DMX REFERENCE

ColorWash 2500E AT

LPL



Manufacturer	LPL
GDTF file	LPL_ColorWash_2500E_AT_109678.gdtf
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Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 6
6 Connections 6
7 Operation 7
8 Functions at a glance 8
9 DMX channels 9
Mode 1 - 8bit normal 10
Mode 2 - 16 bit normal 14
Mode 3 - 8bit extended 16
Mode 4 - 16 bit extended 18
Mode 5 - 8bit inverted 19
10 Technical specifications 21
11 Maintenance and cleaning 22
12 Troubleshooting 22
13 Disposal 23

1 About this manual

This document describes the ColorWash 2500E AT by LPL. It was compiled from the GDTF file LPL_ColorWash_2500E_AT_109678.gdtf from the GDTF-Share library.

File revision: “Rev1_0”.

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 LPL; 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
Power consumption	1,862 W
Weight	41 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 - 8bit normal	17	30	1, 18, 35, 52, ...
Mode 2 - 16 bit normal	23	22	1, 24, 47, 70, ...
Mode 3 - 8bit extended	24	21	1, 25, 49, 73, ...
Mode 4 - 16 bit extended	30	17	1, 31, 61, 91, ...
Mode 5 - 8bit inverted	25	20	1, 26, 51, 76, ...

No light? Check these channels

- Mode 1 - 8bit normal: CH 16 Shutter at 32–63 or 96–127 or 224–255 “open”
- Mode 2 - 16 bit normal: CH 21 Shutter at 32–63 or 96–127 or 224–255 “open”
- Mode 3 - 8bit extended: CH 23 Shutter at 32–63 or 96–127 or 224–255 “open”
- Mode 4 - 16 bit extended: CH 28 Shutter at 32–63 or 96–127 or 224–255 “open”
- Mode 5 - 8bit inverted: CH 1 Shutter at 32–63 or 96–127 or 224–255 “open”


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

3 Safety instructions


Read the manual before use


Risk of electric shock


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

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 208–250 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

⚠ 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.

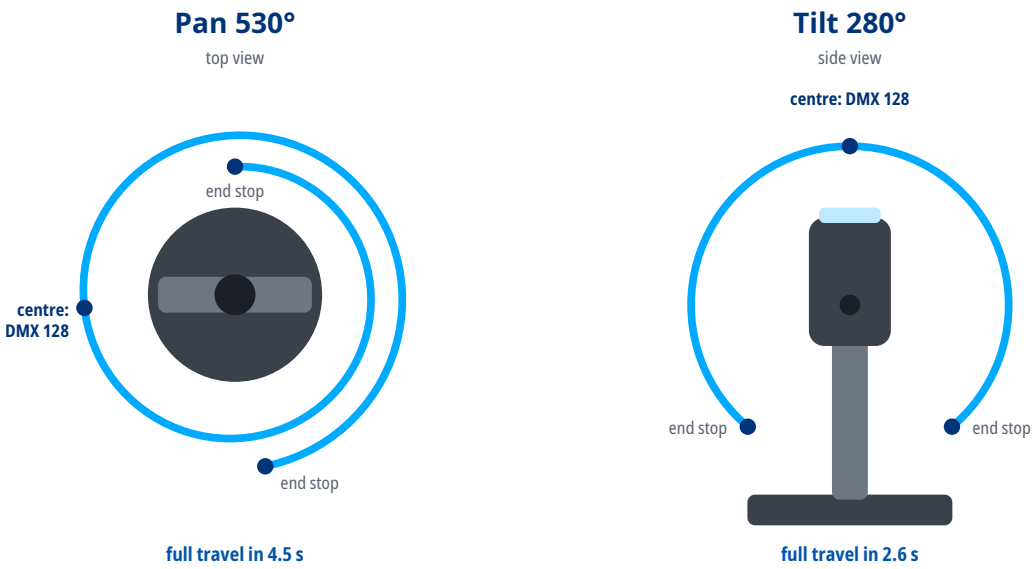
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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

Description in the GDTF file

“The ColorWash 2500E AT II is newly equipped with a the Philips MSR Gold 1500 FastFit lamp, which makes it the most powerful Robe moving wash light fixture.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

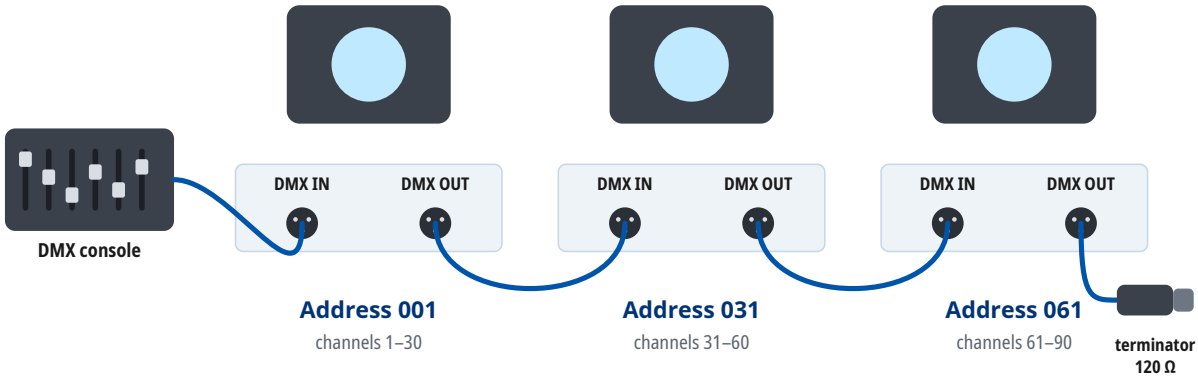
⚠ **WARNING**

- 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: 41 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 4 - 16 bit extended: every unit occupies 30 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 - 16 bit extended”: 30.
- 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 - 16 bit extended”, you can use, for example, the start addresses 1, 31, 61, 91.
- 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

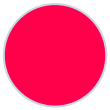
Functions in each DMX mode

	Mode 1 - 8bit normal 17 channels	Mode 2 - 16 bit normal 23 channels	Mode 3 - 8bit extended 24 channels	Mode 4 - 16 bit extended 30 channels	Mode 5 - 8bit inverted 25 channels
Pan / Tilt	1, 3	1, 3	1, 3	1, 3	16, 18
Dimmer	17	22	24	29	2
Dimmer resolution	8 bit	16 bit	8 bit	16 bit	8 bit
Shutter / strobe	16	21	23	28	1
Color mixing	9–11	11–13	11–13	13–15	3–5
Color temperature	12	14	14	16	6
Color wheel	7, 8	7, 9	9, 10	9, 11	7, 8
Zoom	15	19	22	26	9
Effects / macros	13	15–17	15	17–19	

Color wheel



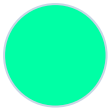
1 Open/white - continual
DMX 0–8



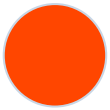
2 Deep red - continual
DMX 9–27



3 Deep blue - continual
DMX 28–45



4 Orange - continual
DMX 46–63



5 Green - continual
DMX 64–81

6 6000K filter - continual
DMX 82–100



7 Congo blue (UV) - continual
DMX 101–118

Gobo wheel

1 Open/white - continual
DMX 0–8



2 Pink - continual
DMX 9–27



3 Lavender - continual
DMX 28–45



4 Laser green - continual
DMX 46–63



5 CTB - continual
DMX 64–81

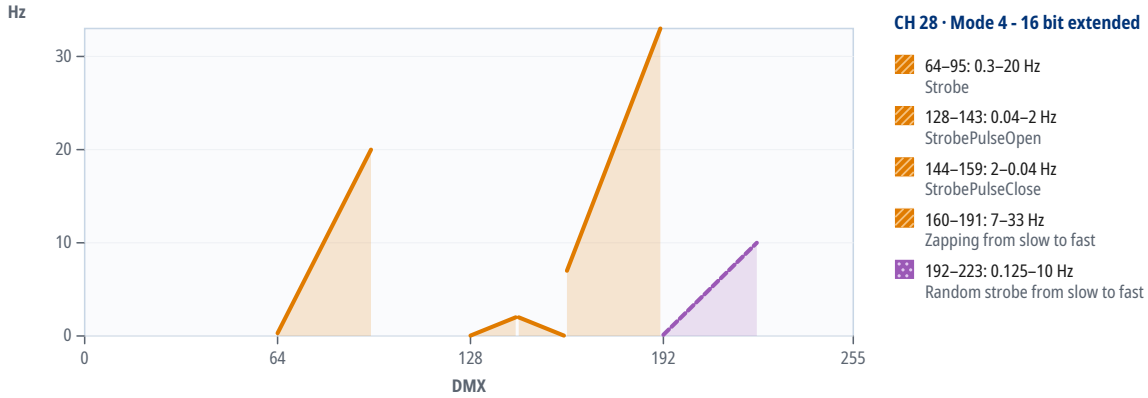


6 Minus green - continual
DMX 82–100



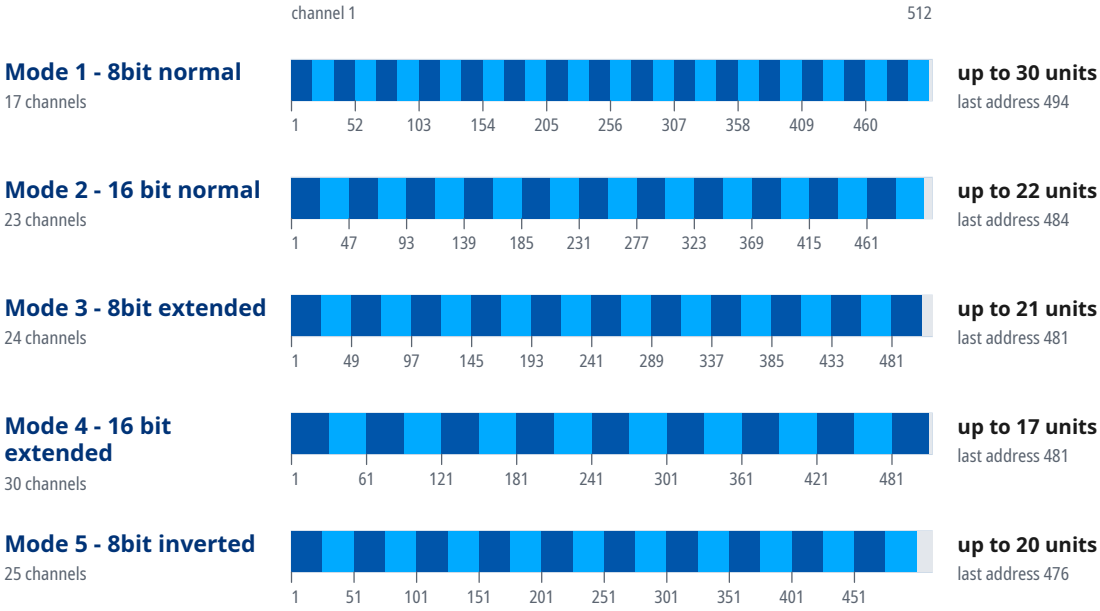
7 Minus 1/2 green - continual
DMX 101–118

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 4 - 16 bit extended”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	151	11	301	16	451
2	31	7	181	12	331	17	481
3	61	8	211	13	361	18	U2 · 1
4	91	9	241	14	391	19	U2 · 31
5	121	10	271	15	421	20	U2 · 61

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.

RDM personalities

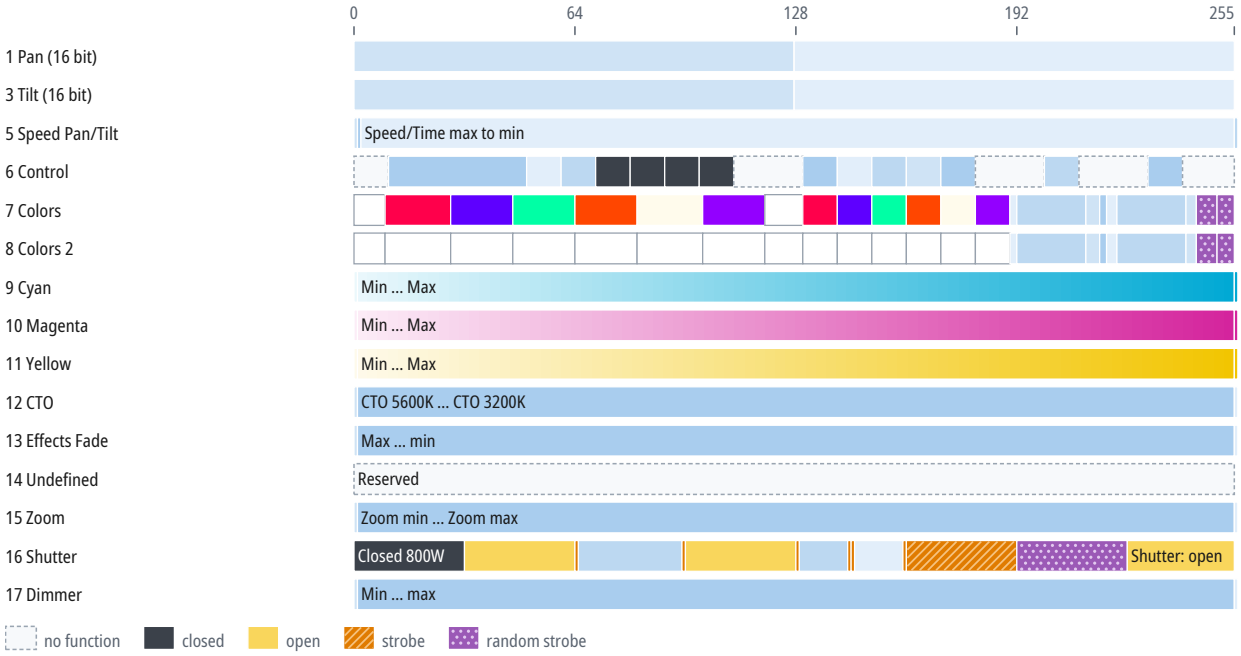
Mode	Channels	RDM personality
Mode 1 - 8bit normal	17	1
Mode 2 - 16 bit normal	23	2
Mode 3 - 8bit extended	24	3
Mode 4 - 16 bit extended	30	4
Mode 5 - 8bit inverted	25	5

Mode 1 - 8bit normal

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 at 32–63 or 96–127 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 7 Colors 0, CH 8 Colors 2 0, CH 9 Cyan 0, CH 10 Magenta 0, CH 11 Yellow 0, CH 16 Shutter 32, CH 17 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Pan
		128	Center
		128–255	Pan
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Tilt
		128	Center
		128–255	Tilt
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0	Standard mode

CH	Function	DMX	Description
5	Speed Pan/Tilt (continued)	1	Max Speed Mode
		2–254	Speed/Time max to min
		255	Min Speed Mode
6	Control	0–49	No function
		50–59	Pan/Tilt speed mode
		60–69	Pan/Tilt time mode
		70–79	Blackout while pan/tilt moving
		80–89	Disabled blackout while pan/tilt moving
		90–99	Blackout while colour wheels moving
		100–109	Disabled blackout while colour wheels moving
		110–129	No function
		130–139	Lamp On
		140–149	Pan/Tilt reset
		150–159	Colour system reset
		160–169	Zoom/Fresnel reset
		170–179	Dimmer/Shutter reset
		180–199	No function
		200–209	Total reset
		210–229	No function
		230–239	Lamp Off
		240–255	No function
7	Colors	0–8	Open/white - continual
		9–27	Deep red - continual
		28–45	Deep blue - continual
		46–63	Orange - continual
		64–81	Green - continual
		82–100	6000K filter - continual
		101–118	Congo blue (UV) - continual
		119–129	White - continual
		130–139	Deep red - step
		140–149	Deep blue - step
		150–159	Orange - step
		160–169	Green - step
		170–179	6000K filter - step
		180–189	Congo blue - step
		190–191	Color 1 Wheel Spin: Fast to slow - Fast
		192–211	Color 1 Wheel Spin: Fast to slow - Fast ... Fast to slow - Slow
		212–215	Color 1 Wheel Spin: Fast to slow - Slow
		216–217	No rotation middle
		218–220	Color 1 Wheel Spin: Slow to fast - Slow
		221–240	Color 1 Wheel Spin: Slow to fast - Slow ... Slow to fast - Fast

CH	Function	DMX	Description
7	Colors (continued)	241–243	Color 1 Wheel Spin: Slow to fast - Fast
		244–249	Random colour selection by audio control
		250–255	Auto random color selection from fast to slow
8	Colors 2	0–8	Open/white - continual
		9–27	Pink - continual
		28–45	Lavender - continual
		46–63	Laser green - continual
		64–81	CTB - continual
		82–100	Minus green - continual
		101–118	Minus 1/2 green - continual
		119–129	White - continual
		130–139	Pink - step
		140–149	Lavender - step
		150–159	Laser green - step
		160–169	CTB - step
		170–179	Minus green - step
		180–189	Minus 1/2 green - step
		190–191	Color 2 Wheel Spin: Fast to slow - Fast
		192–211	Color 2 Wheel Spin: Fast to slow - Fast ... Fast to slow - Slow
		212–215	Color 2 Wheel Spin: Fast to slow - Slow
		216–217	No rotation middle
		218–220	Color 2 Wheel Spin: Slow to fast - Slow
		221–240	Color 2 Wheel Spin: Slow to fast - Slow ... Slow to fast - Fast
		241–243	Color 2 Wheel Spin: Slow to fast - Fast
		244–249	Random colour selection by audio control
		250–255	Auto random color selection from fast to slow
9	Cyan	0	Min
		1–254	Min ... Max
		255	Max
10	Magenta	0	Min
		1–254	Min ... Max
		255	Max
11	Yellow	0	Min
		1–254	Min ... Max
		255	Max
12	CTO		CTO filter
		0	CTO 5600K
		1–254	CTO 5600K ... CTO 3200K
		255	CTO 3200K
13	Effects Fade		Effect speed
		0	Max

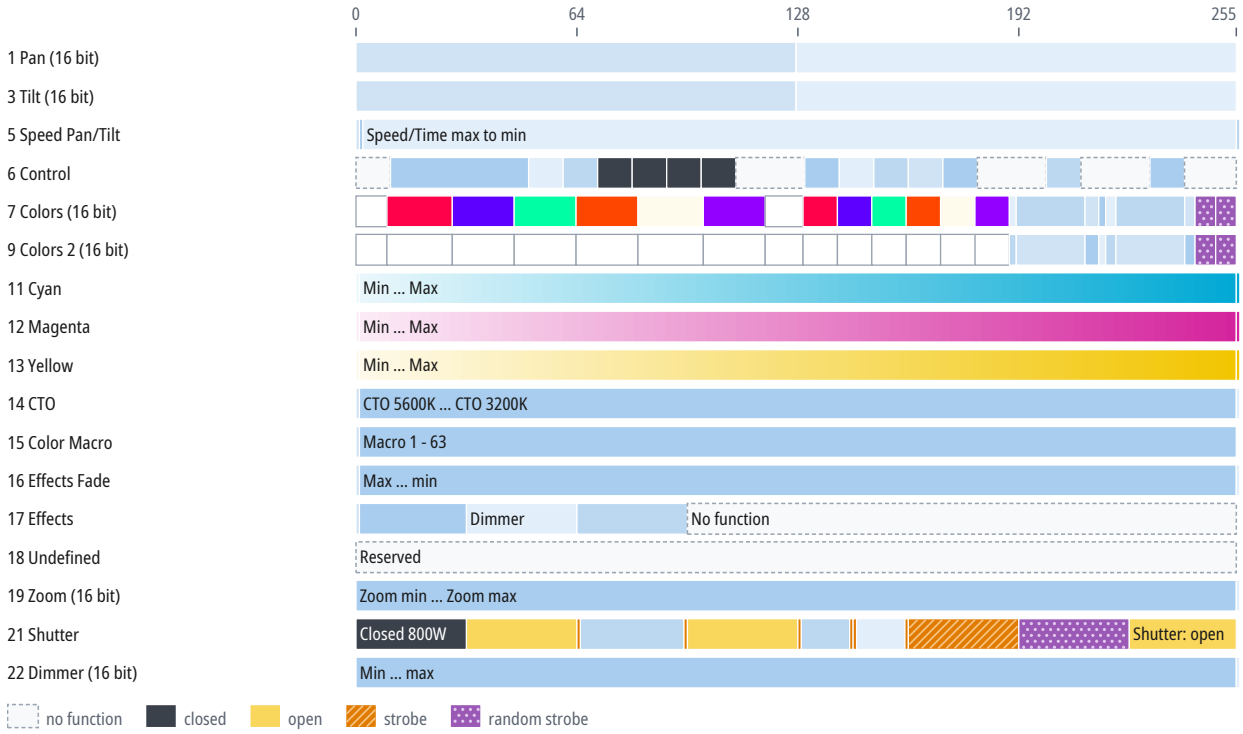
CH	Function	DMX	Description
13	Effects Fade (continued)	1–254	Max … min
		255	Min
14	Undefined	0–255	Reserved
15	Zoom	0	Zoom min
		1–254	Zoom min … Zoom max
		255	Zoom max
16	Shutter	0–31	Closed 800W
		32–63	Open Full power
		64	Strobe: Slow
		65–94	Strobe: Slow … Fast
		95	Strobe: Fast
		96–127	Shutter open 800 W
		128	Strobe Pulse Open: Slow
		129–142	Strobe Pulse Open: Slow … Fast
		143	Strobe Pulse Open: Fast
		144	Strobe Pulse Close: Fast
		145–158	Strobe Pulse Close: Fast … Slow
		159	Strobe Pulse Close: Slow
		160–191	Zapping from slow to fast (7–33 Hz)
		192–223	Random strobe from slow to fast (0.125–10 Hz)
		224–255	Shutter: open
17	Dimmer		Dimmer intensity
		0	Min
		1–254	Min … max
		255	Max

Mode 2 - 16 bit normal

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 21 Shutter at 32–63 or 96–127 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 7 Colors 0, CH 9 Colors 2 0, CH 11 Cyan 0, CH 12 Magenta 0, CH 13 Yellow 0, CH 15 Color Macro 0, CH 21 Shutter 32, CH 22 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 - 8bit normal” (p. 10)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 - 8bit normal” (p. 10)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “Mode 1 - 8bit normal” (p. 10)
6	Control		Same as CH 6 in the mode “Mode 1 - 8bit normal” (p. 11)
7	Colors		Same as CH 7 in the mode “Mode 1 - 8bit normal” (p. 11)
8	Colors Fine	0–255	Fine adjustment of CH 7
9	Colors 2	0–8	Open/white - continual
		9–27	Pink - continual
		28–45	Lavender - continual
		46–63	Laser green - continual
		64–81	CTB - continual
		82–100	Minus green - continual
		101–118	Minus 1/2 green - continual
		119–129	White - continual

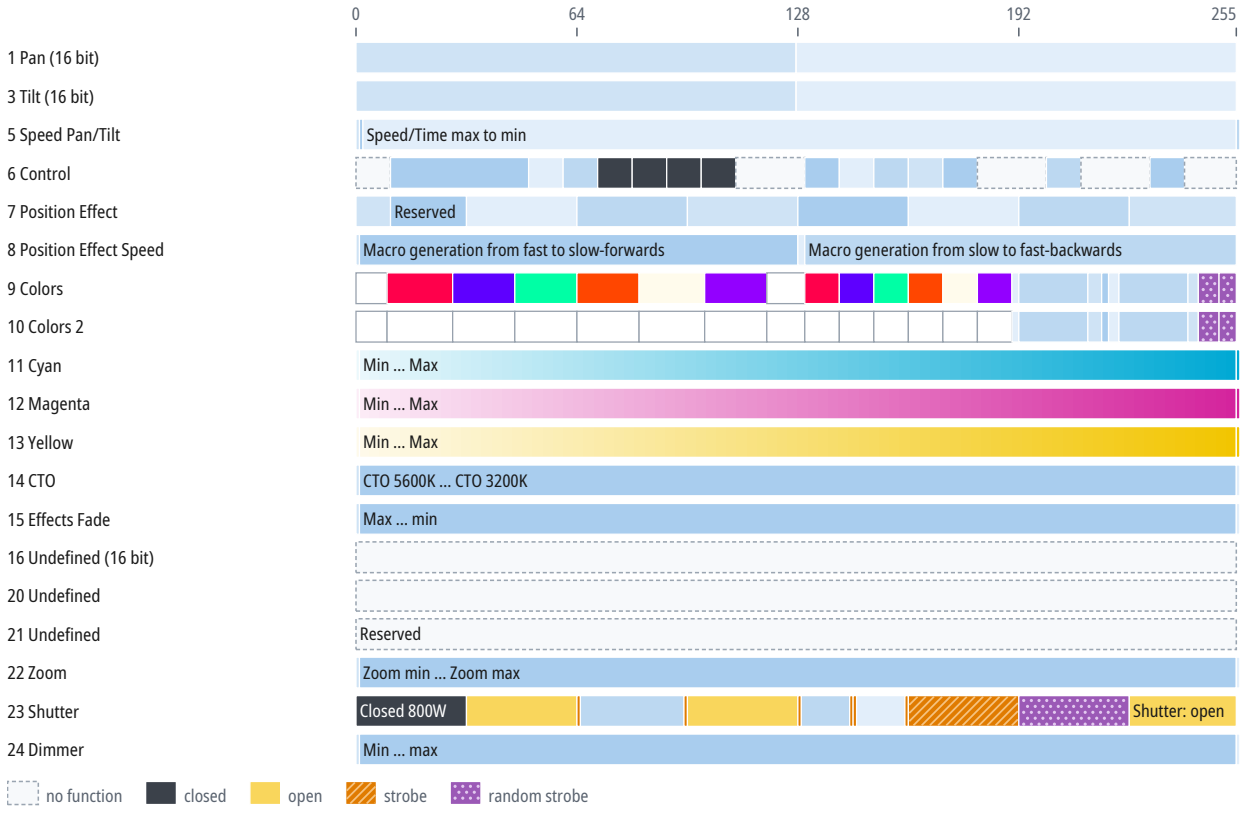
CH	Function	DMX	Description
9	Colors 2 (continued)	130–139	Pink - step
		140–149	Lavender - step
		150–159	Laser green - step
		160–169	CTB - step
		170–179	Minus green - step
		180	Minus green - step ... Minus 1/2 green - step
		180–189	Minus 1/2 green - step
		190–191	Color 2 Wheel Spin: Fast to slow - Fast
		192–211	Color 2 Wheel Spin: Fast to slow - Fast ... Fast to slow - Slow
		212–215	Color 2 Wheel Spin: Fast to slow - Slow
		216–217	No rotation middle
		218–220	Color 2 Wheel Spin: Slow to fast - Slow
		221–240	Color 2 Wheel Spin: Slow to fast - Slow ... Slow to fast - Fast
		241–243	Color 2 Wheel Spin: Slow to fast - Fast
		244–249	Random colour selection by audio control
		250–255	Auto random color selection from fast to slow
10	Colors 2 Fine	0–255	Fine adjustment of CH 9
11	Cyan		Same as CH 9 in the mode “Mode 1 - 8bit normal” (p. 12)
12	Magenta		Same as CH 10 in the mode “Mode 1 - 8bit normal” (p. 12)
13	Yellow		Same as CH 11 in the mode “Mode 1 - 8bit normal” (p. 12)
14	CTO		Same as CH 12 in the mode “Mode 1 - 8bit normal” (p. 12)
15	Color Macro	0	No macro
		1–255	Macro 1 - 63
16	Effects Fade		Same as CH 13 in the mode “Mode 1 - 8bit normal” (p. 12)
17	Effects		Effect speed assigning
		0	Max speed
		1–31	Dimmer + CMY filters + correction filter
		32–63	Dimmer
		64–95	CMY filters + correction filter
		96–255	No function
18	Undefined	0–255	Reserved
19	Zoom	0–255	Zoom min ... Zoom max
		255	Zoom max
20	Zoom Fine	0–255	Fine adjustment of CH 19
21	Shutter		Same as CH 16 in the mode “Mode 1 - 8bit normal” (p. 13)
22	Dimmer		Dimmer intensity
		0–255	Min ... max
		255	Max
23	Dimmer Fine	0–255	Fine adjustment of CH 22

Mode 3 - 8bit extended

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 23 Shutter at 32–63 or 96–127 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 9 Colors 0, CH 10 Colors 2 0, CH 11 Cyan 0, CH 12 Magenta 0, CH 13 Yellow 0, CH 23 Shutter 32, CH 24 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 - 8bit normal” (p. 10)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 - 8bit normal” (p. 10)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “Mode 1 - 8bit normal” (p. 10)
6	Control		Same as CH 6 in the mode “Mode 1 - 8bit normal” (p. 11)
7	Position Effect		Pan/Tilt macro selection
		0–9	Disabled pan/tilt macro
		10–31	Reserved
		32–63	Figure of circle (center of small to large)
		64–95	Figure of horizontal eight (center of small to large)
		96–127	Figure of vertical eight (center of small to large)
		128–159	Figure of rectangle (center of small to large)
		160–191	Figure of triangle (center of small to large)

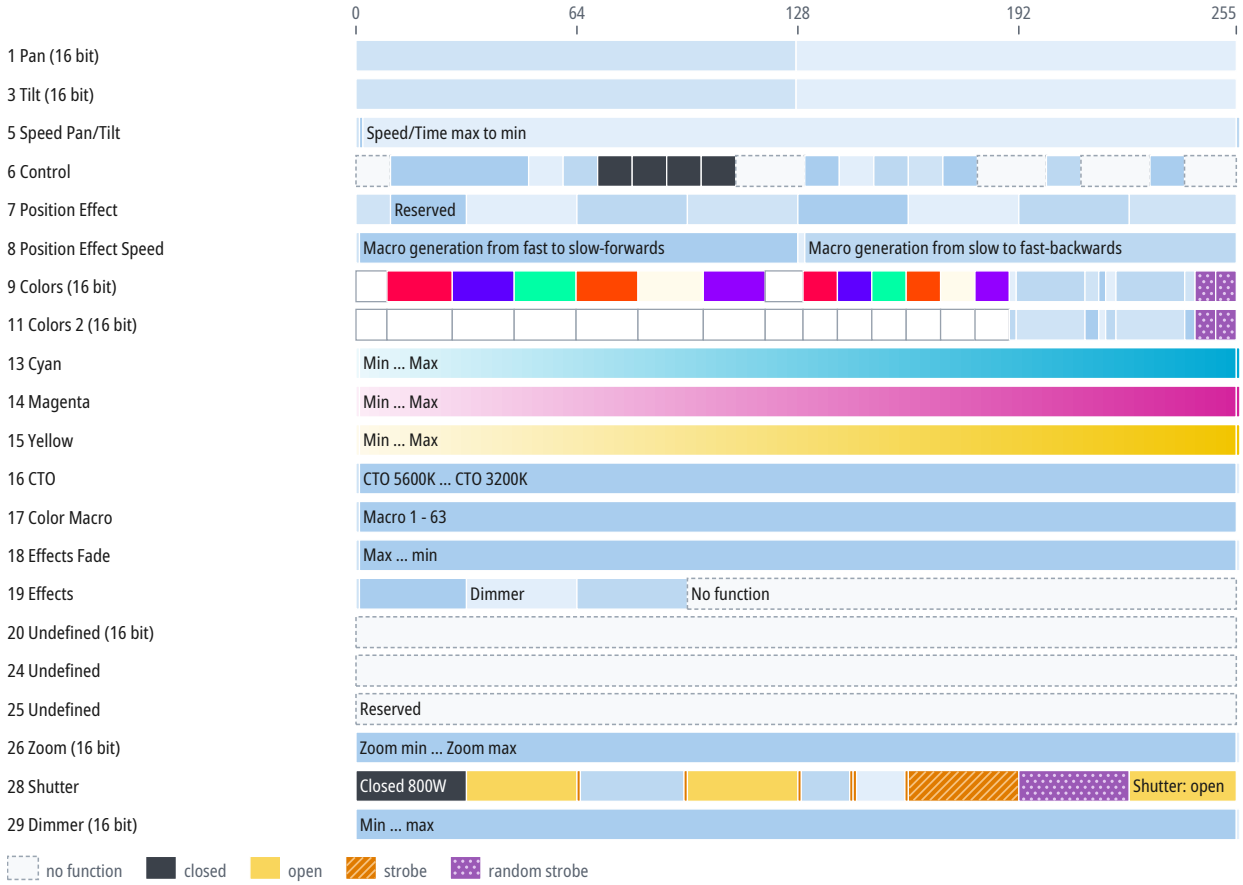
CH	Function	DMX	Description
7	Position Effect (continued)	192–223	Figure of star (center of small to large)
		224–255	Figure of cross (center of small to large)
8	Position Effect Speed		Pan/Tilt macro speed
		0	No macro
		1–127	Macro generation from fast to slow-forwards
		128–129	No macro generation
		130–255	Macro generation from slow to fast-backwards
9	Colors		Same as CH 7 in the mode “Mode 1 - 8bit normal” (p. 11)
10	Colors 2		Same as CH 8 in the mode “Mode 1 - 8bit normal” (p. 12)
11	Cyan		Same as CH 9 in the mode “Mode 1 - 8bit normal” (p. 12)
12	Magenta		Same as CH 10 in the mode “Mode 1 - 8bit normal” (p. 12)
13	Yellow		Same as CH 11 in the mode “Mode 1 - 8bit normal” (p. 12)
14	CTO		Same as CH 12 in the mode “Mode 1 - 8bit normal” (p. 12)
15	Effects Fade		Same as CH 13 in the mode “Mode 1 - 8bit normal” (p. 12)
16	Undefined	0	
17	Undefined Fine	0–255	Fine adjustment of CH 16
18	Undefined Fine 2	0–255	
19	Undefined Fine 3	0–255	
20	Undefined	0–255	
21	Undefined	0–255	Reserved
22	Zoom		Same as CH 15 in the mode “Mode 1 - 8bit normal” (p. 13)
23	Shutter		Same as CH 16 in the mode “Mode 1 - 8bit normal” (p. 13)
24	Dimmer		Same as CH 17 in the mode “Mode 1 - 8bit normal” (p. 13)

Mode 4 - 16 bit extended

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 28 Shutter at 32–63 or 96–127 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 9 Colors 0, CH 11 Colors 2 0, CH 13 Cyan 0, CH 14 Magenta 0, CH 15 Yellow 0, CH 17 Color Macro 0, CH 28 Shutter 32, CH 29 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 - 8bit normal” (p. 10)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 - 8bit normal” (p. 10)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “Mode 1 - 8bit normal” (p. 10)
6	Control		Same as CH 6 in the mode “Mode 1 - 8bit normal” (p. 11)
7	Position Effect		Same as CH 7 in the mode “Mode 3 - 8bit extended” (p. 16)
8	Position Effect Speed		Same as CH 8 in the mode “Mode 3 - 8bit extended” (p. 17)
9	Colors		Same as CH 7 in the mode “Mode 1 - 8bit normal” (p. 11)
10	Colors Fine	0–255	Fine adjustment of CH 9
11	Colors 2		Same as CH 9 in the mode “Mode 2 - 16 bit normal” (p. 14)
12	Colors 2 Fine	0–255	Fine adjustment of CH 11
13	Cyan		Same as CH 9 in the mode “Mode 1 - 8bit normal” (p. 12)

CH	Function	DMX	Description
14	Magenta		Same as CH 10 in the mode “Mode 1 - 8bit normal” (p. 12)
15	Yellow		Same as CH 11 in the mode “Mode 1 - 8bit normal” (p. 12)
16	CTO		Same as CH 12 in the mode “Mode 1 - 8bit normal” (p. 12)
17	Color Macro		Same as CH 15 in the mode “Mode 2 - 16 bit normal” (p. 15)
18	Effects Fade		Same as CH 13 in the mode “Mode 1 - 8bit normal” (p. 12)
19	Effects		Same as CH 17 in the mode “Mode 2 - 16 bit normal” (p. 15)
20	Undefined	0	
21	Undefined Fine	0–255	Fine adjustment of CH 20
22	Undefined Fine 2	0–255	
23	Undefined Fine 3	0–255	
24	Undefined	0–255	
25	Undefined	0–255	Reserved
26	Zoom		Same as CH 19 in the mode “Mode 2 - 16 bit normal” (p. 15)
27	Zoom Fine	0–255	Fine adjustment of CH 26
28	Shutter		Same as CH 16 in the mode “Mode 1 - 8bit normal” (p. 13)
29	Dimmer		Same as CH 22 in the mode “Mode 2 - 16 bit normal” (p. 15)
30	Dimmer Fine	0–255	Fine adjustment of CH 29

Mode 5 - 8bit inverted

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 1 Shutter at 32–63 or 96–127 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 32, CH 2 Dimmer 255, CH 3 Cyan 0, CH 4 Magenta 0, CH 5 Yellow 0, CH 7 Colors 0, CH 8 Colors 2 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 16 in the mode “Mode 1 - 8bit normal” (p. 13)
2	Dimmer		Same as CH 17 in the mode “Mode 1 - 8bit normal” (p. 13)
3	Cyan		Same as CH 9 in the mode “Mode 1 - 8bit normal” (p. 12)
4	Magenta		Same as CH 10 in the mode “Mode 1 - 8bit normal” (p. 12)
5	Yellow		Same as CH 11 in the mode “Mode 1 - 8bit normal” (p. 12)
6	CTO		Same as CH 12 in the mode “Mode 1 - 8bit normal” (p. 12)
7	Colors		Same as CH 7 in the mode “Mode 1 - 8bit normal” (p. 11)
8	Colors 2		Same as CH 8 in the mode “Mode 1 - 8bit normal” (p. 12)
9	Zoom		Same as CH 15 in the mode “Mode 1 - 8bit normal” (p. 13)
10	Undefined	0	
11	Undefined Fine	0–255	Fine adjustment of CH 10
12	Undefined Fine 2	0–255	
13	Undefined Fine 3	0–255	
14	Undefined	0–255	
16	Pan		Same as CH 1 in the mode “Mode 1 - 8bit normal” (p. 10)
17	Pan Fine	0–255	Fine adjustment of CH 16
18	Tilt		Same as CH 3 in the mode “Mode 1 - 8bit normal” (p. 10)
19	Tilt Fine	0–255	Fine adjustment of CH 18
20	Speed Pan/Tilt		Same as CH 5 in the mode “Mode 1 - 8bit normal” (p. 10)
21	Control		Same as CH 6 in the mode “Mode 1 - 8bit normal” (p. 11)
25	Undefined	0–255	Reserved

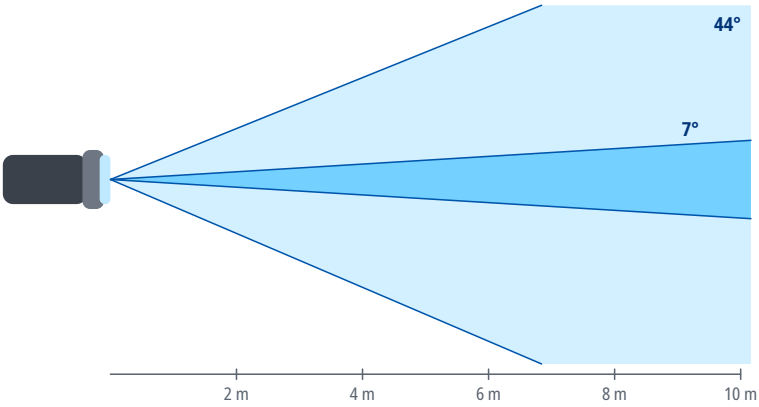
10 Technical specifications

Parameter	Value
Light	
Light source	discharge lamp
Lamp power	1,500 W
Luminous flux	41,650 lm
Color temperature	6,000 K
Color rendering index (CRI)	80
Optics	
Zoom	7–44°
Movement	
Pan	530°
Tilt	280°
Control	
DMX connection	3-pin XLR IN/OUT, 5-pin XLR IN/OUT
RJ45 connectors	RJ45 IN
RDM	yes (manufacturer ID 0x5253, device model ID 0x0007)
Electrical	
Power supply	208–250 V, 50/60 Hz
Power consumption	1,862 W
Power connectors	Loose End IN
Dimensions and construction	
Weight	41 kg
Operating environment	
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	3200–5600 K
Strobe frequency	0.3–33 Hz
Color wheel rotation	up to 800 °/s (133 rpm)
Color wheel rotation	up to 800 °/s (133 rpm)

Spot diameter



Distance	Ø 7°	Ø 44°
2 m	0.24 m	1.6 m
4 m	0.49 m	3.2 m
6 m	0.73 m	4.8 m
8 m	0.98 m	6.5 m
10 m	1.2 m	8.1 m
15 m	1.8 m	12.1 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.