DMX REFERENCE

ACME AM-WASH300-TEST

AM-WASH300

ACME



Manufacturer	ACME
GDTF file	ACME_ACME_AM-WASH300-TEST_17237.gdtf
GDTF revision	VANNENES · 2021-09-19
Generated	2026-11-23

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 5
6 Connections 5
7 Operation 6
8 Functions at a glance 7
9 DMX channels 10
Mode 1 14DMX 11
Mode 2 11DMX 12
Mode 3 15DMX 14
Mode 4 14DMX 15
10 Technical specifications 18
11 Maintenance and cleaning 18
12 Troubleshooting 19
13 Disposal 19

1 About this manual

This document describes the AM-WASH300 by ACME. It was compiled from the GDTF file ACME_ACME_AM-WASH300-TEST_17237.gdtf from the GDTF-Share library.

File revision: “VANNENES”.

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

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 14DMX	14	36	1, 15, 29, 43, ...
Mode 2 11DMX	11	46	1, 12, 23, 34, ...
Mode 3 15DMX	15	34	1, 16, 31, 46, ...
Mode 4 14DMX	27	18	1, 28, 55, 82, ...

No light? Check these channels

- Mode 1 14DMX: CH 9 Strobe at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255
- Mode 2 11DMX: CH 6 Strobe at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255
- Mode 3 15DMX: CH 9 Strobe at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255
- Mode 4 14DMX: CH 6 Strobe at 20–24 “Open” or 65–69 or 85–89 or 105–109 or 125–129 or 145–149 or 165–169 or 185–189 or 205–209 or 225–229 or 245–255


Read the manual before use


Do not stare into the light


Indoor use only

3 Safety instructions



Read the manual before use



Do not stare into the light



Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

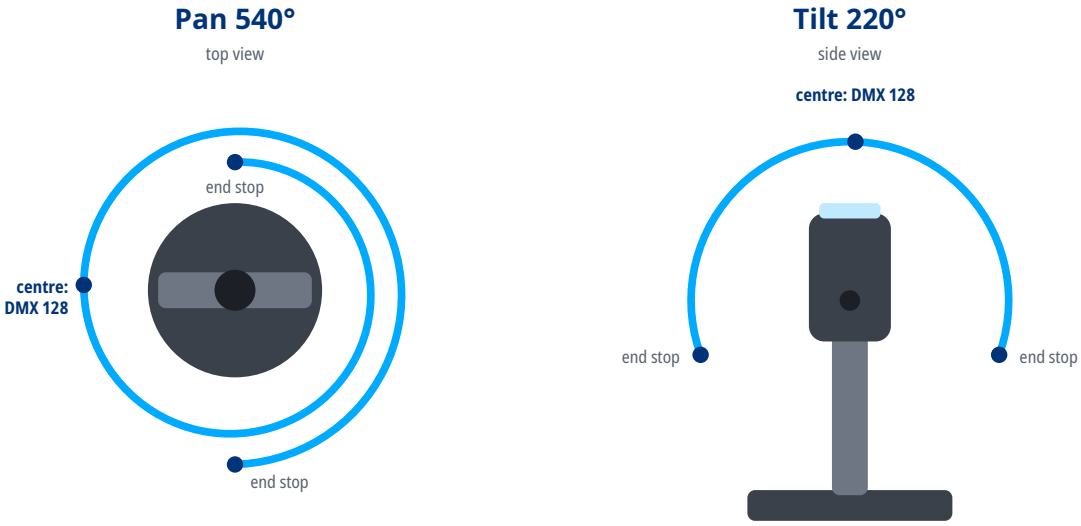
⚠ CAUTION

- 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.
> - 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.

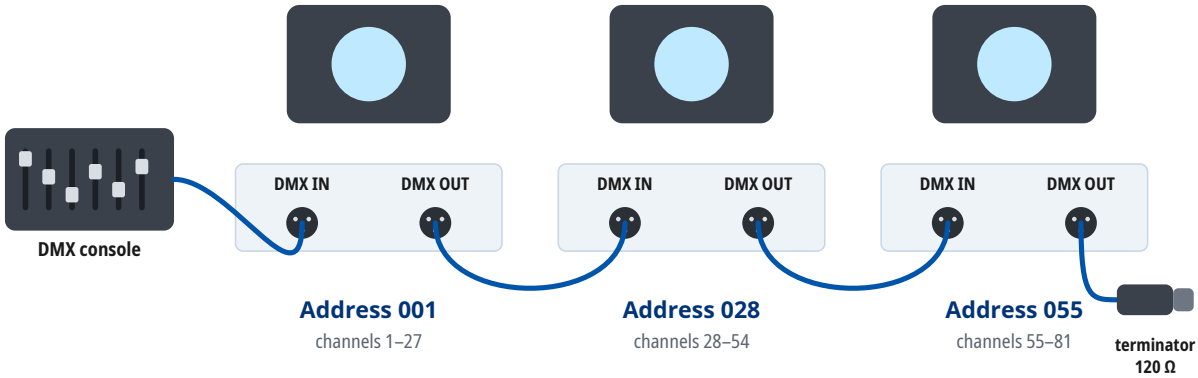
6 Connections

- 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 4 14DMX: every unit occupies 27 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

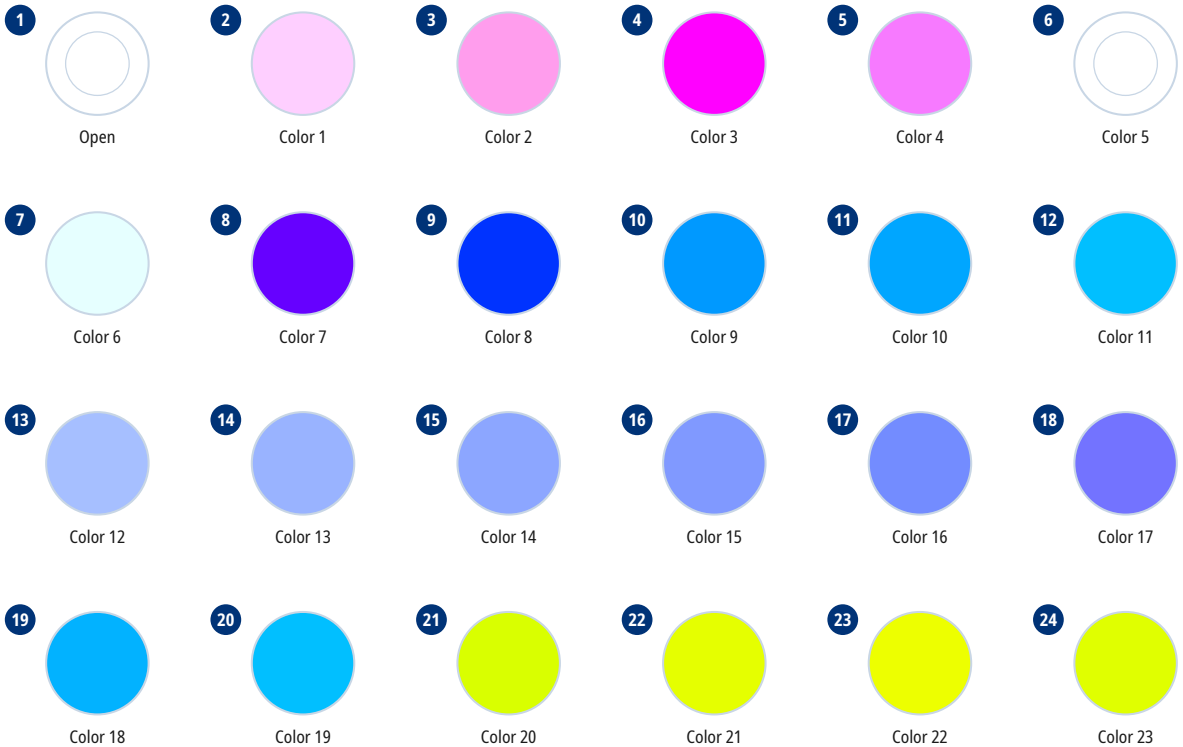
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Mode 4 14DMX”: 27.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 4 14DMX”, you can use, for example, the start addresses 1, 28, 55, 82.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

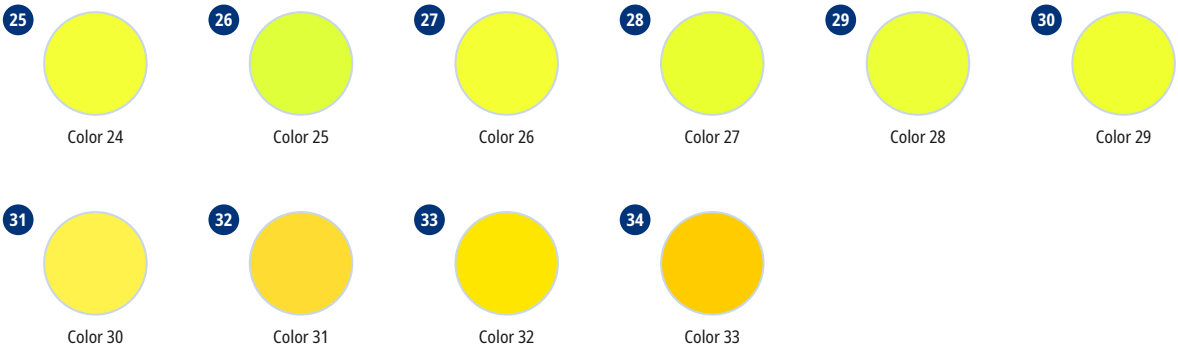
8 Functions at a glance

Functions in each DMX mode

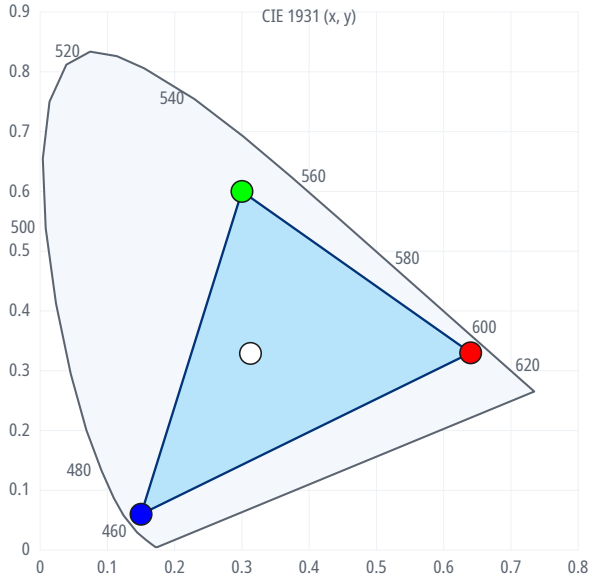
	Mode 1 14DMX 14 channels	Mode 2 11DMX 11 channels	Mode 3 15DMX 15 channels	Mode 4 14DMX 27 channels
Pan / Tilt	1, 3	1, 2	1, 3	1, 3
Pan / Tilt resolution	16 bit	8 bit	16 bit	16 bit
Dimmer	7	5	7	13
Dimmer resolution	16 bit	8 bit	16 bit	8 bit
Shutter / strobe	9	6	9	6
Color mixing	10–13	7–10	10–13	7–10
Color temperature			14	
Color wheel				11
Zoom	6	4	6	12
Effects / macros				11

Color wheel





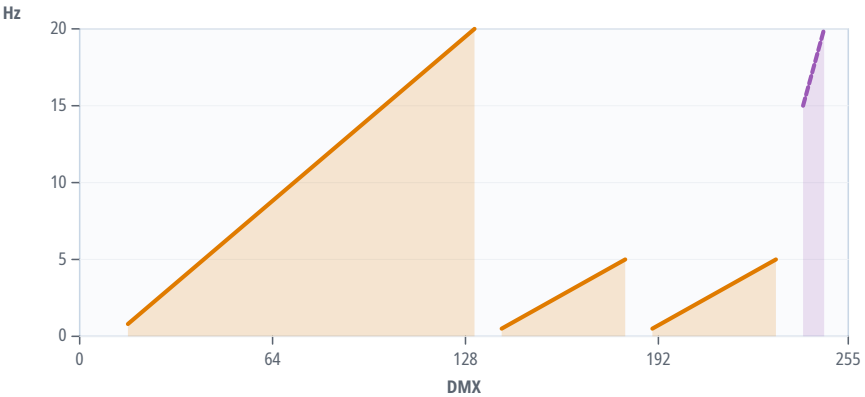
LED colors and the colors they mix



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.

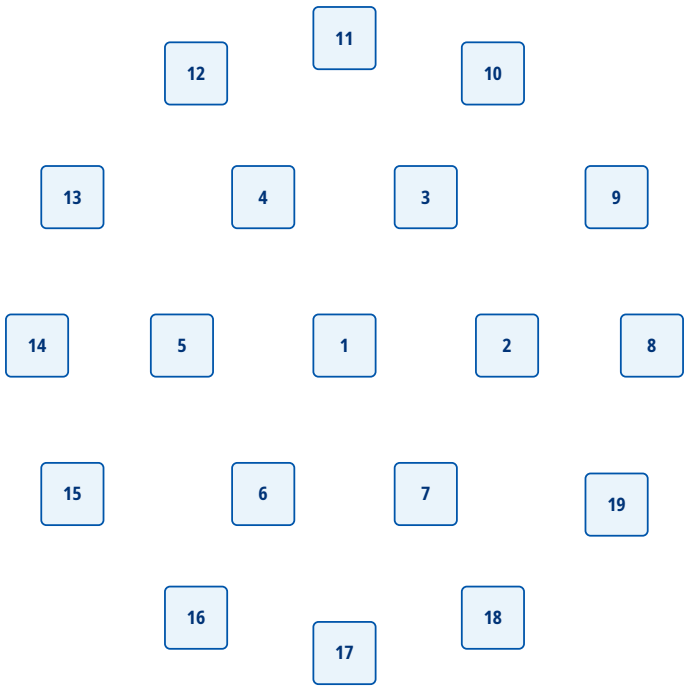
Strobe rate



CH 9 · Mode 3 15DMX

- 16–131: 0.8–20 Hz
  ShutterStrobe 1
- 140–181: 0.5–5 Hz
  Shutter Pulse Open
- 190–231: 0.5–5 Hz
  Shutter Pulse Close
- 240–247: 15–20 Hz
  Strobe Random

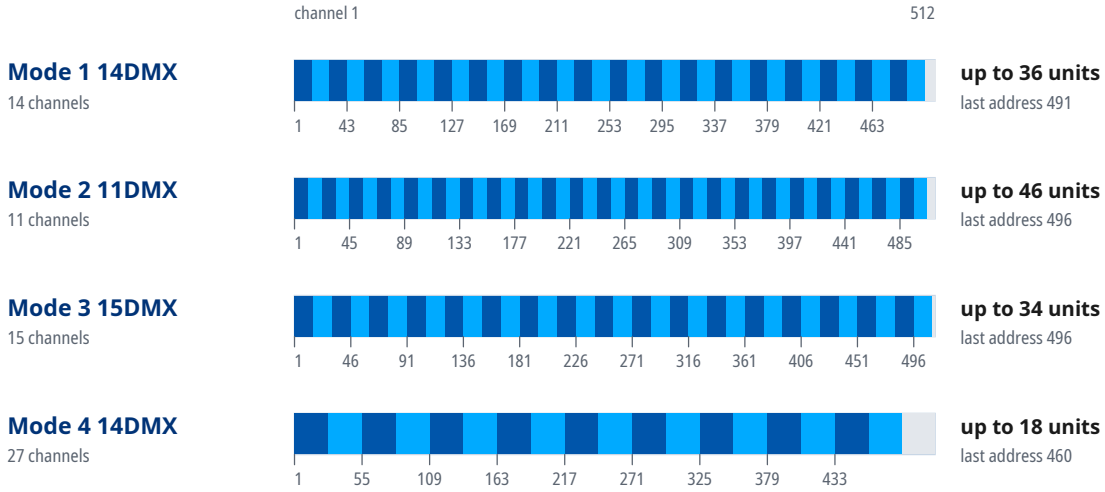
Cells (pixels)



19 cells where the GDTF file places them (seen from above), numbered in the file's order; the mode “Mode 3 15DMX” drives them together.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 4 14DMX”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	136	11	271	16	406
2	28	7	163	12	298	17	433
3	55	8	190	13	325	18	460
4	82	9	217	14	352	19	U2 · 1
5	109	10	244	15	379	20	U2 · 28

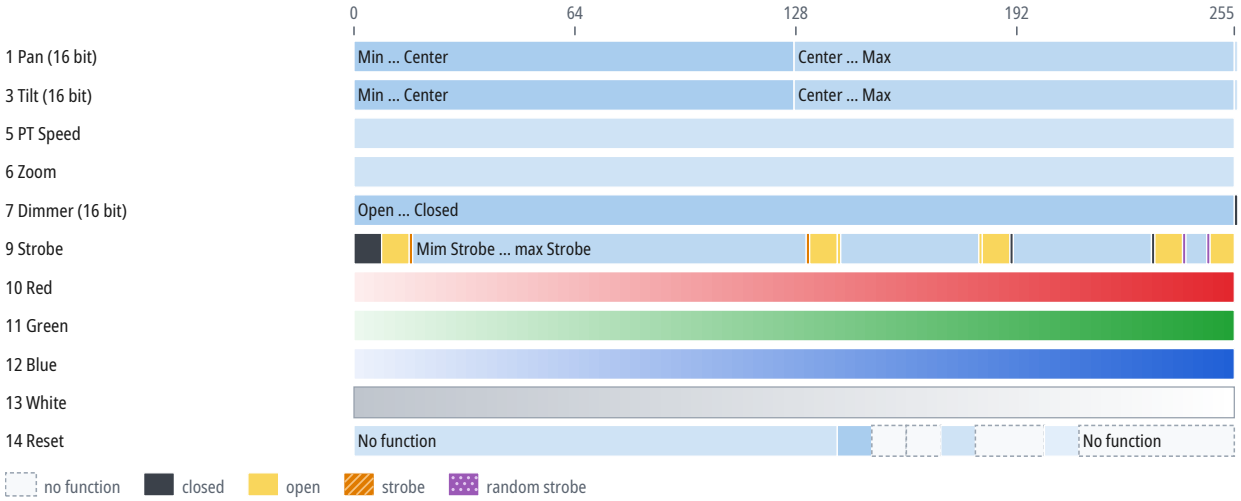
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 1 14DMX

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 9 Strobe at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255. The GDTF file gives these values for a console's Highlight function: CH 9 Strobe 12, CH 10 Red 255, CH 11 Green 255, CH 12 Blue 255.

Channel functions at a glance



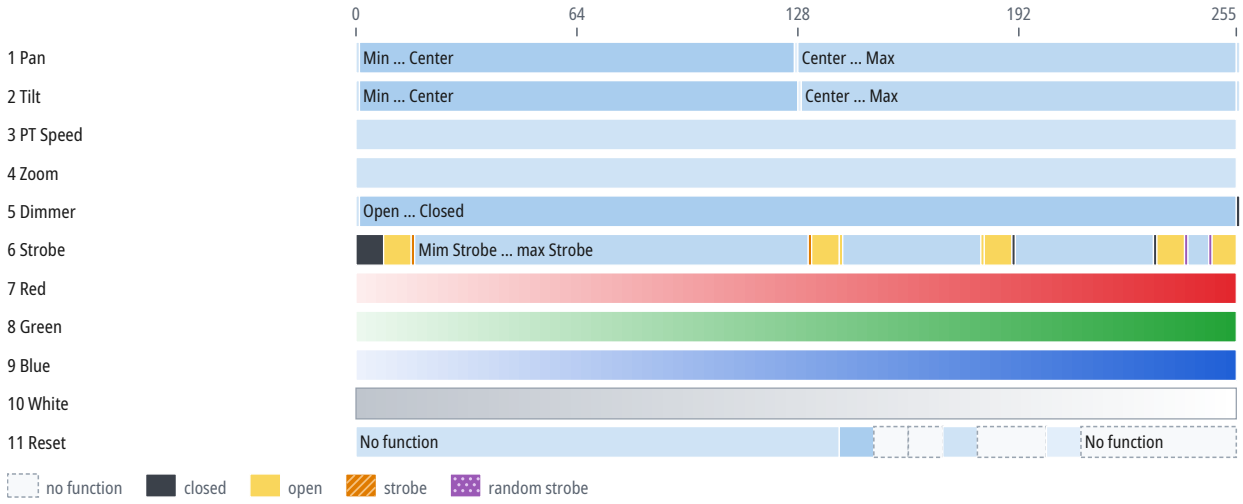
CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Zoom	0–255	60–10°
7	Dimmer	0–255	Open ... Closed
		255	Closed
8	Dimmer Fine	0–255	Fine adjustment of CH 7
9	Strobe	0–7	Shutter: Closed
		8–15	Shutter: Open
		16	Mim Strobe
		17–130	Mim Strobe ... max Strobe
		131	Max Strobe
		132–139	Open 2
		140	Min Pulse Open
		141–180	Min Pulse Open ... max Pulse Open

CH	Function	DMX	Description
9	Strobe (continued)	181	Max Pulse Open
		182–189	Open 3
		190	Min Pulse Close
		191–230	Min Pulse Close ... max Pulse Close
		231	Max Pulse Close
		232–239	Open 4
		240	Min Strobe Ran
		241–246	Min Strobe Ran ... max Strobe Ran
		247	Max Strobe Ran
		248–255	Open 5
10	Red	0–255	
11	Green	0–255	
12	Blue	0–255	
13	White	0–255	
14	Reset	0–139	No function
		140–149	PT Reset
		150–169	No function
		170–179	Eff Reset
		180–199	No function
		200–209	Reset All
		210–255	No function

Mode 2 11DMX

If the device receives DMX in this mode but gives no light, check these channels: CH 6 Strobe at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255. The GDTF file gives these values for a console's Highlight function: CH 6 Strobe 12, CH 7 Red 255, CH 8 Green 255, CH 9 Blue 255.

Channel functions at a glance



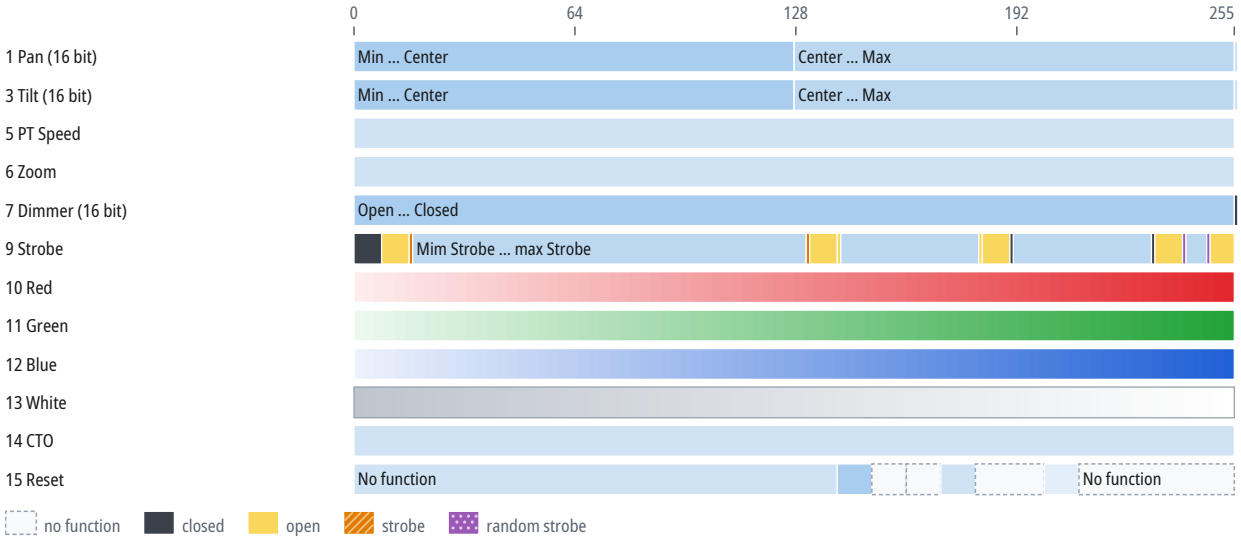
CH	Function	DMX	Description
1	Pan	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
2	Tilt	0	Min
		1–127	Min ... Center
		128	Center
		129–254	Center ... Max
		255	Max
3	PT Speed	0–255	
4	Zoom	0–255	60–10°
5	Dimmer	0	Open
		1–254	Open ... Closed
		255	Closed
6	Strobe		Same as CH 9 in the mode “Mode 1 14DMX” (p. 11)
7	Red	0–255	
8	Green	0–255	
9	Blue	0–255	
10	White	0–255	
11	Reset		Same as CH 14 in the mode “Mode 1 14DMX” (p. 12)

Mode 3 15DMX

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 9 Strobe at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255. The GDTF file gives these values for a console's Highlight function: CH 9 Strobe 12, CH 10 Red 255, CH 11 Green 255, CH 12 Blue 255.

Channel functions at a glance



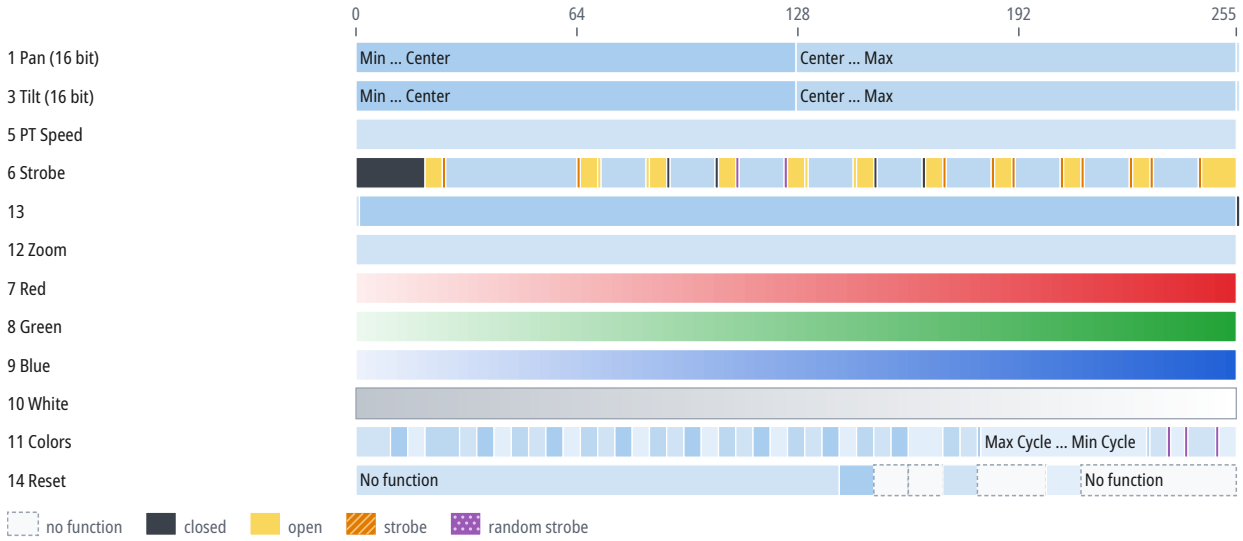
CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 14DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 14DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Zoom	0–255	60–10°
7	Dimmer		Same as CH 7 in the mode “Mode 1 14DMX” (p. 11)
8	Dimmer Fine	0–255	Fine adjustment of CH 7
9	Strobe		Same as CH 9 in the mode “Mode 1 14DMX” (p. 11)
10	Red	0–255	
11	Green	0–255	
12	Blue	0–255	
13	White	0–255	
14	CTO	0–255	
15	Reset		Same as CH 14 in the mode “Mode 1 14DMX” (p. 12)

Mode 4 14DMX

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 Strobe at 20–24 “Open” or 65–69 or 85–89 or 105–109 or 125–129 or 145–149 or 165–169 or 185–189 or 205–209 or 225–229 or 245–255. The GDTF file gives these values for a console's Highlight function: CH 6 Strobe 22, CH 7 Red 255, CH 8 Green 255, CH 9 Blue 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 14DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 14DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Strobe	0–19	Shutter: Closed
		20–24	Shutter: Open
		25	Mim Strobe
		26–63	Mim Strobe ... max Strobe
		64	Max Strobe
		65–69	Open 2
		70	Min Pulse Open
		71–83	Min Pulse Open ... max Pulse Open
		84	Max Pulse Open
		85–89	Open 3
		90	Min Pulse Close
		91–103	Min Pulse Close ... max Pulse Close
		104	Max Pulse Close
		105–109	Open 4
		110	Min Strobe Ran
		111–123	Min Strobe Ran ... max Strobe Ran

CH	Function	DMX	Description
6	Strobe (continued)	124	Max Strobe Ran
		125–129	Open 5
		130	Max Rand Pulse Open
		131–143	Max Rand Pulse Open ... min Rand Pulse Open
		144	Min Rand Pulse Open
		145–149	Open 6
		150	Max Ran Pulse Close
		151–163	Max Ran Pulse Close ... min Ran Pulse Close
		164	Min Ran Pulse Close
		165–169	Open 7
		170	Max Shutter1 Burst Pulse
		171–183	Max Shutter1 Burst Pulse ... min Shutter1 Burst Pulse
		184	Min Shutter1 Burst Pulse
		185–189	Open 8
		190	Max Rnd Burst Pulse
		191–203	Max Rnd Burst Pulse ... min Rnd Burst Pulse
		204	Min Rnd Burst Pulse
		205–209	Open 9
		210	Max Strobe Sine
		211–223	Max Strobe Sine ... min Strobe Sine
		224	Min Strobe Sine
		225–229	Open 10
		230	Max Burst
		231–243	Max Burst ... min Burst
		244	Min Burst
		245–255	Open 11
7	Red	0–255	
8	Green	0–255	
9	Blue	0–255	
10	White	0–255	
11	Colors	0–9	Color 1: Open
		10–14	Color 1
		15–19	Color 2
		20–29	Color 3
		30–34	Color 4
		35–39	Color 5
		40–44	Color 6
		45–49	Color 7
		50–54	Color 8
		55–59	Color 9
		60–64	Color 10
		65–69	Color 11

CH	Function	DMX	Description
11	Colors (continued)	70–74	Color 12
		75–79	Color 13
		80–84	Color 14
		85–89	Color 15
		90–94	Color 16
		95–99	Color 17
		100–104	Color 18
		105–109	Color 19
		110–114	Color 20
		115–119	Color 21
		120–124	Color 22
		125–129	Color 23
		130–134	Color 24
		135–139	Color 25
		140–144	Color 26
		145–149	Color 27
		150–154	Color 28
		155–159	Color 29
		160–169	Color 30
		170–174	Color 31
		175–179	Color 1: Open 2
		180	Max Cycle
		181–228	Max Cycle ... Min Cycle
		229	Min Cycle
		230–234	Open 3
		235	Max Ran
		236–239	Max Ran ... Ran
		240	Ran
		241–248	Ran ... Min Ran
		249	Min Ran
		250–255	Open 4
12	Zoom	0–255	60–10°
14	Reset		Same as CH 14 in the mode “Mode 1 14DMX” (p. 12)
27	Dimmer		Same as CH 5 in the mode “Mode 2 11DMX” (p. 13)

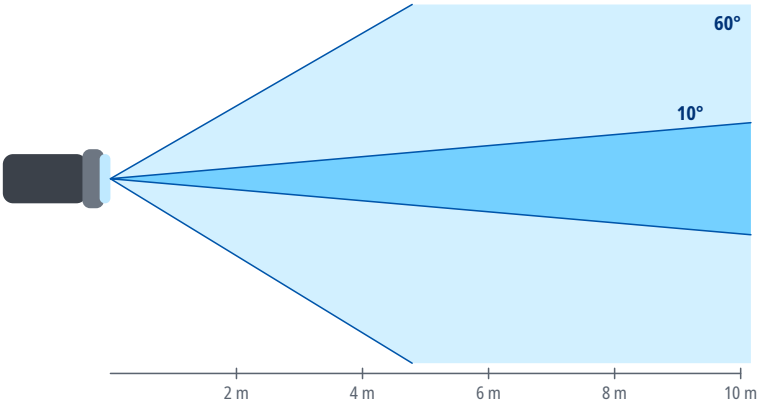
10 Technical specifications

Parameter	Value
Zoom	10–60°
Pan	540°
Tilt	220°
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Strobe frequency	0.8–20 Hz
Strobe flash duration	1–12 s

Spot diameter



Distance	Ø 10°	Ø 60°
2 m	0.35 m	2.3 m
4 m	0.7 m	4.6 m
6 m	1 m	6.9 m
8 m	1.4 m	9.2 m
10 m	1.7 m	11.5 m
15 m	2.6 m	17.3 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.