DMX REFERENCE

CL-1504 PANEL

CINDY



Manufacturer	CINDY
GDTF file	CINDY_CL-1504_PANEL_142445.gdtf
GDTF revision	Build No 1 · 2026-05-13
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1 About this manual

This document describes the CL-1504 PANEL by CINDY. It was compiled from the GDTF file CINDY_CL-1504_PANEL_142445.gdtf from the GDTF-Share library.

File revision: “Build No 1”.

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 CINDY; 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	7.7 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
13CH Mode	13	39	1, 14, 27, 40, ...
4CH Mode	4	128	1, 5, 9, 13, ...
6CH Mode	6	85	1, 7, 13, 19, ...
18CH Mode	18	28	1, 19, 37, 55, ...
42CH Mode	42	12	1, 43, 85, 127, ...

No light? Check these channels

- 13CH Mode: CH 2 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”
- 18CH Mode: CH 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”
- 42CH Mode: CH 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”


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.

4 Installation

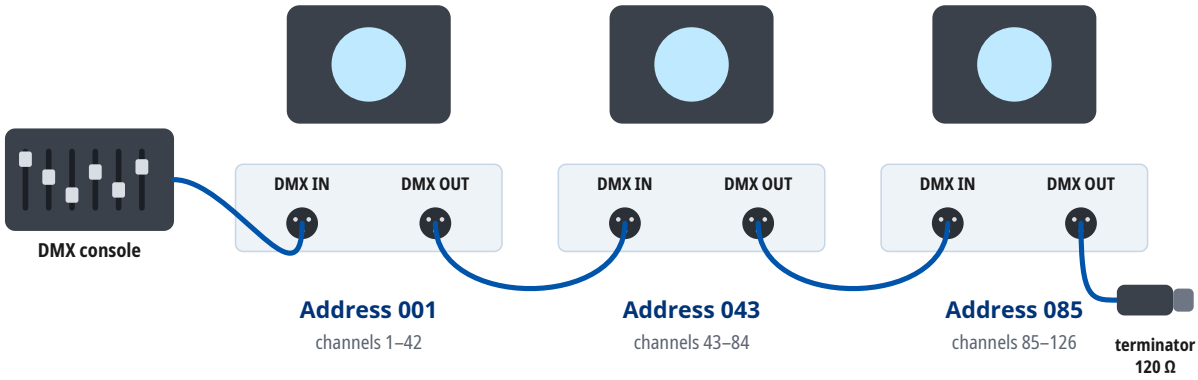
⚠ **WARNING**

- 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: 7.7 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.

5 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 42CH Mode: every unit occupies 42 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.

6 Operation

Setting the DMX address

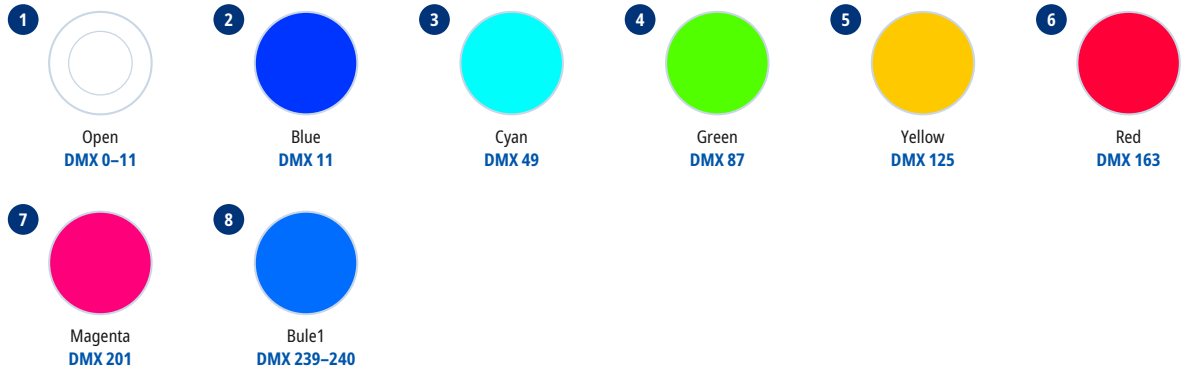
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “42CH Mode”: 42.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “42CH Mode”, you can use, for example, the start addresses 1, 43, 85, 127.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

7 Functions at a glance

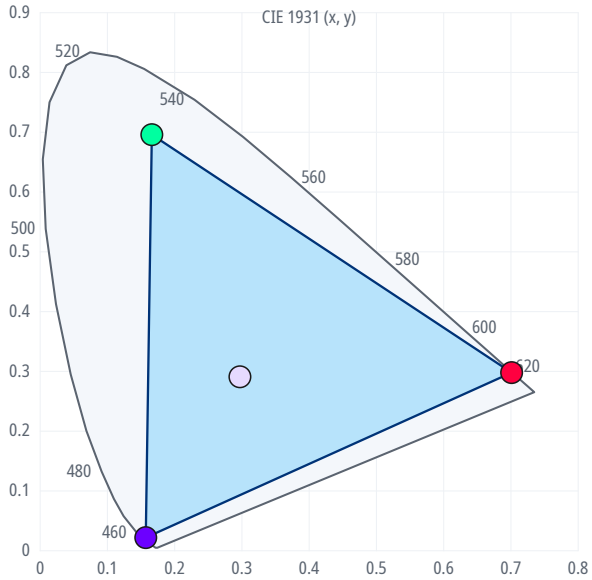
Functions in each DMX mode

	13CH Mode 13 channels	4CH Mode 4 channels	6CH Mode 6 channels	18CH Mode 18 channels	42CH Mode 42 channels
Dimmer	1	✓	✓	1	1
Dimmer resolution	8 bit			16 bit	16 bit
Shutter / strobe	2			3	3
Color mixing	10–13	1–4	1–4	7–18	16× (11–41)
Color temperature	4		5	5	5
Color wheel	3			4	4
Effects / macros	5–8				6–9
Pixel control				✓	✓

Color wheel



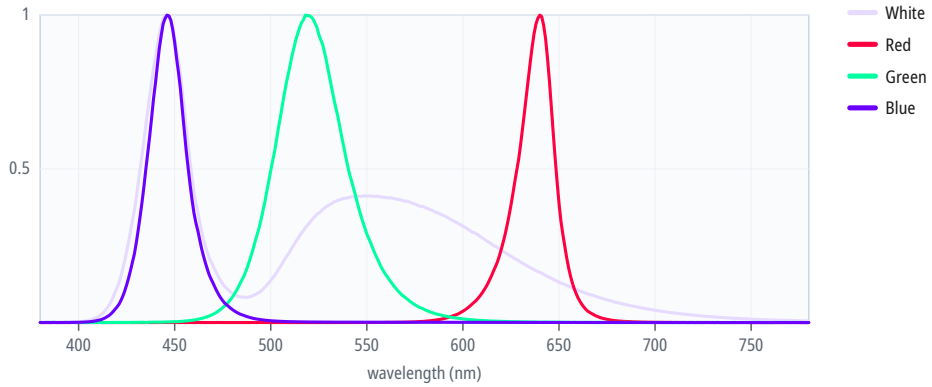
LED colors and the colors they mix



LED	x	y	nm
White	0.297	0.291	
Red	0.701	0.298	626
Green	0.166	0.696	525
Blue	0.157	0.022	451

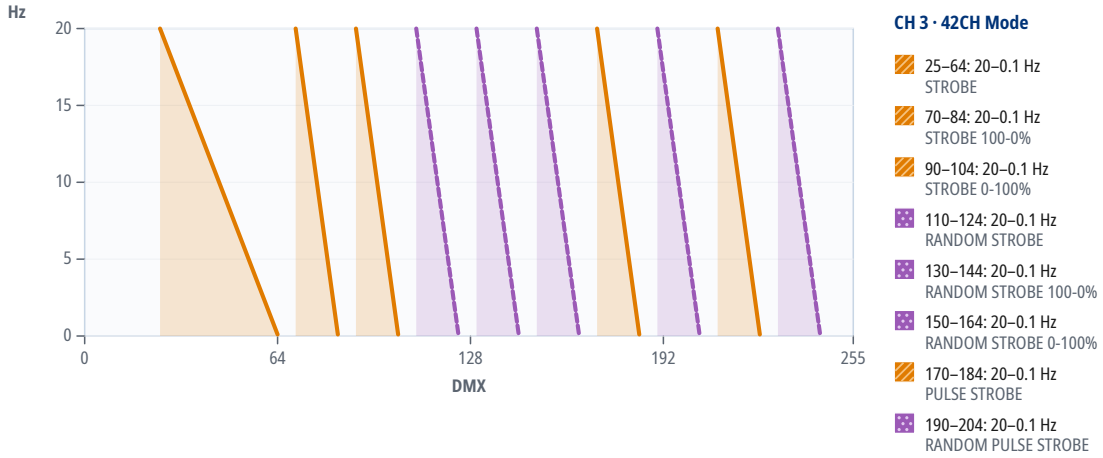
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

Spectra of the light sources



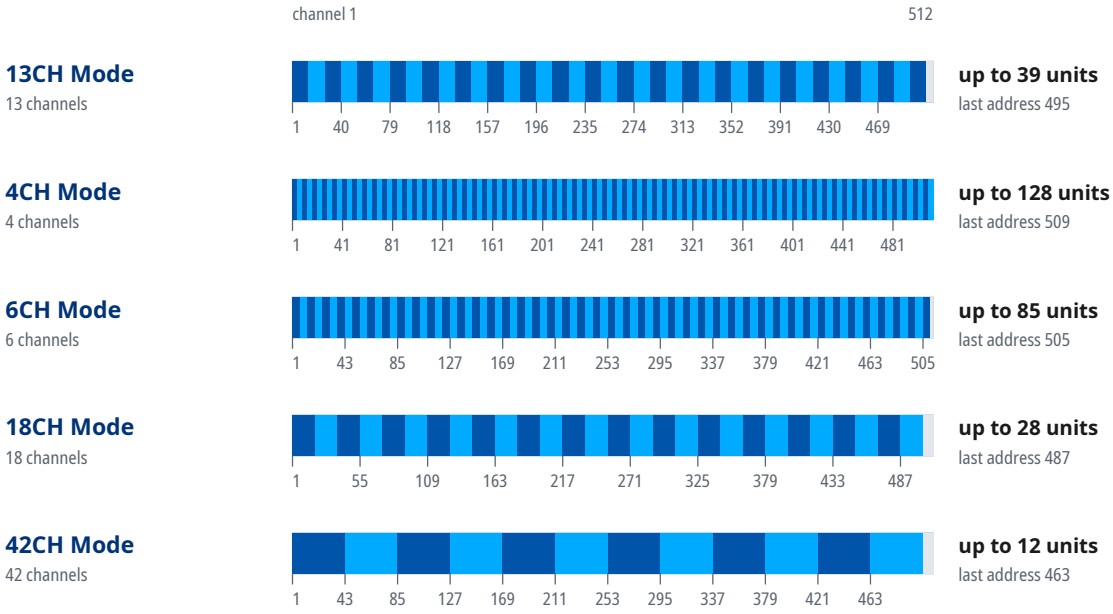
Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

Strobe rate



8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “42CH Mode”

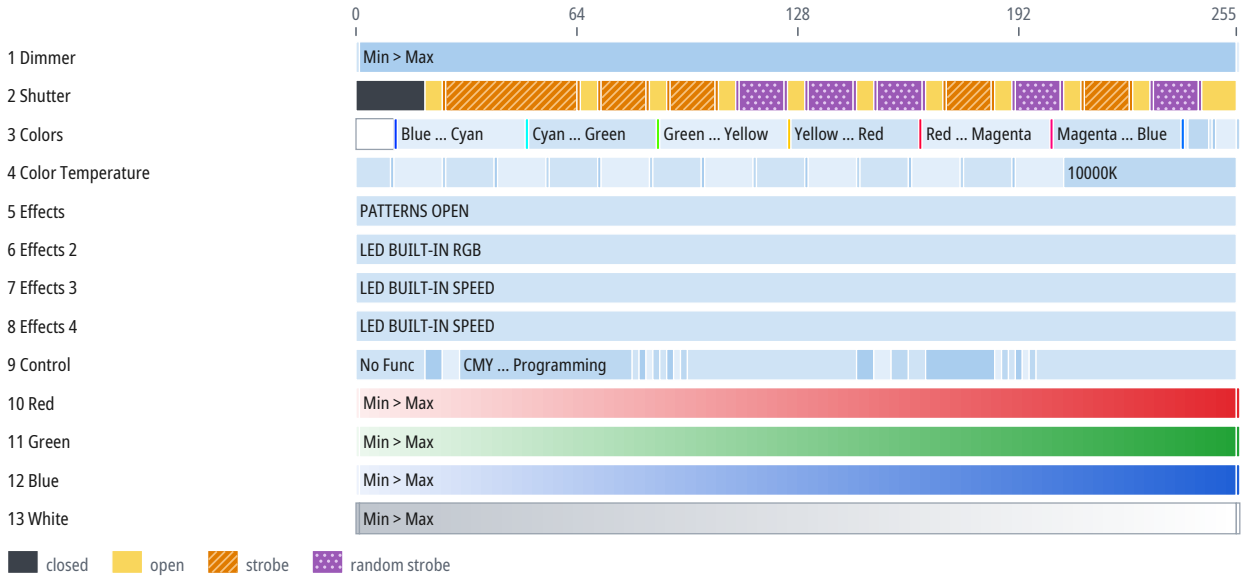
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	211	11	421	16	U2 · 127
2	43	7	253	12	463	17	U2 · 169
3	85	8	295	13	U2 · 1	18	U2 · 211
4	127	9	337	14	U2 · 43	19	U2 · 253
5	169	10	379	15	U2 · 85	20	U2 · 295

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 13CH Mode

If the device receives DMX in this mode but gives no light, check these channels: CH 2 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Colors 0, CH 4 Color Temperature 0, CH 10 Red 255, CH 11 Green 255, CH 12 Blue 255, CH 13 White 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer	0	Min
		1–254	Min > Max
		255	Max
2	Shutter	0–19	Shutter Closed
		20–24	STROBE CLOSE/OPEN: Shutter Open
		25	STROBE: Fast
		26–63	STROBE: Fast > Slow
		64	STROBE: Slow
		65–69	STROBE OPEN: Shutter Open
		70	STROBE 100-0%: Fast
		71–83	STROBE 100-0%: Fast > Slow
		84	STROBE 100-0%: Slow
		85–89	STROBE OPEN: Shutter Open
		90	STROBE 0-100%: Fast
		91–103	STROBE 0-100%: Fast > Slow
		104	STROBE 0-100%: Slow
		105–109	STROBE OPEN: Shutter Open
		110	RANDOM STROBE: Fast
		111–123	RANDOM STROBE: Fast > Slow
		124	RANDOM STROBE: Slow
		125–129	STROBE OPEN: Shutter Open

CH	Function	DMX	Description
2	Shutter (continued)	130	RANDOM STROBE 100-0%: Fast
		131–143	RANDOM STROBE 100-0%: Fast > Slow
		144	RANDOM STROBE 100-0%: Slow
		145–149	STROBE OPEN: Shutter Open
		150	RANDOM STROBE 0-100%: Fast
		151–163	RANDOM STROBE 0-100%: Fast > Slow
		164	RANDOM STROBE 0-100%: Slow
		165–169	STROBE OPEN: Shutter Open
		170	PULSE STROBE: Fast
		171–183	PULSE STROBE: Fast > Slow
		184	PULSE STROBE: Slow
		185–189	STROBE OPEN: Shutter Open
		190	RANDOM PULSE STROBE: Fast
		191–203	RANDOM PULSE STROBE: Fast > Slow
		204	RANDOM PULSE STROBE: Slow
		205–209	STROBE OPEN: Shutter Open
		210	STROBE 0-100-0%: Fast
		211–223	STROBE 0-100-0%: Fast > Slow
		224	STROBE 0-100-0%: Slow
		225–229	STROBE OPEN: Shutter Open
		230	RANDOM PULSE STROBE: Fast
		231–243	RANDOM PULSE STROBE: Fast > Slow
		244	RANDOM PULSE STROBE: Slow
		245–255	STROBE OPEN: Shutter Open
3	Colors	0–10	COLOR MACRO OPEN: Open
		11	Blue
		12–48	Blue ... Cyan
		49	Cyan
		50–86	Cyan ... Green
		87	Green
		88–124	Green ... Yellow
		125	Yellow
		126–162	Yellow ... Red
		163	Red
		164–200	Red ... Magenta
		201	Magenta
		202–238	Magenta ... Blue
		239	Blue
		240	COLOR EFFECT FADE: Fast
		241–246	COLOR EFFECT FADE: Fast > Slow
		247	COLOR EFFECT FADE: Slow
		248	COLOR EFFECT SNAP: Fast

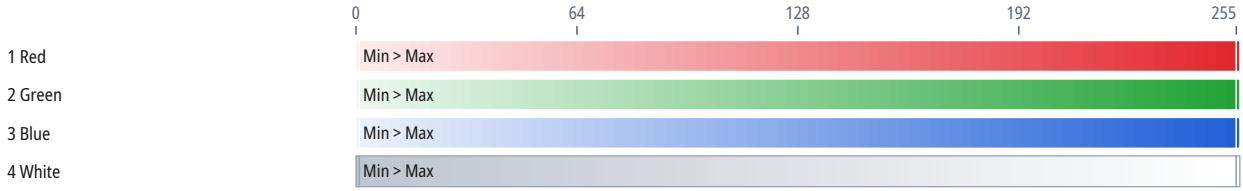
CH	Function	DMX	Description
3	Colors (continued)	249–254	COLOR EFFECT SNAP: Fast > Slow
		255	COLOR EFFECT SNAP: Slow
4	Color Temperature	0–9	CTC OFF: Open
		10	1800K
		11–24	1800K - 2200K
		25	2200K
		26–39	2200K -2700K
		40	2700K
		41–54	2700K -3000K
		55	3000K
		56–69	3000K -3200k
		70	3200K
		71–84	3200K - 4000K
		85	4000K
		86–99	4000K-4500K
		100	4500K
		101–114	4500K-5000K
		115	5000K
		116–129	5000K-5600K
		130	5600K
		131–144	5600K-6000K
		145	6000K
		146–159	6000K-6500K
		160	6500K
		161–174	6500K-7000K
		175	7000K
		176–189	7000K-8000K
		190	8000K
		191–204	8000K-10000K
		205–255	10000K
5	Effects		PATTERNS OPEN
		0–255	PATTERNS OPEN
6	Effects 2		LED BUILT-IN RGB
		0–255	LED BUILT-IN RGB
7	Effects 3		LED BUILT-IN SPEED
		0–255	LED BUILT-IN SPEED (0–10 Hz)
8	Effects 4		LED BUILT-IN SPEED
		0–255	LED BUILT-IN SPEED (0–10 Hz)
9	Control	0–19	No Func
		20–24	RGB
		25–29	CMY
		30–79	CMY ... Programming

CH	Function	DMX	Description
9	Control (continued)	80–81	Programming
		82–83	Check Steps
		84–85	Auto Run
		86–87	Auto Run OFF
		88–89	Delete Current Step
		90–91	Delete All Steps
		92–93	Step Jump
		94–95	5sec Fade
		96–144	5sec Fade ... Dimmer Curve - Linear
		145–149	Dimmer Curve - Linear
		150–154	Dimmer Curve - Square
		155–159	Dimmer Curve - I-Square
		160–164	Dimmer Curve - Scurve
		165–184	Dimmer Curve - Scurve ... PWM 600Hz
		185–186	PWM 600Hz
		187–188	PWM 1200Hz
		189–190	PWM 2000Hz
		191–192	PWM 4000Hz
		193–194	PWM 6000Hz
		195–196	PWM 15000Hz
		197–255	Control 1 1
10	Red	0	Min
		1–254	Min > Max
		255	Max
11	Green	0	Min
		1–254	Min > Max
		255	Max
12	Blue	0	Min
		1–254	Min > Max
		255	Max
13	White	0	Min
		1–254	Min > Max
		255	Max

Mode 4CH Mode

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		Same as CH 10 in the mode “13CH Mode” (p. 12)
2	Green		Same as CH 11 in the mode “13CH Mode” (p. 12)
3	Blue		Same as CH 12 in the mode “13CH Mode” (p. 12)
4	White		Same as CH 13 in the mode “13CH Mode” (p. 12)

Mode 6CH Mode

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 5 Color Temperature 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 10 in the mode “13CH Mode” (p. 12)
2	Green		Same as CH 11 in the mode “13CH Mode” (p. 12)
3	Blue		Same as CH 12 in the mode “13CH Mode” (p. 12)
4	White		Same as CH 13 in the mode “13CH Mode” (p. 12)
5	Color Temperature		Same as CH 4 in the mode “13CH Mode” (p. 11)
6	Control	0–19	No Func
		20–24	RGB
		25–29	CMY
		30–79	CMY ... Static Mode - Record and ON
		80–81	Static Mode - Record and ON
		82–83	Static Mode - ON
		84–85	Static Mode - OFF
		86–87	Auto Run OFF
		88–144	Auto Run OFF ... Dimmer Curve - Linear

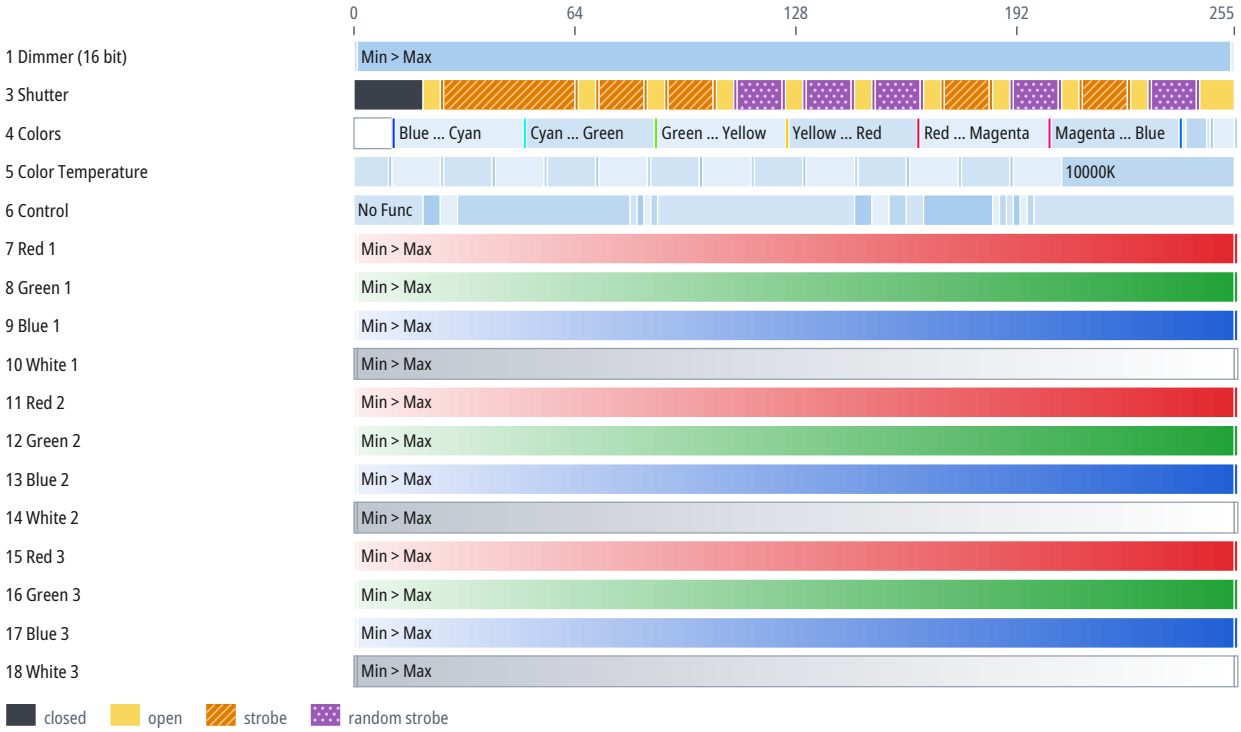
CH	Function	DMX	Description
6	Control (continued)	145–149	Dimmer Curve - Linear
		150–154	Dimmer Curve - Square
		155–159	Dimmer Curve - I-Square
		160–164	Dimmer Curve - Scurve
		165–184	Dimmer Curve - Scurve ... PWM 600Hz
		185–186	PWM 600Hz
		187–188	PWM 1200Hz
		189–190	PWM 2000Hz
		191–192	PWM 4000Hz
		193–194	PWM 6000Hz
		195–196	PWM 15000Hz
		197–255	Control 1 1

Mode 18CH Mode

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 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 4 Colors 0, CH 5 Color Temperature 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “13CH Mode” (p. 9)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “13CH Mode” (p. 9)
4	Colors		Same as CH 3 in the mode “13CH Mode” (p. 10)
5	Color Temperature		Same as CH 4 in the mode “13CH Mode” (p. 11)
6	Control		Same as CH 6 in the mode “6CH Mode” (p. 13)
7	Red 1	0	Min
		1–254	Min > Max
		255	Max
8	Green 1	0	Min
		1–254	Min > Max
		255	Max
9	Blue 1	0	Min
		1–254	Min > Max
		255	Max
10	White 1	0	Min
		1–254	Min > Max
		255	Max
11	Red 2	0	Min
		1–254	Min > Max
		255	Max
12	Green 2	0	Min
		1–254	Min > Max
		255	Max
13	Blue 2	0	Min
		1–254	Min > Max
		255	Max
14	White 2	0	Min
		1–254	Min > Max
		255	Max
15	Red 3	0	Min
		1–254	Min > Max
		255	Max
16	Green 3	0	Min
		1–254	Min > Max
		255	Max
17	Blue 3	0	Min
		1–254	Min > Max
		255	Max

CH	Function	DMX	Description
18	White 3	0	Min
		1–254	Min > Max
		255	Max

Mode 42CH Mode

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 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 4 Colors 0, CH 5 Color Temperature 0, CH 11 Red 1 255, CH 13 Green 1 255, CH 15 Blue 1 255, CH 17 White 1 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “13CH Mode” (p. 9)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “13CH Mode” (p. 9)

CH	Function	DMX	Description
4	Colors		Same as CH 3 in the mode “13CH Mode” (p. 10)
5	Color Temperature		Same as CH 4 in the mode “13CH Mode” (p. 11)
6	Effects		Same as CH 5 in the mode “13CH Mode” (p. 11)
7	Effects 2		LED BUILT-IN OPEN
		0–255	LED BUILT-IN OPEN
8	Effects 3		Same as CH 7 in the mode “13CH Mode” (p. 11)
9	Effects 4		Same as CH 8 in the mode “13CH Mode” (p. 11)
10	Control		Same as CH 9 in the mode “13CH Mode” (p. 11)
11	Red 1		Same as CH 7 in the mode “18CH Mode” (p. 15)
12	Red 1 Fine	0–255	Fine adjustment of CH 11
13	Green 1		Same as CH 8 in the mode “18CH Mode” (p. 15)
14	Green 1 Fine	0–255	Fine adjustment of CH 13
15	Blue 1		Same as CH 9 in the mode “18CH Mode” (p. 15)
16	Blue 1 Fine	0–255	Fine adjustment of CH 15
17	White 1		Same as CH 10 in the mode “18CH Mode” (p. 15)
18	White 1 Fine	0–255	Fine adjustment of CH 17
19	Red 2		Same as CH 11 in the mode “18CH Mode” (p. 15)
20	Red 2 Fine	0–255	Fine adjustment of CH 19
21	Green 2	0	Min ... Min > Max
		1–254	Min > Max
		255	Max
22	Green 2 Fine	0–255	Fine adjustment of CH 21
23	Blue 2		Same as CH 13 in the mode “18CH Mode” (p. 15)
24	Blue 2 Fine	0–255	Fine adjustment of CH 23
25	White 2		Same as CH 14 in the mode “18CH Mode” (p. 15)
26	White 2 Fine	0–255	Fine adjustment of CH 25
27	Red 3		Same as CH 15 in the mode “18CH Mode” (p. 15)
28	Red 3 Fine	0–255	Fine adjustment of CH 27
29	Green 3		Same as CH 16 in the mode “18CH Mode” (p. 15)
30	Green 3 Fine	0–255	Fine adjustment of CH 29
31	Blue 3		Same as CH 17 in the mode “18CH Mode” (p. 15)
32	Blue 3 Fine	0–255	Fine adjustment of CH 31
33	White 3		Same as CH 18 in the mode “18CH Mode” (p. 16)
34	White 3 Fine	0–255	Fine adjustment of CH 33
35	Red 4	0	Min
		1–254	Min > Max
		255	Max
36	Red 4 Fine	0–255	Fine adjustment of CH 35
37	Green 4	0	Min
		1–254	Min > Max
		255	Max

CH	Function	DMX	Description
38	Green 4 Fine	0–255	Fine adjustment of CH 37
39	Blue 4	0	Min
		1–254	Min > Max
		255	Max
40	Blue 4 Fine	0–255	Fine adjustment of CH 39
41	White 4	0	Min
		1–254	Min > Max
		255	Max
42	White 4 Fine	0–255	Fine adjustment of CH 41

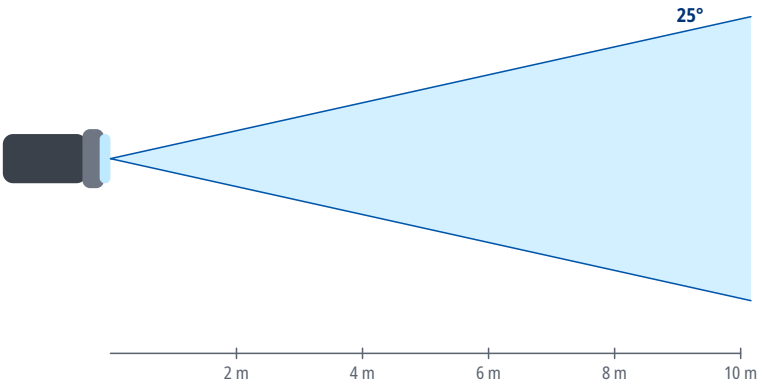
9 Technical specifications

Parameter	Value
Light source	LED
RDM	yes (manufacturer ID 0x3536, device model ID 0x06F2)
Weight	7.7 kg
Operating temperature	-40 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–19000 K
Strobe frequency	0.1–20 Hz

Spot diameter



Distance	Ø 25°
2 m	0.89 m
4 m	1.8 m
6 m	2.7 m
8 m	3.5 m
10 m	4.4 m
15 m	6.7 m

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

10 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.

11 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.

12 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.