DMX REFERENCE

T400C

Terbly_T400C

Terbly



Manufacturer	Terbly
GDTF file	Terbly_T400C_136405.gdtf
GDTF revision	2026GETSHOW CIE-SYS · 2026-04-01
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1 About this manual

This document describes the Terbly_T400C by Terbly. It was compiled from the GDTF file Terbly_T400C_136405.gdtf from the GDTF-Share library.

File revision: “2026GETSHOW CIE-SYS”.

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 Terbly; 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	8.7 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
13 Ch	13	39	1, 14, 27, 40, ...
19 Ch	19	26	1, 20, 39, 58, ...

No light? Check these channels

- 13 Ch: CH 7 Shutter at 0–31 “Open”; CH 8 Dimmer above 0
- 19 Ch: CH 12 Shutter at 0–31 “Open”; CH 13 Dimmer above 0



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.

4 Installation

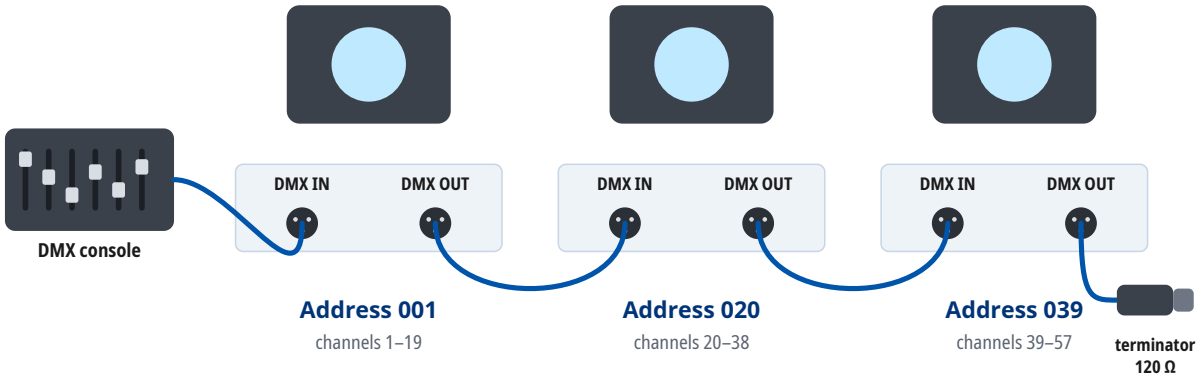
⚠ **WARNING**

- 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: 8.7 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.

5 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 19 Ch: every unit occupies 19 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.

6 Operation

Setting the DMX address

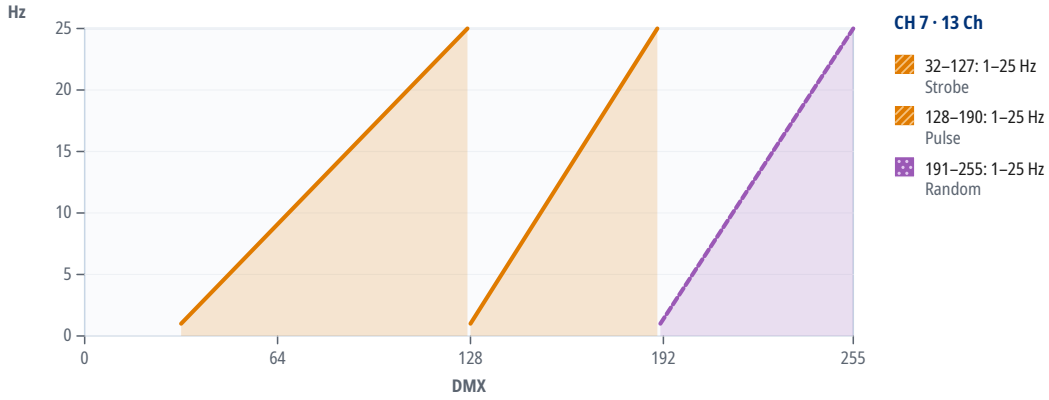
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “19 Ch”: 19.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “19 Ch”, you can use, for example, the start addresses 1, 20, 39, 58.
- 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.

7 Functions at a glance

Functions in each DMX mode

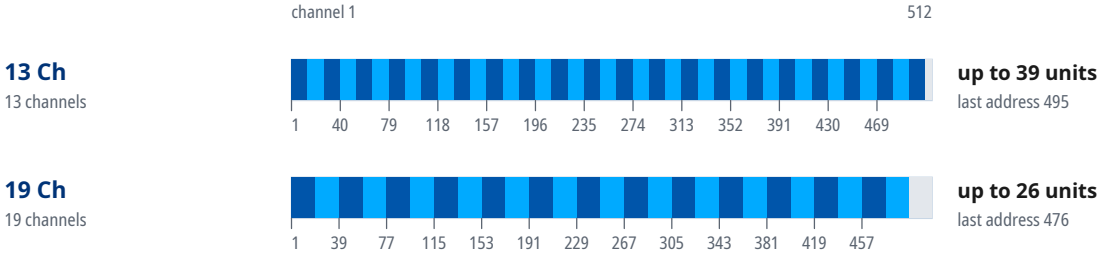
	13 Ch 13 channels	19 Ch 19 channels
Dimmer	8	13
Dimmer resolution	8 bit	16 bit
Shutter / strobe	7	12
Color mixing	1–5	5× (1–9)
Color temperature	6	11
Effects / macros	12	18

Strobe rate



8 DMX channels

Units in one DMX universe



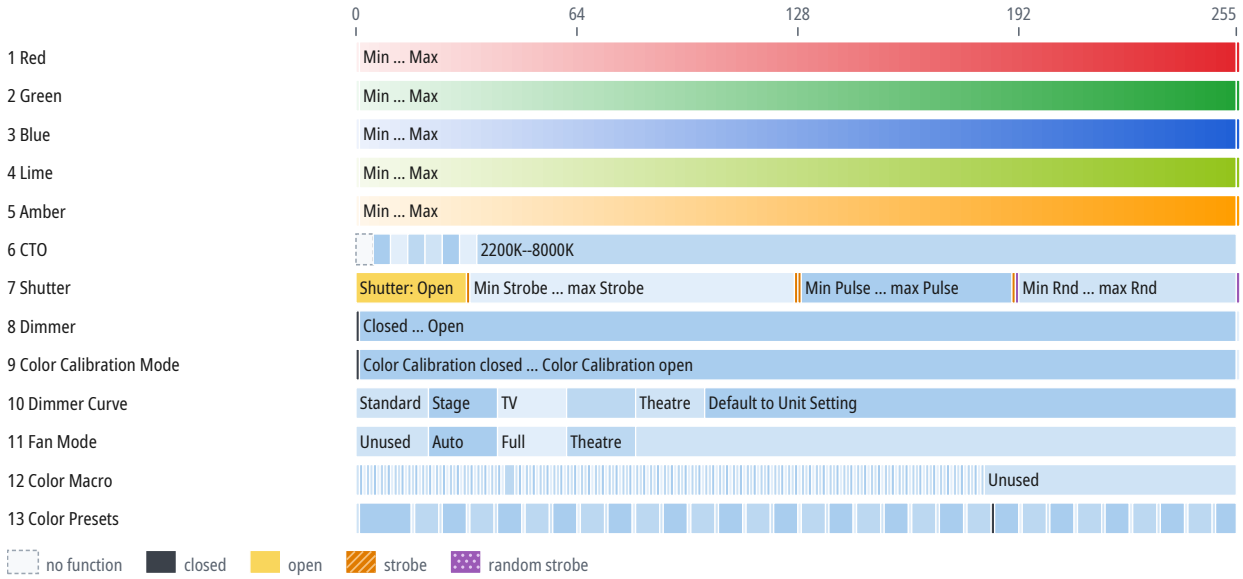
Start addresses of 20 units in the mode “19 Ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	96	11	191	16	286
2	20	7	115	12	210	17	305
3	39	8	134	13	229	18	324
4	58	9	153	14	248	19	343
5	77	10	172	15	267	20	362

Mode 13 Ch

If the device receives DMX in this mode but gives no light, check these channels: CH 7 Shutter at 0–31 “Open”; CH 8 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 Lime 255, CH 5 Amber 255, CH 7 Shutter 31, CH 8 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red	0	Min
		1–254	Min ... Max
		255	Max
2	Green	0	Min
		1–254	Min ... Max
		255	Max
3	Blue	0	Min
		1–254	Min ... Max
		255	Max
4	Lime	0	Min
		1–254	Min ... Max
		255	Max
5	Amber	0	Min
		1–254	Min ... Max
		255	Max
6	CTO	0–4	No function
		5–9	White 2200K
		10–14	White 3200K
		15–19	White 4200K
		20–24	White 5600K
		25–29	White 6500K

CH	Function	DMX	Description
6	CTO (continued)	30–34	White 8000K
		35–255	2200K--8000K (2200–8000 K)
7	Shutter	0–31	Shutter: Open
		32	Min Strobe
		33–126	Min Strobe ... max Strobe
		127	Max Strobe
		128	Min Pulse
		129–189	Min Pulse ... max Pulse
		190	Max Pulse
		191	Min Rnd
		192–254	Min Rnd ... max Rnd
		255	Max Rnd
8	Dimmer	0	Closed
		1–254	Closed ... Open
		255	Open
9	Color Calibration Mode	0	Color Calibration closed
		1–254	Color Calibration closed ... Color Calibration open
		255	Color Calibration open
10	Dimmer Curve	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–255	Default to Unit Setting
11	Fan Mode	0–20	Unused
		21–40	Auto
		41–60	Full
		61–80	Theatre
		81–255	Fan Mode 1
12	Color Macro	0	Unused
		1–24	101...124
		25–30	201...206
		31–42	210...221
		43–45	221 ... 222
		46	222
		47–59	301...313
		60–71	401...412
		72–81	501...510
		82–98	601...617
		99–119	701...721
		120–135	801...816
		136–148	901...913

CH	Function	DMX	Description
12	Color Macro (continued)	149–165	1001...1017
		166	1102/2000K
		167	1103/2200K
		168	1104/2500K
		169	1105/2700K
		170	1106/2856K
		171	1107/3000K
		172	1108/3200K
		173	1109/3500K
		174	1110/4000K
		175	1111/4874K
		176	1112/5700K
		177	1113/6500K
		178	1114/6774K
		179	1115/8000K
		180	1116/10000K
		181	1117/20000K
		182–255	Unused
13	Color Presets	0	Unused
		1–15	Unused ... 104 China Red
		16	104 China Red
		17–23	104 China Red ... 114 Ling Xiao
		24	114 Ling Xiao
		25–31	114 Ling Xiao ... 120 Begonia Red
		32	120 Begonia Red
		33–39	120 Begonia Red ... 203 Golden Orange
		40	203 Golden Orange
		41–47	203 Golden Orange ... 208 Realgar
		48	208 Realgar
		49–55	208 Realgar ... 212 Light Wheat Yellow
		56	212 Light Wheat Yellow
		57–63	212 Light Wheat Yellow ... 302 Imperial Yellow
		64	302 Imperial Yellow
		65–71	302 Imperial Yellow ... 308 Light Yellow
		72	308 Light Yellow
		73–79	308 Light Yellow ... 311 Moon White
		80	311 Moon White
		81–87	311 Moon White ... 401 Willow Green
		88	401 Willow Green
		89–95	401 Willow Green ... 405 Green Mustard
		96	405 Green Mustard
		97–103	405 Green Mustard ... 410 Pale Cyan

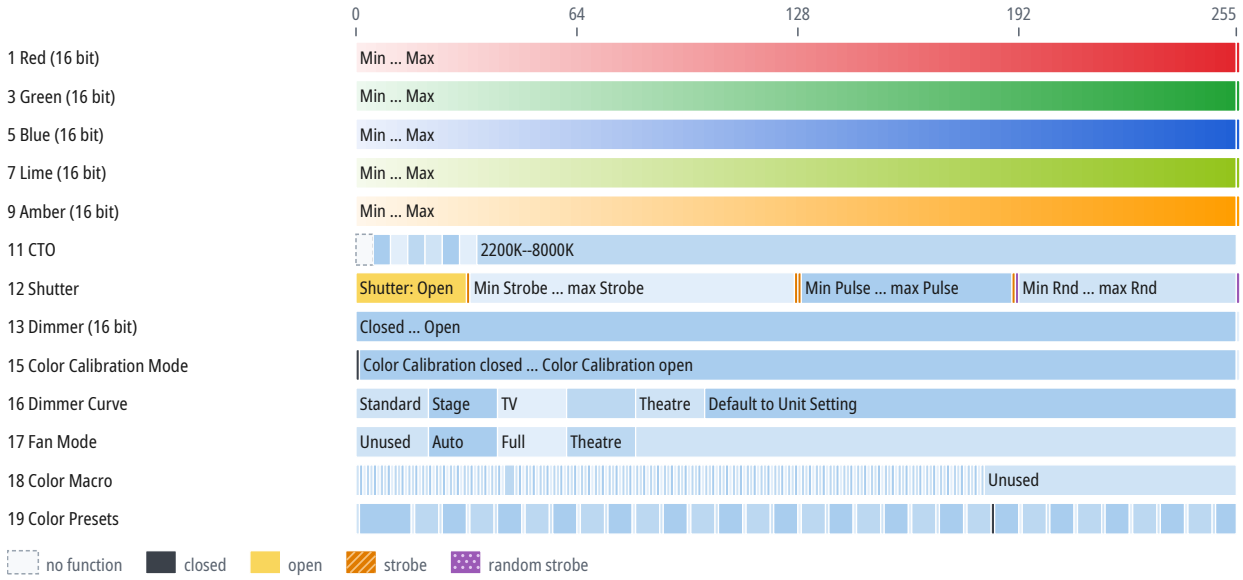
CH	Function	DMX	Description
13	Color Presets (continued)	104	410 Pale Cyan
		105–111	410 Pale Cyan ... 502 Parrot Green
		112	502 Parrot Green
		113–119	502 Parrot Green ... 508 Grass Green
		120	508 Grass Green
		121–127	508 Grass Green ... 517 Cold Blue
		128	517 Cold Blue
		129–135	517 Cold Blue ... 602 Sparkling Cove
		136	602 Sparkling Cove
		137–143	602 Sparkling Cove ... 608 Light Green
		144	608 Light Green
		145–151	608 Light Green ... 618 Light Pale Cyan
		152	618 Light Pale Cyan
		153–159	618 Light Pale Cyan ... 703 Ultramarine Blue
		160	703 Ultramarine Blue
		161–167	703 Ultramarine Blue ... 709 Emerald Blue
		168	709 Emerald Blue
		169–175	709 Emerald Blue ... 715 Cyan Cloud
		176	715 Cyan Cloud
		177–183	715 Cyan Cloud ... 803 Dark lavender
		184	803 Dark lavender
		185–191	803 Dark lavender ... 808 Dusk Purple
		192	808 Dusk Purple
		193–199	808 Dusk Purple ... 812 Light Wind Chime
		200	812 Light Wind Chime
		201–207	812 Light Wind Chime ... 901 Ravishing Purple
		208	901 Ravishing Purple
		209–215	901 Ravishing Purple ... 909 Plum Sauce Purple
		216	909 Plum Sauce Purple
		217–223	909 Plum Sauce Purple ... 916 Kao Mauve
		224	916 Kao Mauve
		225–231	916 Kao Mauve ... 1004 Magenta
		232	1004 Magenta
		233–239	1004 Magenta ... 1013 Wild Rose Pink
		240	1013 Wild Rose Pink
		241–247	1013 Wild Rose Pink ... 1022 Sakura Pink
		248	1022 Sakura Pink
		249–255	Color Presets 1

Mode 19 Ch

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

If the device receives DMX in this mode but gives no light, check these channels: CH 12 Shutter at 0–31 “Open”; CH 13 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 3 Green 255, CH 5 Blue 255, CH 7 Lime 255, CH 9 Amber 255, CH 12 Shutter 31, CH 13 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red	0–255	Min ... Max
		255	Max
2	Red Fine	0–255	Fine adjustment of CH 1
3	Green	0–255	Min ... Max
		255	Max
4	Green Fine	0–255	Fine adjustment of CH 3
5	Blue	0–255	Min ... Max
		255	Max
6	Blue Fine	0–255	Fine adjustment of CH 5
7	Lime	0–255	Min ... Max
		255	Max
8	Lime Fine	0–255	Fine adjustment of CH 7
9	Amber	0–255	Min ... Max
		255	Max
10	Amber Fine	0–255	Fine adjustment of CH 9
11	CTO		Same as CH 6 in the mode “13 Ch” (p. 8)
12	Shutter		Same as CH 7 in the mode “13 Ch” (p. 9)
13	Dimmer	0–255	Closed ... Open
		255	Open
14	Dimmer Fine	0–255	Fine adjustment of CH 13

CH	Function	DMX	Description
15	Color Calibration Mode		Same as CH 9 in the mode “13 Ch” (p. 9)
16	Dimmer Curve		Same as CH 10 in the mode “13 Ch” (p. 9)
17	Fan Mode		Same as CH 11 in the mode “13 Ch” (p. 9)
18	Color Macro		Same as CH 12 in the mode “13 Ch” (p. 9)
19	Color Presets		Same as CH 13 in the mode “13 Ch” (p. 10)

9 Technical specifications

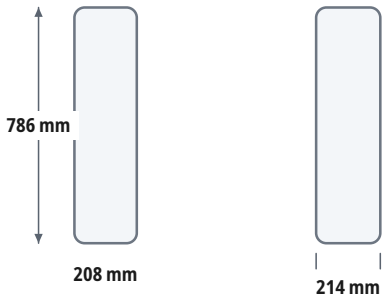
Parameter	Value
Light	
Light source	LED
LED power	400 W
Luminous flux	60,000 lm
Color temperature	8,000 K
Optics	
Beam angle	25°
Control	
RDM	yes (manufacturer ID 0x4753, device model ID 0x06ED)
Dimensions and construction	
Weight	8.7 kg
Operating environment	
Operating temperature	-10 to 45 °C

Speeds and ranges

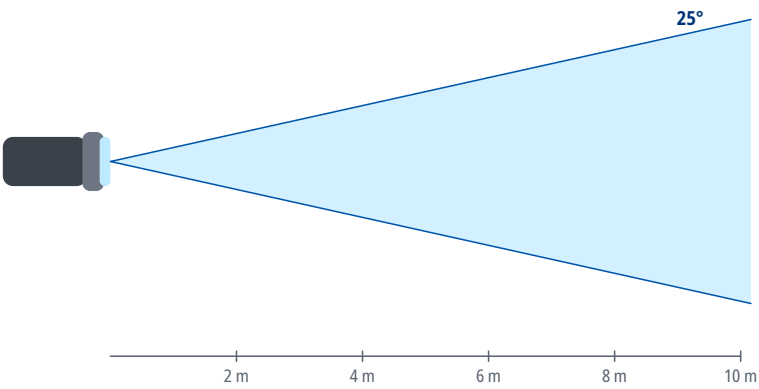
Parameter	Value
Color temperature range	2200–8000 K
Strobe frequency	1–25 Hz

Dimensions

weight 8.7 kg



Spot diameter



Distance	Ø 25°
2 m	0.89 m
4 m	1.8 m
6 m	2.7 m
8 m	3.5 m
10 m	4.4 m
15 m	6.7 m

Spot diameter square to the beam axis, calculated from the beam angle.

10 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.

11 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.

12 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.