–67 or 100–131. The GDTF file gives these values for a console's Highlight function: CH 15 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Colors	0–7	Color Wheel: No Colour
		8–15	Color Wheel: Red
		16–23	Color Wheel: Yellow
		24–31	Color Wheel: Green
		32–39	Color Wheel: Purple
		40–47	Color Wheel: Orange Red
		48–55	Four-Color
		56–63	Colour Arbitrary Positioning: No Colour
		63–86	Colour Arbitrary Positioning: Red
		87–109	Colour Arbitrary Positioning: Yellow
		109–132	Colour Arbitrary Positioning: Green
		133–155	Colour Arbitrary Positioning: Purple
		155–177	Colour Arbitrary Positioning: Orange Red
		178–199	Four-Color(Yellow+Blue+Green+Purple)
		199–221	Colour Arbitrary Positioning: No Colour
		222–238	CW Max ... CW Min
		238	CW Min
		239–255	CCW Min ... CCW Max
		255	CCW Max
6	Colors Fine	0–255	Fine adjustment of CH 5
7	Cyan	0	Min
		1–254	Min ... Max
		255	Max
8	Magenta	0	Min
		1–254	Min ... Max

CH	Function	DMX	Description
8	Magenta (continued)	255	Max
9	Yellow	0	Min
		1–254	Min ... Max
		255	Max
10	CTO		Colour Temperature
		0	Max
		1–254	Max ... Min
		255	Min
11	Gobo	0–7	No gobo
		8–15	Gobo 1
		16–23	Gobo 2
		24–31	Gobo 3
		32–39	Gobo 4
		40–47	Gobo 5
		48–55	Gobo 6
		56–63	Gobo 7
		64–71	Gobo 8
		72–79	No gobo
		80–87	Gobo 1 Shake Slow-Fast (1–30 Hz)
		88–95	Gobo 2 Shake Slow-Fast (1–30 Hz)
		96–103	Gobo 3 Shake Slow-Fast (1–30 Hz)
		104–111	Gobo 4 Shake Slow-Fast (1–30 Hz)
		112–119	Gobo 5 Shake Slow-Fast (1–30 Hz)
		120–127	Gobo 6 Shake Slow-Fast (1–30 Hz)
		128–135	Gobo 7 Shake Slow-Fast (1–30 Hz)
		136–143	Gobo 8 Shake Slow-Fast (1–30 Hz)
		144–151	No Gobo
		152	CCW Max
		153–202	CCW Max ... CCW Min
		203	CCW Min
		204	CW Min
		205–254	CW Min ... CW Max
		255	CW Max
12	Gobo 2	0–7	R-Gobo: No Gobo
		8–15	Gobo1
		16–23	Gobo2
		24–31	Gobo3
		32–39	Gobo4
		40–47	Gobo5
		48–55	Gobo6
		56–63	Gobo7
		64–71	R-Gobo: No Gobo

CH	Function	DMX	Description
12	Gobo 2 (continued)	72–79	Gobo 1 Shake Slow-Fast (1–30 Hz)
		80–87	Gobo 2 Shake Slow-Fast (1–30 Hz)
		88–95	Gobo 3 Shake Slow-Fast (1–30 Hz)
		96–103	Gobo 4 Shake Slow-Fast (1–30 Hz)
		104–111	Gobo 5 Shake Slow-Fast (1–30 Hz)
		112–119	Gobo 6 Shake Slow-Fast (1–30 Hz)
		120–127	Gobo 7 Shake Slow-Fast (1–30 Hz)
		128–135	No Gobo
		136	CCW Max
		137–194	CCW Max ... CCW Min
		195	CCW Min
		196	CW Min
		197–254	CW Min ... CW Max
		255	CW Max
13	Gobo 2 Rotation	0–3	No Effect
		4–63	R-Gobo Angle: Max ... Center
		64–123	R-Gobo Angle: Center ... Min
		123	R-Gobo Angle: Min
		124	CW Max
		125–186	CW Max ... CW Min
		187	CW Min
		188–191	Gobo 2 Pos Rotate: Stop
		192	CCW Min
		193–254	CCW Min ... CCW Max
		255	CCW Max
14	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 13
15	Dimmer	0–255	Closed ... Open
		255	Open
16	Dimmer Fine	0–255	Fine adjustment of CH 15
17	Shutter	0–3	Strobe: Open
		4–67	Strobe: Open<-->Close
		68–99	Strobe: Close->Open
		100–131	Strobe: Open->Close
		132–175	Half Open And Half Close (0.5–1.5 Hz)
		176–247	Pulse Strobe (0.3–20 Hz)
		248–251	Synchronous Random Strobe (0.3–20 Hz)
		252–255	Asynchronous Random Strobe (0.3–20 Hz)
18	LED Frequency		Dimmer Frequency and Speed
		0–31	8333Hz Auto Fade
		32–63	8333Hz No Fade
		64–95	600Hz Auto Fade
		96–127	600Hz No Fade

CH	Function	DMX	Description
18	LED Frequency (continued)	128–159	300Hz Auto Fade
		160–191	300Hz No Fade
		192–223	1200Hz Auto Fade
		224–255	1200Hz No Fade
19	Dimmer Curve	0–31	Square Law
		32–63	Linear
		64–95	Inverse Square Law
		96–127	S-Curve
		128–255	Reserve
20	Prism		4-face Prism
		0–31	No Prism
		32–255	4-face Prism
21	Prism Rotation Speed	0–3	Prism Stop
		4–123	Prism angle (360°)
		124	CCW Max
		125–186	CCW Max ... CCW Min
		187	CCW Min
		188–191	Prism 1 Pos Rotate: Stop
		192	CW Min (up to 6 °/s (1 rpm))
		193–254	CW Min ... CW Max
		255	CW Max
22	Prism Rotation Speed Fine	0–255	Fine adjustment of CH 21
23	Prism 2		6-face Linear Prism
		0–31	No Prism
		32–255	6-face Linear Prism
24	Prism 2 Rotation Speed	0–3	Prism Stop
		4–123	Prism angle (360°)
		124	CCW Max
		125–186	CCW Max ... CCW Min
		187	CCW Min
		188–191	Prism 2 Pos Rotate: Stop
		192	CW Min
		193–254	CW Min ... CW Max
		255	CW Max
25	Prism 2 Rotation Speed Fine	0–255	Fine adjustment of CH 24
26	Zoom	0–127	Narrow ... Mid
		128–255	Mid ... Wide
		255	Wide
27	Zoom Fine	0–255	Fine adjustment of CH 26
28	Focus	0–127	Near ... Center
		128–255	Center ... Far
		255	Far

CH	Function	DMX	Description
29	Focus Fine	0–255	Fine adjustment of CH 28
30	Focus Distance		Auto focus distance
		0–3	Do Not Use Auto Focus
		4–63	5M
		64–127	7M50CM
		128–191	10m
		192–255	15m
31	Focus Distance Fine	0–255	Fine adjustment of CH 30
32	Iris	0–127	Iris: Open To Close
		128–135	Iris: Close
		136	Iris Movement 1 Min
		137–172	Iris Movement 1 Min ... Iris Movement 1 Max
		173	Iris Movement 1 Max
		174	Iris Movement 2 Min
		175–210	Iris Movement 2 Min ... Iris Movement 2 Max
		211	Iris Movement 2 Max
		212	Iris Movement 3 Min
		213–248	Iris Movement 3 Min ... Iris Movement 3 Max
		249	Iris Movement 3 Max
		250–255	Iris Close: Close
33	Frost		Light Frost
		0	No Effect
		1–254	No Effect ... Light Frost
		255	Light Frost
34	Frost 2		Medium Frost
		0	No Effect
		1–254	No Effect ... Medium Frost
		255	Medium Frost
35	Animation Wheel	0–7	No Effect
		8–255	Animation Effect Linear Insertion
36	Animation Wheel Spin		Animation Wheel Rotate 1
		0–7	No Effect
		8	CW Max
		9–126	CW Max ... CW Min
		127	CW Min
		128–135	Rotate Stop
		136	CCW Min
		137–254	CCW Min ... CCW Max
		255	CCW Max
37	Blade 1 A		Frame 1 A
		0	Min
		1–254	Min ... Max

CH	Function	DMX	Description
37	Blade 1 A (continued)	255	Max
38	Blade 1 B		Frame 1 B
		0	Min
		1–254	Min … Max
		255	Max
39	Blade 2 A		Frame 2 A
		0	Min
		1–254	Min … Max
		255	Max
40	Blade 2 B		Frame 2 B
		0	Min
		1–254	Min … Max
		255	Max
41	Blade 3 A		Frame 3 A
		0	Min
		1–254	Min … Max
		255	Max
42	Blade 3 B		Frame 3 B
		0	Min
		1–254	Min … Max
		255	Max
43	Blade 4 A		Frame 4 A
		0	Min
		1–254	Min … Max
		255	Max
44	Blade 4 B		Frame 4 B
		0	Min
		1–254	Min … Max
		255	Max
45	Shaper Rotation	0–7	No Effect
		8–239	Frame Angle: Min … Max
		239	Frame Angle: Max
		240–255	Rotate left and right Slow-Fast
46	Shaper Rotation Fine	0–255	Fine adjustment of CH 45
47	Shaper Macros	0–3	No Effect
		4–7	Effect 1
		8–11	Effect 2
		12–15	Effect 3
		16–19	Effect 4
		20–23	Effect 5
		24–27	Effect 6
		28–31	Effect 7

CH	Function	DMX	Description
47	Shaper Macros (continued)	32–35	Effect 8
		36–39	Effect 9
		40–43	Effect 10
		44–47	Effect 11
		48–51	Effect 12
		52–55	Effect 13
		56–59	Effect 14
		60–63	Effect 15
		64–67	Effect 16
		68–71	Effect 17
		72–75	Effect 18
		76–79	Effect 19
		80–83	Effect 20
		84–87	Effect 21
		88–91	Effect 22
		92–95	Effect 23
		96–99	Effect 24
		100–103	Effect 25
		104–107	Effect 26
		108–111	Effect 27
		112–115	Effect 28
		116–119	Effect 29
		120–123	Effect 30
		124–127	Effect 31
		128–131	Effect 32
		132–135	Effect 33
		136–139	Effect 34
		140–143	Effect 35
		144–147	Effect 36
		148–151	Effect 37
		152–155	Effect 38
		156–159	Effect 39
		160–163	Effect 40
		164–167	Effect 41
		168–171	Effect 42
		172–175	Effect 43
		176–179	Effect 44
		180–183	Effect 45
		184–187	Effect 46
		188–191	Effect 47
		192–195	EEffect 48
		196–199	Effect 49

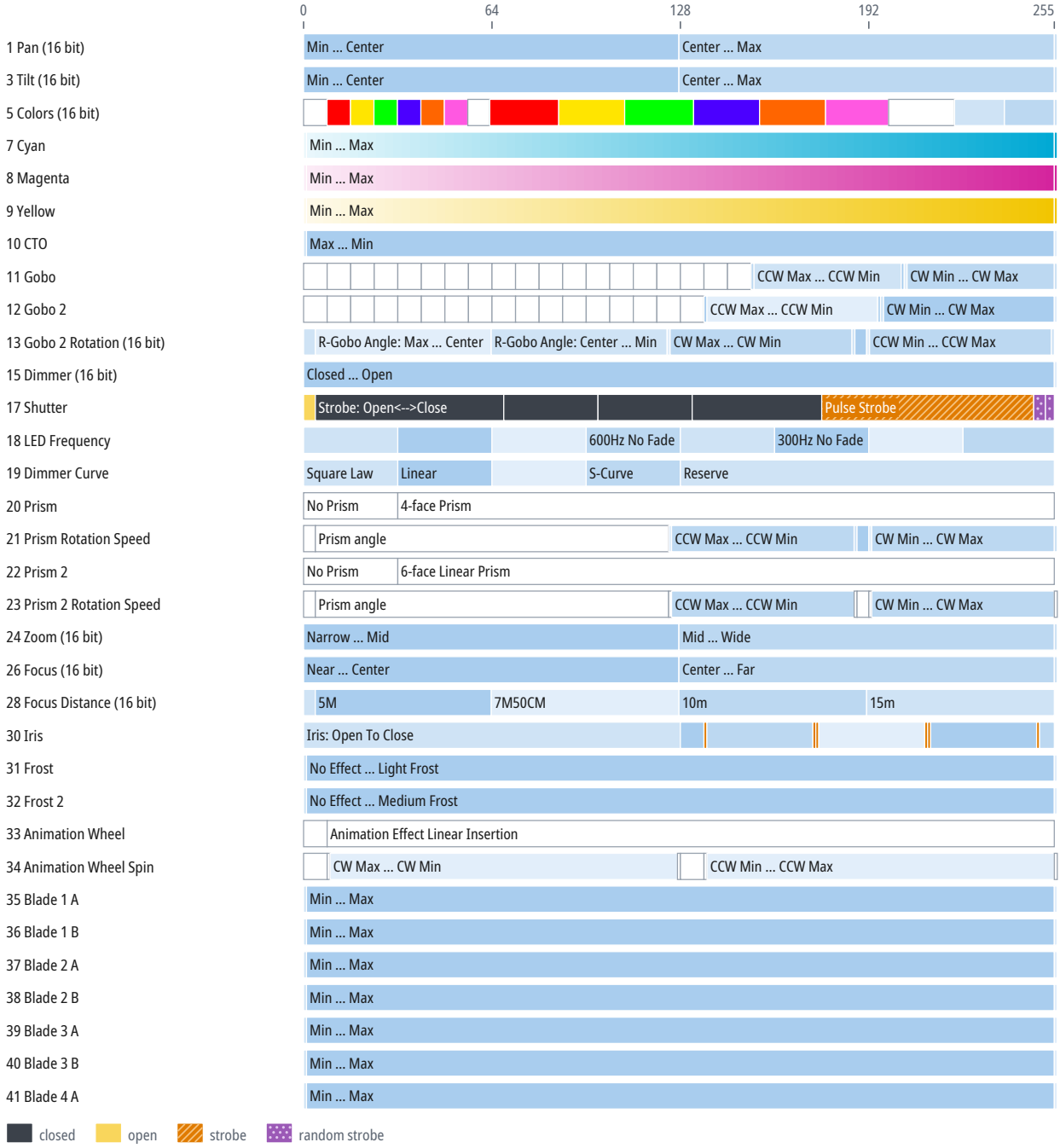
CH	Function	DMX	Description
47	Shaper Macros (continued)	200–203	Effect 50
		204–207	Effect 51
		208–211	Effect 52
		212–215	Effect 53
		216–219	Effect 54
		220–223	Effect 55
		224–227	Effect 56
		228–231	Effect 57
		232–235	Effect 58
		236–239	Effect 59
		240–243	Effect 60
		244–247	Effect 61
		248–251	Effect 62
		252–255	Effect 63
48	Speed Pan/Tilt		Scan speed
		0–15	Scan Speed Fastest
		16–31	Scan Speed Fast
		32–47	Scan Speed Slow
		48–63	Scan Speed Slowest
		64–255	Reserve
49	Control	0–19	No Used
		20–29	Reset All
		30–39	Reset Pan Tilt
		40–49	Reset Colour Gobo Cmy Cto
		50–59	Reset Zoom Focus Prism Frost
		60–69	Reset Animation Iris Frame
		70–74	Display Default
		75–79	Display Off(Don'T Keep After Shutdown)
		80–84	Display On(Don'T Keep After Shutdown)
		85–89	Fan Speed Low(Keep After Shutdown)
		90–94	Fan Speed Medium(Keep After Shutdown)
		95–99	Fan Speed High(Keep After Shutdown)
		100–104	Fan Speed Super Low(Keep After Shutdown)
		105–255	Reserve

Mode Standard-47CH

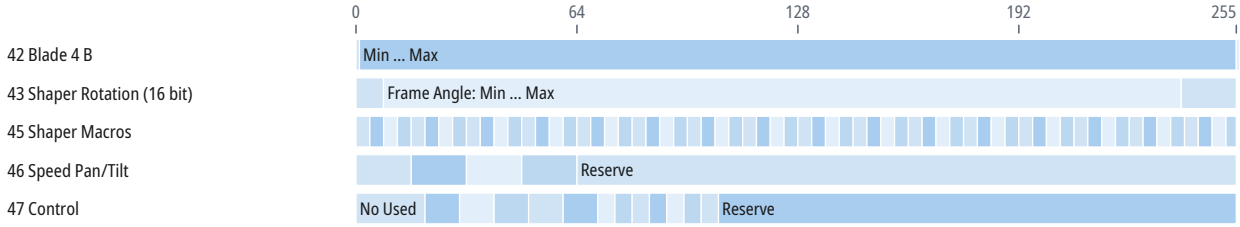
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 15 Dimmer above 0; CH 17 Shutter at 0–3 “Open” or 4–67 or 100–131. The GDTF file gives these values for a console's Highlight function: CH 15 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extended-49CH” (p. 13)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended-49CH” (p. 13)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Colors		Same as CH 5 in the mode “Extended-49CH” (p. 13)
6	Colors Fine	0–255	Fine adjustment of CH 5
7	Cyan		Same as CH 7 in the mode “Extended-49CH” (p. 13)
8	Magenta		Same as CH 8 in the mode “Extended-49CH” (p. 13)
9	Yellow		Same as CH 9 in the mode “Extended-49CH” (p. 14)
10	CTO		Same as CH 10 in the mode “Extended-49CH” (p. 14)
11	Gobo		Same as CH 11 in the mode “Extended-49CH” (p. 14)
12	Gobo 2		Same as CH 12 in the mode “Extended-49CH” (p. 14)
13	Gobo 2 Rotation		Same as CH 13 in the mode “Extended-49CH” (p. 15)
14	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 13
15	Dimmer		Same as CH 15 in the mode “Extended-49CH” (p. 15)
16	Dimmer Fine	0–255	Fine adjustment of CH 15
17	Shutter		Same as CH 17 in the mode “Extended-49CH” (p. 15)
18	LED Frequency		Same as CH 18 in the mode “Extended-49CH” (p. 15)
19	Dimmer Curve		Same as CH 19 in the mode “Extended-49CH” (p. 16)
20	Prism		Same as CH 20 in the mode “Extended-49CH” (p. 16)
21	Prism Rotation Speed		Same as CH 21 in the mode “Extended-49CH” (p. 16)
22	Prism 2		Same as CH 23 in the mode “Extended-49CH” (p. 16)
23	Prism 2 Rotation Speed		Same as CH 24 in the mode “Extended-49CH” (p. 16)
24	Zoom		Same as CH 26 in the mode “Extended-49CH” (p. 16)
25	Zoom Fine	0–255	Fine adjustment of CH 24
26	Focus		Same as CH 28 in the mode “Extended-49CH” (p. 16)
27	Focus Fine	0–255	Fine adjustment of CH 26
28	Focus Distance		Same as CH 30 in the mode “Extended-49CH” (p. 17)
29	Focus Distance Fine	0–255	Fine adjustment of CH 28
30	Iris		Same as CH 32 in the mode “Extended-49CH” (p. 17)
31	Frost		Same as CH 33 in the mode “Extended-49CH” (p. 17)
32	Frost 2		Same as CH 34 in the mode “Extended-49CH” (p. 17)
33	Animation Wheel		Same as CH 35 in the mode “Extended-49CH” (p. 17)
34	Animation Wheel Spin		Same as CH 36 in the mode “Extended-49CH” (p. 17)

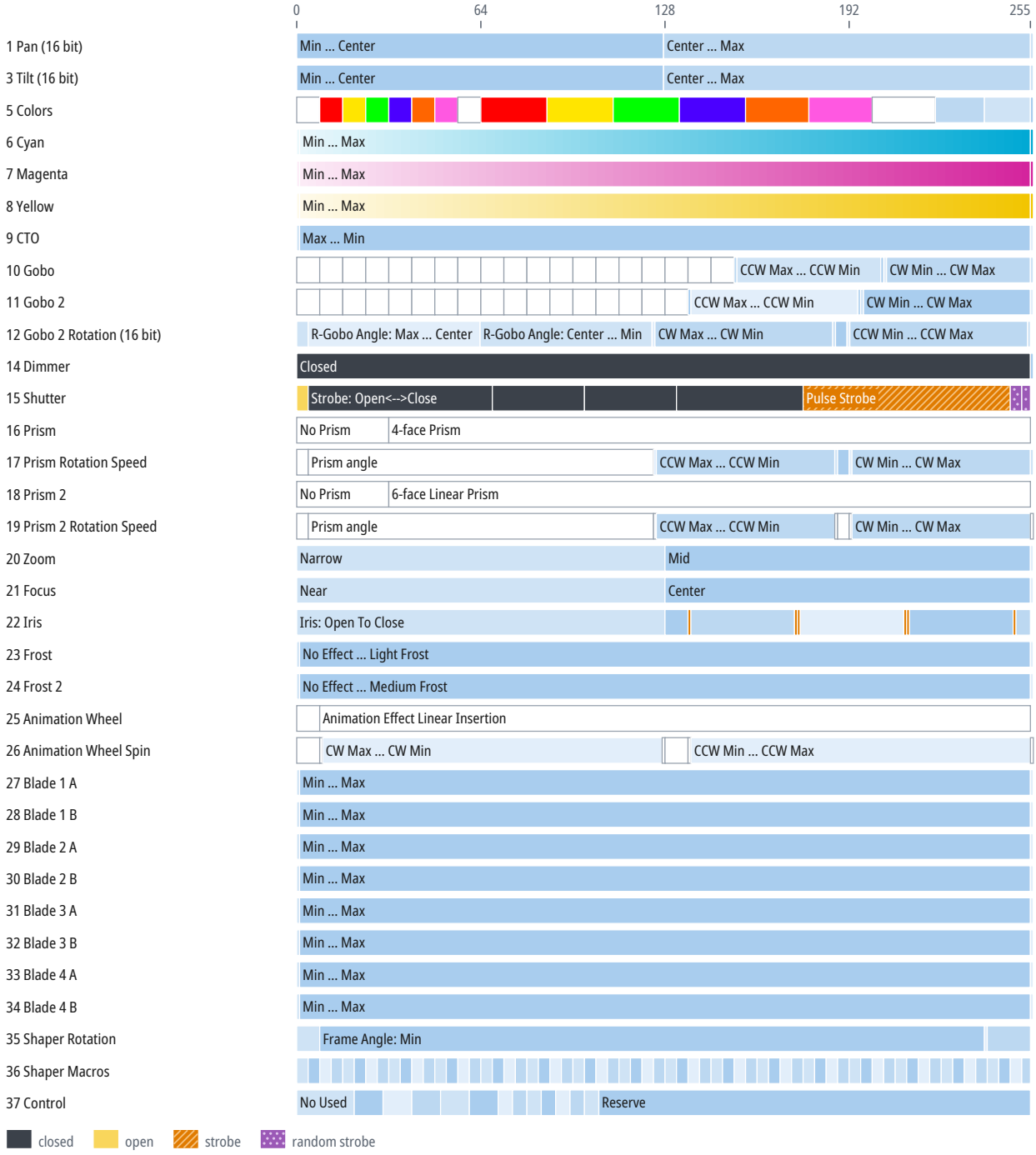
CH	Function	DMX	Description
35	Blade 1 A		Same as CH 37 in the mode “Extended-49CH” (p. 17)
36	Blade 1 B		Same as CH 38 in the mode “Extended-49CH” (p. 18)
37	Blade 2 A		Same as CH 39 in the mode “Extended-49CH” (p. 18)
38	Blade 2 B		Same as CH 40 in the mode “Extended-49CH” (p. 18)
39	Blade 3 A		Same as CH 41 in the mode “Extended-49CH” (p. 18)
40	Blade 3 B		Same as CH 42 in the mode “Extended-49CH” (p. 18)
41	Blade 4 A		Same as CH 43 in the mode “Extended-49CH” (p. 18)
42	Blade 4 B		Same as CH 44 in the mode “Extended-49CH” (p. 18)
43	Shaper Rotation		Same as CH 45 in the mode “Extended-49CH” (p. 18)
44	Shaper Rotation Fine	0–255	Fine adjustment of CH 43
45	Shaper Macros		Same as CH 47 in the mode “Extended-49CH” (p. 18)
46	Speed Pan/Tilt		Same as CH 48 in the mode “Extended-49CH” (p. 20)
47	Control		Same as CH 49 in the mode “Extended-49CH” (p. 20)

Mode Basic-37CH

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 14 Dimmer above 254; CH 15 Shutter at 0–3 “Open” or 4–67 or 100–131. The GDTF file gives these values for a console's Highlight function: CH 14 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extended-49CH” (p. 13)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended-49CH” (p. 13)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Colors	0–7	Color Wheel: No Colour
		8–15	Color Wheel: Red
		16–23	Color Wheel: Yellow
		24–31	Color Wheel: Green
		32–39	Color Wheel: Purple
		40–47	Color Wheel: Orange Red
		48–55	Four-Color
		56–63	Colour Arbitrary Positioning: No Colour
		64–86	Colour Arbitrary Positioning: Red
		87–109	Colour Arbitrary Positioning: Yellow
		110–132	Colour Arbitrary Positioning: Green
		133–155	Colour Arbitrary Positioning: Purple
		156–177	Colour Arbitrary Positioning: Orange Red
		178–199	Four-Color(Yellow+Blue+Green+Purple)
		200–221	Colour Arbitrary Positioning: No Colour
		222–238	CW Max
		239–254	CCW Min
		255	CCW Max
6	Cyan		Same as CH 7 in the mode “Extended-49CH” (p. 13)
7	Magenta		Same as CH 8 in the mode “Extended-49CH” (p. 13)
8	Yellow		Same as CH 9 in the mode “Extended-49CH” (p. 14)
9	CTO		Same as CH 10 in the mode “Extended-49CH” (p. 14)
10	Gobo		Same as CH 11 in the mode “Extended-49CH” (p. 14)
11	Gobo 2		Same as CH 12 in the mode “Extended-49CH” (p. 14)
12	Gobo 2 Rotation		Same as CH 13 in the mode “Extended-49CH” (p. 15)
13	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 12
14	Dimmer	0–254	Closed
		255	Open
15	Shutter		Same as CH 17 in the mode “Extended-49CH” (p. 15)
16	Prism		Same as CH 20 in the mode “Extended-49CH” (p. 16)
17	Prism Rotation Speed		Same as CH 21 in the mode “Extended-49CH” (p. 16)
18	Prism 2		Same as CH 23 in the mode “Extended-49CH” (p. 16)
19	Prism 2 Rotation Speed		Same as CH 24 in the mode “Extended-49CH” (p. 16)
20	Zoom	0–127	Narrow
		128–254	Mid
		255	Wide

CH	Function	DMX	Description
21	Focus	0–127	Near
		128–254	Center
		255	Far
22	Iris		Same as CH 32 in the mode “Extended-49CH” (p. 17)
23	Frost		Same as CH 33 in the mode “Extended-49CH” (p. 17)
24	Frost 2		Same as CH 34 in the mode “Extended-49CH” (p. 17)
25	Animation Wheel		Same as CH 35 in the mode “Extended-49CH” (p. 17)
26	Animation Wheel Spin		Same as CH 36 in the mode “Extended-49CH” (p. 17)
27	Blade 1 A		Same as CH 37 in the mode “Extended-49CH” (p. 17)
28	Blade 1 B		Same as CH 38 in the mode “Extended-49CH” (p. 18)
29	Blade 2 A		Same as CH 39 in the mode “Extended-49CH” (p. 18)
30	Blade 2 B		Same as CH 40 in the mode “Extended-49CH” (p. 18)
31	Blade 3 A		Same as CH 41 in the mode “Extended-49CH” (p. 18)
32	Blade 3 B		Same as CH 42 in the mode “Extended-49CH” (p. 18)
33	Blade 4 A		Same as CH 43 in the mode “Extended-49CH” (p. 18)
34	Blade 4 B		Same as CH 44 in the mode “Extended-49CH” (p. 18)
35	Shaper Rotation	0–7	No Effect
		8–238	Frame Angle: Min
		239	Frame Angle: Max
		240–255	Rotate left and right Slow-Fast
36	Shaper Macros		Same as CH 47 in the mode “Extended-49CH” (p. 18)
37	Control		Same as CH 49 in the mode “Extended-49CH” (p. 20)

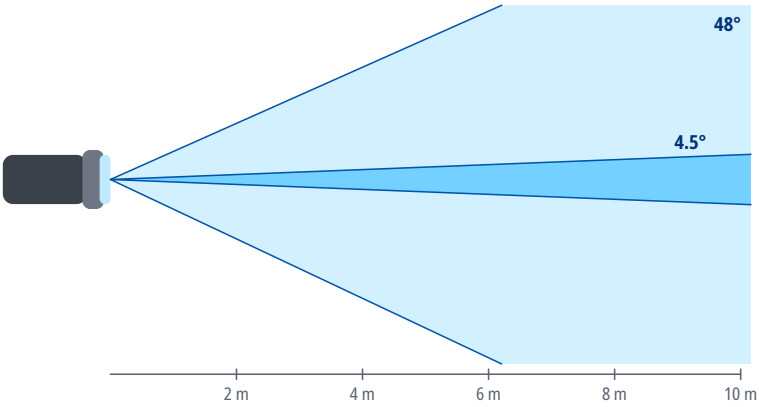
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	550 W
Luminous flux	22,203 lm
Color temperature	6,800 K
Color rendering index (CRI)	70
Optics	
Zoom	4.5–48°
Movement	
Pan	540°
Tilt	270°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RJ45 connectors	RJ45 IN
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	800 W
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	22 kg
Operating environment	
Operating temperature	-10 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	3000–6800 K
LED frequency	300–8333 Hz
Color wheel 1 rotation	up to 300 °/s (50 rpm)
Gobo wheel 2 rotation	up to 300 °/s (50 rpm)
Gobo wheel 3 rotation	up to 300 °/s (50 rpm)
Gobo 2 rotation	up to 300 °/s (50 rpm)
Prism 1 rotation	up to 300 °/s (50 rpm)
Prism 2 rotation	up to 300 °/s (50 rpm)
Animation wheel rotation	up to 300 °/s (50 rpm)

Spot diameter



Distance	Ø 4.5°	Ø 48°
2 m	0.16 m	1.8 m
4 m	0.31 m	3.6 m
6 m	0.47 m	5.3 m
8 m	0.63 m	7.1 m
10 m	0.79 m	8.9 m
15 m	1.2 m	13.4 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.