DMX REFERENCE

Spider Double Blades

TIITEE



Manufacturer	TIITEE
GDTF file	TIITEE_Spider_Double_Blades_105703.gdtf
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1 About this manual

This document describes the Spider Double Blades by TIITEE. It was compiled from the GDTF file TIITEE_Spider_Double_Blades_105703.gdtf from the GDTF-Share library.

File revision: “2025-7-29”.

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 TIITEE; 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 24DMX	24	21	1, 25, 49, 73, ...
Mode 3 97DMX	97	5	1, 98, 195, 292, ...
Mode 4 21+DMX	21	24	1, 22, 43, 64, ...

No light? Check these channels

- Mode 1 24DMX: CH 9 Dimmer above 0; CH 11 Shutter 1 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 12 Shutter 2 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 13 Shutter 3 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 14 Shutter 4 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255
- Mode 3 97DMX: CH 9 Dimmer 1 above 0; CH 11 Shutter 1 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 12 Dimmer 2 above 0; CH 14 Shutter 2 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 15 Dimmer 3 above 0; CH 17 Shutter 3 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 18 Dimmer 4 above 0; CH 20 Shutter 4 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 38 Dimmer above 0 (the same in each of the 9 cells); CH 74 Dimmer above 0 (the same in each of the 24 cells)
- Mode 4 21+DMX: CH 9 Dimmer 1 above 0; CH 11 Shutter 1 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 12 Dimmer 2 above 0; CH 14 Shutter 2 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 15 Dimmer 3 above 0; CH 17 Shutter 3 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 18 Dimmer 4 above 0; CH 20 Shutter 4 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255


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.

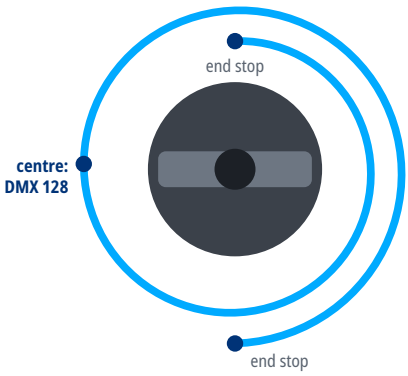
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

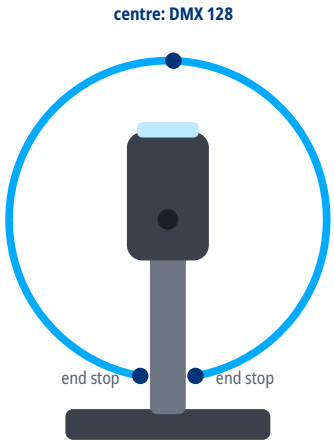
Pan 540°

top view



Tilt 450°

side view



5 Installation

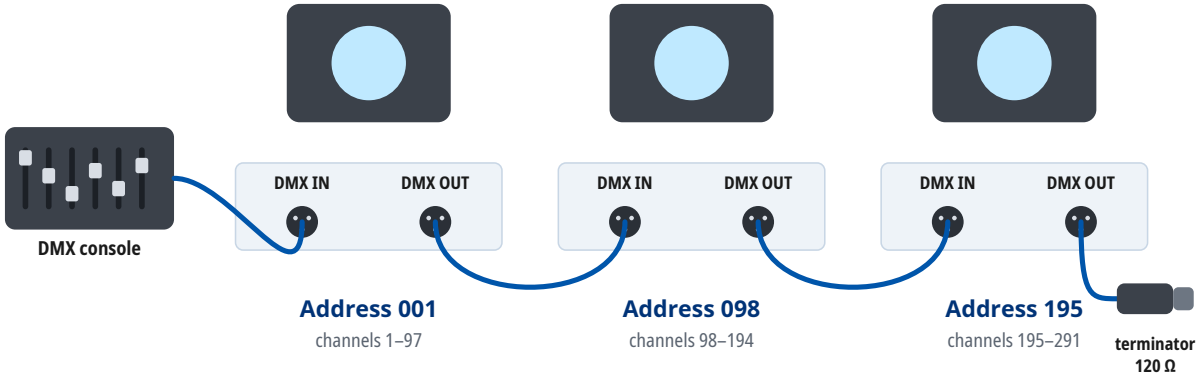
> ⚠ **WARNING**
>
> - Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
> - The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
> - Weight 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 3 97DMX: every unit occupies 97 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

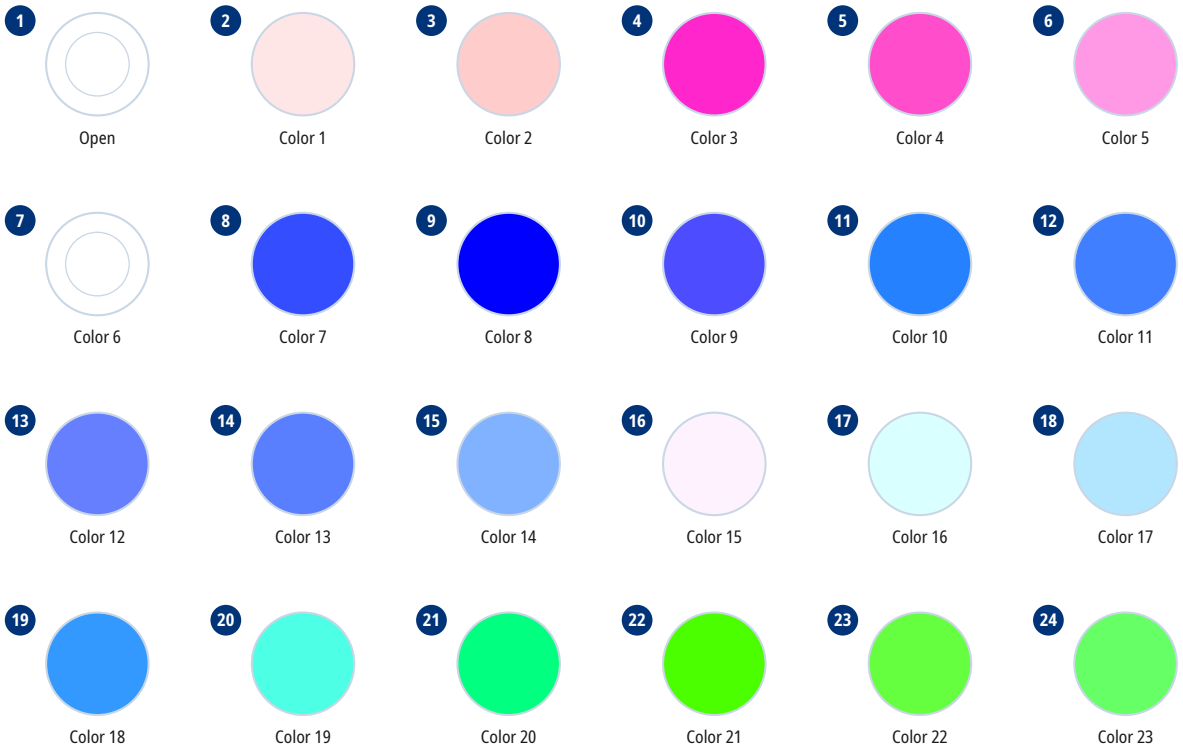
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Mode 3 97DMX”: 97.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 3 97DMX”, you can use, for example, the start addresses 1, 98, 195, 292.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

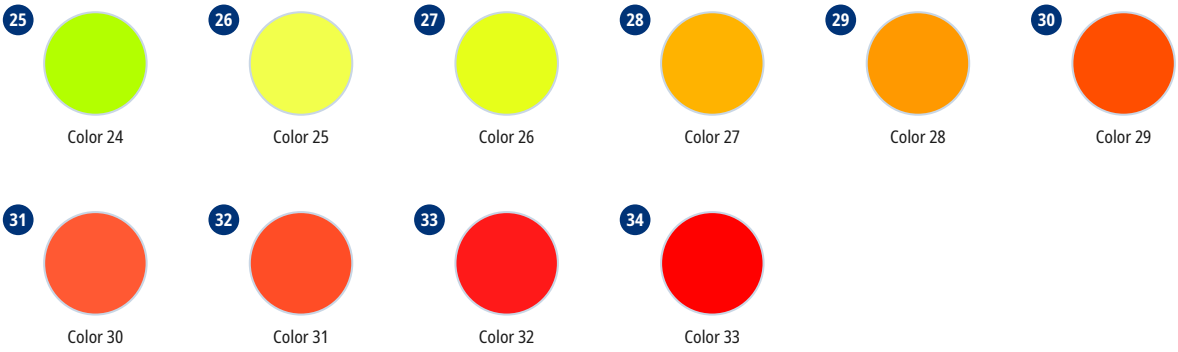
8 Functions at a glance

Functions in each DMX mode

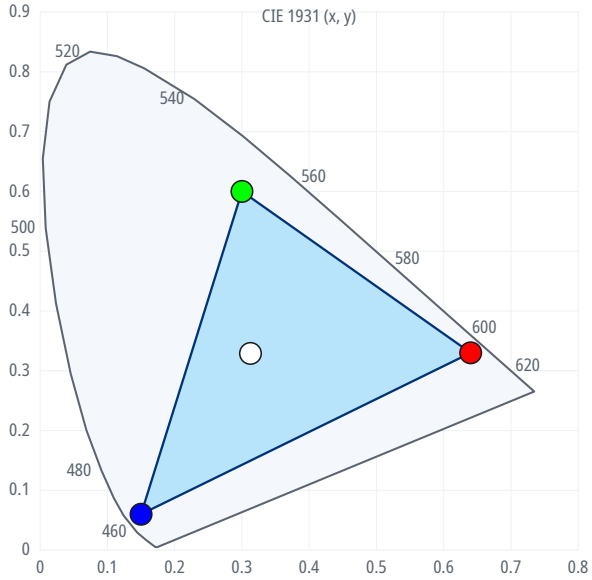
	Mode 1 24DMX 24 channels	Mode 3 97DMX 97 channels	Mode 4 21+DMX 21 channels
Pan / Tilt	1, 3, 5, 6	1, 3, 5, 6	1, 3, 5, 6
Dimmer	9	37 channels (9–97)	4× (9–18)
Shutter / strobe	11–14	4× (11–20)	4× (11–20)
Color mixing	16–24	22–37, 47–73	
Zoom	8	8	8
Pixel control	✓	9 + 9 + 24 cells	✓

Color wheel





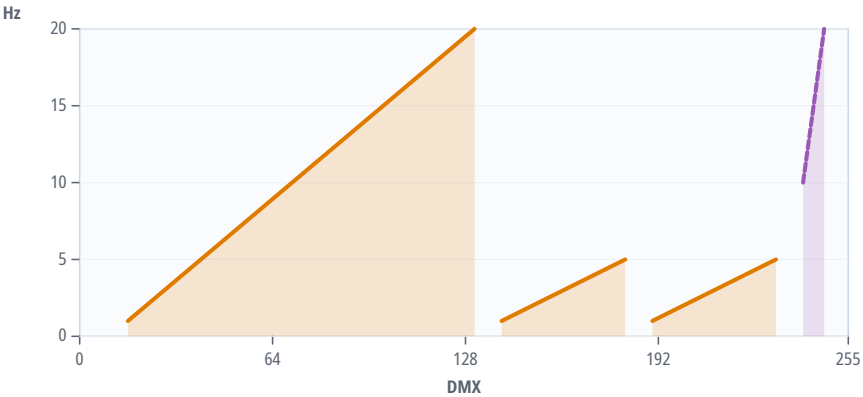
LED colors and the colors they mix



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.

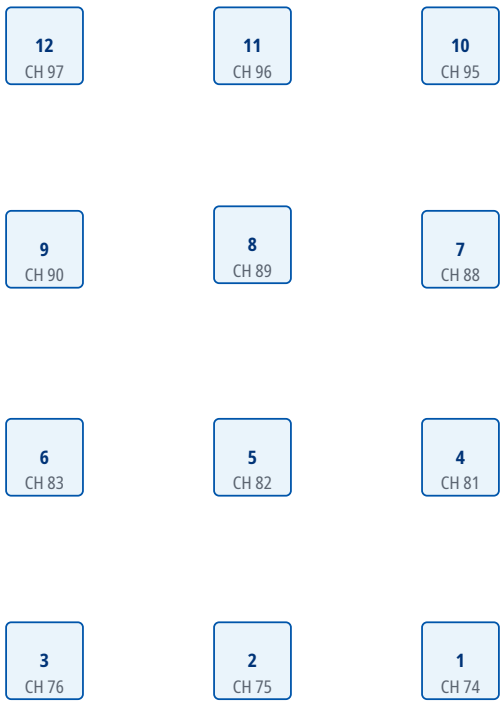
Strobe rate



CH 11 · Mode 3 97DMX

- 16–131: 1–20 Hz
  Strobe
- 140–181: 1–5 Hz
  Pulse Open
- 190–231: 1–5 Hz
  Pulse Close
- 240–247: 10–20 Hz
  Strobe Ran

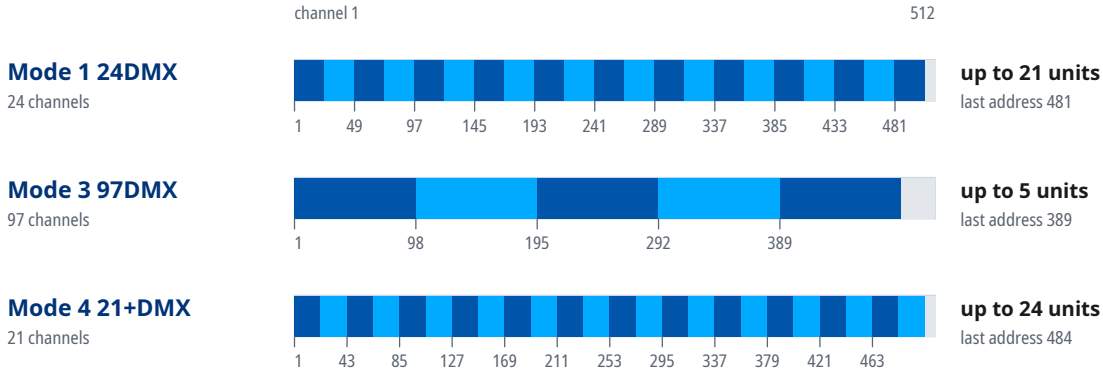
Cells (pixels)



12 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Mode 3 97DMX”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 3 97DMX”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 1	11	U3 · 1	16	U4 · 1
2	98	7	U2 · 98	12	U3 · 98	17	U4 · 98
3	195	8	U2 · 195	13	U3 · 195	18	U4 · 195
4	292	9	U2 · 292	14	U3 · 292	19	U4 · 292
5	389	10	U2 · 389	15	U3 · 389	20	U4 · 389

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 24DMX

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 Dimmer above 0; CH 11 Shutter 1 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 12 Shutter 2 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 13 Shutter 3 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 14 Shutter 4 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 Dimmer 255, CH 11 Shutter 1 12, CH 12 Shutter 2 12, CH 13 Shutter 3 12, CH 14 Shutter 4 12, CH 16 Red 1 255, CH 17 Green 1 255, CH 18 Blue 1 255, CH 19 White 1 0, CH 20 White 2 255, CH 21 Red 2 255, CH 22 Green 2 255, CH 23 Blue 2 255, CH 24 White 3 255.

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
		127	Center
		128–255	Center ... Max
		255	Max

CH	Function	DMX	Description
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Rotation	0	Pan Position: Open
		1–127	Pan Position
		128	CCW 100%
		129–133	CCW 100% … CCW 90%
		134	CCW 90%
		135–139	CCW 90% … CCW 80%
		140	CCW 80%
		141–145	CCW 80% … CCW 70%
		146	CCW 70%
		147–151	CCW 70% … CCW 60%
		152	CCW 60%
		153–157	CCW 60% … CCW 50%
		158	CCW 50%
		159–163	CCW 50% … CCW 40%
		164	CCW 40%
		165–169	CCW 40% … CCW 30%
		170	CCW 30%
		171–175	CCW 30% … CCW 20%
		176	CCW 20%
		177–181	CCW 20% … CCW 10%
		182	CCW 10%
		183–188	CCW 10% … CCW 1%
		189	CCW 1%
		190–193	Stop
		194	CW 1%
		195–200	CW 1% … CW 10%
		201	CW 10%
		202–206	CW 10% … CW 20%
		207	CW 20%
		208–212	CW 20% … CW 30%
		213	CW 30%
		214–218	CW 30% … CW 40%
		219	CW 40%
		220–224	CW 40% … CW 50%
		225	CW 50%
		226–230	CW 50% … CW 60%
		231	CW 60%
		232–236	CW 60% … CW 70%
		237	CW 70%
		238–242	CW 70% … CW 80%
		243	CW 80%

CH	Function	DMX	Description
5	Pan Rotation (continued)	244–248	CW 80% … CW 90%
		249	CW 90%
		250–254	CW 90% … CW 100%
		255	CW 100%
6	Tilt Rotation	0	Tilt Position: Open
		1–127	Tilt Position
		128	CW 100%
		129–133	CW 100% … CW 90%
		134	CW 90%
		135–139	CW 90% … CW 80%
		140	CW 80%
		141–145	CW 80% … CW 70%
		146	CW 70%
		147–151	CW 70% … CW 60%
		152	CW 60%
		153–157	CW 60% … CW 50%
		158	CW 50%
		159–163	CW 50% … CW 40%
		164	CW 40%
		165–169	CW 40% … CW 30%
		170	CW 30%
		171–175	CW 30% … CW 20%
		176	CW 20%
		177–181	CW 20% … CW 10%
		182	CW 10%
		183–188	CW 10% … CW 1%
		189	CW 1%
		190–193	Stop
		194	CCW 1%
		195–200	CCW 1% … CCW 10%
		201	CCW 10%
		202–206	CCW 10% … CCW 20%
		207	CCW 20%
		208–212	CCW 20% … CCW 30%
		213	CCW 30%
		214–218	CCW 30% … CCW 40%
		219	CCW 40%
		220–224	CCW 40% … CCW 50%
		225	CCW 50%
		226–230	CCW 50% … CCW 60%
		231	CCW 60%
		232–236	CCW 60% … CCW 70%

CH	Function	DMX	Description
6	Tilt Rotation (continued)	237	CCW 70%
		238–242	CCW 70% ... CCW 80%
		243	CCW 80%
		244–248	CCW 80% ... CCW 90%
		249	CCW 90%
		250–254	CCW 90% ... CCW 100%
		255	CCW 100%
7	PT Speed	0–255	
8	Zoom	0–255	40–2.5°
9	Dimmer	0–255	
10	Dimmer Fine	0–255	Fine adjustment of CH 9
11	Shutter 1	0–7	Closed
		8–15	Open
		16	Min Strobe
		17–130	Min Strobe ... max Strobe
		131	Max Strobe
		132–139	Open 2
		140	Min Pulse Open
		141–180	Min Pulse Open ... max Pulse Open
		181	Max Pulse Open
		182–189	Open 3
		190	Min PulseClose
		191–230	Min PulseClose ... max PulseClose
		231	Max PulseClose
		232–239	Open 4
		240	Min Strobe Ran
		241–246	Min Strobe Ran ... max Strobe Ran
		247	Max Strobe Ran
		248–255	Open 5
12	Shutter 2	0–7	Closed
		8–15	Open
		16	Min Strobe
		17–130	Min Strobe ... max Strobe
		131	Max Strobe
		132–139	Open 2
		140	Min Pulse Open
		141–180	Min Pulse Open ... max Pulse Open
		181	Max Pulse Open
		182–189	Open 3
		190	Min Pulse Close
		191–230	Min Pulse Close ... max Pulse Close
		231	Max Pulse Close

CH	Function	DMX	Description
12	Shutter 2 (continued)	232–239	Open 4
		240	Min Strobe Ran
		241–246	Min Strobe Ran … max Strobe Ran
		247	Max Strobe Ran
		248–255	Open 5
13	Shutter 3	0–7	Closed
		8–15	Open
		16	Min Strobe
		17–130	Min Strobe … max Strobe
		131	Max Strobe
		132–139	Open 2
		140	Min Pulse Open
		141–180	Min Pulse Open … max Pulse Open
		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
14	Shutter 4	0–7	Closed
		8–15	Open
		16	Min Strobe
		17–130	Min Strobe … max Strobe
		131	Max Strobe
		132–139	Open 2
		140	Min Pulse Open
		141–180	Min Pulse Open … max Pulse Open
		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
15	Function	0–9	No function

CH	Function	DMX	Description
15	Function (continued)	10–19	ZOOM Short
		20–29	ZOOM Long
		30–39	Dim Linear
		40–49	Square Law
		50–59	Inv SQ Law
		60–69	S Curve
		70–79	Function 2
		80–89	Power Auto
		90–99	Power Quiet
		100–109	Frequency Setting
		110–119	Frequency Disable
		120–122	No function
		123	900HZ
		124	1000HZ
		125	1100HZ
		126	1200HZ
		127	1300HZ
		128	1400HZ
		129	1500HZ
		130	2500HZ
		131	4000HZ
		132	5000HZ
		133	6000HZ
		134	10K HZ
		135	15K HZ
		136	20K HZ
		137	25K HZ
		138–139	No function
		140–149	PT Reset
		150–159	Zoom Reset
		160–199	No function
		200–209	All Reset
		210–219	Dim Fast
		220–229	Dim Smooth
		230–239	Line Power Mode OFF
		240–249	Line Power Mode ON
		250–255	No function
16	Red 1	0–255	
17	Green 1	0–255	
18	Blue 1	0–255	
19	White 1	0–255	
20	White 2	0–255	

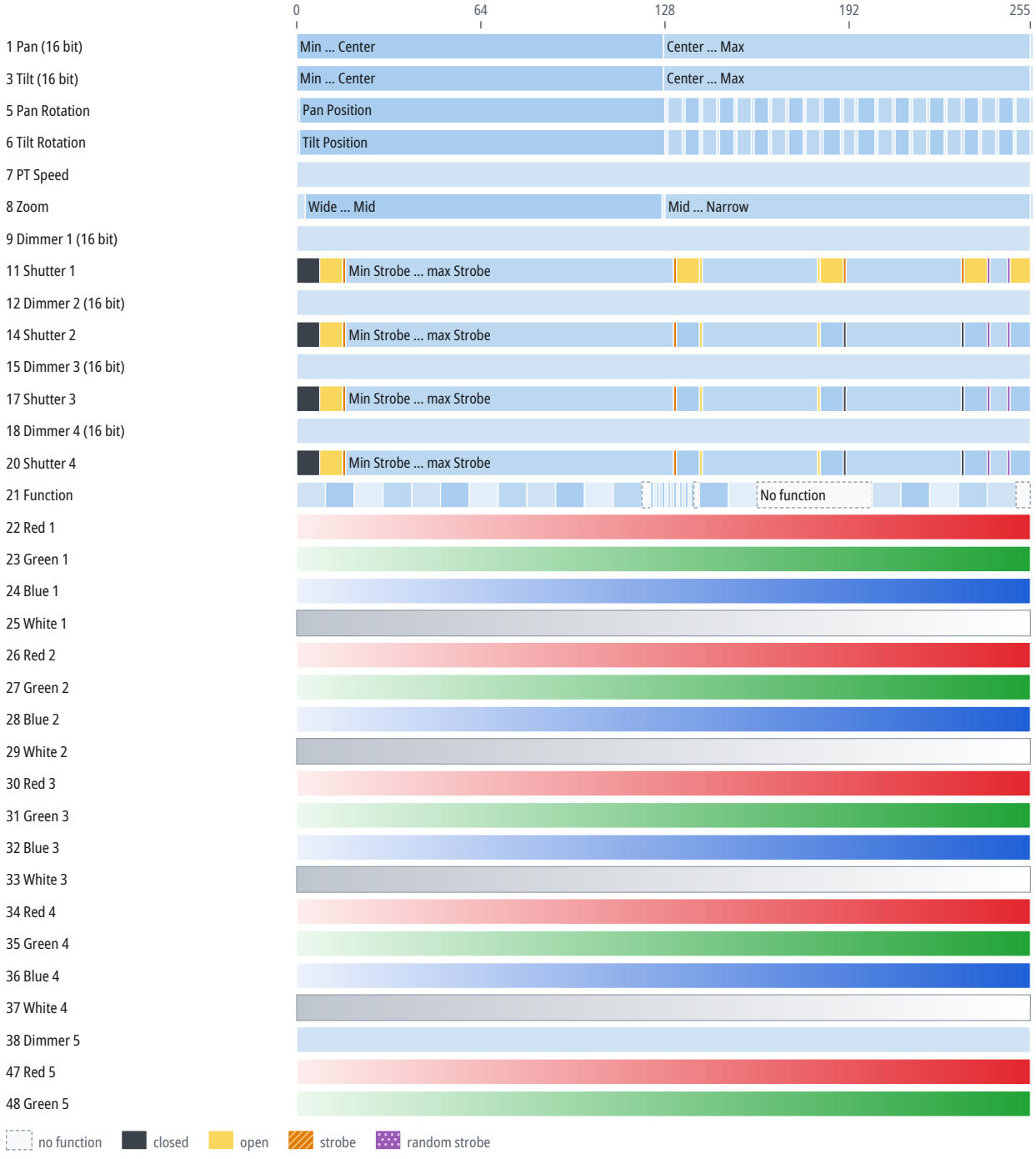
CH	Function	DMX	Description
21	Red 2	0–255	
22	Green 2	0–255	
23	Blue 2	0–255	
24	White 3	0–255	

Mode 3 97DMX

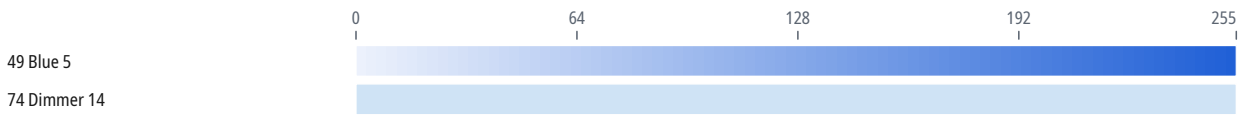
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 9 Dimmer 1 above 0; CH 11 Shutter 1 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 12 Dimmer 2 above 0; CH 14 Shutter 2 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 15 Dimmer 3 above 0; CH 17 Shutter 3 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 18 Dimmer 4 above 0; CH 20 Shutter 4 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 38 Dimmer above 0 (the same in each of the 9 cells); CH 74 Dimmer above 0 (the same in each of the 24 cells). The GDTF file gives these values for a console's Highlight function: CH 9 Dimmer 1 255, CH 11 Shutter 1 12, CH 12 Dimmer 2 255, CH 14 Shutter 2 12, CH 15 Dimmer 3 255, CH 17 Shutter 3 12, CH 18 Dimmer 4 255, CH 20 Shutter 4 12, CH 22 Red 1 255, CH 23 Green 1 255, CH 24 Blue 1 255, CH 25 White 1 0, CH 26 Red 2 255, CH 27 Green 2 255, CH 28 Blue 2 255, CH 29 White 2 0, CH 30 Red 3 255, CH 31 Green 3 255, CH 32 Blue 3 255, CH 33 White 3 0, CH 34 Red 4 255, CH 35 Green 4 255, CH 36 Blue 4 255, CH 37 White 4 0, CH 38 Dimmer 255 (the same in each of the 9 cells), CH 47 Red 255 (the same in each of the 9 cells), CH 48 Green 255 (the same in each of the 9 cells), CH 49 Blue 255 (the same in each of the 9 cells), CH 74 Dimmer 255 (the same in each of the 24 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 24DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 24DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Rotation		Same as CH 5 in the mode “Mode 1 24DMX” (p. 12)
6	Tilt Rotation		Same as CH 6 in the mode “Mode 1 24DMX” (p. 13)
7	PT Speed	0–255	
8	Zoom	0–2	Wide
		3–126	Wide ... Mid
		127	Mid
		128–254	Mid ... Narrow
		255	Narrow
9	Dimmer 1	0–255	
10	Dimmer 1 Fine	0–255	Fine adjustment of CH 9
11	Shutter 1		Same as CH 11 in the mode “Mode 1 24DMX” (p. 14)
12	Dimmer 2	0–255	
13	Dimmer 2 Fine	0–255	Fine adjustment of CH 12
14	Shutter 2		Same as CH 12 in the mode “Mode 1 24DMX” (p. 14)
15	Dimmer 3	0–255	
16	Dimmer 3 Fine	0–255	Fine adjustment of CH 15
17	Shutter 3		Same as CH 13 in the mode “Mode 1 24DMX” (p. 15)
18	Dimmer 4	0–255	
19	Dimmer 4 Fine	0–255	Fine adjustment of CH 18
20	Shutter 4		Same as CH 14 in the mode “Mode 1 24DMX” (p. 15)
21	Function		Same as CH 15 in the mode “Mode 1 24DMX” (p. 15)
22	Red 1	0–255	
23	Green 1	0–255	
24	Blue 1	0–255	
25	White 1	0–255	
26	Red 2	0–255	
27	Green 2	0–255	
28	Blue 2	0–255	
29	White 2	0–255	
30	Red 3	0–255	
31	Green 3	0–255	
32	Blue 3	0–255	
33	White 3	0–255	
34	Red 4	0–255	
35	Green 4	0–255	
36	Blue 4	0–255	

CH	Function	DMX	Description
37	White 4	0–255	
38	Dimmer 5	0–255	
47	Red 5	0–255	
48	Green 5	0–255	
49	Blue 5	0–255	
74	Dimmer 14	0–255	

CH 38–46: 9 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 38); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	38	2	39	3	40	4	41	5	42	6	43
7	44	8	45	9	46						

CH 47–73: 9 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 47–49); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	47	48	49	2	50	51	52	3	53	54	55
4	56	57	58	5	59	60	61	6	62	63	64
7	65	66	67	8	68	69	70	9	71	72	73

CH 74–97: 24 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 74); the table below gives each cell's channel numbers.

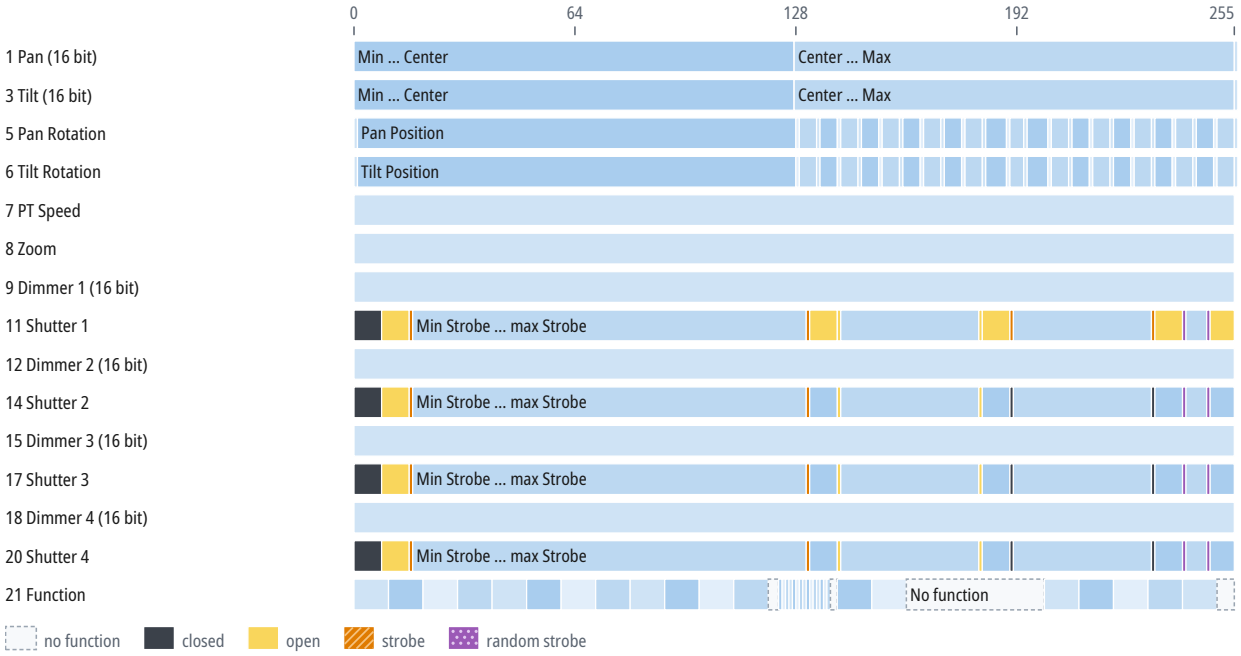
Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	74	2	75	3	76	4	77	5	78	6	79
7	80	8	81	9	82	10	83	11	84	12	85
13	86	14	87	15	88	16	89	17	90	18	91
19	92	20	93	21	94	22	95	23	96	24	97

Mode 4 21+DMX

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

If the device receives DMX in this mode but gives no light, check these channels: CH 9 Dimmer 1 above 0; CH 11 Shutter 1 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 12 Dimmer 2 above 0; CH 14 Shutter 2 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 15 Dimmer 3 above 0; CH 17 Shutter 3 at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 18 Dimmer 4 above 0; CH 20 Shutter 4 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 Dimmer 1 255, CH 11 Shutter 1 12, CH 12 Dimmer 2 255, CH 14 Shutter 2 12, CH 15 Dimmer 3 255, CH 17 Shutter 3 12, CH 18 Dimmer 4 255, CH 20 Shutter 4 12.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 24DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 24DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Rotation		Same as CH 5 in the mode “Mode 1 24DMX” (p. 12)
6	Tilt Rotation		Same as CH 6 in the mode “Mode 1 24DMX” (p. 13)
7	PT Speed	0–255	
8	Zoom	0–255	40–2.5°
9	Dimmer 1	0–255	
10	Dimmer 1 Fine	0–255	Fine adjustment of CH 9
11	Shutter 1		Same as CH 11 in the mode “Mode 1 24DMX” (p. 14)
12	Dimmer 2	0–255	
13	Dimmer 2 Fine	0–255	Fine adjustment of CH 12
14	Shutter 2		Same as CH 12 in the mode “Mode 1 24DMX” (p. 14)
15	Dimmer 3	0–255	

CH	Function	DMX	Description
16	Dimmer 3 Fine	0–255	Fine adjustment of CH 15
17	Shutter 3		Same as CH 13 in the mode “Mode 1 24DMX” (p. 15)
18	Dimmer 4	0–255	
19	Dimmer 4 Fine	0–255	Fine adjustment of CH 18
20	Shutter 4		Same as CH 14 in the mode “Mode 1 24DMX” (p. 15)
21	Function		Same as CH 15 in the mode “Mode 1 24DMX” (p. 15)

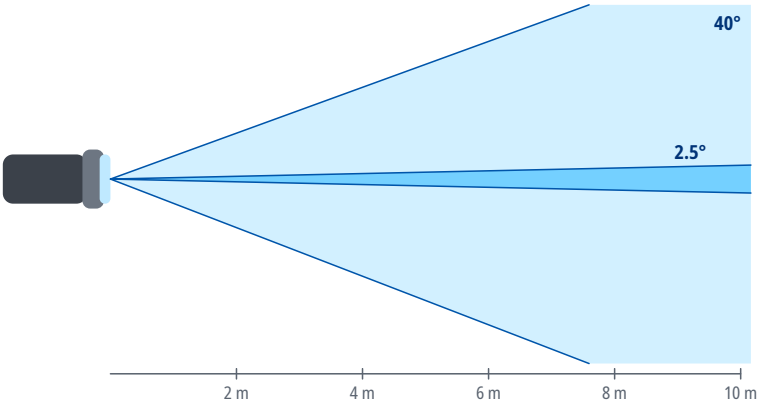
10 Technical specifications

Parameter	Value
Light source	discharge lamp
Zoom	2.5–40°
Pan	540°
Tilt	450°
Weight	12 kg
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Strobe frequency	1–20 Hz

Spot diameter



Distance	Ø 2.5°	Ø 40°
2 m	0.09 m	1.5 m
4 m	0.17 m	2.9 m
6 m	0.26 m	4.4 m
8 m	0.35 m	5.8 m
10 m	0.44 m	7.3 m
15 m	0.65 m	10.9 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.