DMX REFERENCE

AL-MH760IP 7_60W 760 Nano Wash

User Test



Manufacturer	User Test
GDTF file	User_Test_AL-MH760IP_7_60W_760_Nano_Wash_144937.gdtf
GDTF revision	DMX OK · 2026-05-31
Generated	2026-11-24

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1 About this manual

This document describes the AL-MH760IP 7_60W 760 Nano Wash by User Test. It was compiled from the GDTF file User_Test_AL-MH760IP_7_60W_760_Nano_Wash_144937.gdtf from the GDTF-Share library.

File revision: “DMX 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 User Test; 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	12 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 26DMX	26	19	1, 27, 53, 79, ...
Mode 1 49DMX	49	10	1, 50, 99, 148, ...
Mode 1 105DMX	105	4	1, 106, 211, 316
Mode 1 127DMX	127	4	1, 128, 255, 382

No light? Check these channels

- Mode 1 26DMX: CH 10 Dimmer above 0
- Mode 1 49DMX: CH 12 Shutter 2 at 5 “OPEN”; CH 18 Dimmer above 0; CH 19 Shutter at 5 “OPEN”
- Mode 1 105DMX: CH 10 Dimmer above 0; CH 11 Shutter at 5 “OPEN”; CH 21 Shutter 2 at 5 “OPEN”
- Mode 1 127DMX: CH 10 Dimmer above 0; CH 11 Shutter at 5 “OPEN”; CH 13 Shutter 2 at 5 “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.

⚠ 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

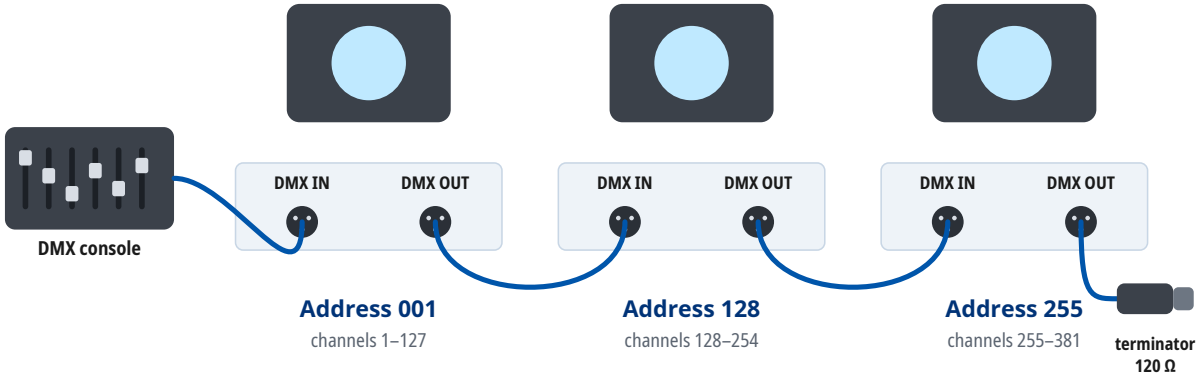
- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 12 kg.
- 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 1 127DMX: every unit occupies 127 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

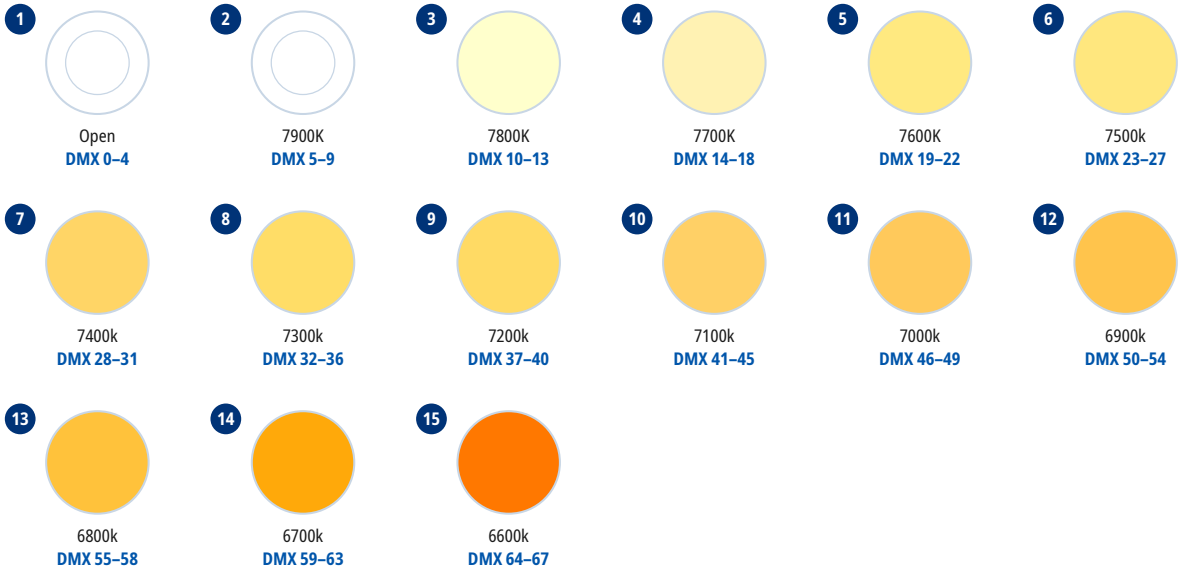
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Mode 1 127DMX”: 127.
- Choose start addresses so that the channels of individual devices do not overlap and the last 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 1 127DMX”, you can use, for example, the start addresses 1, 128, 255, 382.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

8 Functions at a glance

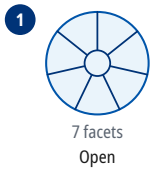
Functions in each DMX mode

	Mode 1 26DMX 26 channels	Mode 1 49DMX 49 channels	Mode 1 105DMX 105 channels	Mode 1 127DMX 127 channels
Pan / Tilt	1, 3	1, 3	1, 3	1, 3
Dimmer	10	18	10	10
Dimmer resolution	16 bit	8 bit	8 bit	8 bit
Shutter / strobe	12, 13	12, 19	11, 21	11, 13
Color mixing	14–20	13–15, 22–49	12–15, 22–105	16–127
Color temperature	26	21	19	15
Color wheel	25	20	18	14
Gobo wheel	21, 23	16	16	
Gobo rotation	22, 24	17	17	
Prism	8	8	8	8
Zoom	6	6	6	6
Pixel control		✓	28 cells	28 cells

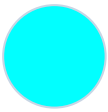
Color wheel 1



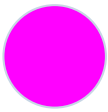
Prism 1

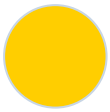


Color wheel 2

1 
Wheel Slot 1...7
DMX 0

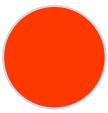
2
Yellow
DMX 1

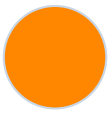
3 
Magenta
DMX 2

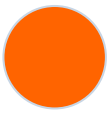
4 
Medium Yellow
DMX 3

5 
Straw Tint
DMX 4

6 
Surprise Peach
DMX 5

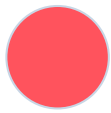
7 
Fire
DMX 6

8 
Wheel Slot 8
DMX 7–8

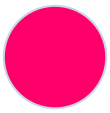
9 
Wheel Slot 9...21
DMX 9

10 
Dark Amber
DMX 10

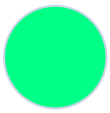
11 
Sunrise Red
DMX 11

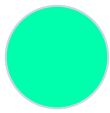
12 
Light Pink
DMX 12

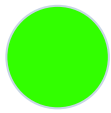
13 
Medium Pink
DMX 13

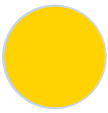
14 
Pink Carnation
DMX 14

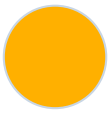
15 
Light Lavender
DMX 15

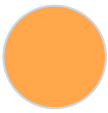
16 
Sky Blue
DMX 16

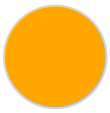
17 
Just Blue
DMX 17

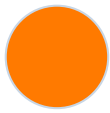
18 
Dark Yellow Green
DMX 18

19 
Spring Yellow
DMX 19

20 
Light Amber
DMX 20

21 
Straw Tint 1
DMX 21

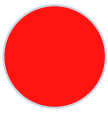
22 
Wheel Slot 22
DMX 22–23

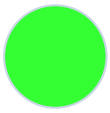
23 
Wheel Slot 23...35
DMX 24

24 
Light Rose
DMX 25

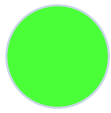
25 
Middle Rose
DMX 26

26 
Dark Pink
DMX 27

27 
Magenta 1
DMX 28

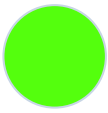
28 
Peacock Blue
DMX 29

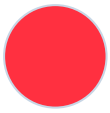
29
Steel Blue
DMX 30

30 
Light Blue
DMX 31

31 
Dark Blue
DMX 32

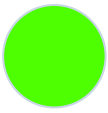
32
Leaf Green
DMX 33

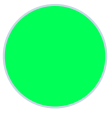
33 
Dark Green
DMX 34

34 
Mauve
DMX 35

35 
Deep Golden Amber
DMX 36

36 
Wheel Slot 36
DMX 37–38

37 
Wheel Slot 37...43
DMX 39

38 
Bright Blue
DMX 40

39 
Apricot
DMX 41

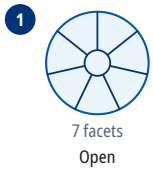
40 
Pale Gold
DMX 42

41
Deep Orange
DMX 43

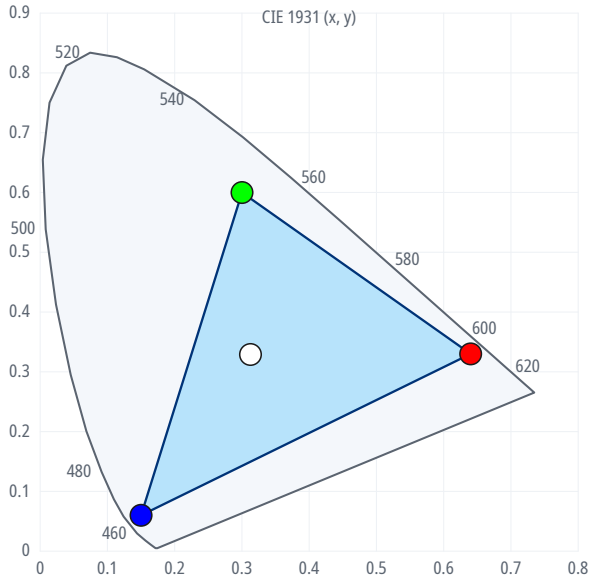
42
Flame Red
DMX 44

43
Open
DMX 45–46

Prism 2



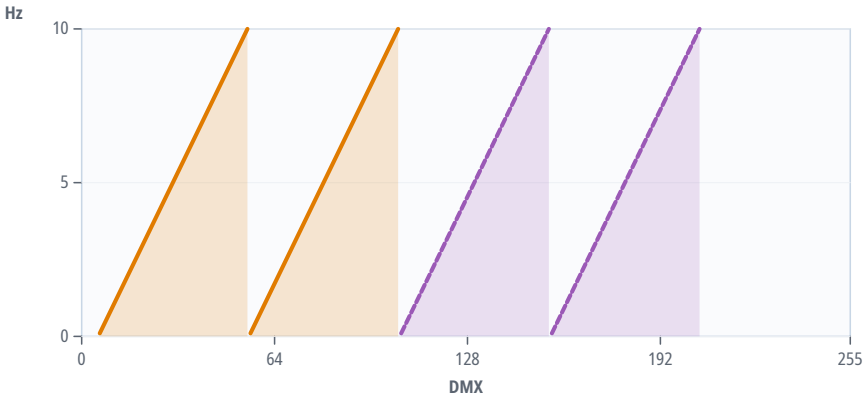
LED colors and the colors they mix



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.

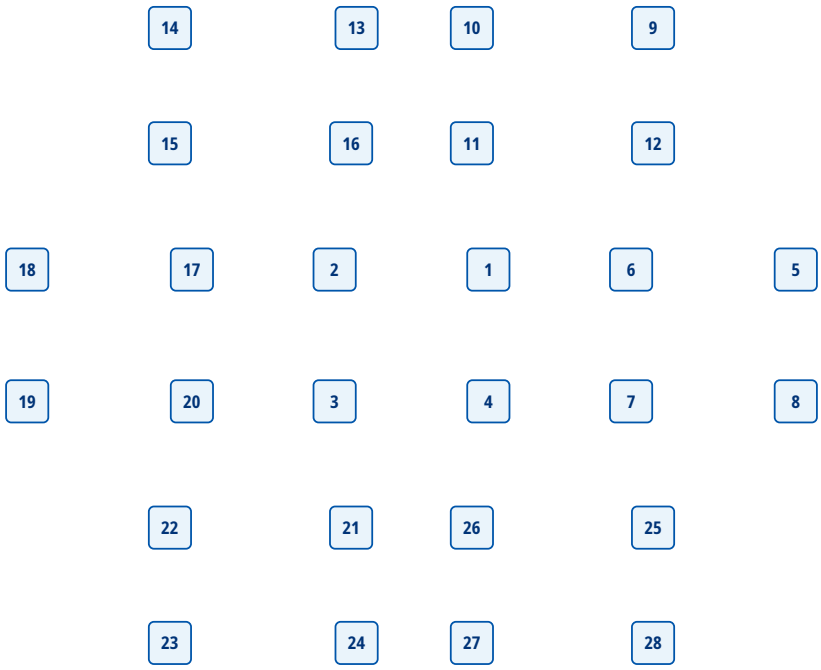
Strobe rate



CH 11 · Mode 1 127DMX

- 6–55: 0.1–10 Hz
  Synchronous strobe
- 56–105: 0.1–10 Hz
  Pulse strobe
- 106–155: 0.1–10 Hz
  Random strobe: MIN>>MAX
- 156–205: 0.1–10 Hz
  Gradient Strobe: MIN>>MAX

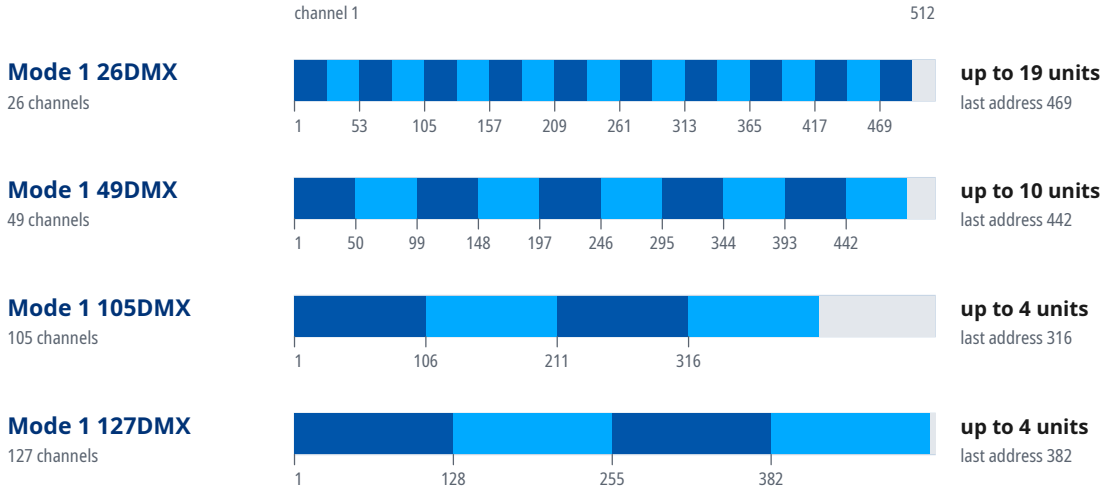
Cells (pixels)



Cells where the GDTF file places them (seen from above), 28 in all; numbered in the order of their first DMX channel in the mode “Mode 1 127DMX”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 1 127DMX”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 128	11	U3 · 255	16	U4 · 382
2	128	7	U2 · 255	12	U3 · 382	17	U5 · 1
3	255	8	U2 · 382	13	U4 · 1	18	U5 · 128
4	382	9	U3 · 1	14	U4 · 128	19	U5 · 255
5	U2 · 1	10	U3 · 128	15	U4 · 255	20	U5 · 382

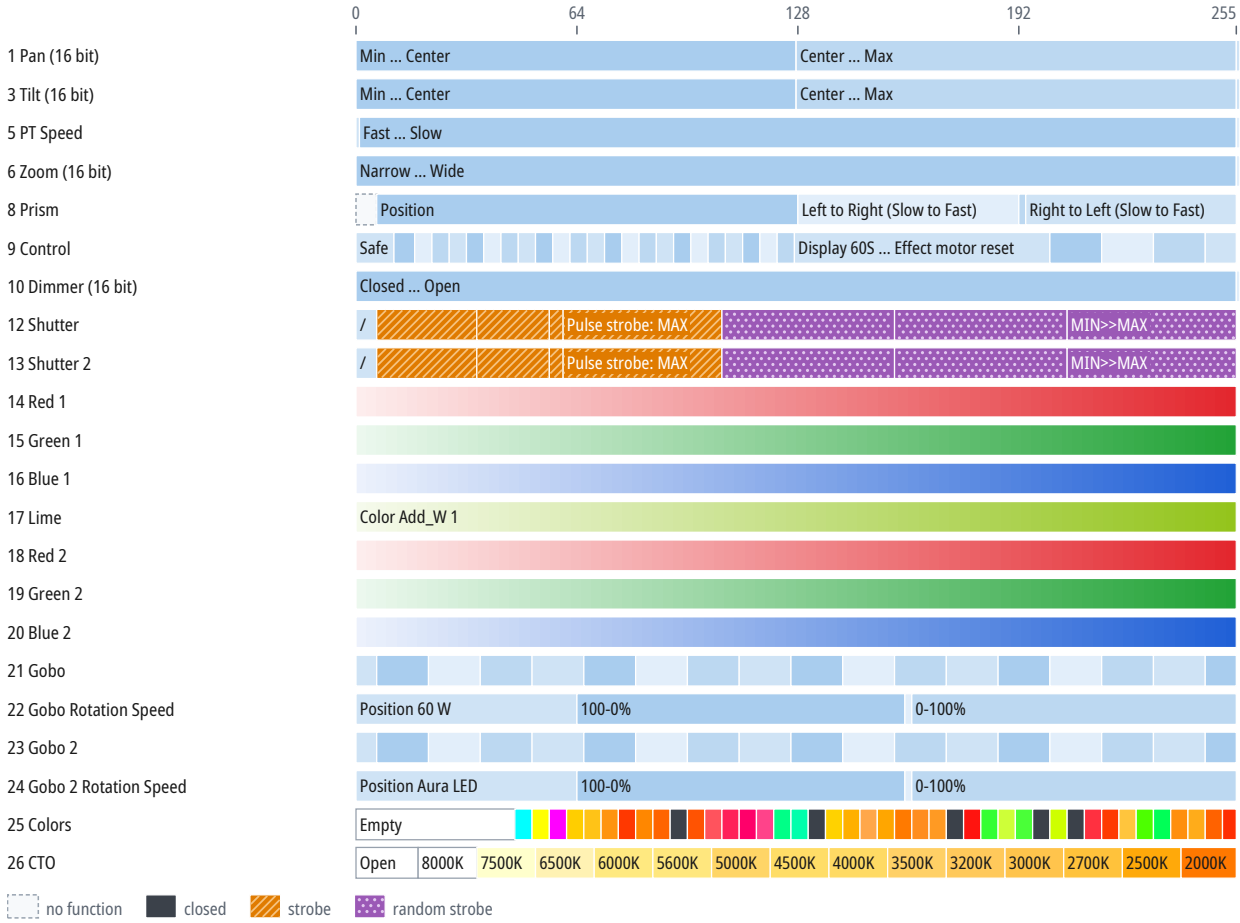
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 1 26DMX

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 10 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 10 Dimmer 255, CH 12 Shutter 0, CH 13 Shutter 2 0, CH 14 Red 1 255, CH 15 Green 1 255, CH 16 Blue 1 255, CH 17 Lime 255, CH 18 Red 2 255, CH 19 Green 2 255, CH 20 Blue 2 255, CH 25 Colors 0, CH 26 CTO 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed		PT Motors Speed
		0	Fast
		1–254	Fast ... Slow

CH	Function	DMX	Description
5	PT Speed (continued)	255	Slow
6	Zoom	0–255	Narrow ... Wide
		255	Wide
7	Zoom Fine	0–255	Fine adjustment of CH 6
8	Prism	0–5	No function
		6–127	Position (180°)
		128–191	Left to Right (Slow to Fast) (0–180 °/s)
		192–193	Left to Right (Slow to Fast) ... Right to Left (Slow to Fast)
		194–255	Right to Left (Slow to Fast) (0–180 °/s)
9	Control	0–10	Safe
		11–16	Dimmer smooth
		17–21	Dimmer Fast
		22–26	400HZ
		27–31	1200HZ
		32–36	2000HZ
		37–41	4000HZ
		42–46	6000HZ
		47–51	8000HZ
		52–56	16000HZ
		57–61	24000HZ
		62–66	Linear
		67–71	Square
		72–76	I-Square
		77–81	S-Shape
		82–86	Fan Auto
		87–91	Fan Silent
		92–96	Fan Full
		97–101	Screen Lock YES
		102–106	Screen Lock NO
		107–111	Display ON
		112–116	Display 10S
		117–121	Display 30S
		122–126	Display 60S
		127–200	Display 60S ... Effect motor reset
		201–215	Effect motor reset
		216–230	Pan/Tilt motor reset
		231–245	Overall reset
		246–255	Safe
10	Dimmer	0–255	Closed ... Open
		255	Open
11	Dimmer Fine	0–255	Fine adjustment of CH 10
12	Shutter	0–5	/

CH	Function	DMX	Description
12	Shutter (continued)	6–34	Synchronous strobe: MIN
		35–55	Synchronous strobe: MAX
		56–59	Pulse strobe: MIN
		60–105	Pulse strobe: MAX
		106–155	Random strobe: MIN>>MAX (0.1–10 Hz)
		156–255	Gradient Strobe: MIN>>MAX
13	Shutter 2	0–5	/
		6–34	Synchronous strobe: MIN
		35–55	Synchronous strobe: MAX
		56–59	Pulse strobe: MIN
		60–105	Pulse strobe: MAX
		106–155	Random strobe: MIN>>MAX (0.1–10 Hz)
		156–255	Gradient Strobe: MIN>>MAX
14	Red 1	0–255	
15	Green 1	0–255	
16	Blue 1	0–255	
17	Lime		Color Add_W 1
		0–255	Color Add_W 1
18	Red 2	0–255	
19	Green 2	0–255	
20	Blue 2	0–255	
21	Gobo		Gobo 60 W
		0–5	Open
		6–20	Program 1
		21–35	Program 2
		36–50	Program 3
		51–65	Program 4
		66–80	Program 5
		81–95	Program 6
		96–110	Program 7
		111–125	Program 8
		126–140	Program 9
		141–155	Program 10
		156–170	Program 11
		171–185	Program 12
		186–200	Program 13
		201–215	Program 14
		216–230	Program 15
		231–245	Program 16
		246–255	Auto-running programs
22	Gobo Rotation Speed	0–63	Position 60 W (360°)
		64–158	100-0% (360–1 °/s)

CH	Function	DMX	Description
22	Gobo Rotation Speed (continued)	159–160	Speed 60 W: Stop
		161–255	0-100% (1–360 °/s)
23	Gobo 2		Gobo Aura LED
		0–5	Open
		6–20	Program 1
		21–35	Program 2
		36–50	Program 3
		51–65	Program 4
		66–80	Program 5
		81–95	Program 6
		96–110	Program 7
		111–125	Program 8
		126–140	Program 9
		141–155	Program 10
		156–170	Program 11
		171–185	Program 12
		186–200	Program 13
		201–215	Program 14
		216–230	Program 15
		231–245	Program 16
		246–255	Auto-running programs
24	Gobo 2 Rotation Speed	0–63	Position Aura LED
		64–158	100-0% (360–1 °/s)
		159–160	Speed Aura LED: Stop
		161–255	0-100% (1–360 °/s)
25	Colors	0–45	Empty
		46–50	Cyan
		51–55	Yellow
		56–60	Magenta
		61–65	Medium Yellow
		66–70	Straw Tint
		71–75	Surprise Peach
		76–80	Fire
		81–85	Medium Amber
		86–90	Gold Amber
		91–95	Dark Amber
		96–100	Sunrise Red
		101–105	Light Pink
		106–110	Medium Pink
		111–115	Pink Carnation
		116–120	Light Lavender
		121–125	Sky Blue

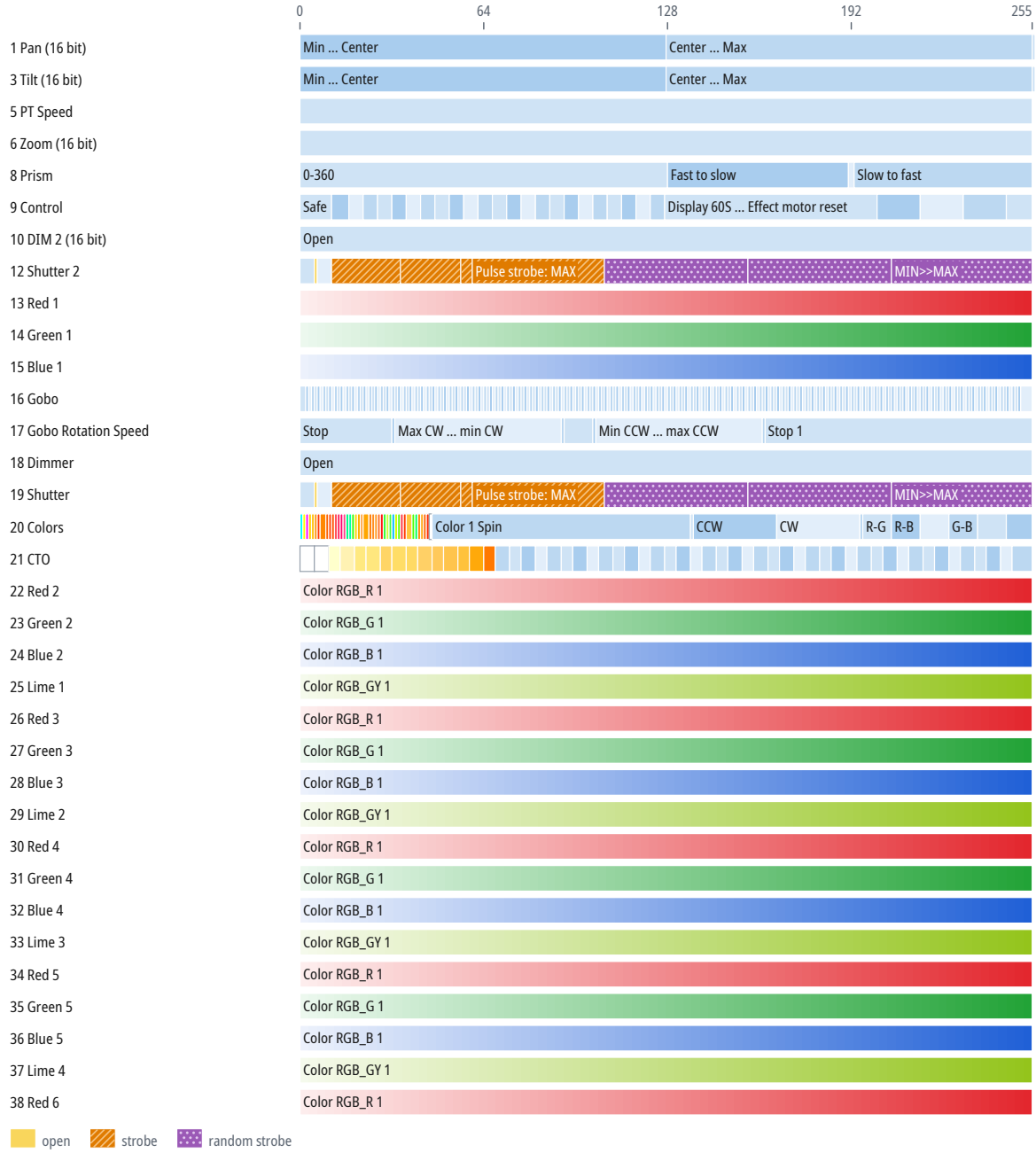
CH	Function	DMX	Description
25	Colors (continued)	126–130	Just Blue
		131–135	Dark Yellow Green
		136–140	Spring Yellow
		141–145	Light Amber
		146–150	Straw Tint 1
		151–155	Deep Amber
		156–160	Orange
		161–165	Light Rose
		166–170	Middle Rose
		171–175	Dark Pink
		176–180	Magenta 1
		181–185	Peacock Blue
		186–190	Steel Blue
		191–195	Light Blue
		196–200	Dark Blue
		201–205	Leaf Green
		206–210	Dark Green
		211–215	Mauve
		216–220	Deep Golden Amber
		221–225	Pale Lavender
		226–230	Primary Green
		231–235	Bright Blue
		236–240	Apricot
		241–245	Pale Gold
		246–250	Deep Orange
		251–255	Flame Red
26	CTO	0–17	Open
		18–34	8000K
		35–51	7500K
		52–68	6500K
		69–85	6000K
		86–102	5600K
		103–119	5000K
		120–136	4500K
		137–153	4000K
		154–170	3500K
		171–187	3200K
		188–204	3000K
		205–221	2700K
		222–238	2500K
		239–255	2000K

Mode 1 49DMX

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 12 Shutter 2 at 5 “OPEN”; CH 18 Dimmer above 0; CH 19 Shutter at 5 “OPEN”. The GDTF file gives these values for a console's Highlight function: CH 12 Shutter 2 5, CH 13 Red 1 255, CH 14 Green 1 255, CH 15 Blue 1 255, CH 18 Dimmer 255, CH 19 Shutter 5, CH 20 Colors 0, CH 21 CTO 0, CH 22 Red 2 255, CH 23 Green 2 255, CH 24 Blue 2 255, CH 25 Lime 1 255, CH 26 Red 3 255, CH 27 Green 3 255, CH 28 Blue 3 255, CH 29 Lime 2 255, CH 30 Red 4 255, CH 31 Green 4 255, CH 32 Blue 4 255, CH 33 Lime 3 255, CH 34 Red 5 255, CH 35 Green 5 255, CH 36 Blue 5 255, CH 37 Lime 4 255, CH 38 Red 6 255, CH 39 Green 6 255, CH 40 Blue 6 255, CH 41 Lime 5 255, CH 42 Red 7 255, CH 43 Green 7 255, CH 44 Blue 7 255, CH 45 Lime 6 255, CH 46 Red 8 255, CH 47 Green 8 255, CH 48 Blue 8 255, CH 49 Lime 7 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 26DMX” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 26DMX” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Zoom	0–255	3.15–45°
7	Zoom Fine	0–255	Fine adjustment of CH 6
8	Prism	0–127	0-360 (360°)
		128–190	Fast to slow
		191–192	Stop
		193–255	Slow to fast
9	Control		Same as CH 9 in the mode “Mode 1 26DMX” (p. 13)
10	DIM 2		Dimmer 1
		0–255	Open
11	DIM 2 Fine	0–255	Fine adjustment of CH 10
12	Shutter 2	0–4	Shutter 1: OFF
		5	Shutter 1: OPEN
		6–10	Synchronous strobe
		11–34	Synchronous strobe: MIN
		35–55	Synchronous strobe: MAX
		56–59	Pulse strobe: MIN
		60–105	Pulse strobe: MAX
		106–155	Random strobe: MIN>>MAX (0.1–10 Hz)
		156–255	Gradient Strobe: MIN>>MAX
13	Red 1	0–255	
14	Green 1	0–255	
15	Blue 1	0–255	
16	Gobo	0–1	Open
		2–172	Gobo 1...171

CH	Function	DMX	Description
16	Gobo (continued)	173	Gobo172
		174–250	Gobo 173...249
		251–255	Open2
17	Gobo Rotation Speed	0–31	Stop
		32	Max CW
		33–90	Max CW ... min CW
		91	Min CW
		92–101	Stop Rotate: Stop
		102	Min CCW
		103–160	Min CCW ... max CCW
		161	Max CCW
		162–255	Stop 1
18	Dimmer	0–255	Open
19	Shutter	0–4	Shutter 1: OFF
		5	Shutter 1: OPEN
		6–10	Synchronous strobe
		11–34	Synchronous strobe: MIN
		35–55	Synchronous strobe: MAX
		56–59	Pulse strobe: MIN
		60–105	Pulse strobe: MAX
		106–155	Random strobe: MIN>>MAX (0.1–10 Hz)
		156–255	Gradient Strobe: MIN>>MAX
20	Colors	0–6	Wheel Slot 1...7
		7–8	Wheel Slot 8
		9–21	Wheel Slot 9...21
		22–23	Wheel Slot 22
		24–36	Wheel Slot 23...35
		37–38	Wheel Slot 36
		39–45	Wheel Slot 37...43
		46–135	Color 1 Spin
		136	Max CCW
		137–165	CCW
		166–194	CW
		195	Max CW
		196–205	R-G
		206–215	R-B
		216–225	R-W
		226–235	G-B (179–1 °/s)
		236–245	G-W (1–179 °/s)
		246–255	B-W
21	CTO	0–4	Open
		5–9	7900K

CH	Function	DMX	Description
21	CTO (continued)	10–13	7800K
		14–18	7700K
		19–22	7600K
		23–27	7500k
		28–31	7400k
		32–36	7300k
		37–40	7200k
		41–45	7100k
		46–49	7000k
		50–54	6900k
		55–58	6800k
		59–63	6700k
		64–67	6600k
		68–72	6500k
		73–76	6400k
		77–81	6300k
		82–85	6200k
		86–90	6100k
		91–94	6000k
		95–99	5900k
		100–103	5800k
		104–108	5700k
		109–112	5600k
		113–117	5500k
		118–121	5400k
		122–126	5300k
		127–130	5200k
		131–135	5100k
		136–139	5000k
		140–144	4900k
		145–148	4800k
		149–153	4700k
		154–157	4600k
		158–162	4500k
		163–166	4400k
		167–171	4300k
		172–175	4200k
		176–180	4100k
		181–184	4000k
		185–189	3900k
		190–193	3800k
		194–198	3700k

CH	Function	DMX	Description
21	CTO (continued)	199–202	3600k
		203–207	3500k
		208–211	3400k
		212–216	3300k
		217–220	3200k
		221–225	3100k
		226–229	3000k
		230–234	2900k
		235–238	2800k
		239–243	2700k
		244–247	2600k
		248–255	2500k
22	Red 2		Color RGB_R 1
		0–255	Color RGB_R 1
23	Green 2		Color RGB_G 1
		0–255	Color RGB_G 1
24	Blue 2		Color RGB_B 1
		0–255	Color RGB_B 1
25	Lime 1		Color RGB_GY 1
		0–255	Color RGB_GY 1
26	Red 3		Color RGB_R 1
		0–255	Color RGB_R 1
27	Green 3		Color RGB_G 1
		0–255	Color RGB_G 1
28	Blue 3		Color RGB_B 1
		0–255	Color RGB_B 1
29	Lime 2		Color RGB_GY 1
		0–255	Color RGB_GY 1
30	Red 4		Color RGB_R 1
		0–255	Color RGB_R 1
31	Green 4		Color RGB_G 1
		0–255	Color RGB_G 1
32	Blue 4		Color RGB_B 1
		0–255	Color RGB_B 1
33	Lime 3		Color RGB_GY 1
		0–255	Color RGB_GY 1
34	Red 5		Color RGB_R 1
		0–255	Color RGB_R 1
35	Green 5		Color RGB_G 1
		0–255	Color RGB_G 1
36	Blue 5		Color RGB_B 1
		0–255	Color RGB_B 1

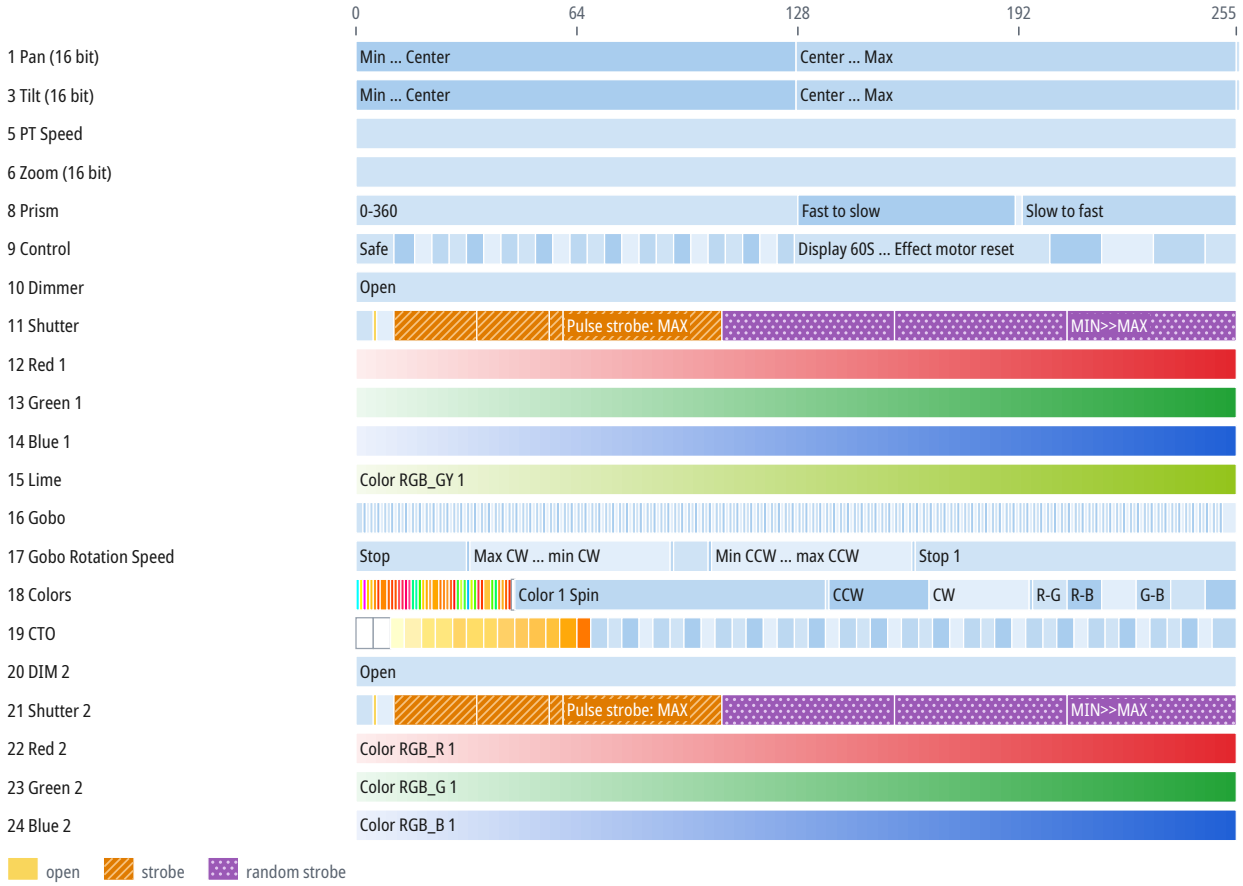
CH	Function	DMX	Description
37	Lime 4		Color RGB_GY 1
		0–255	Color RGB_GY 1
38	Red 6		Color RGB_R 1
		0–255	Color RGB_R 1
39	Green 6		Color RGB_G 1
		0–255	Color RGB_G 1
40	Blue 6		Color RGB_B 1
		0–255	Color RGB_B 1
41	Lime 5		Color RGB_GY 1
		0–255	Color RGB_GY 1
42	Red 7		Color RGB_R 1
		0–255	Color RGB_R 1
43	Green 7		Color RGB_G 1
		0–255	Color RGB_G 1
44	Blue 7		Color RGB_B 1
		0–255	Color RGB_B 1
45	Lime 6		Color RGB_GY 1
		0–255	Color RGB_GY 1
46	Red 8		Color RGB_R 1
		0–255	Color RGB_R 1
47	Green 8		Color RGB_G 1
		0–255	Color RGB_G 1
48	Blue 8		Color RGB_B 1
		0–255	Color RGB_B 1
49	Lime 7		Color RGB_GY 1
		0–255	Color RGB_GY 1

Mode 1 105DMX

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 10 Dimmer above 0; CH 11 Shutter at 5 “OPEN”; CH 21 Shutter 2 at 5 “OPEN”. The GDTF file gives these values for a console's Highlight function: CH 10 Dimmer 255, CH 11 Shutter 5, CH 12 Red 1 255, CH 13 Green 1 255, CH 14 Blue 1 255, CH 15 Lime 255, CH 18 Colors 0, CH 19 CTO 0, CH 21 Shutter 2 5, CH 22 Red 255 (the same in each of the 28 cells), CH 23 Green 255 (the same in each of the 28 cells), CH 24 Blue 255 (the same in each of the 28 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 26DMX” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 26DMX” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Zoom	0–255	3.15–45°
7	Zoom Fine	0–255	Fine adjustment of CH 6
8	Prism		Same as CH 8 in the mode “Mode 1 49DMX” (p. 18)
9	Control		Same as CH 9 in the mode “Mode 1 26DMX” (p. 13)
10	Dimmer	0–255	Open
11	Shutter		Same as CH 19 in the mode “Mode 1 49DMX” (p. 19)

CH	Function	DMX	Description
12	Red 1	0–255	
13	Green 1	0–255	
14	Blue 1	0–255	
15	Lime		Color RGB_GY 1
		0–255	Color RGB_GY 1
16	Gobo		Same as CH 16 in the mode “Mode 1 49DMX” (p. 18)
17	Gobo Rotation Speed		Same as CH 17 in the mode “Mode 1 49DMX” (p. 19)
18	Colors		Same as CH 20 in the mode “Mode 1 49DMX” (p. 19)
19	CTO		Same as CH 21 in the mode “Mode 1 49DMX” (p. 19)
20	DIM 2		Same as CH 10 in the mode “Mode 1 49DMX” (p. 18)
21	Shutter 2		Same as CH 12 in the mode “Mode 1 49DMX” (p. 18)
22	Red 2		Color RGB_R 1
		0–255	Color RGB_R 1
23	Green 2		Color RGB_G 1
		0–255	Color RGB_G 1
24	Blue 2		Color RGB_B 1
		0–255	Color RGB_B 1

CH 22–105: 28 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 22–24); the table below gives each cell's channel numbers.

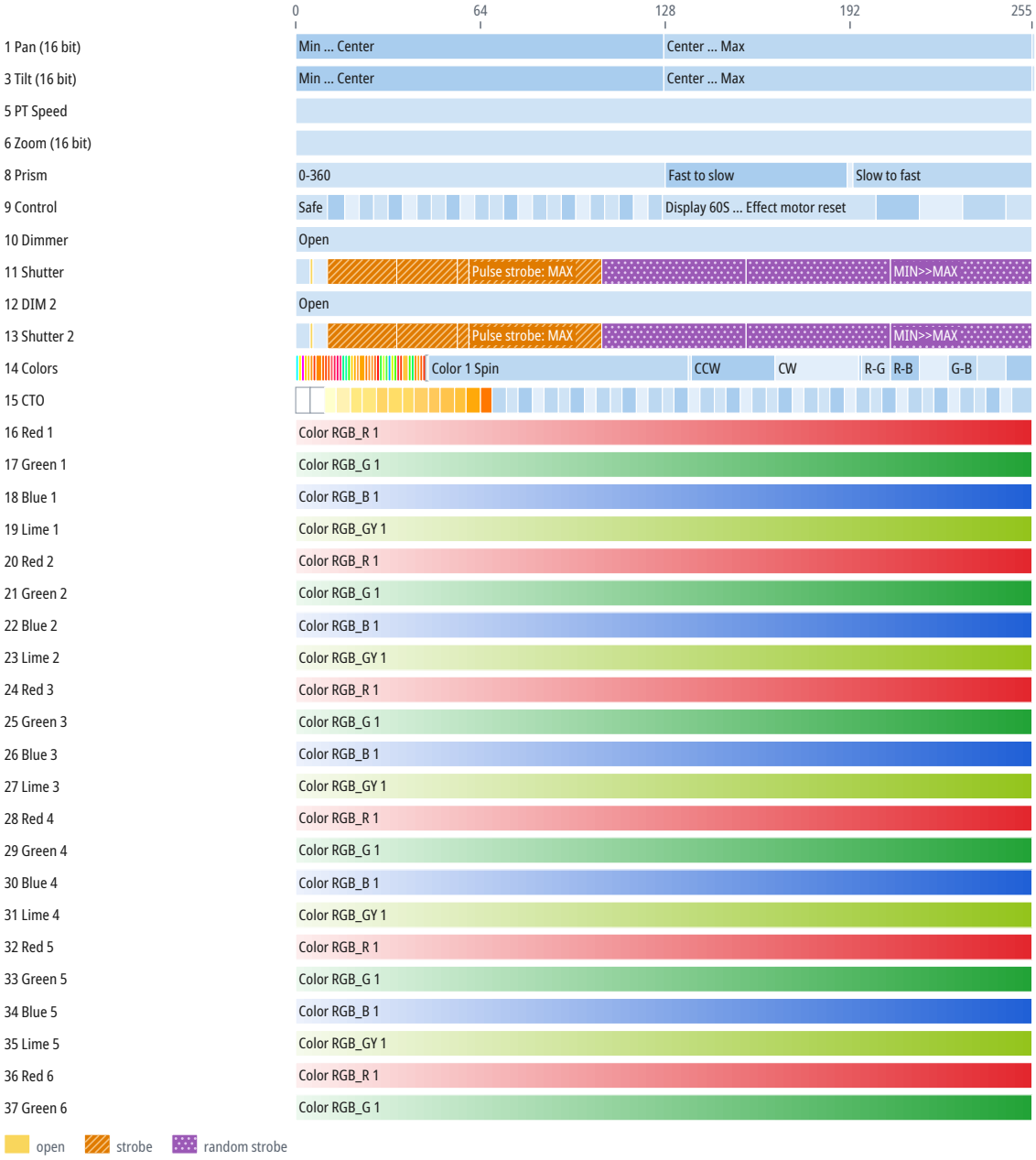
Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	22	23	24	2	25	26	27	3	28	29	30
4	31	32	33	5	34	35	36	6	37	38	39
7	40	41	42	8	43	44	45	9	46	47	48
10	49	50	51	11	52	53	54	12	55	56	57
13	58	59	60	14	61	62	63	15	64	65	66
16	67	68	69	17	70	71	72	18	73	74	75
19	76	77	78	20	79	80	81	21	82	83	84
22	85	86	87	23	88	89	90	24	91	92	93
25	94	95	96	26	97	98	99	27	100	101	102
28	103	104	105								

Mode 1 127DMX

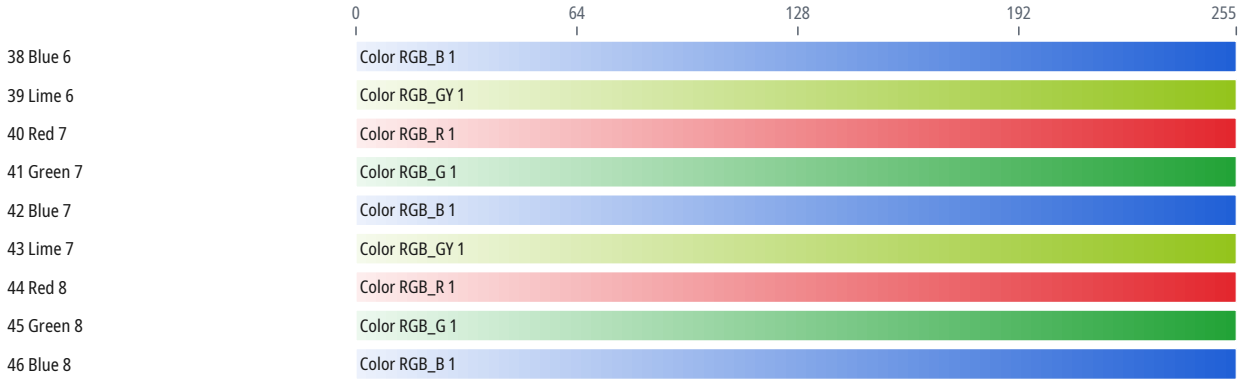
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 10 Dimmer above 0; CH 11 Shutter at 5 “OPEN”; CH 13 Shutter 2 at 5 “OPEN”. The GDTF file gives these values for a console's Highlight function: CH 10 Dimmer 255, CH 11 Shutter 5, CH 13 Shutter 2 5, CH 14 Colors 0, CH 15 CTO 0, CH 16 Red 1 255, CH 17 Green 1 255, CH 18 Blue 1 255, CH 19 Lime 1 255, CH 20 Red 2 255, CH 21 Green 2 255, CH 22 Blue 2 255, CH 23 Lime 2 255, CH 24 Red 3 255, CH 25 Green 3 255, CH 26 Blue 3 255, CH 27 Lime 3 255, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 Lime 4 255, CH 32 Red 5 255, CH 33 Green 5 255, CH 34 Blue 5 255, CH 35 Lime 5 255, CH 36 Red 6 255, CH 37 Green 6 255, CH 38 Blue 6 255, CH 39 Lime 6 255, CH 40 Red 7 255, CH 41 Green 7 255, CH 42 Blue 7 255, CH 43 Lime 7 255, CH 44 Red 255 (the same in each of the 28 cells), CH 45 Green 255 (the same in each of the 28 cells), CH 46 Blue 255 (the same in each of the 28 cells).

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 26DMX” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 26DMX” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Zoom	0–255	3.15–45°
7	Zoom Fine	0–255	Fine adjustment of CH 6
8	Prism		Same as CH 8 in the mode “Mode 1 49DMX” (p. 18)
9	Control		Same as CH 9 in the mode “Mode 1 26DMX” (p. 13)
10	Dimmer	0–255	Open
11	Shutter		Same as CH 19 in the mode “Mode 1 49DMX” (p. 19)
12	DIM 2		Same as CH 10 in the mode “Mode 1 49DMX” (p. 18)
13	Shutter 2		Same as CH 12 in the mode “Mode 1 49DMX” (p. 18)
14	Colors		Same as CH 20 in the mode “Mode 1 49DMX” (p. 19)
15	CTO		Same as CH 21 in the mode “Mode 1 49DMX” (p. 19)
16	Red 1		Color RGB_R 1
		0–255	Color RGB_R 1
17	Green 1		Color RGB_G 1
		0–255	Color RGB_G 1
18	Blue 1		Color RGB_B 1
		0–255	Color RGB_B 1
19	Lime 1		Same as CH 25 in the mode “Mode 1 49DMX” (p. 21)
20	Red 2		Same as CH 22 in the mode “Mode 1 49DMX” (p. 21)
21	Green 2		Same as CH 23 in the mode “Mode 1 49DMX” (p. 21)
22	Blue 2		Same as CH 24 in the mode “Mode 1 49DMX” (p. 21)
23	Lime 2		Same as CH 29 in the mode “Mode 1 49DMX” (p. 21)
24	Red 3		Same as CH 26 in the mode “Mode 1 49DMX” (p. 21)
25	Green 3		Same as CH 27 in the mode “Mode 1 49DMX” (p. 21)
26	Blue 3		Same as CH 28 in the mode “Mode 1 49DMX” (p. 21)
27	Lime 3		Same as CH 33 in the mode “Mode 1 49DMX” (p. 21)
28	Red 4		Same as CH 30 in the mode “Mode 1 49DMX” (p. 21)

CH	Function	DMX	Description
29	Green 4		Same as CH 31 in the mode “Mode 1 49DMX” (p. 21)
30	Blue 4		Same as CH 32 in the mode “Mode 1 49DMX” (p. 21)
31	Lime 4		Same as CH 37 in the mode “Mode 1 49DMX” (p. 22)
32	Red 5		Same as CH 34 in the mode “Mode 1 49DMX” (p. 21)
33	Green 5		Same as CH 35 in the mode “Mode 1 49DMX” (p. 21)
34	Blue 5		Same as CH 36 in the mode “Mode 1 49DMX” (p. 21)
35	Lime 5		Same as CH 41 in the mode “Mode 1 49DMX” (p. 22)
36	Red 6		Same as CH 38 in the mode “Mode 1 49DMX” (p. 22)
37	Green 6		Same as CH 39 in the mode “Mode 1 49DMX” (p. 22)
38	Blue 6		Same as CH 40 in the mode “Mode 1 49DMX” (p. 22)
39	Lime 6		Same as CH 45 in the mode “Mode 1 49DMX” (p. 22)
40	Red 7		Same as CH 42 in the mode “Mode 1 49DMX” (p. 22)
41	Green 7		Same as CH 43 in the mode “Mode 1 49DMX” (p. 22)
42	Blue 7		Same as CH 44 in the mode “Mode 1 49DMX” (p. 22)
43	Lime 7		Same as CH 49 in the mode “Mode 1 49DMX” (p. 22)
44	Red 8		Color RGB_R 1
		0–255	Color RGB_R 1
45	Green 8		Color RGB_G 1
		0–255	Color RGB_G 1
46	Blue 8		Color RGB_B 1
		0–255	Color RGB_B 1

CH 44–127: 28 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 44–46); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	44	45	46	2	47	48	49	3	50	51	52
4	53	54	55	5	56	57	58	6	59	60	61
7	62	63	64	8	65	66	67	9	68	69	70
10	71	72	73	11	74	75	76	12	77	78	79
13	80	81	82	14	83	84	85	15	86	87	88
16	89	90	91	17	92	93	94	18	95	96	97
19	98	99	100	20	101	102	103	21	104	105	106
22	107	108	109	23	110	111	112	24	113	114	115
25	116	117	118	26	119	120	121	27	122	123	124
28	125	126	127								

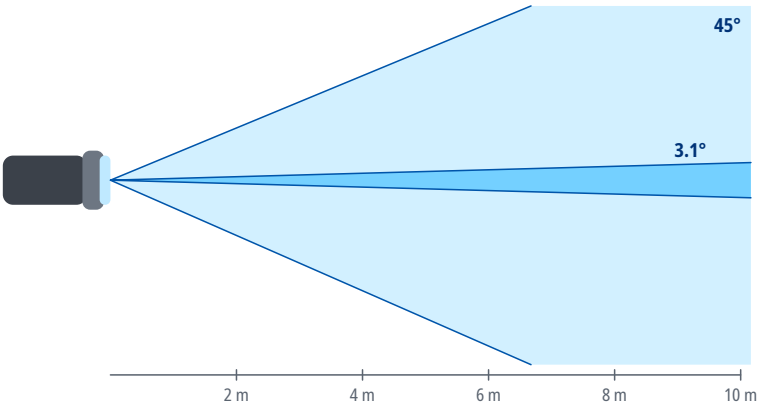
10 Technical specifications

Parameter	Value
Zoom	3.1–45°
Pan	540°
Tilt	250°
Weight	12 kg
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2000–8000 K
Strobe frequency	0.1–10 Hz
Color wheel 2 rotation	up to 180 °/s (30 rpm)
Gobo 1 rotation	up to 360 °/s (60 rpm)
Gobo 2 rotation	up to 360 °/s (60 rpm)
Prism 1 rotation	up to 180 °/s (30 rpm)

Spot diameter



Distance	Ø 3.1°	Ø 45°
2 m	0.11 m	1.7 m
4 m	0.22 m	3.3 m
6 m	0.33 m	5 m
8 m	0.44 m	6.6 m
10 m	0.55 m	8.3 m
15 m	0.82 m	12.4 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.
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.