DMX REFERENCE

Razer 450i profile

Leding

Manufacturer	Leding
GDTF file	Leding_Razer_450i_profile_142730.gdtf
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1 About this manual

This document describes the Razer 450i profile by Leding. It was compiled from the GDTF file Leding_Razer_450i_profile_142730.gdtf from the GDTF-Share library.

File revision: “v001”.

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 Leding; 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	25 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Extend	56	9	1, 57, 113, 169, ...
Standard	41	12	1, 42, 83, 124, ...
Basic	34	15	1, 35, 69, 103, ...

No light? Check these channels

- Extend: CH 53 Dimmer above 1; CH 55 Shutter at 0–9, 100–109 or 180–189 “Open”
- Standard: CH 38 Dimmer above 1; CH 40 Shutter at 0–9, 100–109 or 180–189 “Open”
- Basic: CH 32 Dimmer above 0; CH 33 Shutter at 0–9, 100–109 or 180–189 “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.

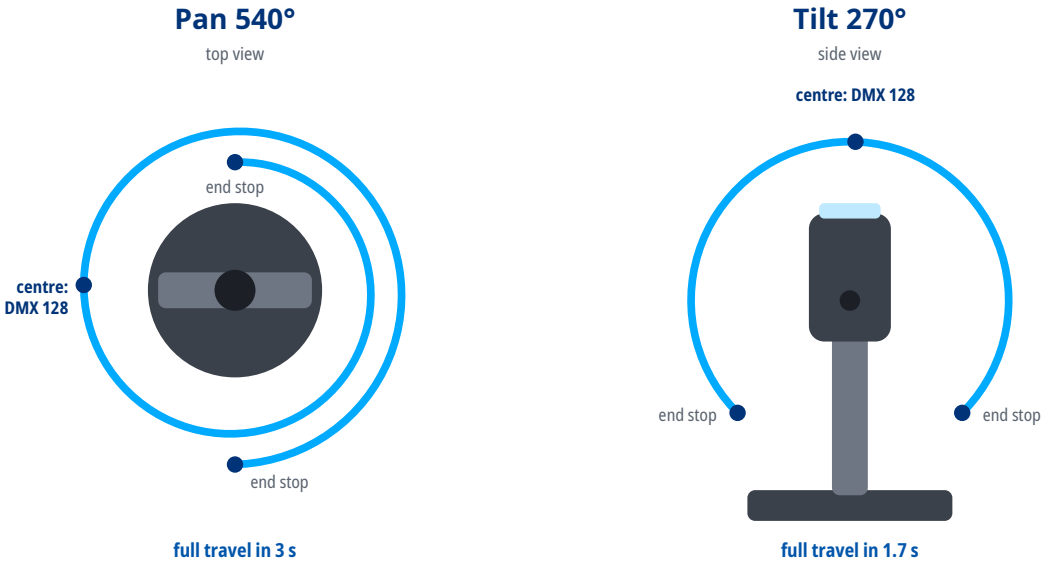
⚠ CAUTION

- 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



Full-travel times as stated in the GDTF file.

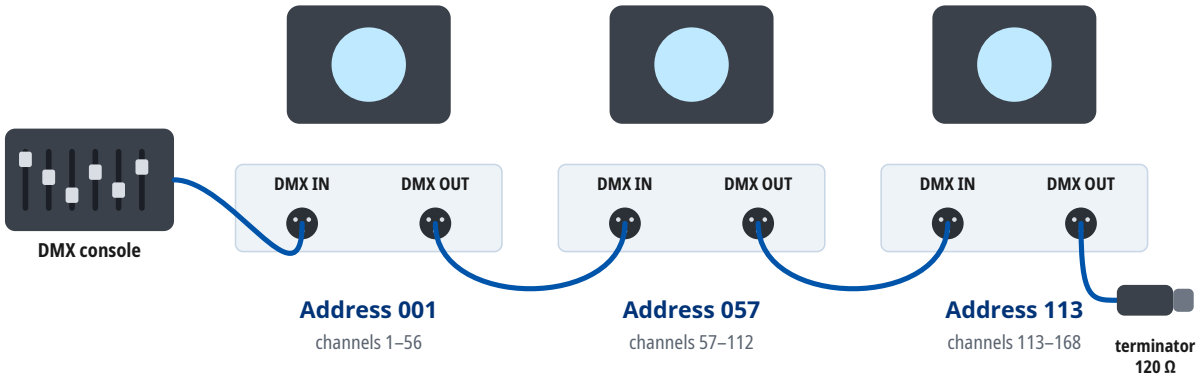
5 Installation

> ⚠ **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: 25 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 Extend: every unit occupies 56 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 “Extend”: 56.
- 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 “Extend”, you can use, for example, the start addresses 1, 57, 113, 169.
- 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

	Extend 56 channels	Standard 41 channels	Basic 34 channels
Pan / Tilt	1, 3, 6	1, 3, 6	1, 2, 4
Pan / Tilt resolution	16 bit	16 bit	8 bit
Dimmer	53	38	32
Dimmer resolution	16 bit	16 bit	8 bit
Shutter / strobe	55	40	33
Color mixing	7, 9, 11	7–9	5–7
Color temperature	13	10	8
Color wheel	17	13	11
Gobo wheel	19	14	12
Gobo rotation	20, 23	15, 18	13, 15
Prism	24, 25	19, 20	16, 17
Frost	26	21	18
Zoom	29	23	20
Focus	31, 33	25, 27	21, 22
Iris	27	22	19
Animation wheel	22	17	14
Effects / macros	15	11	9

Color wheel



1 White DMX 0–7
2 Color 1 DMX 8–15
3 Color 2 DMX 16–23
4 Color 3 DMX 24–31
5 Color 4 DMX 32–39
6 Color 5 DMX 40–47
7 ORANGE DMX 48–56

Gobo wheel

1 ROT Gobo 1: Open	DMX 0–10	4 Gobo 3	DMX 27–34	7 GOBO_6	DMX 51–58
2 Gobo 1	DMX 11–18	5 Gobo 4	DMX 35–42	8 Gobo 7	DMX 59–67
3 Gobo 2	DMX 19–26	6 Gobo 5	DMX 43–50		

Prism 1

1
Prism 2: Open
DMX 0–10

2 
8 facets
0-360
DMX 11–145

Animation wheel

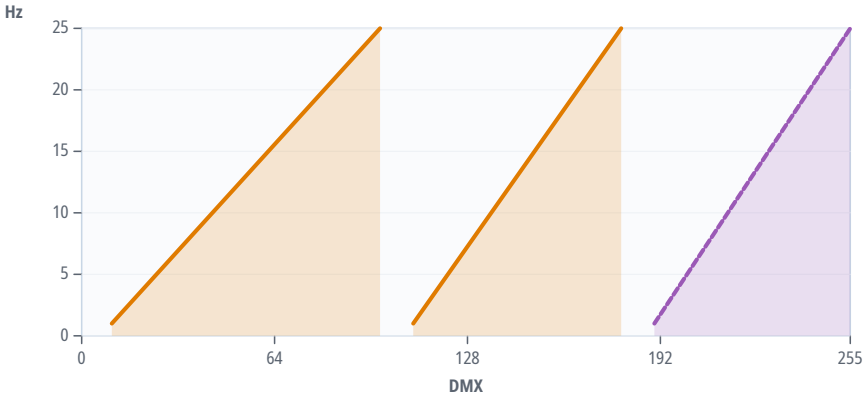
1	OPEN	DMX 0	
2	INSERT	DMX 255	

Prism 2

1
Prism 1: Open
DMX 0–10

2 
6 facets
0-360
DMX 11–145

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extend”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	281	11	U2 · 57	16	U2 · 337
2	57	7	337	12	U2 · 113	17	U2 · 393
3	113	8	393	13	U2 · 169	18	U2 · 449
4	169	9	449	14	U2 · 225	19	U3 · 1
5	225	10	U2 · 1	15	U2 · 281	20	U3 · 57

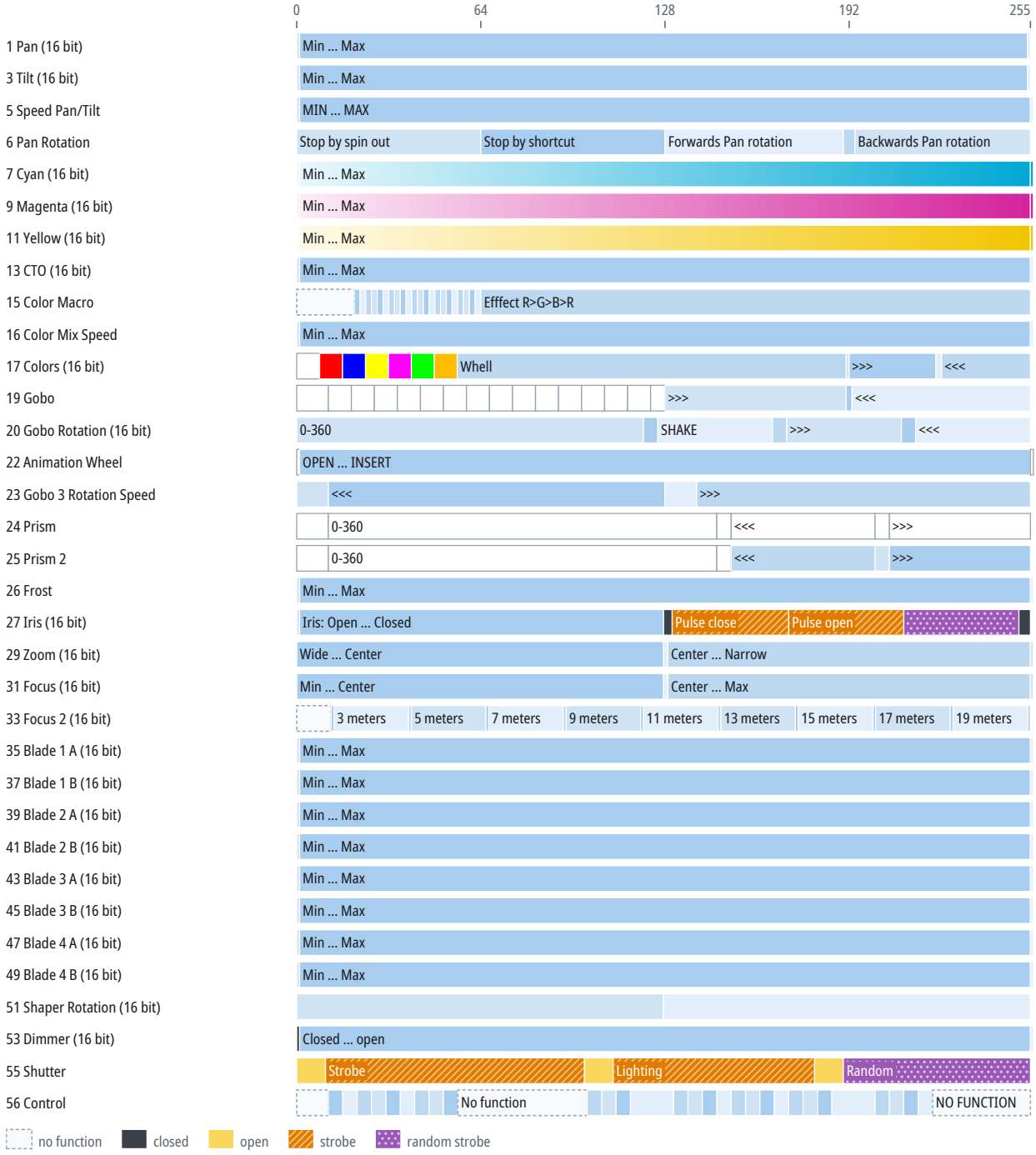
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode Extend

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 53 Dimmer above 1; CH 55 Shutter at 0–9, 100–109 or 180–189 “Open”. The GDTF file gives these values for a console's Highlight function: CH 7 Cyan 0, CH 9 Magenta 0, CH 11 Yellow 0, CH 53 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–254	Min ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0	Min
		1–254	Min ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0	MIN
		1–254	MIN ... MAX
		255	MAX
6	Pan Rotation	0–63	Stop by spin out
		64–127	Stop by shortcut
		128–189	Forwards Pan rotation
		190–193	Pause
		194–255	Backwards Pan rotation
7	Cyan	0–1	Min
		1–255	Min ... Max
		255	Max
8	Cyan Fine	0–255	Fine adjustment of CH 7
9	Magenta	0–1	Min
		1–255	Min ... Max
		255	Max
10	Magenta Fine	0–255	Fine adjustment of CH 9
11	Yellow	0–1	Min
		1–255	Min ... Max
		255	Max
12	Yellow Fine	0–255	Fine adjustment of CH 11
13	CTO	0–1	Min
		1–255	Min ... Max
		255	Max
14	CTO Fine	0–255	Fine adjustment of CH 13
15	Color Macro	0–19	No Function
		20–21	3000K
		22–23	3200K
		24–25	3500K
		26–27	4000K
		28–29	4500K
		30–31	5000K
		32–33	5400K

CH	Function	DMX	Description
15	Color Macro (continued)	34–35	5600K
		36–37	6000K
		38–39	6500K
		40–41	7000K
		42–43	L106
		44–45	L194
		46–47	L019
		48–49	R08
		50–51	L213
		52–53	R80
		54–55	L202
		56–57	L328
		58–59	R3314
		60–61	L101
		62–63	L768
		64–255	Efffect R>G>B>R
16	Color Mix Speed		CMYK SPEED
		0	Min
		1–254	Min ... Max
		255	Max
17	Colors	0–7	White
		8–15	Color 1
		16–23	Color 2
		24–31	Color 3
		32–39	Color 4
		40–47	Color 5
		48–55	Color 6
		56–191	Whell
		191–192	RAINBOW
		192–222	>>>
		223–224	RAINBOW: STOP
		225–255	<<<
18	Colors Fine	0–255	Fine adjustment of CH 17
19	Gobo	0–10	ROT Gobo 1: Open
		11–18	Gobo 1
		19–26	Gobo 2
		27–34	Gobo 3
		35–42	Gobo 4
		43–50	Gobo 5
		51–58	GOBO_6
		59–66	Gobo 7

CH	Function	DMX	Description
19	Gobo (continued)	67–74	Shake 1
		75–82	Shake 2
		83–90	Shake 3
		91–98	Shake 4
		99–106	Shake 5
		107–114	Shake 6
		115–122	Shake 7
		123–127	Shake: Open
		128–190	>>>
		191–192	Gobo 1 Select Effects: STOP
		193–255	<<<
20	Gobo Rotation	0–120	0-360
		121–125	Gobo 1 Pos: STOP
		126–165	SHAKE
		166–170	Shake: STOP
		171–210	>>>
		211–215	Rot: STOP
		216–255	<<<
21	Gobo Rotation Fine	0–255	Fine adjustment of CH 20
22	Animation Wheel	0	OPEN
		1–254	OPEN ... INSERT
		255	INSERT
23	Gobo 3 Rotation Speed	0–10	Open
		11–127	<<<
		128–138	Stop
		139–255	>>>
24	Prism	0–10	Prism 1: Open
		11–145	0-360
		146–150	Prism 1: Stop
		151–200	<<<
		201–205	Prism 1 Pos Rotate: Stop
		206–255	>>>
25	Prism 2	0–10	Prism 2: Open
		11–145	0-360
		146–150	Prism 2: Stop
		151–200	<<<
		201–205	Prism 1 Pos Rotate: Stop
		206–255	>>>
26	Frost	0	Min
		1–254	Min ... Max
		255	Max

CH	Function	DMX	Description
27	Iris	0–1	Iris: Open
		1–127	Iris: Open ... Closed
		128–130	Iris: Closed
		131–171	Pulse close (0.3–4 Hz)
		171–211	Pulse open (4–0.3 Hz)
		211–251	Iris Strobe Random: Fast (0.2–3 Hz)
		251–255	Closed
28	Iris Fine	0–255	Fine adjustment of CH 27
29	Zoom	0–127	Wide ... Center
		128–129	Center
		129–255	Center ... Narrow
		255	Narrow
30	Zoom Fine	0–255	Fine adjustment of CH 29
31	Focus	0–127	Min ... Center
		128–129	Center
		129–255	Center ... Max
		255	Max
32	Focus Fine	0–255	Fine adjustment of CH 31
33	Focus 2		AUTO Focus
		0–12	No Function
		12	No Function ... 3 meters
		13–39	3 meters
		39	3 meters ... 5 meters
		40–66	5 meters
		66	5 meters ... 7 meters
		67–93	7 meters
		93	7 meters ... 9 meters
		94–120	9 meters
		120	9 meters ... 11 meters
		121–147	11 meters
		147	11 meters ... 13 meters
		148–174	13 meters
		174	13 meters ... 15 meters
		175–201	15 meters
		201	15 meters ... 17 meters
		202–228	17 meters
		228	17 meters ... 19 meters
		229–255	19 meters
34	Focus 2 Fine	0–255	Fine adjustment of CH 33
35	Blade 1 A	0–1	Min
		1–255	Min ... Max

CH	Function	DMX	Description
35	Blade 1 A (continued)	255	Max
36	Blade 1 A Fine	0–255	Fine adjustment of CH 35
37	Blade 1 B	0–1	Min
		1–255	Min … Max
		255	Max
38	Blade 1 B Fine	0–255	Fine adjustment of CH 37
39	Blade 2 A	0–1	Min
		1–255	Min … Max
		255	Max
40	Blade 2 A Fine	0–255	Fine adjustment of CH 39
41	Blade 2 B	0–1	Min
		1–255	Min … Max
		255	Max
42	Blade 2 B Fine	0–255	Fine adjustment of CH 41
43	Blade 3 A	0–1	Min
		1–255	Min … Max
		255	Max
44	Blade 3 A Fine	0–255	Fine adjustment of CH 43
45	Blade 3 B	0–1	Min
		1–255	Min … Max
		255	Max
46	Blade 3 B Fine	0–255	Fine adjustment of CH 45
47	Blade 4 A	0–1	Min
		1–255	Min … Max
		255	Max
48	Blade 4 A Fine	0–255	Fine adjustment of CH 47
49	Blade 4 B	0–1	Min
		1–255	Min … Max
		255	Max
50	Blade 4 B Fine	0–255	Fine adjustment of CH 49
51	Shaper Rotation	0–127	Shaper Rot 1
		127	Center
		128–255	Shaper Rot 1
52	Shaper Rotation Fine	0–255	Fine adjustment of CH 51
53	Dimmer	0–1	Closed
		1–255	Closed … open
		255	Open
54	Dimmer Fine	0–255	Fine adjustment of CH 53
55	Shutter	0–9	NO FUNCTION1: Open
		10–99	Strobe (1–25 Hz)
		100–109	NO FUNCTION2: Open
		110–179	Lighting (1–25 Hz)

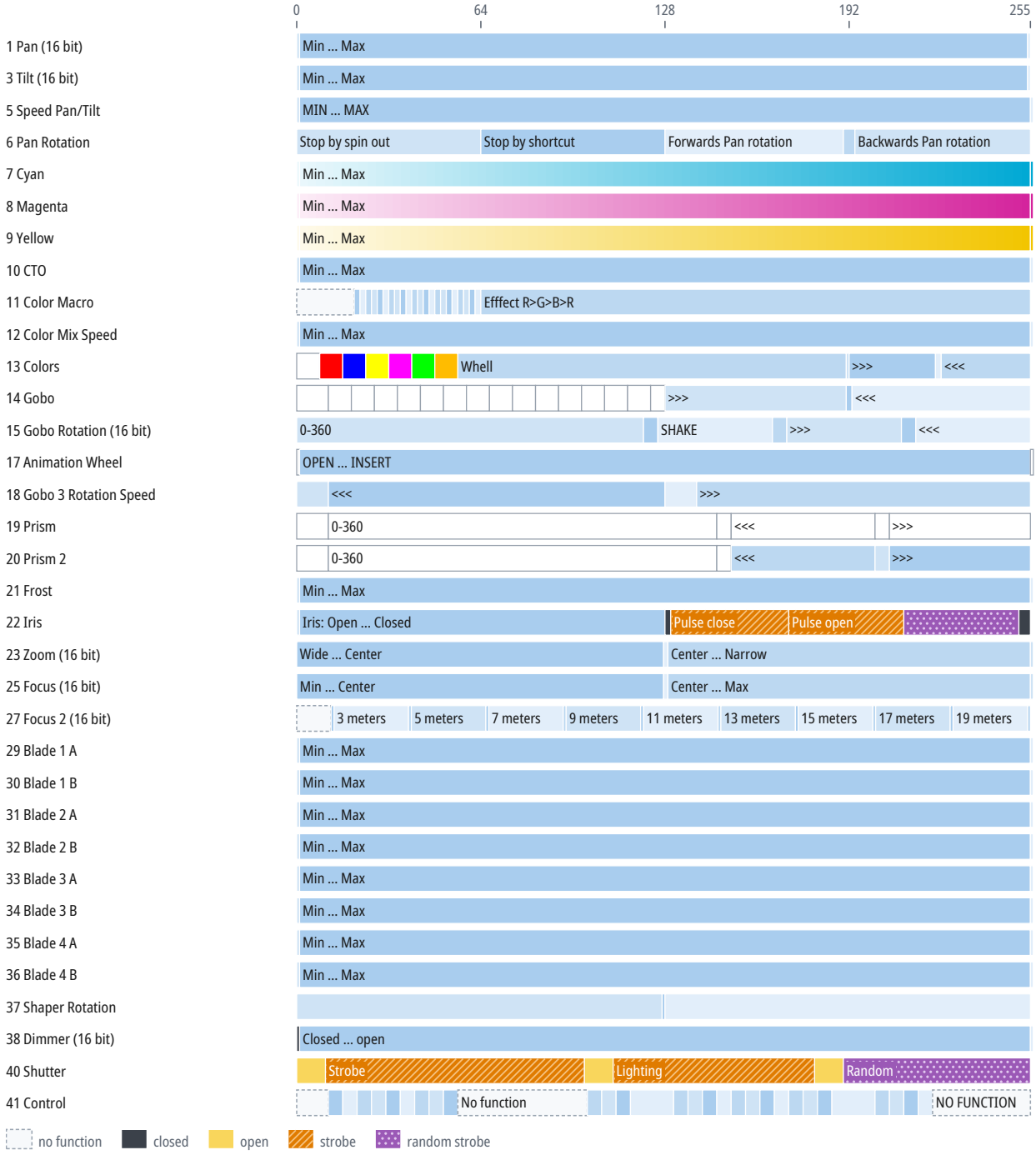
CH	Function	DMX	Description
55	Shutter (continued)	180–189	NO FUNCTION3: Open
		190–255	Random (1–25 Hz)
56	Control	0–10	NO FUNCTION
		11–15	PAN/TILT BLACK ACTIVATED
		16–20	PAN/TILT BLACK DEACTIVATED
		21–25	PAN INVERT
		26–30	TILT INVERT
		31–35	PAN/TILT INVERT OFF
		36–40	PAN DEGREE 630
		41–45	PAN DEGREE 540
		46–50	Sun Protection On
		51–55	Sun Protection Off
		56–100	No function
		101–105	STUDIO
		106–110	POWER
		111–115	LIVE
		116–130	RESERVED
		131–135	DIMMER SPEED Halogen
		136–140	DIMMER SPEED LED
		141–145	DIMMER CURVE LINEAR
		146–150	DIMMER CURVE SQUARE LAW
		151–155	DIMMER CURVE INV-SQUARE LAW
		156–160	DIMMER CURVE S-CURVE
		161–165	1200Hz
		166–170	2400Hz
		171–175	4000Hz
		176–180	6000Hz
		181–185	25000Hz
		186–200	RESERVED
		201–205	ALL RESET
		206–210	XY RESET
		211–215	COLOR/GOBO SYS
		216–220	FOCUS/ZOOM RESET
		221–255	NO FUNCTION

Mode Standard

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 38 Dimmer above 1; CH 40 Shutter at 0–9, 100–109 or 180–189 “Open”. The GDTF file gives these values for a console's Highlight function: CH 7 Cyan 0, CH 8 Magenta 0, CH 9 Yellow 0, CH 38 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extend” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extend” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “Extend” (p. 11)
6	Pan Rotation		Same as CH 6 in the mode “Extend” (p. 11)
7	Cyan	0	Min
		1–254	Min ... Max
		255	Max
8	Magenta	0	Min
		1–254	Min ... Max
		255	Max
9	Yellow	0	Min
		1–254	Min ... Max
		255	Max
10	CTO	0	Min
		1–254	Min ... Max
		255	Max
11	Color Macro		Same as CH 15 in the mode “Extend” (p. 11)
12	Color Mix Speed		Same as CH 16 in the mode “Extend” (p. 12)
13	Colors	0–7	White
		8–15	Color 1
		16–23	Color 2
		24–31	Color 3
		32–39	Color 4
		40–47	Color 5
		48–55	Color 6
		56–190	Whell
		191	RAINBOW
		192–221	>>>
		222–223	RAINBOW: STOP
		224–255	<<<
14	Gobo		Same as CH 19 in the mode “Extend” (p. 12)
15	Gobo Rotation		Same as CH 20 in the mode “Extend” (p. 13)
16	Gobo Rotation Fine	0–255	Fine adjustment of CH 15
17	Animation Wheel		Same as CH 22 in the mode “Extend” (p. 13)
18	Gobo 3 Rotation Speed		Same as CH 23 in the mode “Extend” (p. 13)
19	Prism		Same as CH 24 in the mode “Extend” (p. 13)
20	Prism 2		Same as CH 25 in the mode “Extend” (p. 13)
21	Frost		Same as CH 26 in the mode “Extend” (p. 13)

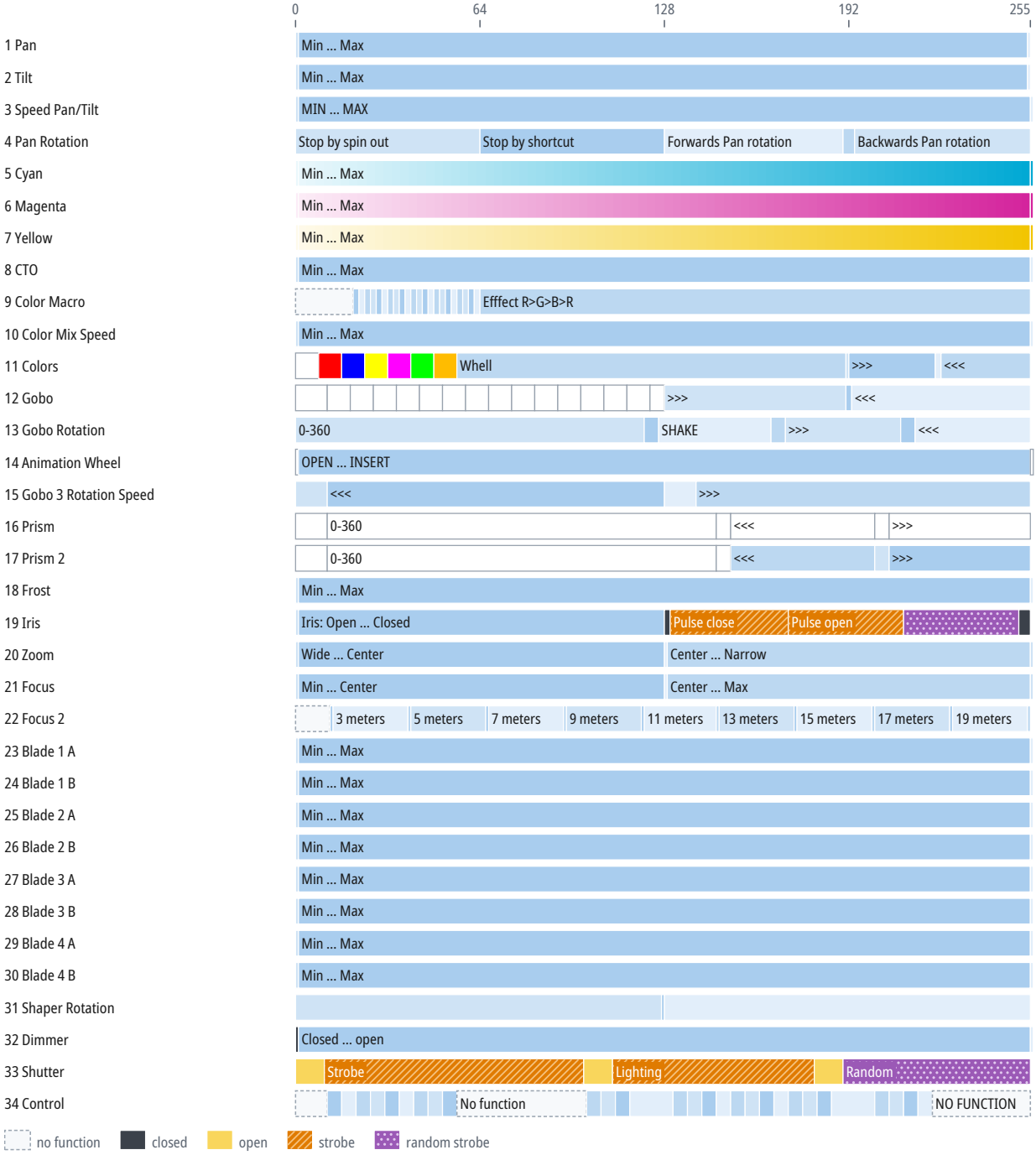
CH	Function	DMX	Description
22	Iris	0	Iris: Open
		1–127	Iris: Open ... Closed
		128–129	Iris: Closed
		130–170	Pulse close (0.3–4 Hz)
		171–210	Pulse open (4–0.3 Hz)
		211–250	Iris Strobe Random: Fast (0.2–3 Hz)
		251–255	Closed
23	Zoom		Same as CH 29 in the mode “Extend” (p. 14)
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Focus		Same as CH 31 in the mode “Extend” (p. 14)
26	Focus Fine	0–255	Fine adjustment of CH 25
27	Focus 2		Same as CH 33 in the mode “Extend” (p. 14)
28	Focus 2 Fine	0–255	Fine adjustment of CH 27
29	Blade 1 A	0	Min
		1–254	Min ... Max
		255	Max
30	Blade 1 B	0	Min
		1–254	Min ... Max
		255	Max
31	Blade 2 A	0	Min
		1–254	Min ... Max
		255	Max
32	Blade 2 B	0	Min
		1–254	Min ... Max
		255	Max
33	Blade 3 A	0	Min
		1–254	Min ... Max
		255	Max
34	Blade 3 B	0	Min
		1–254	Min ... Max
		255	Max
35	Blade 4 A	0	Min
		1–254	Min ... Max
		255	Max
36	Blade 4 B	0	Min
		1–254	Min ... Max
		255	Max
37	Shaper Rotation	0–126	Shaper Rot 1
		127	Center
		128–255	Shaper Rot 1
38	Dimmer		Same as CH 53 in the mode “Extend” (p. 15)

CH	Function	DMX	Description
39	Dimmer Fine	0–255	Fine adjustment of CH 38
40	Shutter		Same as CH 55 in the mode “Extend” (p. 15)
41	Control		Same as CH 56 in the mode “Extend” (p. 16)

Mode Basic

If the device receives DMX in this mode but gives no light, check these channels: CH 32 Dimmer above 0; CH 33 Shutter at 0–9, 100–109 or 180–189 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 32 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–253	Min ... Max
		254–255	Max
2	Tilt	0	Min
		1–253	Min ... Max
		254–255	Max
3	Speed Pan/Tilt		Same as CH 5 in the mode “Extend” (p. 11)
4	Pan Rotation		Same as CH 6 in the mode “Extend” (p. 11)
5	Cyan		Same as CH 7 in the mode “Standard” (p. 18)
6	Magenta		Same as CH 8 in the mode “Standard” (p. 18)
7	Yellow		Same as CH 9 in the mode “Standard” (p. 18)
8	CTO		Same as CH 10 in the mode “Standard” (p. 18)
9	Color Macro		Same as CH 15 in the mode “Extend” (p. 11)
10	Color Mix Speed		Same as CH 16 in the mode “Extend” (p. 12)
11	Colors		Same as CH 13 in the mode “Standard” (p. 18)
12	Gobo		Same as CH 19 in the mode “Extend” (p. 12)
13	Gobo Rotation	0–120	0-360
		121–125	Gobo 1 Pos: STOP
		126–164	SHAKE
		165–169	Shake: STOP
		170–209	>>>
		210–214	Rot: STOP
		215–255	<<<
14	Animation Wheel		Same as CH 22 in the mode “Extend” (p. 13)
15	Gobo 3 Rotation Speed		Same as CH 23 in the mode “Extend” (p. 13)
16	Prism		Same as CH 24 in the mode “Extend” (p. 13)
17	Prism 2		Same as CH 25 in the mode “Extend” (p. 13)
18	Frost		Same as CH 26 in the mode “Extend” (p. 13)
19	Iris		Same as CH 22 in the mode “Standard” (p. 19)
20	Zoom	0	Wide
		1–127	Wide ... Center
		128	Center
		129–254	Center ... Narrow
		255	Narrow
21	Focus	0	Min
		1–127	Min ... Center
		128	Center
		129–254	Center ... Max
		255	Max
22	Focus 2		AUTO Focus
		0–11	No Function

CH	Function	DMX	Description
22	Focus 2 (continued)	12	No Function ... 3 meters
		13–38	3 meters
		39	3 meters ... 5 meters
		40–65	5 meters
		66	5 meters ... 7 meters
		67–92	7 meters
		93	7 meters ... 9 meters
		94–119	9 meters
		120	9 meters ... 11 meters
		121–145	11 meters
		146	11 meters ... 13 meters
		147–172	13 meters
		173	13 meters ... 15 meters
		174–199	15 meters
		200	15 meters ... 17 meters
		201–226	17 meters
		227	17 meters ... 19 meters
		228–253	19 meters
		254–255	AUTO Focus
23	Blade 1 A		Same as CH 29 in the mode “Standard” (p. 19)
24	Blade 1 B		Same as CH 30 in the mode “Standard” (p. 19)
25	Blade 2 A		Same as CH 31 in the mode “Standard” (p. 19)
26	Blade 2 B		Same as CH 32 in the mode “Standard” (p. 19)
27	Blade 3 A		Same as CH 33 in the mode “Standard” (p. 19)
28	Blade 3 B		Same as CH 34 in the mode “Standard” (p. 19)
29	Blade 4 A		Same as CH 35 in the mode “Standard” (p. 19)
30	Blade 4 B		Same as CH 36 in the mode “Standard” (p. 19)
31	Shaper Rotation		Same as CH 37 in the mode “Standard” (p. 19)
32	Dimmer	0	Closed
		1–254	Closed ... open
		255	Open
33	Shutter		Same as CH 55 in the mode “Extend” (p. 15)
34	Control		Same as CH 56 in the mode “Extend” (p. 16)

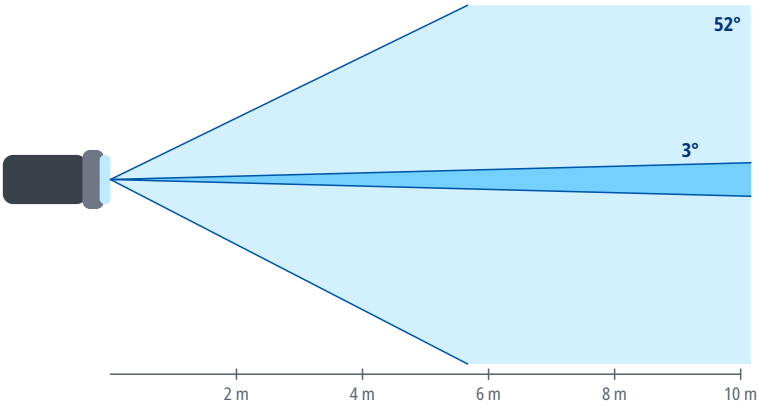
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	1,000 W
Luminous flux	10,000 lm
Color temperature	6,000 K
Color rendering index (CRI)	100
Optics	
Zoom	3–52°
Movement	
Pan	540°
Tilt	270°
Control	
RDM	yes (manufacturer ID 0x06CA, device model ID 0x1202)
Dimensions and construction	
Weight	25 kg
Operating environment	
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	3000–10000 K
Strobe frequency	1–25 Hz
Color wheel rotation	up to 360 °/s (60 rpm)
Gobo wheel rotation	up to 360 °/s (60 rpm)
Gobo rotation	up to 360 °/s (60 rpm)
Gobo rotation	up to 100 °/s (17 rpm)
Prism 2 rotation	up to 360 °/s (60 rpm)

Spot diameter



Distance	Ø 3°	Ø 52°
2 m	0.1 m	2 m
4 m	0.21 m	3.9 m
6 m	0.31 m	5.9 m
8 m	0.42 m	7.8 m
10 m	0.52 m	9.8 m
15 m	0.79 m	14.6 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.