DMX REFERENCE

ACME VOLTKA

ACME VOLTKA(STROBE 1)

ACME



Manufacturer	ACME
GDTF file	ACME_ACME_VOLTKA_86127.gdtf
GDTF revision	Mode 2 12 channel - OK · 2025-02-11
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1 About this manual

This document describes the ACME VOLTKA(STROBE 1) by ACME. It was compiled from the GDTF file ACME_ACME_VOLTKA_86127.gdtf from the GDTF-Share library.

File revision: “Mode 2 12 channel - OK”.

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 ACME; 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	4 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 5 DMX	5	102	1, 6, 11, 16, ...
Mode 2 12 DMX	12	42	1, 13, 25, 37, ...
Mode 3 35 DMX(5*2)	35	14	1, 36, 71, 106, ...
Mode 4 35 DMX(10*1)	35	14	1, 36, 71, 106, ...
Mode 5 150 DMX	150	3	1, 151, 301

No light? Check these channels

- Mode 1 5 DMX: CH 4 Dimmer above 0
- Mode 2 12 DMX: CH 6 Dimmer above 0; CH 9 Shutter at 255
- Mode 3 35 DMX(5*2): CH 31 Dimmer above 0; CH 35 Strobe Effect at 0–5 “No Effect”
- Mode 4 35 DMX(10*1): CH 31 Dimmer above 0; CH 35 Strobe Effect at 0–5 “No Effect”



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

- This device produces very intense flashes of light.
- Flash rates of about 3 to 30 flashes per second carry the highest risk for people with photosensitive epilepsy.
- Do not aim the device into the eyes of the audience or performers at close range.
- At public events, always give clear advance notice that strobe effects will be used.

4 Installation

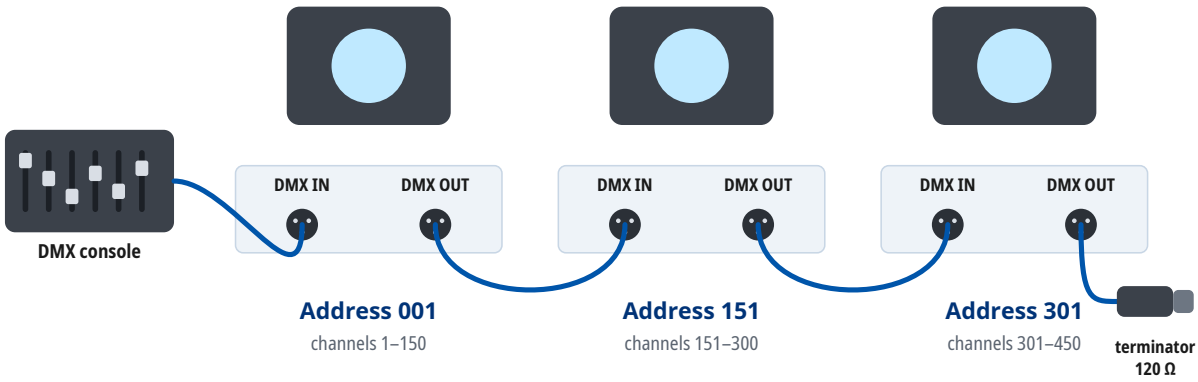
⚠ WARNING

- 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: 4 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 5 150 DMX: every unit occupies 150 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 “Mode 5 150 DMX”: 150.
- 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 “Mode 5 150 DMX”, you can use, for example, the start addresses 1, 151, 301.
- 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

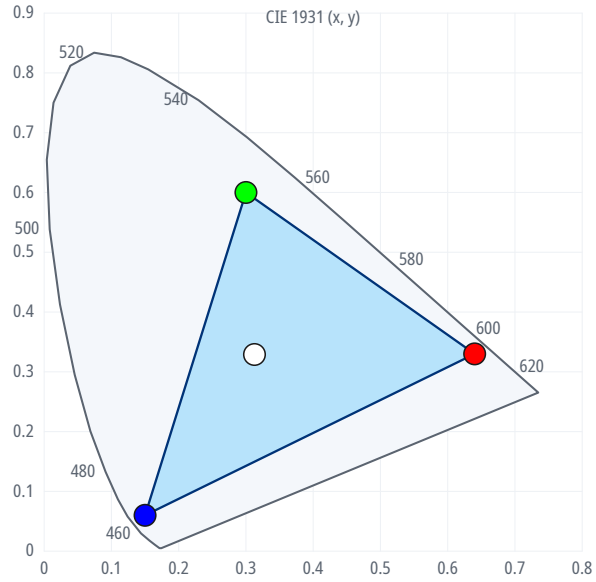
Functions in each DMX mode

	Mode 1 5 DMX 5 channels	Mode 2 12 DMX 12 channels	Mode 3 35 DMX(5*2) 35 channels	Mode 4 35 DMX(10*1) 35 channels	Mode 5 150 DMX 150 channels
Dimmer	4	6	31	31	✓
Shutter / strobe		8–10	33–35	33–35	
Color mixing	1–3	1–3	1–30	1–30	1–150
Color temperature		5			
Color wheel		4			
Effects / macros		11			
Pixel control			10 cells	10 cells	50 cells

Color wheel


1
Open
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
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Color 31
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Color 32
34
Color 33

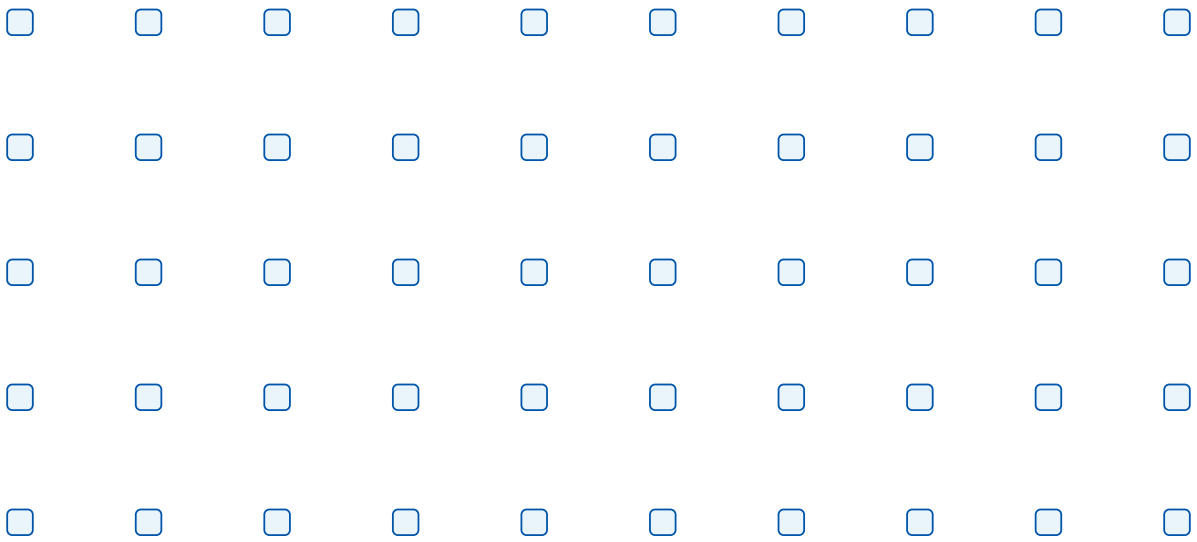
LED colors and the colors they mix



LED	x	y
Red	0.640	0.330
Green	0.300	0.600
Blue	0.150	0.060
White	0.313	0.329

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

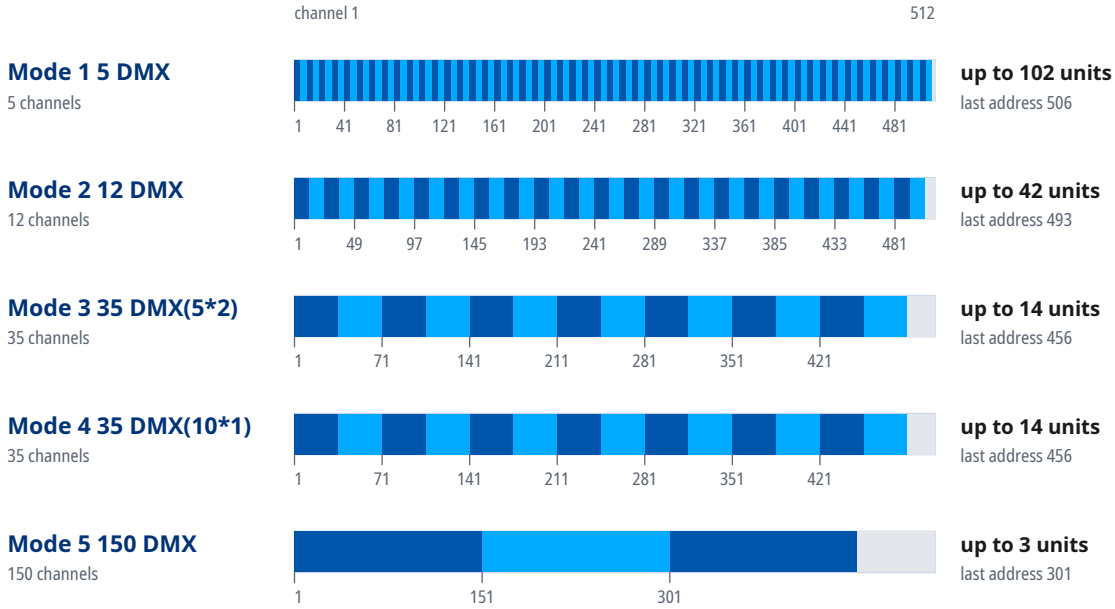
Cells (pixels)



Cells where the GDTF file places them (seen from above), 50 in all in the mode “Mode 5 150 DMX”.

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 5 150 DMX”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 301	11	U4 · 151	16	U6 · 1
2	151	7	U3 · 1	12	U4 · 301	17	U6 · 151
3	301	8	U3 · 151	13	U5 · 1	18	U6 · 301
4	U2 · 1	9	U3 · 301	14	U5 · 151	19	U7 · 1
5	U2 · 151	10	U4 · 1	15	U5 · 301	20	U7 · 151

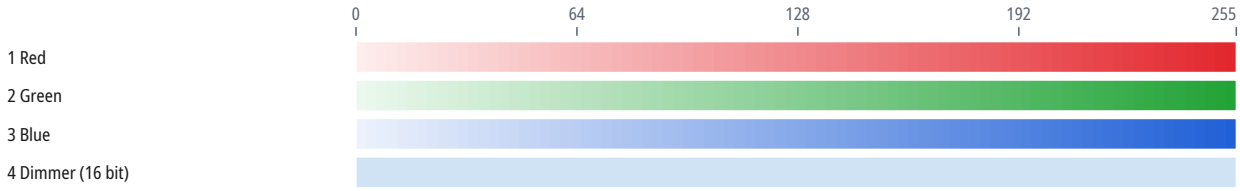
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 1 5 DMX

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 4 Dimmer above 0. 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 Dimmer 255.

Channel functions at a glance



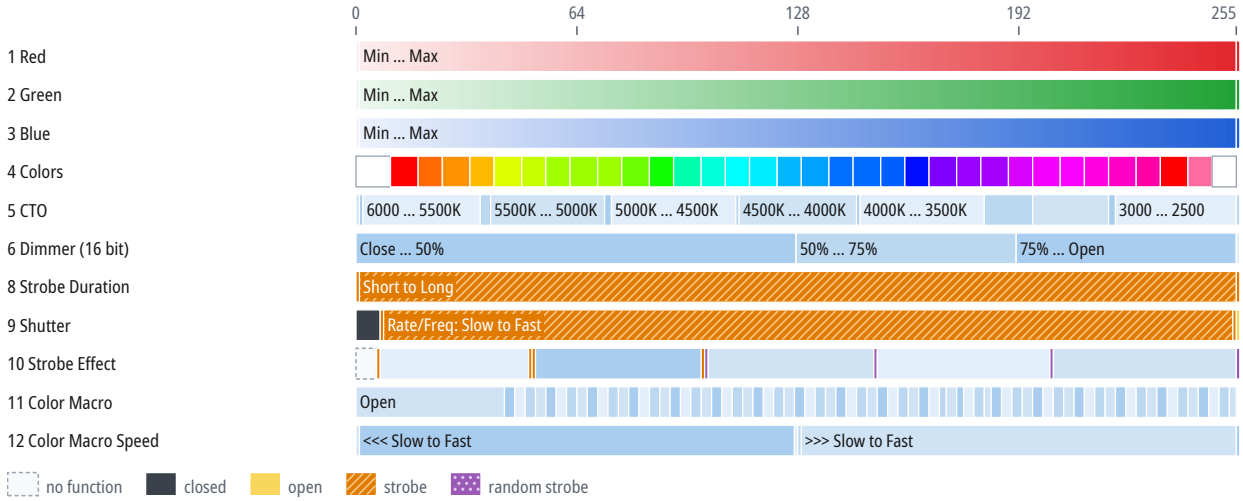
CH	Function	DMX	Description
1	Red	0–255	
2	Green	0–255	
3	Blue	0–255	
4	Dimmer	0–255	
5	Dimmer Fine	0–255	Fine adjustment of CH 4

Mode 2 12 DMX

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 6 Dimmer above 0; CH 9 Shutter at 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 6 Dimmer 255, CH 8 Strobe Duration 255, CH 9 Shutter 255, CH 10 Strobe Effect 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red	0	Min
		1–254	Min ... Max
		255	Max
2	Green	0	Min
		1–254	Min ... Max
		255	Max
3	Blue	0	Min
		1–254	Min ... Max
		255	Max
4	Colors	0–9	Open
		10–17	Red
		18–24	Orange 1
		25–32	Orange 2
		33–39	Orange 3

CH	Function	DMX	Description
4	Colors (continued)	40–47	Yellow 1
		48–54	Yellow 2
		55–61	Yellow 3
		62–69	Green 1
		70–76	Green 2
		77–84	Green 3
		85–91	Green 4
		92–99	Cyan 1
		100–106	Cyan 2
		107–113	Light Blue 1
		114–121	Light Blue 2
		122–128	Light Blue 3
		129–136	Light Blue 4
		137–143	Blue 1
		144–151	Blue 2
		152–158	Blue 3
		159–165	Blue 4
		166–173	Violet 1
		174–180	Violet 2
		181–188	Magenta 1
		189–195	Magenta 2
		196–203	Pink 1
		204–210	Pink 2
		211–217	Pink 3
		218–225	Pink 4
		226–232	Pink 5
		233–240	Red 2
		241–247	Light Pink
		248–255	White 2
5	CTO	0	No CTO
		1	6000
		2–35	6000 … 5500K
		36–38	5500K
		39–71	5500K … 5000K
		72–73	5000K
		74–109	5000K … 4500K
		110	4500K
		111–144	4500K … 4000K
		145	4000K
		146–181	4000K … 3500K
		182–195	3500K

CH	Function	DMX	Description
5	CTO (continued)	196–217	3500K … 3000
		218–219	3000
		220–254	3000 … 2500
		255	2500
6	Dimmer	0–127	Close … 50%
		127	50%
		128–191	50% … 75%
		191	75%
		192–255	75% … Open
		255	Open
7	Dimmer Fine	0–255	Fine adjustment of CH 6
8	Strobe Duration	0	Short
		1–254	Short to Long
		255	Long
9	Shutter	0–6	Close
		7	Rate/Freq: Slow
		8–253	Rate/Freq: Slow to Fast
		254	Rate/Freq: Fast
		255	Open (Duration Full)
10	Strobe Effect	0–5	Not Selected
		6	Min PulseOpen
		7–49	Min PulseOpen … Max PulseOpen
		50	Max PulseOpen
		51	Min PulseClose
		52–99	Min PulseClose … Max PulseClose
		100	Max PulseClose
		101	Min RandomPulse
		102–149	Min RandomPulse … Max RandomPulse
		150	Max RandomPulse
		151–200	Lightning
		201	Min Random
		202–254	Min Random … Max Random
		255	Max Random
11	Color Macro	0–42	Open
		43–45	Macro 1
		46–48	Macro 2
		49–51	Macro 3
		52–54	Macro 4
		55–57	Macro 5
		58–60	Macro 6
		61–63	Macro 7

CH	Function	DMX	Description
11	Color Macro (continued)	64–66	Macro 8
		67–69	Macro 9
		70–72	Macro 10
		73–75	Macro 11
		76–78	Macro 12
		79–81	Macro 13
		82–84	Macro 14
		85–87	Macro 15
		88–90	Macro 16
		91–93	Macro 17
		94–96	Macro 18
		97–99	Macro 19
		100–102	Macro 20
		103–105	Macro 21
		106–108	Macro 22
		109–111	Macro 23
		112–114	Macro 24
		115–117	Macro 25
		118–120	Macro 26
		121–123	Macro 27
		124–126	Macro 28
		127–129	Macro 29
		130–132	Macro 30
		133–135	Macro 31
		136–138	Macro 32
		139–141	Macro 33
		142–144	Macro 34
		145–147	Macro 35
		148–150	Macro 36
		151–153	Macro 37
		154–156	Macro 38
		157–159	Macro 39
		160–162	Macro 40
		163–165	Macro 41
		166–168	Macro 42
		169–170	Macro 43
		171–173	Macro 44
		174–175	Macro 44 … Macro 45
		176–178	Macro 45
		179–181	Macro 46
		182–183	Macro 47

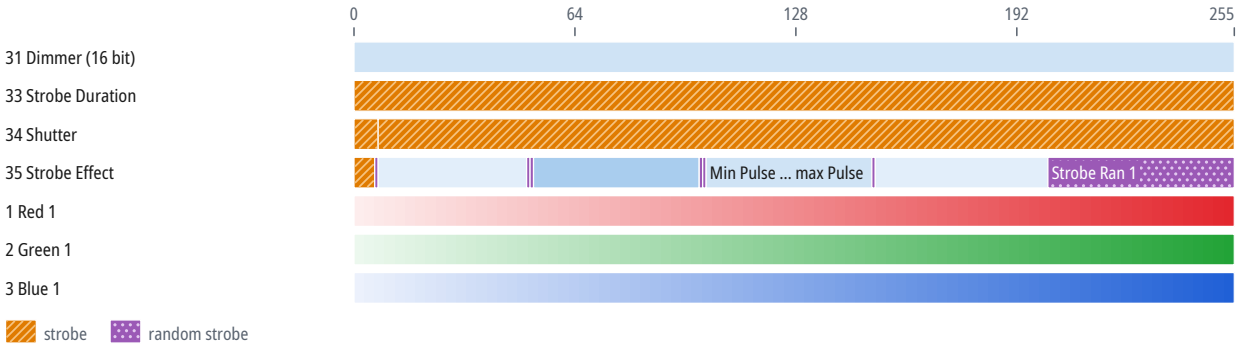
CH	Function	DMX	Description
11	Color Macro (continued)	184–186	Macro 48
		187–189	Macro 49
		190–192	Macro 50
		193–195	Macro 51
		196–198	Macro 52
		199–201	Macro 53
		202–204	Macro 54
		205–207	Macro 55
		208–210	Macro 56
		211–213	Macro 57
		214–216	Macro 58
		217–219	Macro 59
		220–222	Macro 60
		223–225	Macro 61
		226–228	Macro 62
		229–231	Macro 63
		232–234	Macro 64
		235–237	Macro 65
		238–240	Macro 66
		241–243	Macro 67
		244–246	Macro 68
		247–249	Macro 69
		250–252	Macro 70
		253–255	Macro 71
12	Color Macro Speed		Macro Speed
		0	<<< Slow
		1–126	<<< Slow to Fast
		127	<<< Fast
		128	>>> Slow
		129–254	>>> Slow to Fast
		255	>>> Fast

Mode 3 35 DMX(5*2)

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 31 Dimmer above 0; CH 35 Strobe Effect at 0–5 “No Effect”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255 (the same in each of the 10 cells), CH 2 Green 255 (the same in each of the 10 cells), CH 3 Blue 255 (the same in each of the 10 cells), CH 31 Dimmer 255, CH 33 Strobe Duration 255, CH 35 Strobe Effect 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
31	Dimmer	0–255	
32	Dimmer Fine	0–255	Fine adjustment of CH 31
33	Strobe Duration	0–255	
34	Shutter	0–6	Shutter 1 Strobe 1
		7–255	Shutter 1 Strobe 2 (1–20 Hz)
35	Strobe Effect	0–5	No Effect
		6	Min PulseOpen
		7–49	Min PulseOpen ... max PulseOpen
		50	Max PulseOpen
		51	Min PulseClose
		52–99	Min PulseClose ... max PulseClose
		100	Max PulseClose
		101	Min Pulse
		102–149	Min Pulse ... max Pulse
		150	Max Pulse
		151–200	Lightning
		201–255	Strobe Ran 1 (10–20 Hz)

CH 1–30: 10 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 1–3); the table below gives each cell's channel numbers.

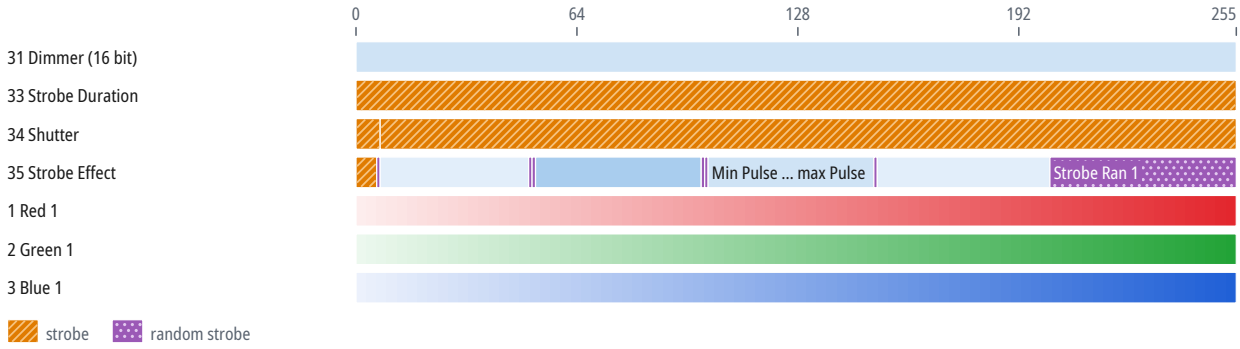
Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	1	2	3	2	4	5	6	3	7	8	9
4	10	11	12	5	13	14	15	6	16	17	18
7	19	20	21	8	22	23	24	9	25	26	27
10	28	29	30								

Mode 4 35 DMX(10*1)

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 31 Dimmer above 0; CH 35 Strobe Effect at 0–5 “No Effect”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255 (the same in each of the 10 cells), CH 2 Green 255 (the same in each of the 10 cells), CH 3 Blue 255 (the same in each of the 10 cells), CH 31 Dimmer 255, CH 33 Strobe Duration 255, CH 35 Strobe Effect 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
31	Dimmer	0–255	
32	Dimmer Fine	0–255	Fine adjustment of CH 31
33	Strobe Duration	0–255	
34	Shutter		Same as CH 34 in the mode “Mode 3 35 DMX(5*2)” (p. 15)
35	Strobe Effect		Same as CH 35 in the mode “Mode 3 35 DMX(5*2)” (p. 15)

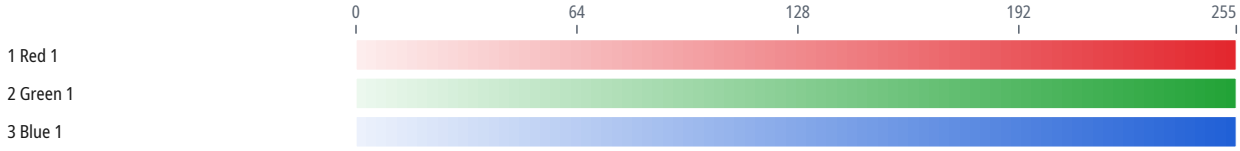
CH 1–30: 10 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 1–3); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	1	2	3	2	4	5	6	3	7	8	9
4	10	11	12	5	13	14	15	6	16	17	18
7	19	20	21	8	22	23	24	9	25	26	27
10	28	29	30								

Mode 5 150 DMX

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255 (the same in each of the 50 cells), CH 2 Green 255 (the same in each of the 50 cells), CH 3 Blue 255 (the same in each of the 50 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	

CH 1–150: 50 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 1–3); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	1	2	3	2	4	5	6	3	7	8	9
4	10	11	12	5	13	14	15	6	16	17	18
7	19	20	21	8	22	23	24	9	25	26	27
10	28	29	30	11	31	32	33	12	34	35	36
13	37	38	39	14	40	41	42	15	43	44	45
16	46	47	48	17	49	50	51	18	52	53	54
19	55	56	57	20	58	59	60	21	61	62	63
22	64	65	66	23	67	68	69	24	70	71	72
25	73	74	75	26	76	77	78	27	79	80	81
28	82	83	84	29	85	86	87	30	88	89	90
31	91	92	93	32	94	95	96	33	97	98	99
34	100	101	102	35	103	104	105	36	106	107	108
37	109	110	111	38	112	113	114	39	115	116	117
40	118	119	120	41	121	122	123	42	124	125	126
43	127	128	129	44	130	131	132	45	133	134	135
46	136	137	138	47	139	140	141	48	142	143	144
49	145	146	147	50	148	149	150				

9 Technical specifications

Parameter	Value
RDM	yes (manufacturer ID 0x3806, device model ID 0x8138)
Weight	4 kg
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2500–6000 K
Strobe frequency	0.5–20 Hz

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.