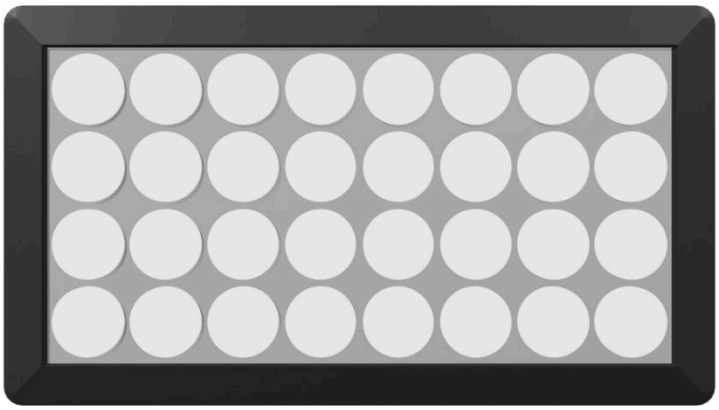
DMX REFERENCE

32 HEX Panel IP

American DJ 32 HEX Panel IP

ADJ



Manufacturer	ADJ
GDTF file	ADJ_32_HEX_Panel_IP_51876.gdtf
GDTF revision	AJS 11_26_23 · 2023-11-27
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1 About this manual

This document describes the American DJ 32 HEX Panel IP by ADJ. It was compiled from the GDTF file ADJ_32_HEX_Panel_IP_51876.gdtf from the GDTF-Share library.

File revision: “AJS 11_26_23”.

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 ADJ; 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	11 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
6 Ch	6	85	1, 7, 13, 19, ...
10 Ch	10	51	1, 11, 21, 31, ...
11 Ch	11	46	1, 12, 23, 34, ...
16 Ch	16	32	1, 17, 33, 49, ...
48 Ch	48	10	1, 49, 97, 145, ...
57 Ch	57	8	1, 58, 115, 172, ...
96 Ch	96	5	1, 97, 193, 289, ...

No light? Check these channels

- 11 Ch: CH 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255
- 16 Ch: CH 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255
- 57 Ch: CH 49 Shutter at 32–63 or 96–127 or 160–191 or 224–255


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.

⚠ WARNING

- This device emits ultraviolet (UV) radiation, which can harm the eyes and skin.
- Do not look directly into the light source and avoid prolonged exposure of the eyes and skin at close range. Install the device so that people are not exposed at close range.
- People with increased sensitivity to light, including those taking medication that increases this sensitivity, should avoid UV exposure.

⚠ 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.

4 Product description

Description in the GDTF file

“LED Wash with RBGWA + UV Color-Mixing, Dimmer, Strobe, LED Pixel-Mapping (visible Beam)”

5 Installation

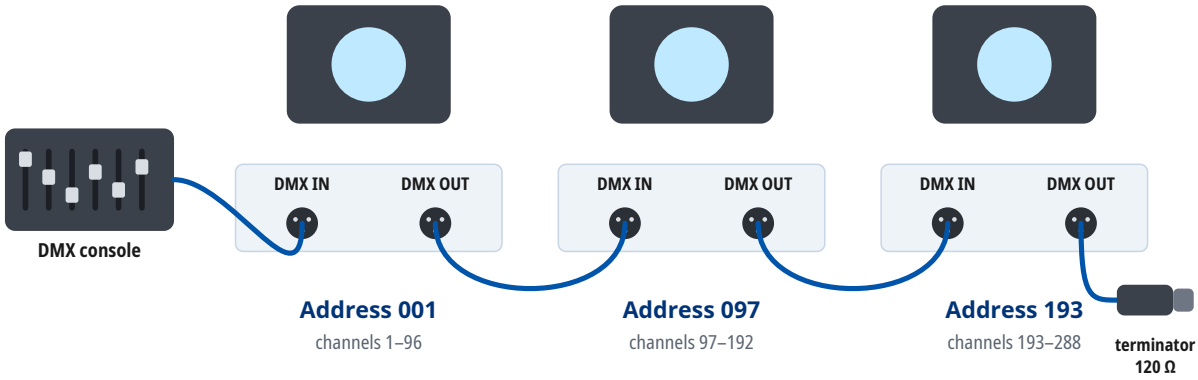
⚠ **WARNING**

- 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: 11 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 96 Ch: every unit occupies 96 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 “96 Ch”: 96.
- 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 “96 Ch”, you can use, for example, the start addresses 1, 97, 193, 289.
- 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

	6 Ch 6 channels	10 Ch 10 channels	11 Ch 11 channels	16 Ch 16 channels	48 Ch 48 channels	57 Ch 57 channels	96 Ch 96 channels
Dimmer	✓	7	8	8	✓	50	✓
Shutter / strobe			7	7		49	
Color mixing	1–6	1–6	1–6	1–6	1–48	1–48	48× (1–95)
Color wheel				10			
Effects / macros				11, 12		52, 53	
Pixel control					8 cells	8 cells	✓

Color wheel


1
Off
2
Color 1
3
Color 2
4
Color 3
5
Color 4
6
Color 5
7
Color 6
8
Color 7
9
Color 8
10
Color 9
11
Color 10
12
Color 11
13
Color 12
14
Color 13
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Color 14
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Color 15
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Color 16
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Color 17
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Color 37
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Color 38
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Color 39
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Color 40
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Color 41
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Color 42
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Color 43
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Color 44
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Color 45
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Color 46
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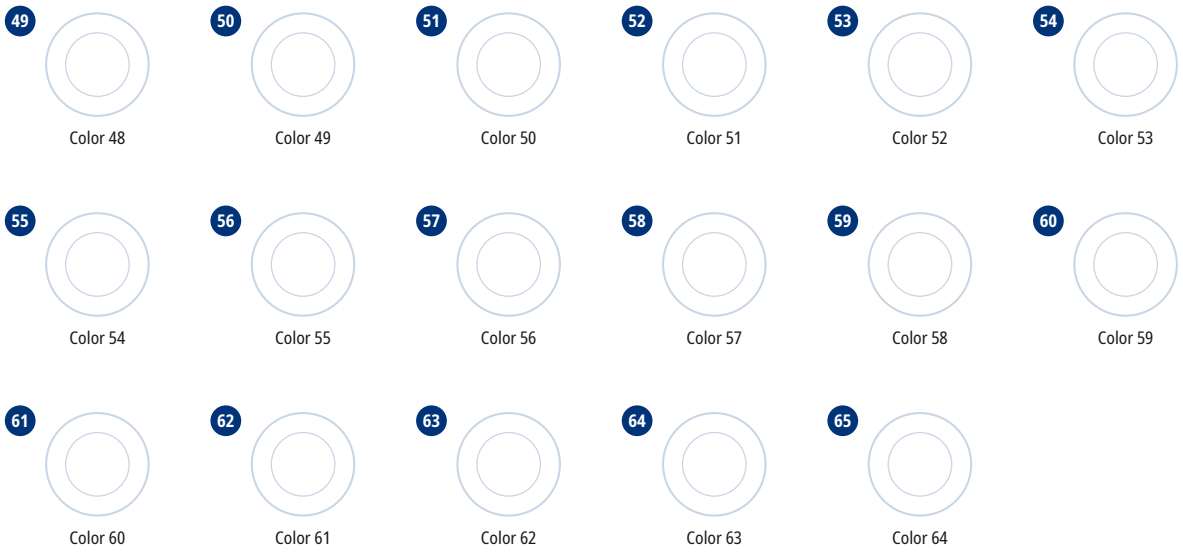
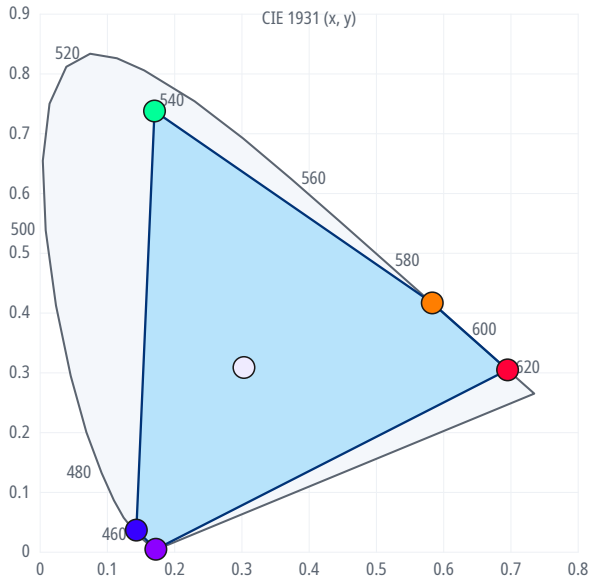
Color 47



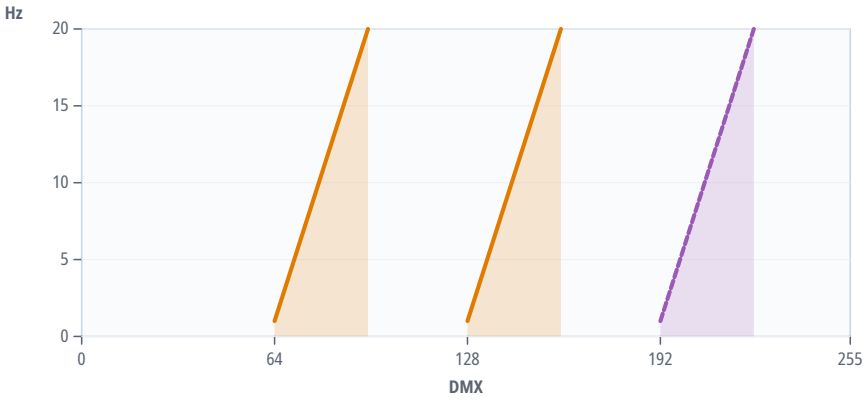
LED colors and the colors they mix



LED	x	y	nm
Red-LED	0.695	0.305	622
Green-LED	0.170	0.738	529
Blue-LED	0.143	0.037	462
White-LED	0.303	0.309	
Amber-LED	0.583	0.417	591
UV-LED	0.172	0.005	418

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

Strobe rate



CH 49 · 57 Ch

64–95: 1–20 Hz
Strobe

128–159: 1–20 Hz
Pulse

192–223: 1–20 Hz
StrobeRandom

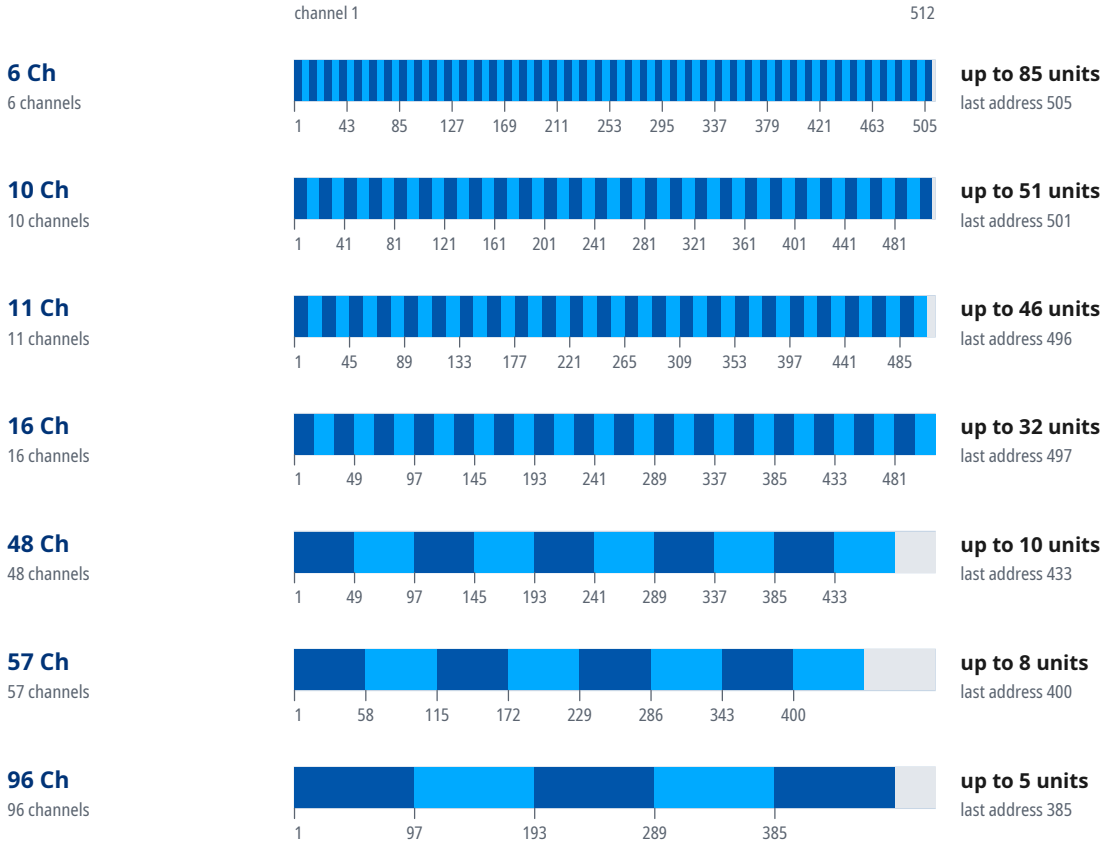
Cells (pixels)



8 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “57 Ch”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “96 Ch”

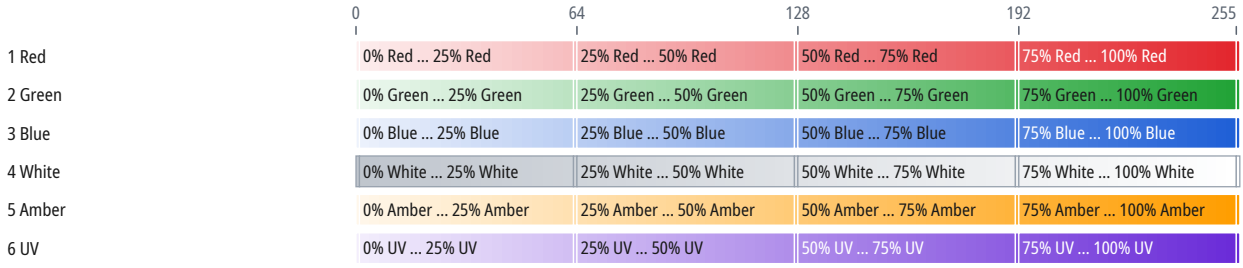
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 1	11	U3 · 1	16	U4 · 1
2	97	7	U2 · 97	12	U3 · 97	17	U4 · 97
3	193	8	U2 · 193	13	U3 · 193	18	U4 · 193
4	289	9	U2 · 289	14	U3 · 289	19	U4 · 289
5	385	10	U2 · 385	15	U3 · 385	20	U4 · 385

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 6 Ch

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red	0	0% Red
		1–62	0% Red ... 25% Red
		63	25% Red
		64–126	25% Red ... 50% Red
		127	50% Red
		128–190	50% Red ... 75% Red
		191	75% Red
		192–254	75% Red ... 100% Red
		255	100% Red
2	Green	0	0% Green
		1–62	0% Green ... 25% Green
		63	25% Green
		64–126	25% Green ... 50% Green
		127	50% Green
		128–190	50% Green ... 75% Green
		191	75% Green
		192–254	75% Green ... 100% Green
		255	100% Green
3	Blue	0	0% Blue
		1–62	0% Blue ... 25% Blue
		63	25% Blue
		64–126	25% Blue ... 50% Blue
		127	50% Blue
		128–190	50% Blue ... 75% Blue
		191	75% Blue
		192–254	75% Blue ... 100% Blue
		255	100% Blue
4	White	0	0% White
		1–62	0% White ... 25% White
		63	25% White

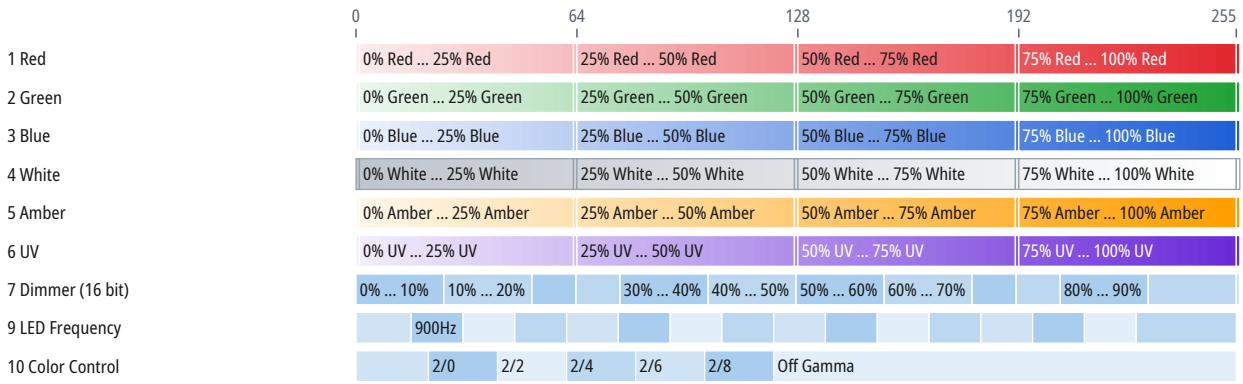
CH	Function	DMX	Description
4	White (continued)	64–126	25% White ... 50% White
		127	50% White
		128–190	50% White ... 75% White
		191	75% White
		192–254	75% White ... 100% White
		255	100% White
5	Amber	0	0% Amber
		1–62	0% Amber ... 25% Amber
		63	25% Amber
		64–126	25% Amber ... 50% Amber
		127	50% Amber
		128–190	50% Amber ... 75% Amber
		191	75% Amber
		192–254	75% Amber ... 100% Amber
		255	100% Amber
6	UV	0	0% UV
		1–62	0% UV ... 25% UV
		63	25% UV
		64–126	25% UV ... 50% UV
		127	50% UV
		128–190	50% UV ... 75% UV
		191	75% UV
		192–254	75% UV ... 100% UV
		255	100% UV

Mode 10 Ch

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

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 7 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “6 Ch” (p. 11)
2	Green		Same as CH 2 in the mode “6 Ch” (p. 11)
3	Blue		Same as CH 3 in the mode “6 Ch” (p. 11)
4	White		Same as CH 4 in the mode “6 Ch” (p. 11)
5	Amber		Same as CH 5 in the mode “6 Ch” (p. 12)
6	UV		Same as CH 6 in the mode “6 Ch” (p. 12)
7	Dimmer	0–25	0% ... 10%
		25–51	10% ... 20%
		51–63	20% ... 25%
		63	25%
		64–76	25% ... 30%
		76–102	30% ... 40%
		102–127	40% ... 50%
		127	50%
		128–153	50% ... 60%
		153–179	60% ... 70%
		179–191	70% ... 75%
		191	75%
		192–204	75% ... 80%
		204–230	80% ... 90%
		230–255	90% ... 100%
		255	100%
8	Dimmer Fine	0–255	Fine adjustment of CH 7
9	LED Frequency	0–15	Deflaut to unit Settung
		16–30	900Hz
		31–45	1000Hz
		46–60	1100Hz
		61–75	1200Hz
		76–90	1300Hz
		91–105	1400Hz
		106–120	1500Hz
		121–135	2500Hz
		136–150	4000Hz
		151–165	5000Hz
		166–180	10000Hz
		181–195	15000Hz
		196–210	20000Hz
		211–225	25000Hz
		226–255	Off LEDFrequency
10	Color Control	0–20	Deflaut to unit Settung

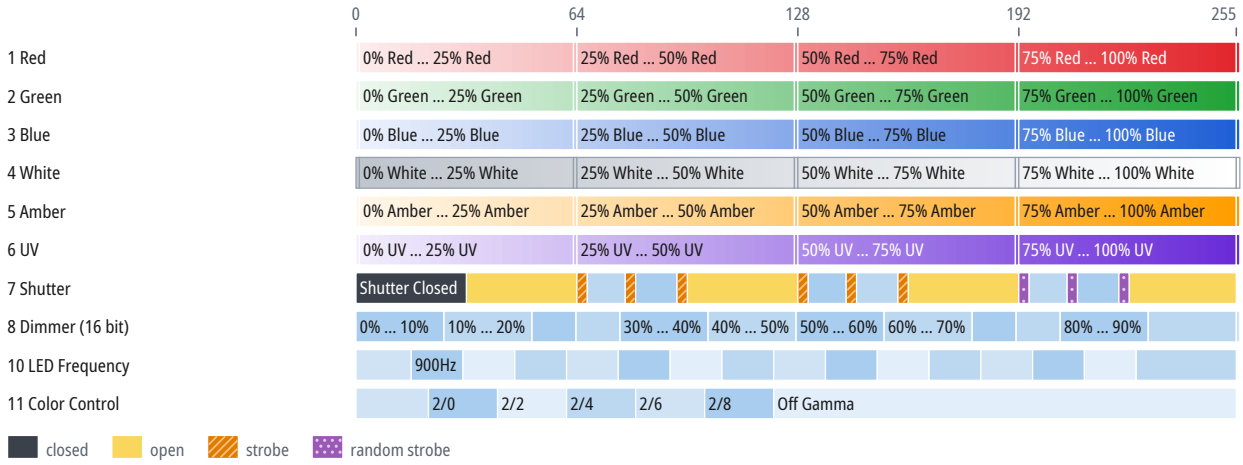
CH	Function	DMX	Description
10	Color Control (continued)	21–40	2/0
		41–60	2/2
		61–80	2/4
		81–100	2/6
		101–120	2/8
		121–255	Off Gamma

Mode 11 Ch

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 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 7 Shutter 50, CH 8 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “6 Ch” (p. 11)
2	Green		Same as CH 2 in the mode “6 Ch” (p. 11)
3	Blue		Same as CH 3 in the mode “6 Ch” (p. 11)
4	White		Same as CH 4 in the mode “6 Ch” (p. 11)
5	Amber		Same as CH 5 in the mode “6 Ch” (p. 12)
6	UV		Same as CH 6 in the mode “6 Ch” (p. 12)
7	Shutter	0–31	Shutter Closed
		32–63	Shutter Open (1)
		64–66	Str Slow
		67–77	Str Slow ... Str Medium
		78–80	Str Medium
		81–92	Str Medium ... Str Fast
		93–95	Str Fast
		96–127	Shutter Open (2)
		128–130	Pulse Slow
		131–141	Pulse Slow ... Pulse Medium

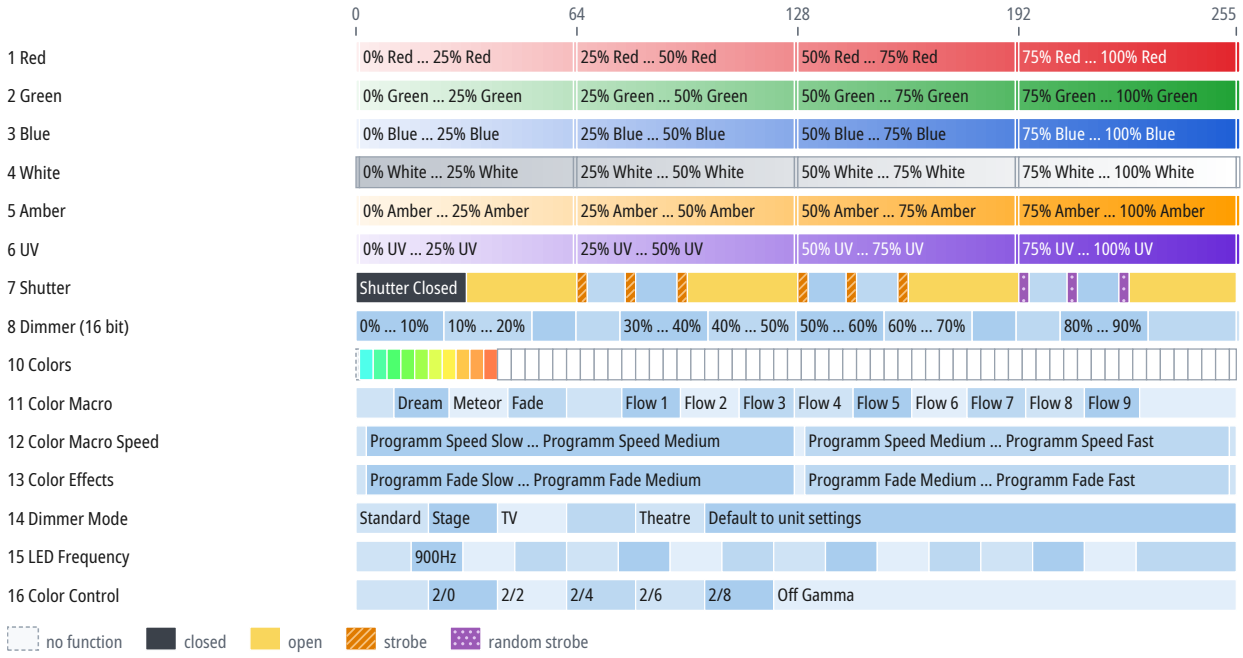
CH	Function	DMX	Description
7	Shutter (continued)	142–144	Pulse Medium
		145–156	Pulse Medium ... Pulse Fast
		157–159	Pulse Fast
		160–191	Shutter Open (3)
		192–194	Rnd Slow
		195–205	Rnd Slow ... Rnd Medium
		206–208	Rnd Medium
		209–220	Rnd Medium ... Rnd Fast
		221–223	Rnd Fast
		224–255	Shutter Open (4)
8	Dimmer		Same as CH 7 in the mode “10 Ch” (p. 13)
9	Dimmer Fine	0–255	Fine adjustment of CH 8
10	LED Frequency		Same as CH 9 in the mode “10 Ch” (p. 13)
11	Color Control		Same as CH 10 in the mode “10 Ch” (p. 13)

Mode 16 Ch

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 7 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 7 Shutter 50, CH 8 Dimmer 255, CH 10 Colors 0, CH 11 Color Macro 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “6 Ch” (p. 11)
2	Green		Same as CH 2 in the mode “6 Ch” (p. 11)
3	Blue		Same as CH 3 in the mode “6 Ch” (p. 11)
4	White		Same as CH 4 in the mode “6 Ch” (p. 11)
5	Amber		Same as CH 5 in the mode “6 Ch” (p. 12)
6	UV		Same as CH 6 in the mode “6 Ch” (p. 12)
7	Shutter		Same as CH 7 in the mode “11 Ch” (p. 14)
8	Dimmer		Same as CH 7 in the mode “10 Ch” (p. 13)
9	Dimmer Fine	0–255	Fine adjustment of CH 8
10	Colors	0	Off
		1–4	Color 1
		5–8	Color 2
		9–12	Color 3
		13–16	Color 4
		17–20	Color 5
		21–24	Color 6
		25–28	Color 7
		29–32	Color 8
		33–36	Color 9
		37–40	Color 10
		41–44	Color 11
		45–48	Color 12
		49–52	Color 13
		53–56	Color 14
		57–60	Color 15
		61–64	Color 16
		65–68	Color 17
		69–72	Color 18
		73–76	Color 19
		77–80	Color 20
		81–84	Color 21
		85–88	Color 22
		89–92	Color 23
		93–96	Color 24
		97–100	Color 25
		101–104	Color 26
		105–108	Color 27
		109–112	Color 28
		113–116	Color 29
		117–120	Color 30

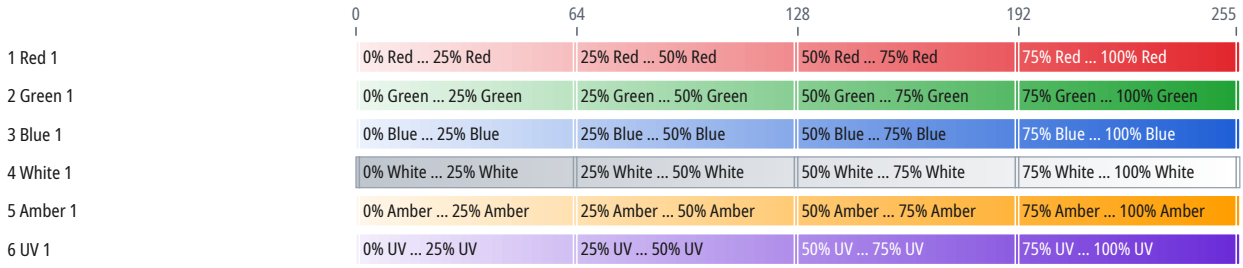
CH	Function	DMX	Description
10	Colors (continued)	121–124	Color 31
		125–128	Color 32
		129–132	Color 33
		133–136	Color 34
		137–140	Color 35
		141–144	Color 36
		145–148	Color 37
		149–152	Color 38
		153–156	Color 39
		157–160	Color 40
		161–164	Color 41
		165–168	Color 42
		169–172	Color 43
		173–176	Color 44
		177–180	Color 45
		181–184	Color 46
		185–188	Color 47
		189–192	Color 48
		193–196	Color 49
		197–200	Color 50
		201–204	Color 51
		205–208	Color 52
		209–212	Color 53
		213–216	Color 54
		217–220	Color 55
		221–224	Color 56
		225–228	Color 57
		229–232	Color 58
		233–236	Color 59
		237–240	Color 60
		241–244	Color 61
		245–248	Color 62
		249–252	Color 63
		253–255	Color 64
11	Color Macro		Auto Programms
		0–10	No Function (1)
		11–26	Dream
		27–43	Meteor
		44–60	Fade
		61–76	Change
		77–93	Flow 1

CH	Function	DMX	Description
11	Color Macro (continued)	94–110	Flow 2
		111–126	Flow 3
		127–143	Flow 4
		144–160	Flow 5
		161–176	Flow 6
		177–193	Flow 7
		194–210	Flow 8
		211–226	Flow 9
		227–255	No Function (2)
12	Color Macro Speed		Auto Programm Speed
		0–2	Programm Speed Slow
		3–126	Programm Speed Slow ... Programm Speed Medium
		127–129	Programm Speed Medium
		130–252	Programm Speed Medium ... Programm Speed Fast
		253–255	Programm Speed Fast
13	Color Effects		Auto Programm Fade
		0–2	Programm Fade Slow
		3–126	Programm Fade Slow ... Programm Fade Medium
		127–129	Programm Fade Medium
		130–252	Programm Fade Medium ... Programm Fade Fast
		253–255	Programm Fade Fast
14	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–255	Default to unit settings
15	LED Frequency		Same as CH 9 in the mode “10 Ch” (p. 13)
16	Color Control		Same as CH 10 in the mode “10 Ch” (p. 13)

Mode 48 Ch

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255 (the same in each of the 8 cells), CH 2 Green 255 (the same in each of the 8 cells), CH 3 Blue 255 (the same in each of the 8 cells), CH 4 White 0 (the same in each of the 8 cells), CH 5 Amber 0 (the same in each of the 8 cells), CH 6 UV 0 (the same in each of the 8 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0	0% Red
		1–62	0% Red ... 25% Red
		63	25% Red
		64–126	25% Red ... 50% Red
		127	50% Red
		128–190	50% Red ... 75% Red
		191	75% Red
		192–254	75% Red ... 100% Red
		255	100% Red
2	Green 1	0	0% Green
		1–62	0% Green ... 25% Green
		63	25% Green
		64–126	25% Green ... 50% Green
		127	50% Green
		128–190	50% Green ... 75% Green
		191	75% Green
		192–254	75% Green ... 100% Green
		255	100% Green
3	Blue 1	0	0% Blue
		1–62	0% Blue ... 25% Blue
		63	25% Blue
		64–126	25% Blue ... 50% Blue
		127	50% Blue
		128–190	50% Blue ... 75% Blue
		191	75% Blue
		192–254	75% Blue ... 100% Blue
		255	100% Blue

CH	Function	DMX	Description
4	White 1	0	0% White
		1–62	0% White … 25% White
		63	25% White
		64–126	25% White … 50% White
		127	50% White
		128–190	50% White … 75% White
		191	75% White
		192–254	75% White … 100% White
		255	100% White
5	Amber 1	0	0% Amber
		1–62	0% Amber … 25% Amber
		63	25% Amber
		64–126	25% Amber … 50% Amber
		127	50% Amber
		128–190	50% Amber … 75% Amber
		191	75% Amber
		192–254	75% Amber … 100% Amber
		255	100% Amber
6	UV 1	0	0% UV
		1–62	0% UV … 25% UV
		63	25% UV
		64–126	25% UV … 50% UV
		127	50% UV
		128–190	50% UV … 75% UV
		191	75% UV
		192–254	75% UV … 100% UV
		255	100% UV

CH 1–48: 8 cells of 6 channels each. Every cell works as cell 1 in the table above (CH 1–6); the table below gives each cell's channel numbers.

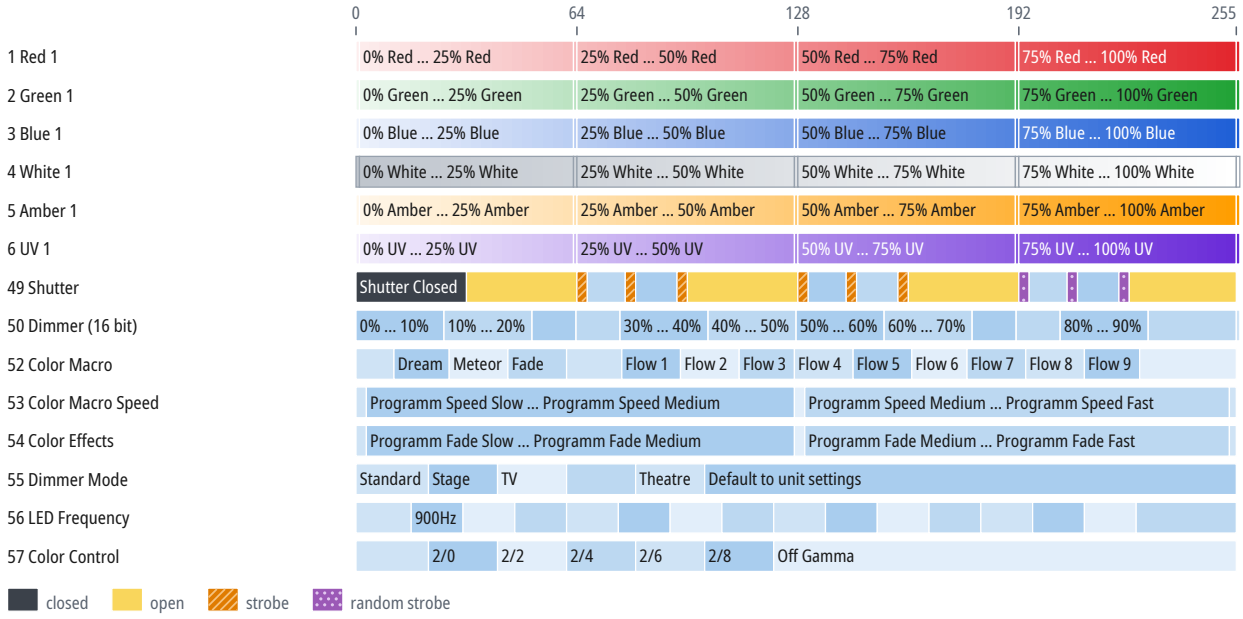
Cell	Red	Green	Blue	White	Amber	UV
1	1	2	3	4	5	6
2	7	8	9	10	11	12
3	13	14	15	16	17	18
4	19	20	21	22	23	24
5	25	26	27	28	29	30
6	31	32	33	34	35	36
7	37	38	39	40	41	42
8	43	44	45	46	47	48

Mode 57 Ch

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 49 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255 (the same in each of the 8 cells), CH 2 Green 255 (the same in each of the 8 cells), CH 3 Blue 255 (the same in each of the 8 cells), CH 4 White 0 (the same in each of the 8 cells), CH 5 Amber 0 (the same in each of the 8 cells), CH 6 UV 0 (the same in each of the 8 cells), CH 49 Shutter 50, CH 50 Dimmer 255, CH 52 Color Macro 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0	0% Red
		1–62	0% Red ... 25% Red
		63	25% Red
		64–126	25% Red ... 50% Red
		127	50% Red
		128–190	50% Red ... 75% Red
		191	75% Red
		192–254	75% Red ... 100% Red
		255	100% Red
2	Green 1	0	0% Green
		1–62	0% Green ... 25% Green
		63	25% Green
		64–126	25% Green ... 50% Green
		127	50% Green
		128–190	50% Green ... 75% Green
		191	75% Green
		192–254	75% Green ... 100% Green

CH	Function	DMX	Description
2	Green 1 (continued)	255	100% Green
3	Blue 1	0	0% Blue
		1–62	0% Blue ... 25% Blue
		63	25% Blue
		64–126	25% Blue ... 50% Blue
		127	50% Blue
		128–190	50% Blue ... 75% Blue
		191	75% Blue
		192–254	75% Blue ... 100% Blue
		255	100% Blue
4	White 1	0	0% White
		1–62	0% White ... 25% White
		63	25% White
		64–126	25% White ... 50% White
		127	50% White
		128–190	50% White ... 75% White
		191	75% White
		192–254	75% White ... 100% White
		255	100% White
5	Amber 1	0	0% Amber
		1–62	0% Amber ... 25% Amber
		63	25% Amber
		64–126	25% Amber ... 50% Amber
		127	50% Amber
		128–190	50% Amber ... 75% Amber
		191	75% Amber
		192–254	75% Amber ... 100% Amber
		255	100% Amber
6	UV 1	0	0% UV
		1–62	0% UV ... 25% UV
		63	25% UV
		64–126	25% UV ... 50% UV
		127	50% UV
		128–190	50% UV ... 75% UV
		191	75% UV
		192–254	75% UV ... 100% UV
		255	100% UV
49	Shutter		Same as CH 7 in the mode “11 Ch” (p. 14)
50	Dimmer		Same as CH 7 in the mode “10 Ch” (p. 13)
51	Dimmer Fine	0–255	Fine adjustment of CH 50
52	Color Macro		Same as CH 11 in the mode “16 Ch” (p. 17)
53	Color Macro Speed		Same as CH 12 in the mode “16 Ch” (p. 18)

CH	Function	DMX	Description
54	Color Effects		Same as CH 13 in the mode “16 Ch” (p. 18)
55	Dimmer Mode		Same as CH 14 in the mode “16 Ch” (p. 18)
56	LED Frequency		Same as CH 9 in the mode “10 Ch” (p. 13)
57	Color Control		Same as CH 10 in the mode “10 Ch” (p. 13)

CH 1–48: 8 cells of 6 channels each. Every cell works as cell 1 in the table above (CH 1–6); the table below gives each cell's channel numbers.

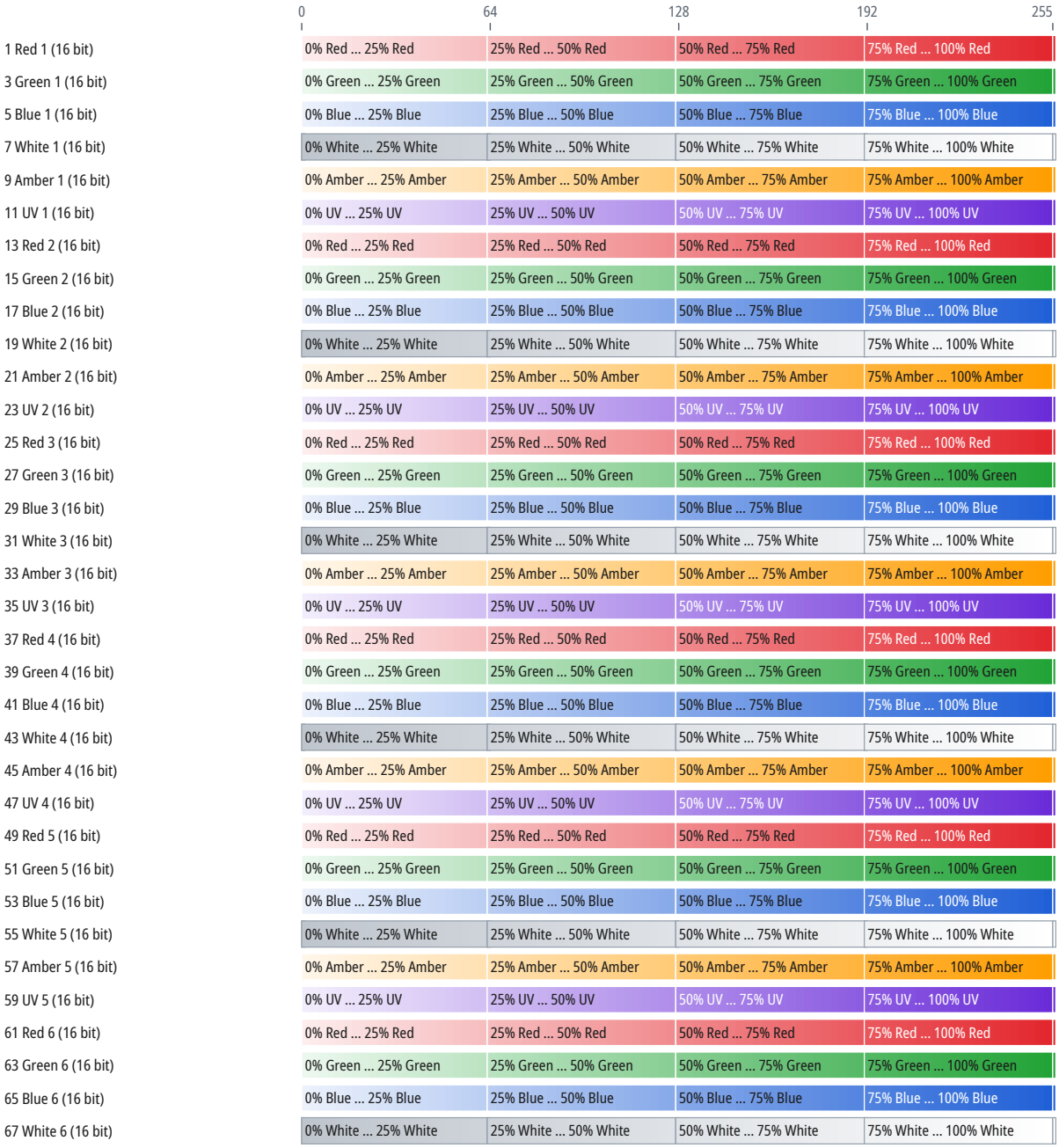
Cell	Red	Green	Blue	White	Amber	UV
1	1	2	3	4	5	6
2	7	8	9	10	11	12
3	13	14	15	16	17	18
4	19	20	21	22	23	24
5	25	26	27	28	29	30
6	31	32	33	34	35	36
7	37	38	39	40	41	42
8	43	44	45	46	47	48

Mode 96 Ch

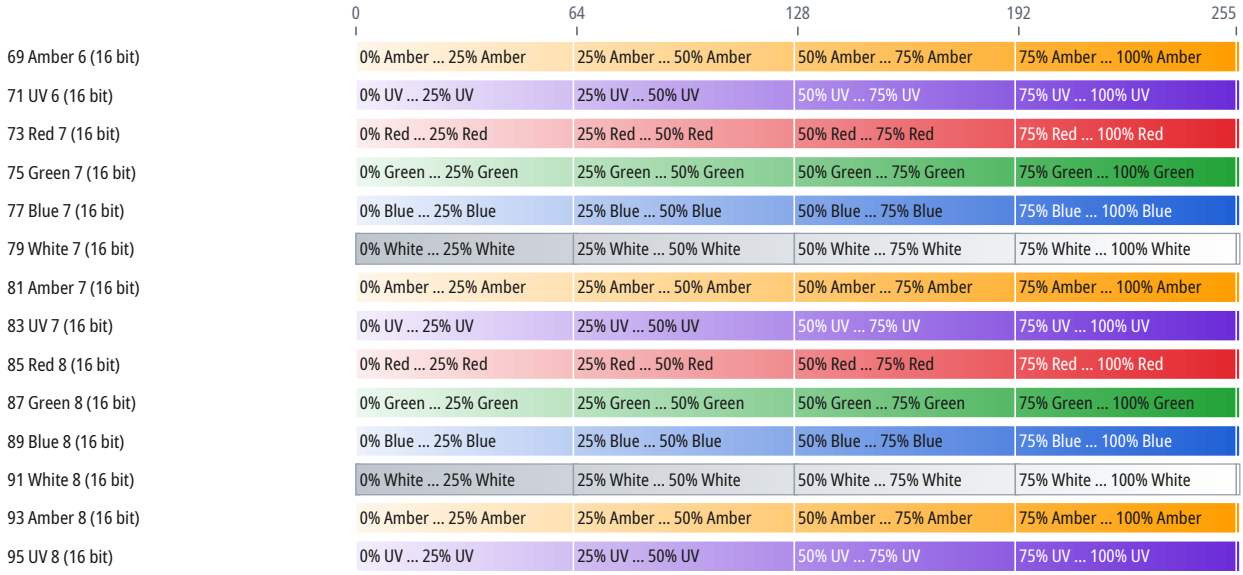
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 3 Green 1 255, CH 5 Blue 1 255, CH 7 White 1 0, CH 9 Amber 1 0, CH 11 UV 1 0, CH 13 Red 2 255, CH 15 Green 2 255, CH 17 Blue 2 255, CH 19 White 2 0, CH 21 Amber 2 0, CH 23 UV 2 0, CH 25 Red 3 255, CH 27 Green 3 255, CH 29 Blue 3 255, CH 31 White 3 0, CH 33 Amber 3 0, CH 35 UV 3 0, CH 37 Red 4 255, CH 39 Green 4 255, CH 41 Blue 4 255, CH 43 White 4 0, CH 45 Amber 4 0, CH 47 UV 4 0, CH 49 Red 5 255, CH 51 Green 5 255, CH 53 Blue 5 255, CH 55 White 5 0, CH 57 Amber 5 0, CH 59 UV 5 0, CH 61 Red 6 255, CH 63 Green 6 255, CH 65 Blue 6 255, CH 67 White 6 0, CH 69 Amber 6 0, CH 71 UV 6 0, CH 73 Red 7 255, CH 75 Green 7 255, CH 77 Blue 7 255, CH 79 White 7 0, CH 81 Amber 7 0, CH 83 UV 7 0, CH 85 Red 8 255, CH 87 Green 8 255, CH 89 Blue 8 255, CH 91 White 8 0, CH 93 Amber 8 0, CH 95 UV 8 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red
		127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
2	Red 1 Fine	0–255	Fine adjustment of CH 1
3	Green 1	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green
		127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
4	Green 1 Fine	0–255	Fine adjustment of CH 3
5	Blue 1	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue
		127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
6	Blue 1 Fine	0–255	Fine adjustment of CH 5
7	White 1	0–63	0% White ... 25% White
		63–127	25% White ... 50% White
		127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
8	White 1 Fine	0–255	Fine adjustment of CH 7
9	Amber 1	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber

CH	Function	DMX	Description
9	Amber 1 (continued)	127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
10	Amber 1 Fine	0–255	Fine adjustment of CH 9
11	UV 1	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV
		127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
12	UV 1 Fine	0–255	Fine adjustment of CH 11
13	Red 2	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red
		127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
14	Red 2 Fine	0–255	Fine adjustment of CH 13
15	Green 2	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green
		127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
16	Green 2 Fine	0–255	Fine adjustment of CH 15
17	Blue 2	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue
		127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
18	Blue 2 Fine	0–255	Fine adjustment of CH 17
19	White 2	0–63	0% White ... 25% White
		63–127	25% White ... 50% White
		127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
20	White 2 Fine	0–255	Fine adjustment of CH 19
21	Amber 2	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber
		127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
22	Amber 2 Fine	0–255	Fine adjustment of CH 21
23	UV 2	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV

CH	Function	DMX	Description
23	UV 2 (continued)	127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
24	UV 2 Fine	0–255	Fine adjustment of CH 23
25	Red 3	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red
		127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
26	Red 3 Fine	0–255	Fine adjustment of CH 25
27	Green 3	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green
		127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
28	Green 3 Fine	0–255	Fine adjustment of CH 27
29	Blue 3	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue
		127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
30	Blue 3 Fine	0–255	Fine adjustment of CH 29
31	White 3	0–63	0% White ... 25% White
		63–127	25% White ... 50% White
		127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
32	White 3 Fine	0–255	Fine adjustment of CH 31
33	Amber 3	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber
		127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
34	Amber 3 Fine	0–255	Fine adjustment of CH 33
35	UV 3	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV
		127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
36	UV 3 Fine	0–255	Fine adjustment of CH 35
37	Red 4	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red

CH	Function	DMX	Description
37	Red 4 (continued)	127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
38	Red 4 Fine	0–255	Fine adjustment of CH 37
39	Green 4	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green
		127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
40	Green 4 Fine	0–255	Fine adjustment of CH 39
41	Blue 4	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue
		127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
42	Blue 4 Fine	0–255	Fine adjustment of CH 41
43	White 4	0–63	0% White ... 25% White
		63–127	25% White ... 50% White
		127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
44	White 4 Fine	0–255	Fine adjustment of CH 43
45	Amber 4	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber
		127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
46	Amber 4 Fine	0–255	Fine adjustment of CH 45
47	UV 4	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV
		127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
48	UV 4 Fine	0–255	Fine adjustment of CH 47
49	Red 5	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red
		127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
50	Red 5 Fine	0–255	Fine adjustment of CH 49
51	Green 5	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green

CH	Function	DMX	Description
51	Green 5 (continued)	127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
52	Green 5 Fine	0–255	Fine adjustment of CH 51
53	Blue 5	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue
		127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
54	Blue 5 Fine	0–255	Fine adjustment of CH 53
55	White 5	0–63	0% White ... 25% White
		63–127	25% White ... 50% White
		127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
56	White 5 Fine	0–255	Fine adjustment of CH 55
57	Amber 5	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber
		127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
58	Amber 5 Fine	0–255	Fine adjustment of CH 57
59	UV 5	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV
		127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
60	UV 5 Fine	0–255	Fine adjustment of CH 59
61	Red 6	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red
		127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
62	Red 6 Fine	0–255	Fine adjustment of CH 61
63	Green 6	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green
		127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
64	Green 6 Fine	0–255	Fine adjustment of CH 63
65	Blue 6	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue

CH	Function	DMX	Description
65	Blue 6 (continued)	127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
66	Blue 6 Fine	0–255	Fine adjustment of CH 65
67	White 6	0–63	0% White ... 25% White
		63–127	25% White ... 50% White
		127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
68	White 6 Fine	0–255	Fine adjustment of CH 67
69	Amber 6	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber
		127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
70	Amber 6 Fine	0–255	Fine adjustment of CH 69
71	UV 6	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV
		127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
72	UV 6 Fine	0–255	Fine adjustment of CH 71
73	Red 7	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red
		127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
74	Red 7 Fine	0–255	Fine adjustment of CH 73
75	Green 7	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green
		127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
76	Green 7 Fine	0–255	Fine adjustment of CH 75
77	Blue 7	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue
		127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
78	Blue 7 Fine	0–255	Fine adjustment of CH 77
79	White 7	0–63	0% White ... 25% White
		63–127	25% White ... 50% White

CH	Function	DMX	Description
79	White 7 (continued)	127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
80	White 7 Fine	0–255	Fine adjustment of CH 79
81	Amber 7	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber
		127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
82	Amber 7 Fine	0–255	Fine adjustment of CH 81
83	UV 7	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV
		127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
84	UV 7 Fine	0–255	Fine adjustment of CH 83
85	Red 8	0–63	0% Red ... 25% Red
		63–127	25% Red ... 50% Red
		127–191	50% Red ... 75% Red
		191–255	75% Red ... 100% Red
		255	100% Red
86	Red 8 Fine	0–255	Fine adjustment of CH 85
87	Green 8	0–63	0% Green ... 25% Green
		63–127	25% Green ... 50% Green
		127–191	50% Green ... 75% Green
		191–255	75% Green ... 100% Green
		255	100% Green
88	Green 8 Fine	0–255	Fine adjustment of CH 87
89	Blue 8	0–63	0% Blue ... 25% Blue
		63–127	25% Blue ... 50% Blue
		127–191	50% Blue ... 75% Blue
		191–255	75% Blue ... 100% Blue
		255	100% Blue
90	Blue 8 Fine	0–255	Fine adjustment of CH 89
91	White 8	0–63	0% White ... 25% White
		63–127	25% White ... 50% White
		127–191	50% White ... 75% White
		191–255	75% White ... 100% White
		255	100% White
92	White 8 Fine	0–255	Fine adjustment of CH 91
93	Amber 8	0–63	0% Amber ... 25% Amber
		63–127	25% Amber ... 50% Amber

CH	Function	DMX	Description
93	Amber 8 (continued)	127–191	50% Amber ... 75% Amber
		191–255	75% Amber ... 100% Amber
		255	100% Amber
94	Amber 8 Fine	0–255	Fine adjustment of CH 93
95	UV 8	0–63	0% UV ... 25% UV
		63–127	25% UV ... 50% UV
		127–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
96	UV 8 Fine	0–255	Fine adjustment of CH 95

10 Technical specifications

Parameter	Value
Light source	LED
DMX connection	5-pin XLR IN/OUT
Power connectors	powerCON TRUE1 IN/OUT
Weight	11 kg
Operating temperature	-15 to 45 °C

Speeds and ranges

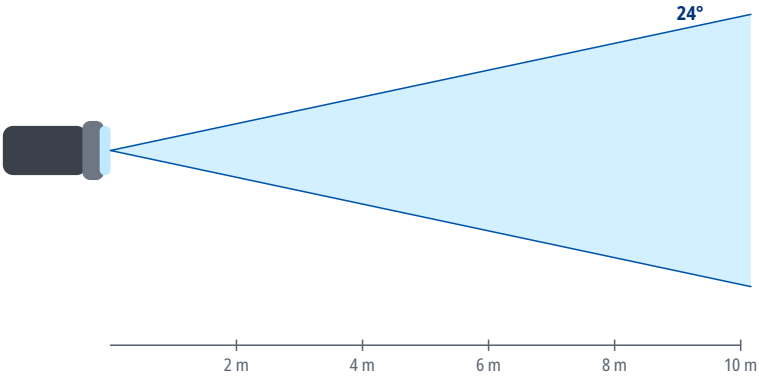
Parameter	Value
Strobe frequency	1–20 Hz

Dimensions

weight 11 kg



Spot diameter



Distance	Ø 24°
2 m	0.85 m
4 m	1.7 m
6 m	2.6 m
8 m	3.4 m
10 m	4.3 m
15 m	6.4 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.

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.