DMX REFERENCE

MC15

EK Lights



Manufacturer	EK Lights
GDTF file	EK_Lights_MC15_160932.gdtf
GDTF revision	STV2_00 · 2026-09-18
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1 About this manual

This document describes the MC15 by EK Lights. It was compiled from the GDTF file EK_Lights_MC15_160932.gdtf from the GDTF-Share library.

File revision: “STV2_00”.

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 EK Lights; 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	48 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
RGBCAM 50CH	50	10	1, 51, 101, 151, ...
CMY 44CH	44	11	1, 45, 89, 133, ...
XY 42CH	42	12	1, 43, 85, 127, ...

No light? Check these channels

- RGBCAM 50CH: CH 5 Shutter at 83–93 or 164–174 or 245–255; CH 6 Dimmer above 0
- CMY 44CH: CH 5 Shutter at 83–93 or 164–174 or 245–255; CH 6 Dimmer above 0
- XY 42CH: CH 5 Shutter at 83–93 or 164–174 or 245–255; CH 6 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.

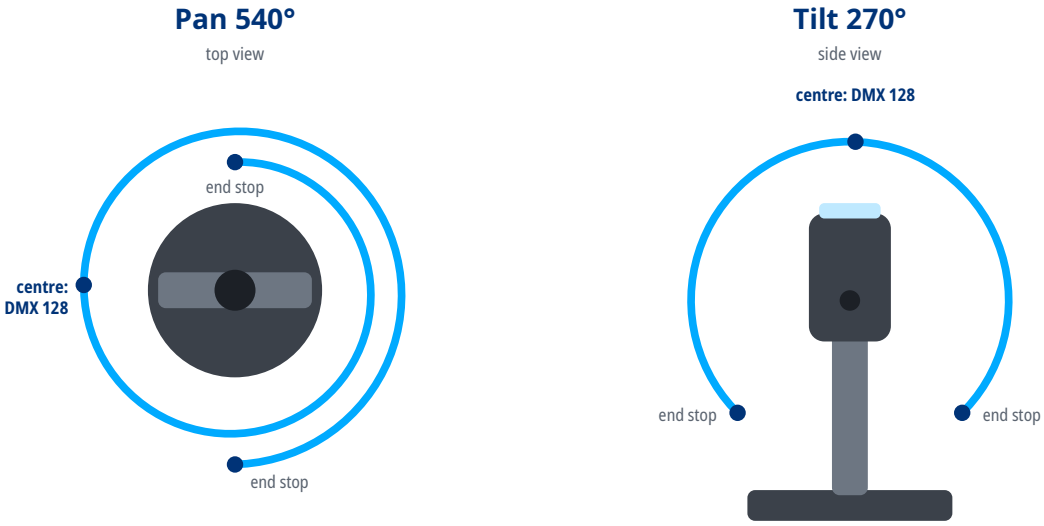
⚠ CAUTION

- 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

Range of movement



5 Installation

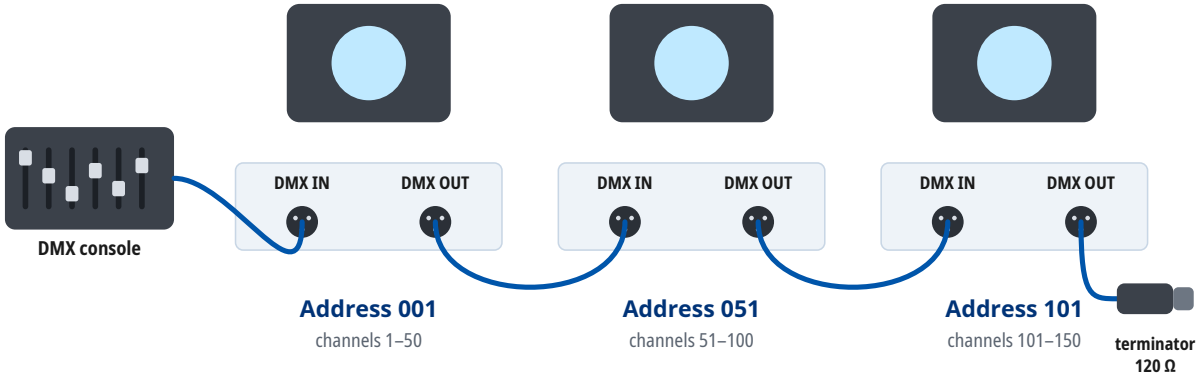
> ⚠ **WARNING**
>
> - Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
> - The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
> - Weight of the device: 48 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 RGBCAM 50CH: every unit occupies 50 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

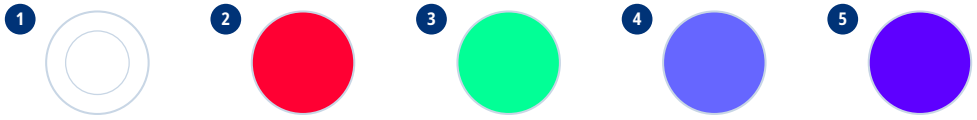
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “RGBCAM 50CH”: 50.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “RGBCAM 50CH”, you can use, for example, the start addresses 1, 51, 101, 151.
- 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

	RGBCAM 50CH 50 channels	CMY 44CH 44 channels	XY 42CH 42 channels
Pan / Tilt	1, 3	1, 3	1, 3
Dimmer	6	6	6
Shutter / strobe	5	5	5
Color mixing	6× (11–21)	11, 13, 15	
Color temperature	8	8	8
Color wheel	23	17	15
Gobo wheel	24, 26	18, 20	16, 18
Gobo rotation	25–27	19–21	17–19
Prism	28–31	22–25	20–23
Frost	32	26	24
Zoom	38	32	30
Focus	36, 40	30, 34	28, 32
Iris	35	29	27
Animation wheel	33, 34	27, 28	25, 26

Color wheel



1 Open
DMX 0–10

2 Colour 1
DMX 24–36

3 Colour 2
DMX 50–62

4 Colour 3
DMX 76–88

5 Colour 4
DMX 102–114

Gobo wheel 1



1 Open
DMX 0–10

2 Gobo 1
DMX 11–20

3 Gobo 2
DMX 21–30

4 Gobo 3
DMX 31–40

5 Gobo 4
DMX 41–50

6 Gobo 5
DMX 51–60



7 Gobo 6
DMX 61–72

Gobo wheel 2

1

Open
DMX 0–10

2

Gobo 1
DMX 11–20

3

Gobo 2
DMX 21–30

4

Gobo 3
DMX 31–40

5

Gobo 4
DMX 41–50

6

Gobo 5
DMX 51–60

7

Gobo 6
DMX 61–72

Prism 1

1

Prism1 Open
DMX 0–127

2

4 facets
Prism 1
DMX 128–255

Prism 2

1

Prism2 Open
DMX 0–127

2

4 facets
Prism 2
DMX 128–255

Animation wheel

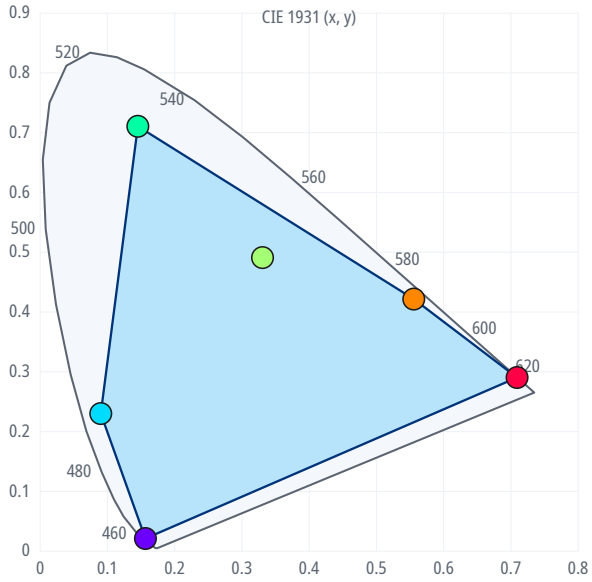
1

Open
DMX 0–127

2

AnimationWheel
DMX 128–255

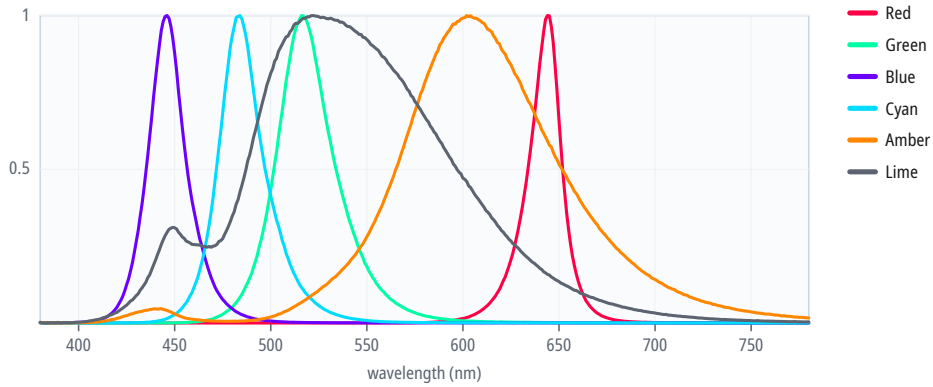
LED colors and the colors they mix



LED	x	y	nm
Red	0.709	0.290	644
Green	0.145	0.711	516
Blue	0.157	0.021	451
Cyan	0.090	0.230	484
Amber	0.555	0.422	602
Lime	0.331	0.491	553

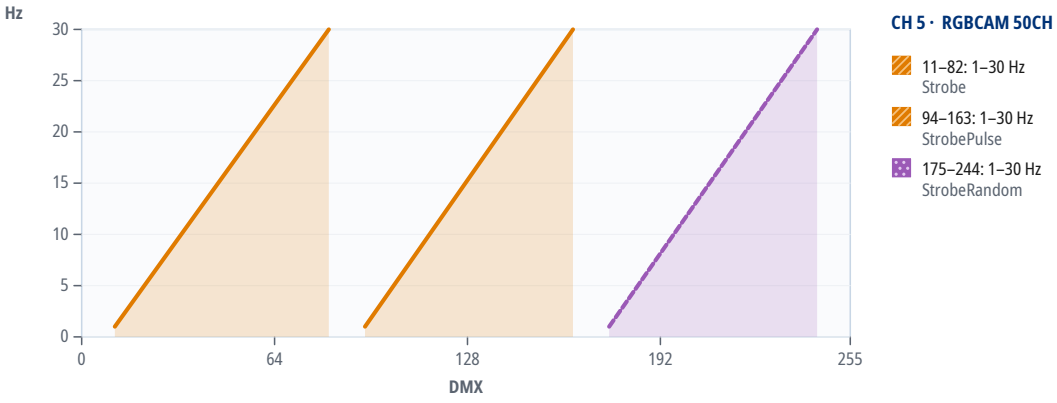
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

Spectra of the light sources



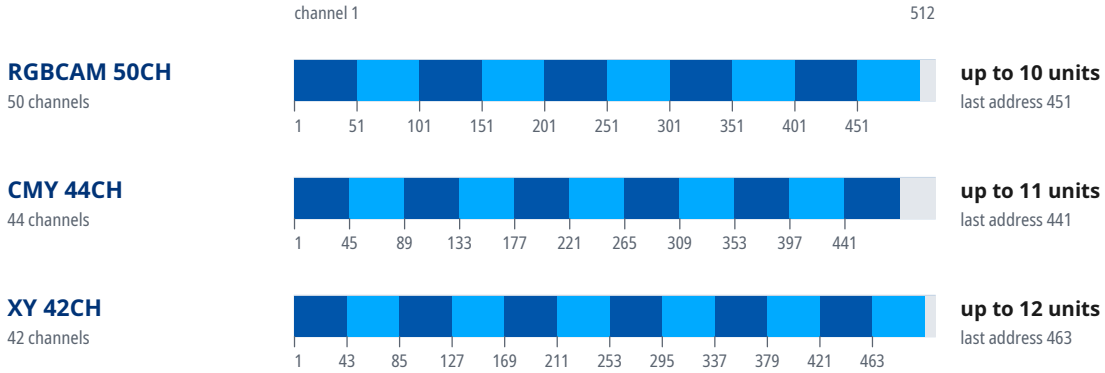
Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “RGBCAM 50CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	251	11	U2 · 1	16	U2 · 251
2	51	7	301	12	U2 · 51	17	U2 · 301
3	101	8	351	13	U2 · 101	18	U2 · 351
4	151	9	401	14	U2 · 151	19	U2 · 401
5	201	10	451	15	U2 · 201	20	U2 · 451

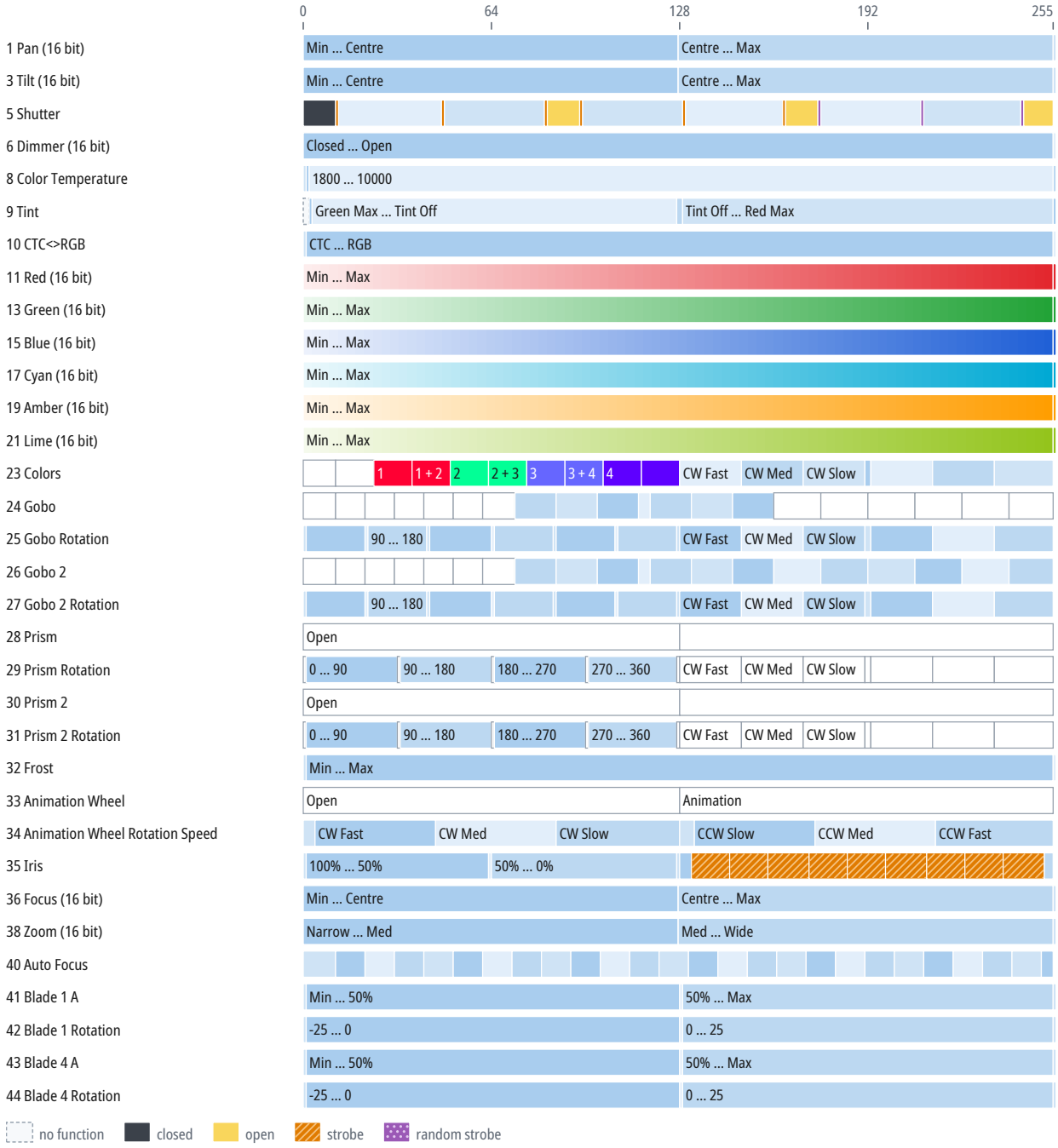
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode RGBCAM 50CH

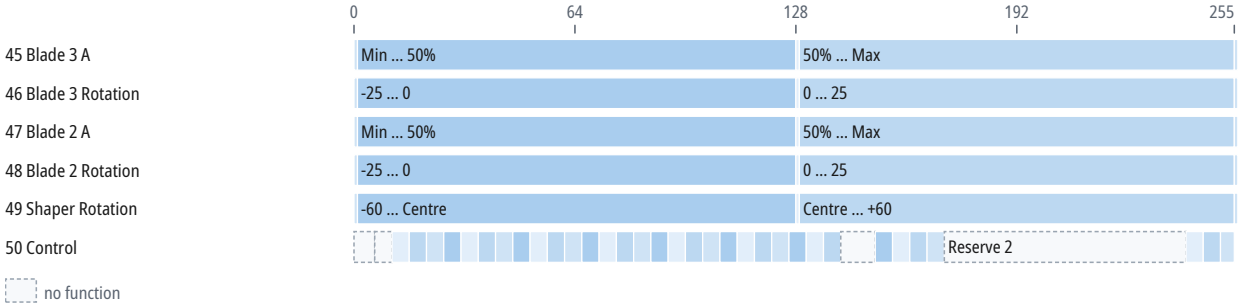
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter at 83–93 or 164–174 or 245–255; CH 6 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 255, CH 6 Dimmer 255, CH 8 Color Temperature 0, CH 11 Red 255, CH 13 Green 255, CH 15 Blue 255, CH 17 Cyan 255, CH 19 Amber 255, CH 21 Lime 255, CH 23 Colors 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Centre
		127	Centre
		128–255	Centre ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Centre
		127	Centre
		128–255	Centre ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Shutter	0–10	Closed
		11	Slow Str
		12–46	Slow Str ... Med Str
		47	Med Str
		48–81	Med Str ... Fast Str
		82	Fast Str
		83–93	Open 1
		94	Slow Pul
		95–128	Slow Pul ... Med Pul
		129	Med Pul
		130–162	Med Pul ... Fast Pul
		163	Fast Pul
		164–174	Open 2
		175	Slow Rand
		176–209	Slow Rand ... Med Rand
		210	Med Rand
		211–243	Med Rand ... Fast Rand
		244	Fast Rand
		245–255	Open 3
6	Dimmer	0–255	Closed ... Open
		255	Open
7	Dimmer Fine	0–255	Fine adjustment of CH 6

CH	Function	DMX	Description
8	Color Temperature	0	Open
		1	1800
		2–254	1800 … 10000
		255	10000
9	Tint	0–1	No function
		2	Green Max
		3–126	Green Max … Tint Off
		127–128	Tint Off
		129–254	Tint Off … Red Max
		255	Red Max
10	CTC<>RGB	0	CTC
		1–254	CTC … RGB
		255	RGB
11	Red	0–255	Min … Max
		255	Max
12	Red Fine	0–255	Fine adjustment of CH 11
13	Green	0–255	Min … Max
		255	Max
14	Green Fine	0–255	Fine adjustment of CH 13
15	Blue	0–255	Min … Max
		255	Max
16	Blue Fine	0–255	Fine adjustment of CH 15
17	Cyan	0–255	Min … Max
		255	Max
18	Cyan Fine	0–255	Fine adjustment of CH 17
19	Amber	0–255	Min … Max
		255	Max
20	Amber Fine	0–255	Fine adjustment of CH 19
21	Lime	0–255	Min … Max
		255	Max
22	Lime Fine	0–255	Fine adjustment of CH 21
23	Colors	0–10	Colour Index: Open
		11–23	Colour Index: Open + 1
		24–36	1
		37–49	1 + 2
		50–62	2
		63–75	2 + 3
		76–88	3
		89–101	3 + 4
		102–114	4
		115–127	Colour Index: Open + 4
		128–148	CW Fast (720–481 °/s)

CH	Function	DMX	Description
23	Colors (continued)	149–169	CW Med (480–241 °/s)
		170–190	CW Slow (240–1 °/s)
		191–192	Colour Wheel Spin: Stop
		193–213	CCW Slow (1–240 °/s)
		214–234	CCW Med (241–480 °/s)
		235–255	CCW Fast (481–720 °/s)
24	Gobo	0–10	Gobo: Open
		11–20	Gobo 1
		21–30	Gobo 2
		31–40	Gobo 3
		41–50	Gobo 4
		51–60	Gobo 5
		61–71	Gobo 6
		72–85	CW Fast
		86–99	CW Med
		100–113	CW Slow
		114–117	Gobo 1 Wheel Spin: Stop
		118–131	CCW Slow
		132–145	CCW Med
		146–159	CCW Fast
		160–175	G1 Shake (1–30 Hz)
		176–191	G2 Shake (1–30 Hz)
		192–207	G3 Shake (1–30 Hz)
		208–223	G4 Shake (1–30 Hz)
		224–239	G5 Shake (1–30 Hz)
		240–255	G6 Shake (1–30 Hz)
25	Gobo Rotation	0	Home
		1–20	Home ... 90
		21	90
		22–41	90 ... 180
		42	180
		43–63	180 ... 270
		64	270
		65–84	270 ... 360
		85	360
		86–105	360 ... 450
		106	450
		107–126	450 ... 540
		127	540
		128–148	CW Fast
		149–169	CW Med
		170–190	CW Slow

CH	Function	DMX	Description
25	Gobo Rotation (continued)	191–192	Gobo 1 Pos Rotate: Stop
		193–213	CCW Slow
		214–234	CCW Med
		235–255	CCW Fast
26	Gobo 2	0–10	Gobo: Open
		11–20	Gobo 1
		21–30	Gobo 2
		31–40	Gobo 3
		41–50	Gobo 4
		51–60	Gobo 5
		61–71	Gobo 6
		72–85	CW Fast
		86–99	CW Med
		100–113	CW Slow
		114–117	Gobo 2 Wheel Spin: Stop
		118–131	CCW Slow
		132–145	CCW Med
		146–159	CCW Fast
		160–175	G1 Shake (1–30 Hz)
		176–191	G2 Shake (1–30 Hz)
		192–207	G3 Shake (1–30 Hz)
		208–223	G4 Shake (1–30 Hz)
		224–239	G5 Shake (1–30 Hz)
		240–255	G6 Shake (1–30 Hz)
27	Gobo 2 Rotation	0	Home
		1–20	Home ... 90
		21	90
		22–41	90 ... 180
		42	180
		43–63	180 ... 270
		64	270
		65–84	270 ... 360
		85	360
		86–105	360 ... 450
		106	450
		107–126	450 ... 540
		127	540
		128–148	CW Fast
		149–169	CW Med
		170–190	CW Slow
		191–192	Gobo 2 Pos Rotate: Stop
		193–213	CCW Slow

CH	Function	DMX	Description
27	Gobo 2 Rotation (continued)	214–234	CCW Med
		235–255	CCW Fast
28	Prism	0–127	Open
		128–255	Prism 1
29	Prism Rotation	0	0
		1–31	0 … 90
		32	90
		33–63	90 … 180
		64	180
		65–95	180 … 270
		96	270
		97–126	270 … 360
		127	360
		128–148	CW Fast
		149–169	CW Med
		170–190	CW Slow
		191–192	Prism 1 Pos Rotate: Stop
		193–213	CCW Slow
		214–234	CCW Med
		235–255	CCW Fast
30	Prism 2	0–127	Open
		128–255	Prism 2
31	Prism 2 Rotation	0	0
		1–31	0 … 90
		32	90
		33–63	90 … 180
		64	180
		65–95	180 … 270
		96	270
		97–126	270 … 360
		127	360
		128–148	CW Fast
		149–169	CW Med
		170–190	CW Slow
		191–192	Prism 2 Pos Rotate: Stop
		193–213	CCW Slow
		214–234	CCW Med
		235–255	CCW Fast
32	Frost	0	Min
		1–254	Min … Max
		255	Max
33	Animation Wheel	0–127	Open

CH	Function	DMX	Description
33	Animation Wheel (continued)	128–255	Animation
34	Animation Wheel Rotation Speed		Animation Wheel Pos
		0–3	Stop
		4–44	CW Fast (360–241 °/s)
		45–85	CW Med (240–121 °/s)
		86–127	CW Slow (120–1 °/s)
		128–132	Stop
		133–173	CCW Slow (1–120 °/s)
		174–214	CCW Med (121–240 °/s)
		215–255	CCW Fast (241–360 °/s)
35	Iris	0	100%
		1–62	100% … 50%
		63	50%
		64–126	50% … 0%
		127	0%
		128–131	Open 1
		132–144	Slow Pulsation
		145–157	Med Pulsation
		158–171	Fast Pulsation
		172–184	Pulse Open Slow
		185–197	Pulse Open Med
		198–211	Pulse Open Fast
		212–224	Pulse Close Slow
		225–237	Pulse Close Med
		238–251	Pulse Close Fast
		252–255	Open 2
36	Focus	0–127	Min … Centre
		128–255	Centre … Max
		255	Max
37	Focus Fine	0–255	Fine adjustment of CH 36
38	Zoom	0–127	Narrow … Med
		128–255	Med … Wide
		255	Wide
39	Zoom Fine	0–255	Fine adjustment of CH 38
40	Auto Focus	0–10	Auto Focus Off
		11–20	Normal: 4m
		21–30	Normal: 6m
		31–40	Normal: 8m
		41–50	Normal: 10m
		51–60	Normal: 12m
		61–70	Normal: 14m

CH	Function	DMX	Description
40	Auto Focus (continued)	71–80	Normal: 16m
		81–90	Normal: 18m
		91–100	RGobo: 4m
		101–110	RGobo: 6m
		111–120	RGobo: 8m
		121–130	RGobo: 10m
		131–140	RGobo: 12m
		141–150	RGobo: 14m
		151–160	RGobo: 16m
		161–170	RGobo: 18m
		171–180	RGobo: 4m
		181–190	RGobo: 6m
		191–200	RGobo: 8m
		201–210	RGobo: 10m
		211–220	RGobo: 12m
		221–230	RGobo: 14m
		231–240	RGobo: 16m
		241–250	RGobo: 18m
		251–255	Auto Focus Off 2
41	Blade 1 A	0	Min
		1–127	Min … 50%
		128	50%
		129–254	50% … Max
		255	Max
42	Blade 1 Rotation	0	-25
		1–127	-25 … 0
		128	0
		129–254	0 … 25
		255	25
43	Blade 4 A	0	Min
		1–127	Min … 50%
		128	50%
		129–254	50% … Max
		255	Max
44	Blade 4 Rotation	0	-25
		1–127	-25 … 0
		128	0
		129–254	0 … 25
		255	25
45	Blade 3 A	0	Min
		1–127	Min … 50%

CH	Function	DMX	Description
45	Blade 3 A (continued)	128	50%
		129–254	50% … Max
		255	Max
46	Blade 3 Rotation	0	-25
		1–127	-25 … 0
		128	0
		129–254	0 … 25
		255	25
47	Blade 2 A	0	Min
		1–127	Min … 50%
		128	50%
		129–254	50% … Max
		255	Max
48	Blade 2 Rotation	0	-25
		1–127	-25 … 0
		128	0
		129–254	0 … 25
		255	25
49	Shaper Rotation	0	-60
		1–127	-60 … Centre
		128	Centre
		129–254	Centre … +60
		255	+60
50	Control	0–5	No Function
		6–10	Dimmer Mode: Off
		11–15	Mode 1
		16–20	Mode 2
		21–25	Mode 3
		26–30	Linear
		31–35	Exponential
		36–40	Logarithmic
		41–45	S Curve
		46–50	600Hz
		51–55	1200 Hz
		56–60	2000 Hz
		61–65	4000 Hz
		66–70	6000 Hz
		71–75	25000Hz
		76–80	Pan Invert Off
		81–85	Pan Invert On
		86–90	Tilt Invert Off

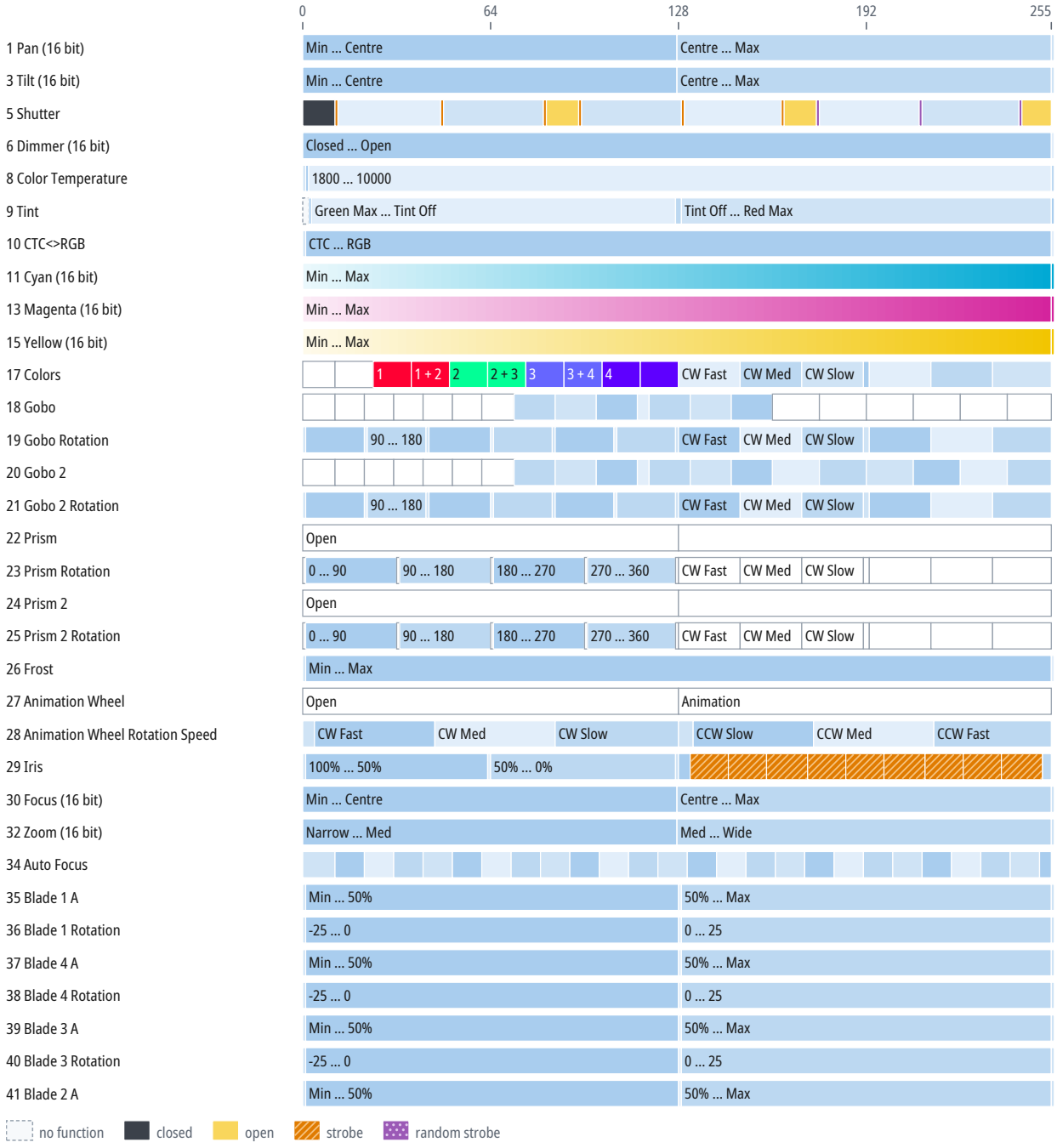
CH	Function	DMX	Description
50	Control (continued)	91–95	Tilt Invert On
		96–100	Swap Pan Tilt Off
		101–105	Swap Pan Tilt On
		106–110	Fan Auto
		111–115	Fan On
		116–120	Fan Off
		121–125	Fan Silent
		126–130	Color Calibration Off
		131–135	Color Calibration Off ... Factory Calibration
		136–140	Factory Calibration
		141–150	Reserve
		151–155	Red Shift Off
		156–160	Red Shift On
		161–165	Independent Mode
		166–170	Mixed Mode
		171–240	Reserve 2
		241–245	Head Reset
		246–250	P/T Reset
		251–255	Complete Reset

Mode CMY 44CH

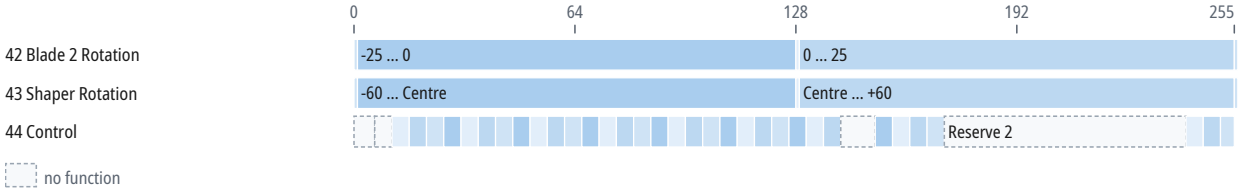
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter at 83–93 or 164–174 or 245–255; CH 6 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 255, CH 6 Dimmer 255, CH 8 Color Temperature 0, CH 11 Cyan 0, CH 13 Magenta 0, CH 15 Yellow 0, CH 17 Colors 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “RGBCAM 50CH” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “RGBCAM 50CH” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Shutter		Same as CH 5 in the mode “RGBCAM 50CH” (p. 12)
6	Dimmer		Same as CH 6 in the mode “RGBCAM 50CH” (p. 12)
7	Dimmer Fine	0–255	Fine adjustment of CH 6
8	Color Temperature		Same as CH 8 in the mode “RGBCAM 50CH” (p. 13)
9	Tint		Same as CH 9 in the mode “RGBCAM 50CH” (p. 13)
10	CTC<>RGB		Same as CH 10 in the mode “RGBCAM 50CH” (p. 13)
11	Cyan	0–255	Min … Max
		255	Max
12	Cyan Fine	0–255	Fine adjustment of CH 11
13	Magenta	0–255	Min … Max
		255	Max
14	Magenta Fine	0–255	Fine adjustment of CH 13
15	Yellow	0–255	Min … Max
		255	Max
16	Yellow Fine	0–255	Fine adjustment of CH 15
17	Colors		Same as CH 23 in the mode “RGBCAM 50CH” (p. 13)
18	Gobo		Same as CH 24 in the mode “RGBCAM 50CH” (p. 14)
19	Gobo Rotation		Same as CH 25 in the mode “RGBCAM 50CH” (p. 14)
20	Gobo 2		Same as CH 26 in the mode “RGBCAM 50CH” (p. 15)
21	Gobo 2 Rotation		Same as CH 27 in the mode “RGBCAM 50CH” (p. 15)
22	Prism		Same as CH 28 in the mode “RGBCAM 50CH” (p. 16)
23	Prism Rotation		Same as CH 29 in the mode “RGBCAM 50CH” (p. 16)
24	Prism 2		Same as CH 30 in the mode “RGBCAM 50CH” (p. 16)
25	Prism 2 Rotation		Same as CH 31 in the mode “RGBCAM 50CH” (p. 16)
26	Frost		Same as CH 32 in the mode “RGBCAM 50CH” (p. 16)
27	Animation Wheel		Same as CH 33 in the mode “RGBCAM 50CH” (p. 16)
28	Animation Wheel Rotation Speed		Same as CH 34 in the mode “RGBCAM 50CH” (p. 17)
29	Iris		Same as CH 35 in the mode “RGBCAM 50CH” (p. 17)
30	Focus		Same as CH 36 in the mode “RGBCAM 50CH” (p. 17)
31	Focus Fine	0–255	Fine adjustment of CH 30
32	Zoom		Same as CH 38 in the mode “RGBCAM 50CH” (p. 17)

CH	Function	DMX	Description
33	Zoom Fine	0–255	Fine adjustment of CH 32
34	Auto Focus		Same as CH 40 in the mode “RGBCAM 50CH” (p. 17)
35	Blade 1 A		Same as CH 41 in the mode “RGBCAM 50CH” (p. 18)
36	Blade 1 Rotation		Same as CH 42 in the mode “RGBCAM 50CH” (p. 18)
37	Blade 4 A		Same as CH 43 in the mode “RGBCAM 50CH” (p. 18)
38	Blade 4 Rotation		Same as CH 44 in the mode “RGBCAM 50CH” (p. 18)
39	Blade 3 A		Same as CH 45 in the mode “RGBCAM 50CH” (p. 18)
40	Blade 3 Rotation		Same as CH 46 in the mode “RGBCAM 50CH” (p. 19)
41	Blade 2 A		Same as CH 47 in the mode “RGBCAM 50CH” (p. 19)
42	Blade 2 Rotation		Same as CH 48 in the mode “RGBCAM 50CH” (p. 19)
43	Shaper Rotation		Same as CH 49 in the mode “RGBCAM 50CH” (p. 19)
44	Control		Same as CH 50 in the mode “RGBCAM 50CH” (p. 19)

Mode XY 42CH

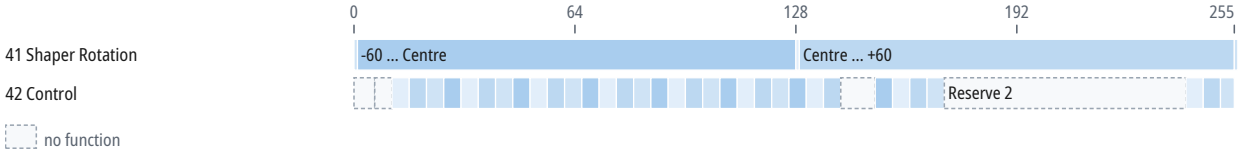
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter at 83–93 or 164–174 or 245–255; CH 6 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 255, CH 6 Dimmer 255, CH 8 Color Temperature 0, CH 15 Colors 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “RGBCAM 50CH” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “RGBCAM 50CH” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Shutter		Same as CH 5 in the mode “RGBCAM 50CH” (p. 12)
6	Dimmer		Same as CH 6 in the mode “RGBCAM 50CH” (p. 12)
7	Dimmer Fine	0–255	Fine adjustment of CH 6
8	Color Temperature		Same as CH 8 in the mode “RGBCAM 50CH” (p. 13)
9	Tint		Same as CH 9 in the mode “RGBCAM 50CH” (p. 13)
10	CTC<>RGB		Same as CH 10 in the mode “RGBCAM 50CH” (p. 13)
11	CIE X	0–255	Min ... Max
		255	Max
12	CIE X Fine	0–255	Fine adjustment of CH 11
13	CIE Y	0–255	Min ... Max
		255	Max
14	CIE Y Fine	0–255	Fine adjustment of CH 13
15	Colors		Same as CH 23 in the mode “RGBCAM 50CH” (p. 13)
16	Gobo		Same as CH 24 in the mode “RGBCAM 50CH” (p. 14)
17	Gobo Rotation		Same as CH 25 in the mode “RGBCAM 50CH” (p. 14)
18	Gobo 2		Same as CH 26 in the mode “RGBCAM 50CH” (p. 15)
19	Gobo 2 Rotation		Same as CH 27 in the mode “RGBCAM 50CH” (p. 15)
20	Prism		Same as CH 28 in the mode “RGBCAM 50CH” (p. 16)
21	Prism Rotation		Same as CH 29 in the mode “RGBCAM 50CH” (p. 16)
22	Prism 2		Same as CH 30 in the mode “RGBCAM 50CH” (p. 16)
23	Prism 2 Rotation		Same as CH 31 in the mode “RGBCAM 50CH” (p. 16)
24	Frost		Same as CH 32 in the mode “RGBCAM 50CH” (p. 16)
25	Animation Wheel		Same as CH 33 in the mode “RGBCAM 50CH” (p. 16)
26	Animation Wheel Rotation Speed		Same as CH 34 in the mode “RGBCAM 50CH” (p. 17)
27	Iris		Same as CH 35 in the mode “RGBCAM 50CH” (p. 17)
28	Focus		Same as CH 36 in the mode “RGBCAM 50CH” (p. 17)
29	Focus Fine	0–255	Fine adjustment of CH 28
30	Zoom		Same as CH 38 in the mode “RGBCAM 50CH” (p. 17)
31	Zoom Fine	0–255	Fine adjustment of CH 30
32	Auto Focus		Same as CH 40 in the mode “RGBCAM 50CH” (p. 17)
33	Blade 1 A		Same as CH 41 in the mode “RGBCAM 50CH” (p. 18)

CH	Function	DMX	Description
34	Blade 1 Rotation		Same as CH 42 in the mode “RGBCAM 50CH” (p. 18)
35	Blade 4 A		Same as CH 43 in the mode “RGBCAM 50CH” (p. 18)
36	Blade 4 Rotation		Same as CH 44 in the mode “RGBCAM 50CH” (p. 18)
37	Blade 3 A		Same as CH 45 in the mode “RGBCAM 50CH” (p. 18)
38	Blade 3 Rotation		Same as CH 46 in the mode “RGBCAM 50CH” (p. 19)
39	Blade 2 A		Same as CH 47 in the mode “RGBCAM 50CH” (p. 19)
40	Blade 2 Rotation		Same as CH 48 in the mode “RGBCAM 50CH” (p. 19)
41	Shaper Rotation		Same as CH 49 in the mode “RGBCAM 50CH” (p. 19)
42	Control		Same as CH 50 in the mode “RGBCAM 50CH” (p. 19)

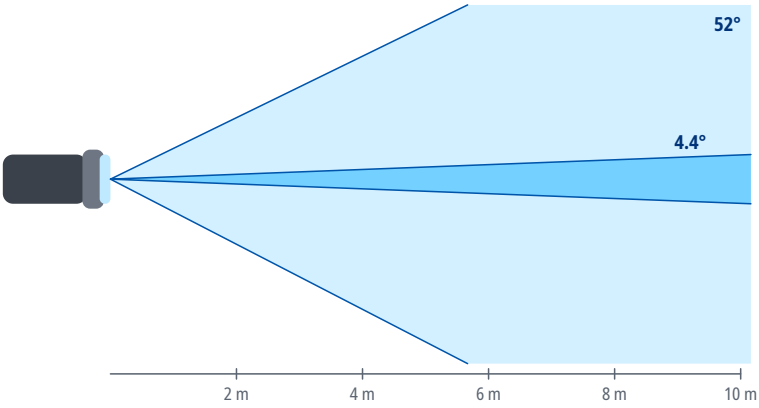
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	2,100 W
Luminous flux	34,664 lm
Color temperature	8,000 K
Color rendering index (CRI)	98
Optics	
Zoom	4.4–52°
Movement	
Pan	540°
Tilt	270°
Dimensions and construction	
Weight	48 kg
Operating environment	
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	1800–10000 K
Strobe frequency	1–30 Hz
Color wheel rotation	up to 720 °/s (120 rpm)
Gobo wheel 1 rotation	up to 720 °/s (120 rpm)
Gobo wheel 2 rotation	up to 720 °/s (120 rpm)
Gobo 1 rotation	up to 360 °/s (60 rpm)
Gobo 2 rotation	up to 360 °/s (60 rpm)
Prism 1 rotation	up to 720 °/s (120 rpm)
Prism 2 rotation	up to 720 °/s (120 rpm)
Animation wheel rotation	up to 360 °/s (60 rpm)

Spot diameter



Distance	Ø 4.4°	Ø 52°
2 m	0.15 m	2 m
4 m	0.31 m	3.9 m
6 m	0.46 m	5.9 m
8 m	0.61 m	7.8 m
10 m	0.77 m	9.8 m
15 m	1.2 m	14.6 m

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

11 Maintenance and cleaning

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

12 Troubleshooting

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

13 Disposal

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

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

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

Recycle the packaging materials according to their type.