DMX REFERENCE

Beam 380 IP

LPL



Manufacturer	LPL
GDTF file	LPL_Beam_380_IP_112147.gdtf
GDTF revision	Tested_-REAL-MA3-3D_V3-5 · 2025-09-28
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1 About this manual

This document describes the Beam 380 IP by LPL. It was compiled from the GDTF file LPL_Beam_380_IP_112147.gdtf from the GDTF-Share library.

File revision: “Tested_-REAL-MA3-3D_V3-5”.

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
Weight	22 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Basic 19CH	19	26	1, 20, 39, 58, …

No light? Check these channels

- Basic 19CH: CH 2 Shutter 1 at 104–107, 208–212 or 255 “Open”; CH 17 Shutter 2 at 0 “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.

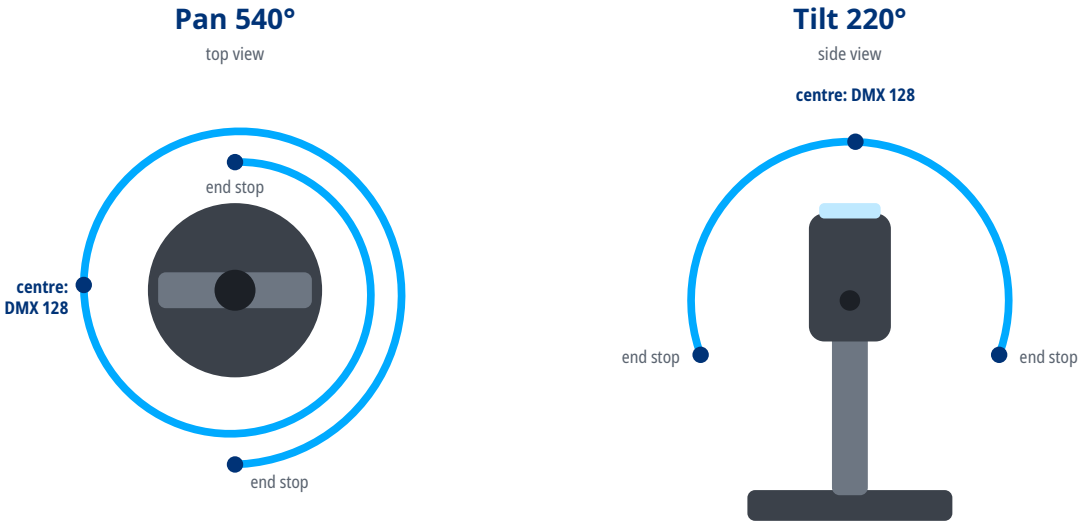
⚠ CAUTION

- 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



5 Installation

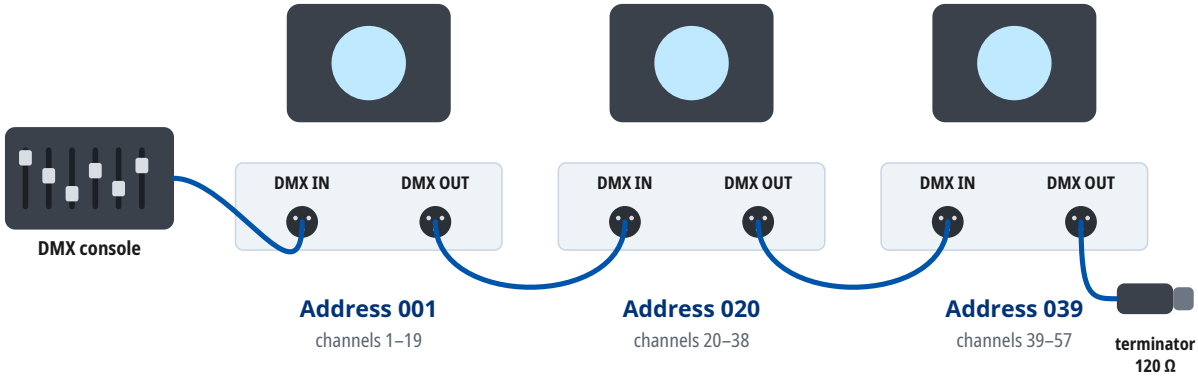
> ⚠ **WARNING**
>
> - Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
> - The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
> - Weight of the device: 22 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 Basic 19CH: 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.

7 Operation

Setting the DMX address

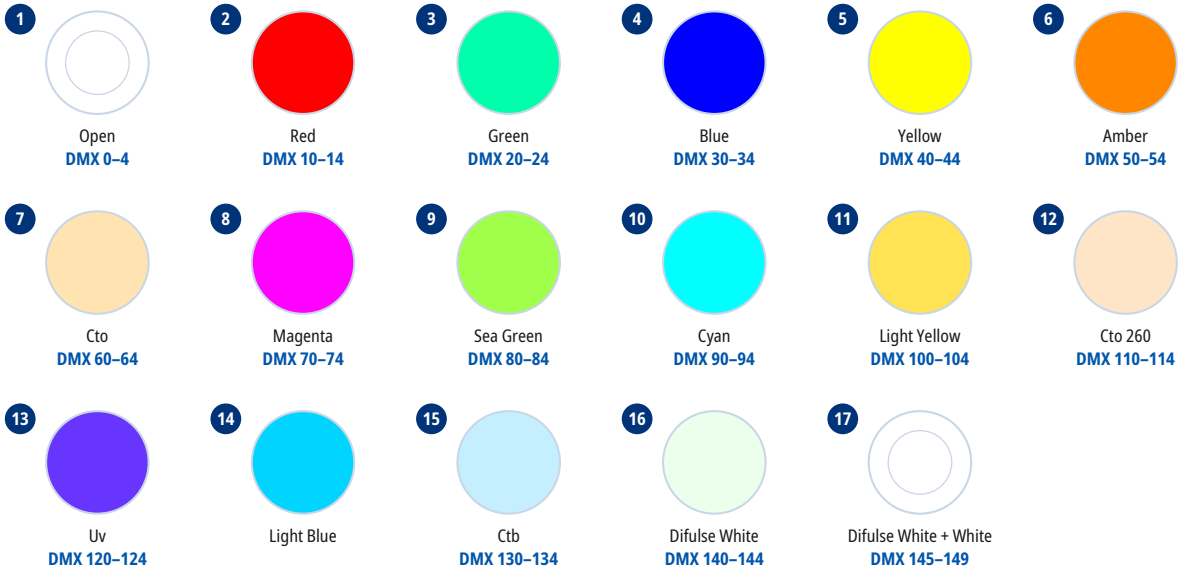
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Basic 19CH”: 19.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “Basic 19CH”, 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.

8 Functions at a glance

Functions in each DMX mode

	Basic 19CH 19 channels
Pan / Tilt	10, 12
Dimmer	3
Shutter / strobe	2, 17
Color wheel	1, 18, 19
Gobo wheel	4
Frost	15
Focus	9

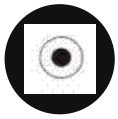
Color wheel 1

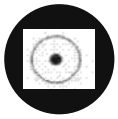


Gobo wheel 1

1
Open
DMX 0–3

2 
Gobo 1
DMX 4–6

3 
Gobo2
DMX 7–9

4 
Gobo3
DMX 10–12

5 
Gobo4
DMX 13–15

6 
Gobo5
DMX 16–18

7 
Gobo6
DMX 19–21

8 
Gobo7
DMX 22–24

9 
Gobo8
DMX 25–27

10 
Gobo9
DMX 28–30

11 
Gobo10
DMX 31–33

12 
Gobo11
DMX 34–36

13 
Gobo12
DMX 37–39

14 
Gobo13
DMX 40–42

15 
Gobo14
DMX 43–45

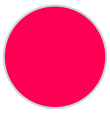
16 
Gobo15
DMX 46–48

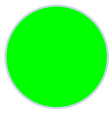
17 
Gobo16
DMX 49–51

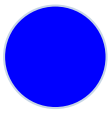
18
Gobo17
DMX 52–54

Color wheel 2

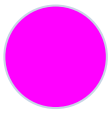
1
Off Aura
DMX 0

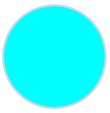
2 
Red
DMX 2

3 
Green
DMX 5

4 
Blue
DMX 10

5
Yellow
DMX 15

6 
Magenta
DMX 20

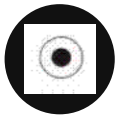
7 
Cyan
DMX 25

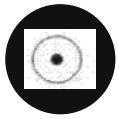
8
White
DMX 29

Gobo wheel 2

1
Wheel Slot 1

2 
Wheel Slot 2

3 
Wheel Slot 3

4 
Wheel Slot 4

5 
Wheel Slot 5

6 
Wheel Slot 6

7 
Wheel Slot 7

8 
Wheel Slot 8

9 
Wheel Slot 9

10 
Wheel Slot 10

11 
Wheel Slot 11

12 
Wheel Slot 12

13 
Wheel Slot 13

14 
Wheel Slot 14

15 
Wheel Slot 15

16 
Wheel Slot 16

17 
Wheel Slot 17

18
Wheel Slot 18

Gobo wheel 3

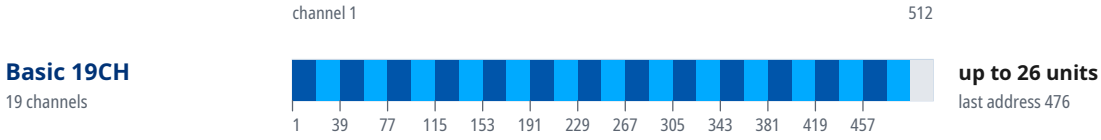
1
Frost
DMX 128–192

2 

EffectFrost
DMX 193–255

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Basic 19CH”

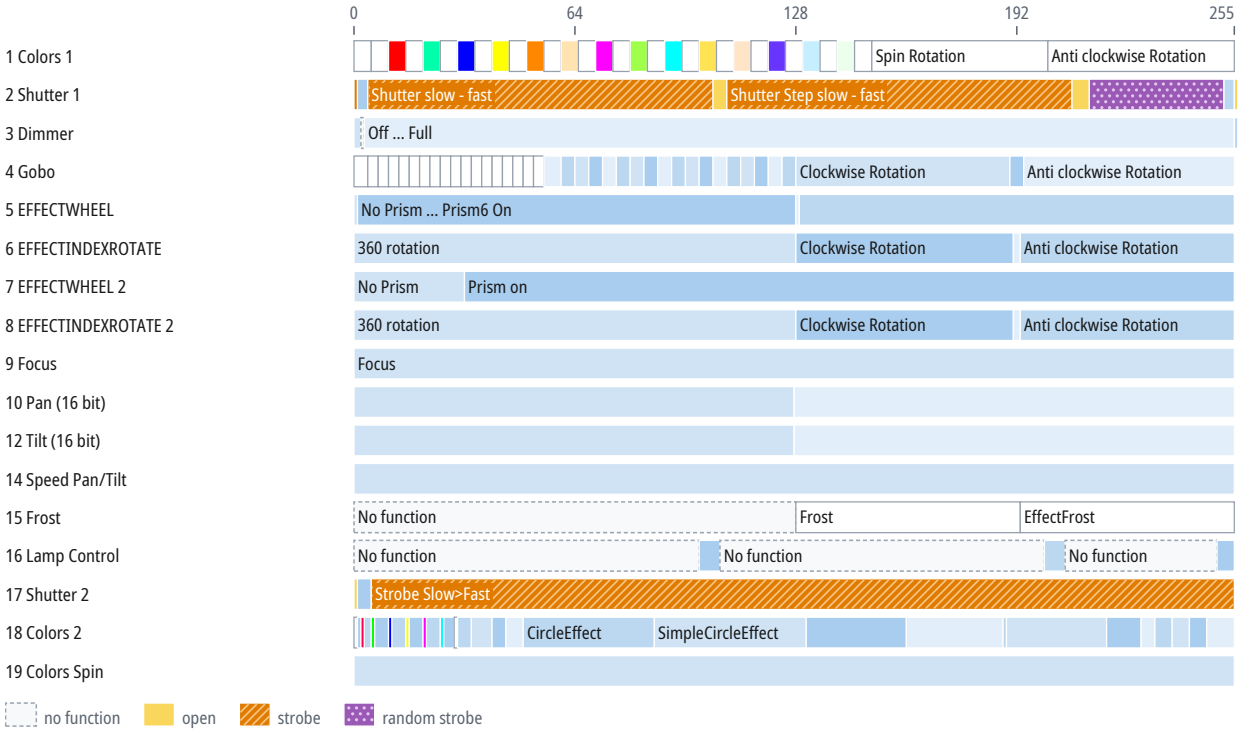
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	96	11	191	16	286
2	20	7	115	12	210	17	305
3	39	8	134	13	229	18	324
4	58	9	153	14	248	19	343
5	77	10	172	15	267	20	362

Mode Basic 19CH

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 2 Shutter 1 at 104–107, 208–212 or 255 “Open”; CH 17 Shutter 2 at 0 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Colors 1 0, CH 3 Dimmer 255, CH 18 Colors 2 33.

Channel functions at a glance



CH	Function	DMX	Description
1	Colors 1	0–4	Open
		5–9	White + Red
		10–14	Red
		15–19	Red + Green
		20–24	Green
		25–29	Green + Blue
		30–34	Blue
		35–39	Blue +Yellow
		40–44	Yellow
		45–49	Yellow + Amber
		50–54	Amber
		55–59	Amber+ Cto
		60–64	Cto
		65–69	Cto + Magenta
		70–74	Magenta
		75–79	Magenta + Sea Green
		80–84	Sea Green
		85–89	Sea Green + Cyan
		90–94	Cyan
		95–99	Cyan + Light Yellow
		100–104	Light Yellow
		105–109	Light Yellow + Cto 260
		110–114	Cto 260
		115–119	Cto 260 + Uv
		120–124	Uv
		125–129	Uv + Ctb
		130–134	Ctb
		135–139	Ctb + White
		140–144	Difulse White
		145–149	Difulse White + White
		150–200	Spin Rotation
		201–255	Anti clockwise Rotation
2	Shutter 1	0	Shutter Strobe: Off
		1–3	Off ... Shutter slow - fast
		4–103	Shutter slow - fast
		104–107	Shutter Strobe: Open
		108–207	Shutter Step slow - fast
		208–212	Shutter Strobe: Open
		213–251	Random Shuter slow - fast
		252–254	Shutter

CH	Function	DMX	Description
2	Shutter 1 (continued)	255	Shutter: Open
3	Dimmer	0–1	Dimmer 1
		2	Off
		3–254	Off ... Full
		255	Full
4	Gobo	0–3	Open
		4–6	Gobo 1
		7–9	Gobo2
		10–12	Gobo3
		13–15	Gobo4
		16–18	Gobo5
		19–21	Gobo6
		22–24	Gobo7
		25–27	Gobo8
		28–30	Gobo9
		31–33	Gobo10
		34–36	Gobo11
		37–39	Gobo12
		40–42	Gobo13
		43–45	Gobo14
		46–48	Gobo15
		49–51	Gobo16
		52–54	Gobo17
		55–59	Open
		60–63	Gobo 1
		64–67	Gobo2
		68–71	Gobo3
		72–75	Gobo4
		76–79	Gobo5
		80–83	Gobo6
		84–87	Gobo7
		88–91	Gobo8
		92–95	Gobo9
		96–99	Gobo10
		100–103	Gobo11
		104–107	Gobo12
		108–111	Gobo13
		112–115	Gobo14
		116–119	Gobo15
		120–123	Gobo16
		124–127	Gobo17

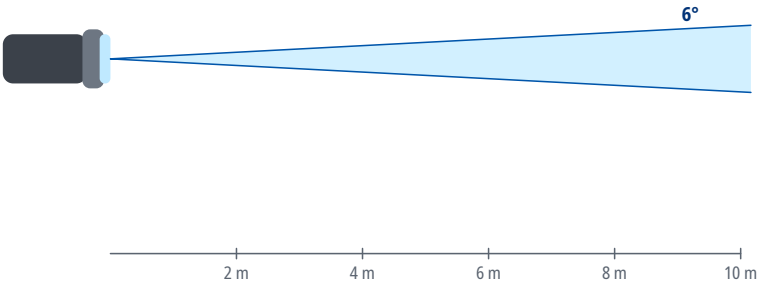
CH	Function	DMX	Description
4	Gobo (continued)	128–189	Clockwise Rotation
		190–193	Stop
		194–255	Anti clockwise Rotation
5	EFFECTWHEEL	0	No Prism
		1–127	No Prism ... Prism6 On
		128	Prism6 On
		129–255	EFFECTWHEEL 1
6	EFFECTINDEXROTATE	0–127	360 rotation
		128–190	Clockwise Rotation
		191–192	Stop
		193–255	Anti clockwise Rotation
7	EFFECTWHEEL 2	0–31	No Prism
		32–255	Prism on
8	EFFECTINDEXROTATE 2	0–127	360 rotation
		128–190	Clockwise Rotation
		191–192	Stop
		193–255	Anti clockwise Rotation
9	Focus	0–255	Focus
10	Pan	0–127	Pan 1
		128	Center
		128–255	Pan 1
11	Pan Fine	0–255	Fine adjustment of CH 10
12	Tilt	0–127	Tilt 1
		128	Center
		128–255	Tilt 1
13	Tilt Fine	0–255	Fine adjustment of CH 12
14	Speed Pan/Tilt	0–255	
15	Frost	0–127	No function
		128–192	Frost
		193–255	EffectFrost
16	Lamp Control	0–99	No function
		100–105	Lamp off
		106–199	No function
		200–205	Lamp on
		206–249	No function
		250–255	Reset after 5s
17	Shutter 2	0	Shutter: Open
		1–4	Shutter
		5–255	Strobe Slow>Fast
18	Colors 2	0	Off Aura
		1	Off Aura ... Red

CH	Function	DMX	Description
18	Colors 2 (continued)	2	Red
		3–4	Red ... Green
		5	Green
		6–9	Green ... Blue
		10	Blue
		11–14	Blue ... Yellow
		15	Yellow
		16–19	Yellow ... Magenta
		20	Magenta
		21–24	Magenta ... Cyan
		25	Cyan
		26–28	Cyan ... White
		29	White
		30–33	Color 1
		34–39	ColorSpin
		40–43	ColorSpin2
		44–48	ColorFadeSpin
		49–86	CircleEffect
		87–130	SimpleCircleEffect
		131–159	MiddleCircleEffect
		160–187	MiddleInvertCircleEffect
		188	MiddleInvertCircleEffect ... StarCircleEffect
		189–217	StarCircleEffect
		218–227	UglyCircleEffect
		228–231	UglyCircleEffect2
		232–236	SingleUglyEffect
		237–241	RaimbowEffect
		242–246	RaimbowEffect2
		247–255	RaimbowEffect3
19	Colors Spin	0–255	

10 Technical specifications

Parameter	Value
Pan	540°
Tilt	220°
Weight	22 kg
Operating temperature	-25 to 45 °C

Spot diameter



Distance	Ø 6°
2 m	0.21 m
4 m	0.42 m
6 m	0.63 m
8 m	0.84 m
10 m	1 m
15 m	1.6 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.

Problem	Remedy
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.