DMX REFERENCE

CL-200C PUZZLE

CINDY



Manufacturer	CINDY
GDTF file	CINDY_CL-200C_PUZZLE_167324.gdtf
GDTF revision	Build No 1 · 2026-05-13
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1 About this manual

This document describes the CL-200C PUZZLE by CINDY. It was compiled from the GDTF file CINDY_CL-200C_PUZZLE_167324.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	6.7 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
45CH	45	11	1, 46, 91, 136, ...
24CH	24	21	1, 25, 49, 73, ...
42CH	42	12	1, 43, 85, 127, ...
38CH	38	13	1, 39, 77, 115, ...

No light? Check these channels

- 45CH: CH 16 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 17 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”
- 24CH: CH 15 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 16 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”
- 42CH: CH 15 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 16 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”
- 38CH: CH 15 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 16 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”


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

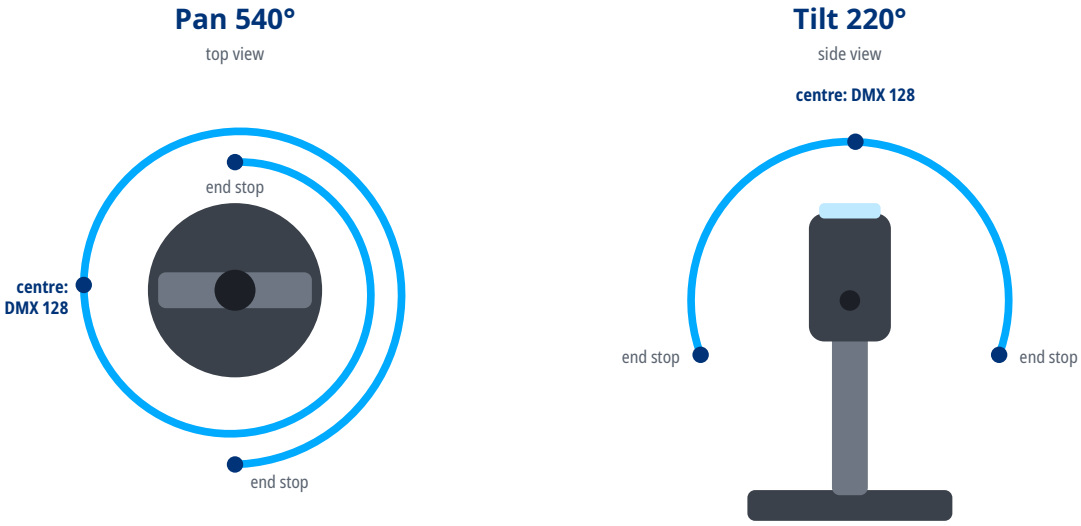
- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them 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

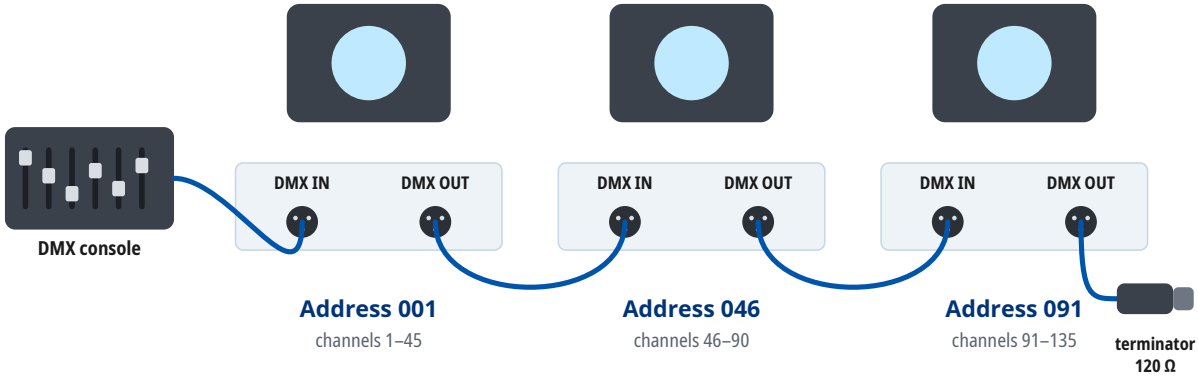
- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 6.7 kg.
- 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.

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 45CH: every unit occupies 45 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 “45CH”: 45.
- 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 “45CH”, you can use, for example, the start addresses 1, 46, 91, 136.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

8 Functions at a glance

Functions in each DMX mode

	45CH 45 channels	24CH 24 channels	42CH 42 channels	38CH 38 channels
Pan / Tilt	**1, 3**	**1, 3**	**1, 3**	**1, 3**
Dimmer	**13, 15, 28–45**	**13, 14, 23, 24**	**13, 27–42**	**13, 23–38**
Dimmer resolution	16 bit	8 bit	16 bit	16 bit
Shutter / strobe	**16, 17**	**15, 16**	**15, 16**	**15, 16**
Color mixing	**4× (20–26)**	**19–22**	**4× (19–25)**	**19–22**
Color temperature	**6–8**	**6–8**	**6–8**	**6–8**
Zoom	**18**	**17**	**17**	**17**
Effects / macros	**8–10, 12**	**8–10, 12**	**8–10, 12**	**8–10, 12**
Pixel control	**18 cells**	✓	**16 cells**	**16 cells**

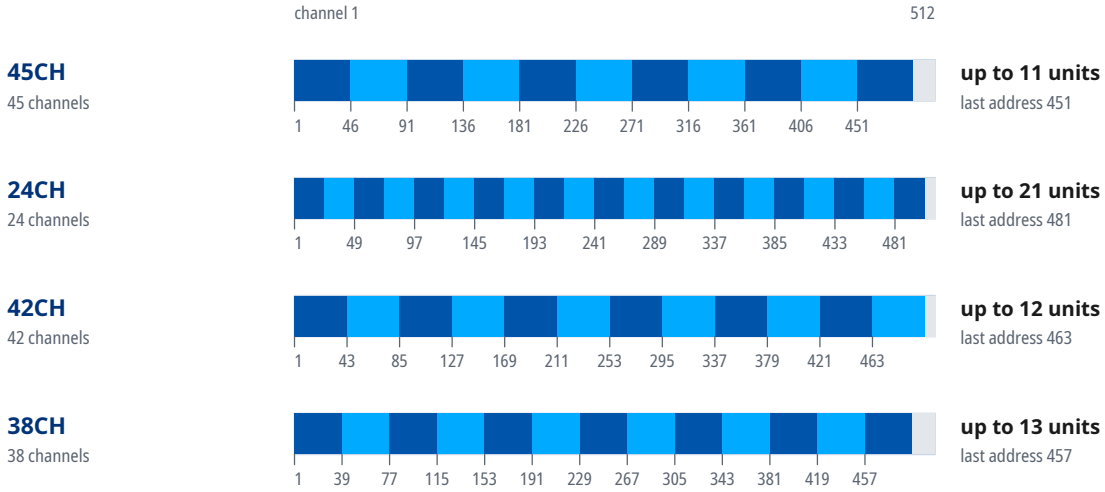
Cells (pixels)



8 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “45CH”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “45CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	226	11	451	16	U2 · 181
2	46	7	271	12	U2 · 1	17	U2 · 226
3	91	8	316	13	U2 · 46	18	U2 · 271
4	136	9	361	14	U2 · 91	19	U2 · 316
5	181	10	406	15	U2 · 136	20	U2 · 361

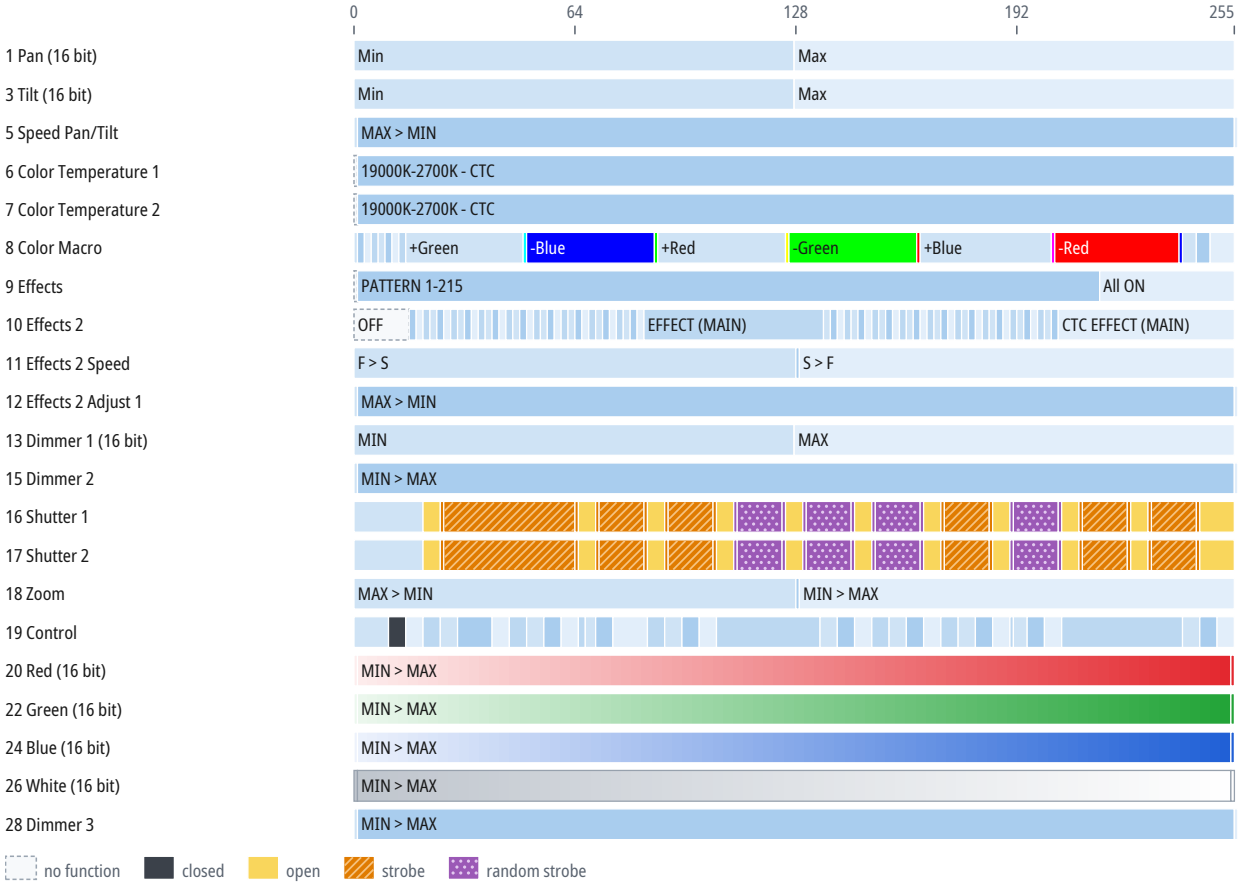
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 45CH

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 16 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 17 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 1 0, CH 7 Color Temperature 2 0, CH 8 Color Macro 0, CH 13 Dimmer 1 255, CH 15 Dimmer 2 255, CH 16 Shutter 1 22, CH 17 Shutter 2 22, CH 20 Red 255, CH 22 Green 255, CH 24 Blue 255, CH 26 White 255, CH 28 Dimmer 255 (the same in each of the 18 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min
		128	Home
		128–255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min
		128	Home
		128–255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0	MAX
		1–254	MAX > MIN

CH	Function	DMX	Description
5	Speed Pan/Tilt (continued)	255	MIN
6	Color Temperature 1	0	CTC OFF: Off
		1–255	19000K-2700K - CTC (19000–2700 K)
7	Color Temperature 2	0	CTC OFF: Off
		1–255	19000K-2700K - CTC (19000–2700 K)
8	Color Macro	0	COLOR MACRO: Open
		1–2	White 2700K - CTC
		3–4	White3200K - CTC
		5–6	White 4000K - CTC
		7–8	White 4200K - CTC
		9–10	White 5600K - CTC
		11–12	White 6500K - CTC
		13–14	White 7500K - CTC
		15–48	+Green
		49	Cyan
		50–86	-Blue
		87	Green
		88–124	+Red
		125	Yellow
		126–162	-Green
		163	Red
		164–201	+Blue
		202	Magenta
		203–238	-Red
		239	Blue
		240–243	COLOR FADE
		244–247	Color Fade F > S
		248–255	Color Snap F > S
9	Effects	0	OFF
		1–215	PATTERN 1-215
		216–255	All ON
10	Effects 2	0–15	OFF
		16–17	EFFECT 1
		18–19	EFFECT 2
		20–21	EFFECT 3
		22–23	EFFECT 4
		24–25	EFFECT 5
		26–27	EFFECT 6
		28–29	EFFECT 7
		30–31	EFFECT 8
		32–33	EFFECT 9
		34–35	EFFECT 10

CH	Function	DMX	Description
10	Effects 2 (continued)	36–37	EFFECT 11
		38–39	EFFECT 12
		40–41	EFFECT 13
		42–43	EFFECT 14
		44–45	EFFECT 15
		46–47	EFFECT 16
		48–49	EFFECT 17
		50–51	EFFECT 18
		52–53	EFFECT 19
		54–55	EFFECT 20
		56–57	EFFECT 21
		58–59	EFFECT 22
		60–61	EFFECT 23
		62–63	EFFECT 24
		64–65	EFFECT 25
		66–67	EFFECT 26
		68–69	EFFECT 27
		70–71	EFFECT 28
		72–73	EFFECT 29
		74–75	EFFECT 30
		76–77	EFFECT 31
		78–79	EFFECT 32
		80–81	EFFECT 33
		82–83	EFFECT 34
		84–135	EFFECT (MAIN)
		136–137	CTC EFFECT 36
		138–139	CTC EFFECT 37
		140–141	CTC EFFECT 38
		142–143	CTC EFFECT 39
		144–145	CTC EFFECT 40
		146–147	CTC EFFECT 41
		148–149	CTC EFFECT 42
		150–151	CTC EFFECT 43
		152–153	CTC EFFECT 44
		154–155	CTC EFFECT 45
		156–157	CTC EFFECT 46
		158–159	CTC EFFECT 47
		160–161	CTC EFFECT 48
		162–163	CTC EFFECT 49
		164–165	CTC EFFECT 50
		166–167	CTC EFFECT 51
		168–169	CTC EFFECT 52

CH	Function	DMX	Description
10	Effects 2 (continued)	170–171	CTC EFFECT 53
		172–173	CTC EFFECT 54
		174–175	CTC EFFECT 55
		176–177	CTC EFFECT 56
		178–179	CTC EFFECT 57
		180–181	CTC EFFECT 58
		182–183	CTC EFFECT 59
		184–185	CTC EFFECT 60
		186–187	CTC EFFECT 61
		188–189	CTC EFFECT 62
		190–191	CTC EFFECT 63
		192–193	CTC EFFECT 64
		194–195	CTC EFFECT 65
		196–197	CTC EFFECT 66
		198–199	CTC EFFECT 67
		200–201	CTC EFFECT 68
		202–203	CTC EFFECT 69
		204–255	CTC EFFECT (MAIN)
11	Effects 2 Speed	0–127	F > S
		128	STOP
		129–255	S > F
12	Effects 2 Adjust 1		EFFECT DELAY
		0	MAX
		1–254	MAX > MIN
		255	MIN
13	Dimmer 1	0–127	MIN
		128	MIN > MAX
		128–255	MAX
14	Dimmer 1 Fine	0–255	Fine adjustment of CH 13
15	Dimmer 2	0	MIN
		1–254	MIN > MAX
		255	MAX
16	Shutter 1	0–19	OFF/ON: OFF
		20–24	OFF/ON: ON
		25	STROBE: MAX
		26–63	STROBE: MAX > MIN
		64	STROBE: MIN
		65–69	STROBE: ON
		70	Pulse Close: MAX
		71–83	Pulse Close: MAX > MIN
		84	Pulse Close: MIN
		85–89	Pulse Close: ON

CH	Function	DMX	Description
16	Shutter 1 (continued)	90	Pulse Open: MAX
		91–103	Pulse Open: MAX > MIN
		104	Pulse Open: MIN
		105–109	Pulse Open: ON
		110	RANDOM STROBE: MAX
		111–123	RANDOM STROBE: MAX > MIN
		124	RANDOM STROBE: MIN
		125–129	RANDOM STROBE: ON
		130	Random Pulse Close: MAX
		131–143	Random Pulse Close: MAX > MIN
		144	Random Pulse Close: MIN
		145–149	Random Pulse Close: ON
		150	Random Pulse Open: MAX
		151–163	Random Pulse Open: MAX > MIN
		164	Random Pulse Open: MIN
		165–169	Random Pulse Open: ON
		170	Strobe Pulse: MAX
		171–183	Strobe Pulse: MAX > MIN
		184	Strobe Pulse: MIN
		185–189	Strobe Pulse: ON
		190	Random Pulse: MAX
		191–203	Random Pulse: MAX > MIN
		204	Random Pulse: MIN
		205–209	Random Pulse: ON
		210	STROBE FADE: MAX
		211–223	STROBE FADE: MAX > MIN
		224	STROBE FADE: MIN
		225–229	STROBE FADE: ON
		230	STROBE PULSE: MAX
		231–243	STROBE PULSE: MAX > MIN
		244	STROBE PULSE: MIN
		245–255	STROBE PULSE: ON
17	Shutter 2	0–19	OFF/ON: OFF
		20–24	OFF/ON: ON
		25	STROBE: MAX
		26–63	STROBE: MAX > MIN
		64	STROBE: MIN
		65–69	STROBE: ON
		70	Pulse Close: MAX
		71–83	Pulse Close: MAX > MIN
		84	Pulse Close: MIN
		85–89	Pulse Close: ON

CH	Function	DMX	Description
17	Shutter 2 (continued)	90	Pulse Open: MAX
		91–103	Pulse Open: MAX > MIN
		104	Pulse Open: MIN
		105–109	Pulse Open: ON
		110	RANDOM STROBE: MAX
		111–123	RANDOM STROBE: MAX > MIN
		124	RANDOM STROBE: MIN
		125–129	RANDOM STROBE: ON
		130	Random Pulse Close: MAX
		131–143	Random Pulse Close: MAX > MIN
		144	Random Pulse Close: MIN
		145–149	Random Pulse Close: ON
		150	Random Pulse Open: MAX
		151–163	Random Pulse Open: MAX > MIN
		164	Random Pulse Open: MIN
		165–169	Random Pulse Open: ON
		170	Strobe Pulse: MAX
		171–183	Strobe Pulse: MAX > MIN
		184	Strobe Pulse: MIN
		185–189	Strobe Pulse: ON
		190	Random Pulse: MAX
		191–203	Random Pulse: MAX > MIN
		204	Random Pulse: MIN
		205–209	Random Pulse: ON
		210	STROBE FADE: MAX
		211–223	STROBE FADE: MAX > MIN
		224	STROBE FADE: MIN
		225–229	STROBE FADE: ON
		230	STROBE PULSE: MAX
		231–243	STROBE PULSE: MAX > MIN
		244	STROBE PULSE: MIN
		245–255	STROBE PULSE: ON
18	Zoom	0–127	MAX > MIN
		128	HOME
		129–255	MIN > MAX
19	Control	0–9	No Func
		10–14	P/T Blackout
		15–19	P/T Blackout ... RGBW
		20–24	RGBW
		25–29	CMY
		30–39	CMY ... Color HTP ON
		40–44	Color HTP ON

CH	Function	DMX	Description
19	Control (continued)	45–49	Color HTP OFF
		50–54	Pan Reset
		55–59	Tilt Reset
		60–64	Zoom Reset
		65–66	Zoom Theater Reset Mode ON
		67–69	Zoom Theater Reset Mode OFF
		70–74	All Reset
		75–84	All Reset ... Pan Reverse
		85–89	Pan Reverse
		90–94	Tilt Reverse
		95–99	Pan Normal
		100–104	Tilt Normal
		105–134	Tilt Normal ... Dimmer Fast
		135–139	Dimmer Fast
		140–144	Dimmer Smooth
		145–149	Dimmer Curve - Linear
		150–154	Dimmer Curve - Square
		155–159	Dimmer Curve - I Square
		160–164	Dimmer Curve - Scurve
		165–169	White Mode
		170–174	Full Mode
		175–179	PWM 600Hz
		180–184	PWM 1200Hz
		185–189	PWM 2000Hz
		190	PWM 2000Hz ... PWM 4000Hz
		191–194	PWM 4000Hz
		195–199	PWM 6000Hz
		200–204	PWM 15000Hz
		205–239	PWM 15000Hz ... Tilt Smooth
		240–244	Tilt Smooth
		245–249	Tilt Fast
		250–255	Control 1 1
20	Red	0	MIN
		1–254	MIN > MAX
		255	MAX
21	Red Fine	0–255	Fine adjustment of CH 20
22	Green	0	MIN
		1–254	MIN > MAX
		255	MAX
23	Green Fine	0–255	Fine adjustment of CH 22
24	Blue	0	MIN
		1–254	MIN > MAX

CH	Function	DMX	Description
24	Blue (continued)	255	MAX
25	Blue Fine	0–255	Fine adjustment of CH 24
26	White	0	MIN
		1–254	MIN > MAX
		255	MAX
27	White Fine	0–255	Fine adjustment of CH 26
28	Dimmer 3	0	MIN
		1–254	MIN > MAX
		255	MAX

CH 28–45: 18 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 28); the table below gives each cell's channel numbers.

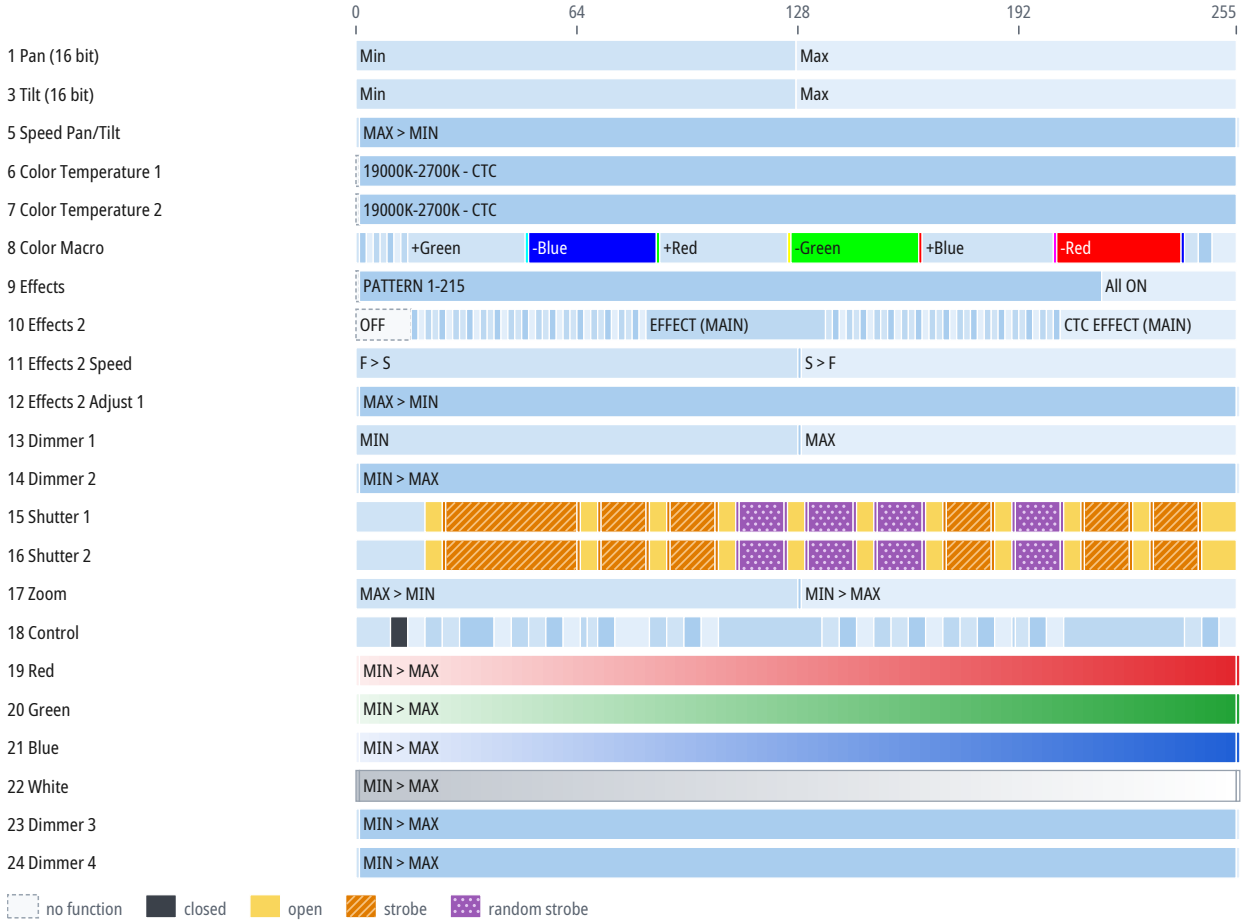
Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	28	2	29	3	30	4	31	5	32	6	33
7	34	8	35	9	36	10	37	11	38	12	39
13	40	14	41	15	42	16	43	17	44	18	45

Mode 24CH

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

If the device receives DMX in this mode but gives no light, check these channels: CH 15 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 16 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 1 0, CH 7 Color Temperature 2 0, CH 8 Color Macro 0, CH 13 Dimmer 1 255, CH 14 Dimmer 2 255, CH 15 Shutter 1 22, CH 16 Shutter 2 22, CH 19 Red 255, CH 20 Green 255, CH 21 Blue 255, CH 22 White 255, CH 23 Dimmer 3 255, CH 24 Dimmer 4 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “45CH” (p. 9)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “45CH” (p. 9)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “45CH” (p. 9)
6	Color Temperature 1		Same as CH 6 in the mode “45CH” (p. 10)
7	Color Temperature 2		Same as CH 7 in the mode “45CH” (p. 10)
8	Color Macro		Same as CH 8 in the mode “45CH” (p. 10)
9	Effects		Same as CH 9 in the mode “45CH” (p. 10)

CH	Function	DMX	Description
10	Effects 2		Same as CH 10 in the mode “45CH” (p. 10)
11	Effects 2 Speed		Same as CH 11 in the mode “45CH” (p. 12)
12	Effects 2 Adjust 1		Same as CH 12 in the mode “45CH” (p. 12)
13	Dimmer 1	0–127	MIN
		128	MIN > MAX
		129–255	MAX
14	Dimmer 2		Same as CH 15 in the mode “45CH” (p. 12)
15	Shutter 1		Same as CH 16 in the mode “45CH” (p. 12)
16	Shutter 2		Same as CH 17 in the mode “45CH” (p. 13)
17	Zoom		Same as CH 18 in the mode “45CH” (p. 14)
18	Control		Same as CH 19 in the mode “45CH” (p. 14)
19	Red		Same as CH 20 in the mode “45CH” (p. 15)
20	Green		Same as CH 22 in the mode “45CH” (p. 15)
21	Blue		Same as CH 24 in the mode “45CH” (p. 15)
22	White		Same as CH 26 in the mode “45CH” (p. 16)
23	Dimmer 3	0	MIN
		1–254	MIN > MAX
		255	MAX
24	Dimmer 4	0	MIN
		1–254	MIN > MAX
		255	MAX

Mode 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 15 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 16 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 1 0, CH 7 Color Temperature 2 0, CH 8 Color Macro 0, CH 13 Dimmer 1 255, CH 15 Shutter 1 22, CH 16 Shutter 2 22, CH 19 Red 255, CH 21 Green 255, CH 23 Blue 255, CH 25 White 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “45CH” (p. 9)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “45CH” (p. 9)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “45CH” (p. 9)
6	Color Temperature 1		Same as CH 6 in the mode “45CH” (p. 10)
7	Color Temperature 2		Same as CH 7 in the mode “45CH” (p. 10)
8	Color Macro		Same as CH 8 in the mode “45CH” (p. 10)
9	Effects		Same as CH 9 in the mode “45CH” (p. 10)
10	Effects 2		Same as CH 10 in the mode “45CH” (p. 10)
11	Effects 2 Speed		Same as CH 11 in the mode “45CH” (p. 12)
12	Effects 2 Adjust 1		Same as CH 12 in the mode “45CH” (p. 12)

CH	Function	DMX	Description
13	Dimmer 1		Same as CH 13 in the mode “45CH” (p. 12)
14	Dimmer 1 Fine	0–255	Fine adjustment of CH 13
15	Shutter 1		Same as CH 16 in the mode “45CH” (p. 12)
16	Shutter 2		Same as CH 17 in the mode “45CH” (p. 13)
17	Zoom		Same as CH 18 in the mode “45CH” (p. 14)
18	Control		Same as CH 19 in the mode “45CH” (p. 14)
19	Red		Same as CH 20 in the mode “45CH” (p. 15)
20	Red Fine	0–255	Fine adjustment of CH 19
21	Green		Same as CH 22 in the mode “45CH” (p. 15)
22	Green Fine	0–255	Fine adjustment of CH 21
23	Blue		Same as CH 24 in the mode “45CH” (p. 15)
24	Blue Fine	0–255	Fine adjustment of CH 23
25	White		Same as CH 26 in the mode “45CH” (p. 16)
26	White Fine	0–255	Fine adjustment of CH 25
27	Dimmer 2	0	MIN
		1–254	MIN > MAX
		255	MAX

CH 27–42: 16 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 27); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	27	2	28	3	29	4	30	5	31	6	32
7	33	8	34	9	35	10	36	11	37	12	38
13	39	14	40	15	41	16	42				

Mode 38CH

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

If the device receives DMX in this mode but gives no light, check these channels: CH 15 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”; CH 16 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “ON”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 1 0, CH 7 Color Temperature 2 0, CH 8 Color Macro 0, CH 13 Dimmer 1 255, CH 15 Shutter 1 22, CH 16 Shutter 2 22, CH 19 Red 255, CH 20 Green 255, CH 21 Blue 255, CH 22 White 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “45CH” (p. 9)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “45CH” (p. 9)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “45CH” (p. 9)
6	Color Temperature 1		Same as CH 6 in the mode “45CH” (p. 10)
7	Color Temperature 2		Same as CH 7 in the mode “45CH” (p. 10)
8	Color Macro		Same as CH 8 in the mode “45CH” (p. 10)
9	Effects		Same as CH 9 in the mode “45CH” (p. 10)
10	Effects 2		Same as CH 10 in the mode “45CH” (p. 10)
11	Effects 2 Speed		Same as CH 11 in the mode “45CH” (p. 12)
12	Effects 2 Adjust 1		Same as CH 12 in the mode “45CH” (p. 12)

CH	Function	DMX	Description
13	Dimmer 1		Same as CH 13 in the mode “45CH” (p. 12)
14	Dimmer 1 Fine	0–255	Fine adjustment of CH 13
15	Shutter 1		Same as CH 16 in the mode “45CH” (p. 12)
16	Shutter 2		Same as CH 17 in the mode “45CH” (p. 13)
17	Zoom		Same as CH 18 in the mode “45CH” (p. 14)
18	Control		Same as CH 19 in the mode “45CH” (p. 14)
19	Red		Same as CH 20 in the mode “45CH” (p. 15)
20	Green		Same as CH 22 in the mode “45CH” (p. 15)
21	Blue		Same as CH 24 in the mode “45CH” (p. 15)
22	White		Same as CH 26 in the mode “45CH” (p. 16)
23	Dimmer 2	0	MIN
		1–254	MIN > MAX
		255	MAX

CH 23–38: 16 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 23); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	23	2	24	3	25	4	26	5	27	6	28
7	29	8	30	9	31	10	32	11	33	12	34
13	35	14	36	15	37	16	38				

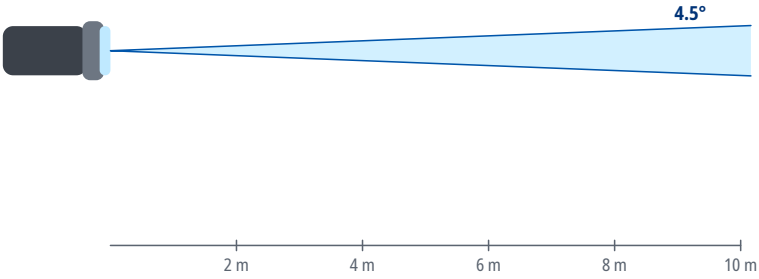
10 Technical specifications

Parameter	Value
Pan	540°
Tilt	220°
RDM	yes (manufacturer ID 0x3536, device model ID 0x06FD)
Weight	6.7 kg
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–19000 K

Spot diameter



Distance	Ø 4.5°
2 m	0.16 m
4 m	0.31 m
6 m	0.47 m
8 m	0.63 m
10 m	0.79 m
15 m	1.2 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.