GDTF Fixture Reference · by SOH

DMX REFERENCE

H360

EK Lights



Manufacturer	EK Lights
GDTF file	EK_Lights_H360_91731.gdtf
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1 About this manual

This document describes the H360 by EK Lights. It was compiled from the GDTF file EK_Lights_H360_91731.gdtf from the GDTF-Share library.

File revision: “20250331”.

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 EK Lights; 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
21CH	21	24	1, 22, 43, 64, …

No light? Check these channels

- 21CH: CH 5 Shutter at 83–93 or 164–174 “Open” or 244–255; CH 6 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.

⚠ 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

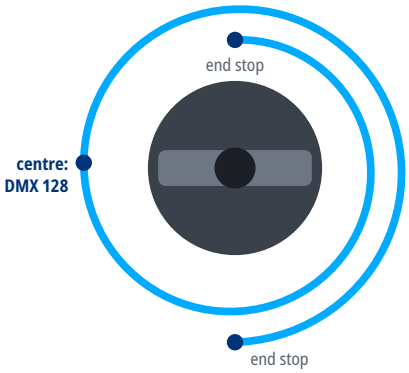
Description in the GDTF file

- 360W CW LED光源
- 10米距离光照度25500Lux
- 超高效光学系统, 光束紧凑锐利, 强劲立体
- 内置丰富色盘, 双图案盘 (固定盘12个图案, 旋转盘7个图案)
- 双向可调速旋转八棱镜,二十四棱镜
- 适合演唱会, 酒吧, 晚会, 路演等专业演出场所
- DMX控制

Range of movement

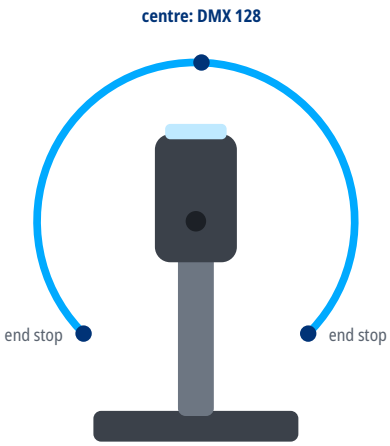
Pan 540°

top view



Tilt 270°

side view



5 Installation

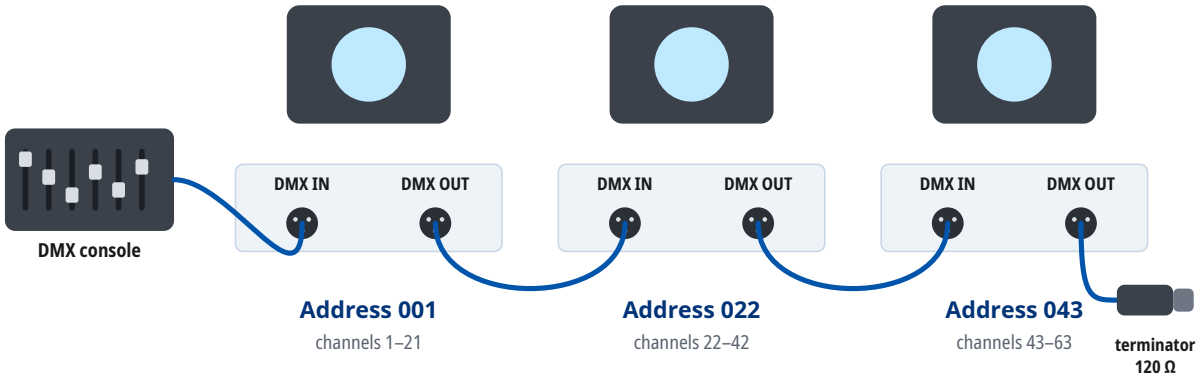
⚠ WARNING

- 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: 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 21CH: every unit occupies 21 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 “21CH”: 21.
- 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 “21CH”, you can use, for example, the start addresses 1, 22, 43, 64.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

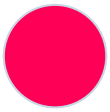
8 Functions at a glance

Functions in each DMX mode

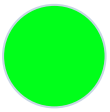
	21CH 21 channels
Pan / Tilt	1, 3
Dimmer	6
Shutter / strobe	5
Color wheel	8
Gobo wheel	9, 11
Gobo rotation	10
Prism	12–15
Frost	16
Zoom	19
Focus	17

Color wheel

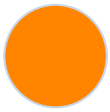
1
Color: Open
DMX 0–4

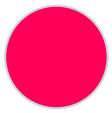
2 
Color1
DMX 11–17

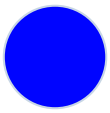
3 
Color2
DMX 24–30

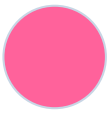
4 
Color3
DMX 37–43

5
Color4
DMX 50–56

6 
Color5
DMX 63–69

7 
Color6
DMX 76–82

8 
Color7
DMX 89–95

9 
Color8
DMX 102–108

10 
Color9
DMX 115–121

Gobo wheel 1

1
Gobo 1: Open
DMX 0–7

2 
Gobo1
DMX 8–12

3 
Gobo2
DMX 13–17

4 
Gobo3
DMX 18–22

5 
Gobo4
DMX 23–27

6 
Gobo5
DMX 28–32

7 
Gobo6
DMX 33–37

8 
Gobo7
DMX 38–42

9 
Gobo8
DMX 43–47

10 
Gobo9
DMX 48–52

11 
Gobo10
DMX 53–57

12 
Gobo11
DMX 58–62

13 
Gobo12
DMX 63–68

Gobo wheel 2

1	Gobo 2: Open	**DMX 0–8**	4	Gobo3	**DMX 27–35**
2	Gobo1	**DMX 9–17**	5	Gobo 4	**DMX 36–44**
3	Gobo2	**DMX 18–26**	6	Gobo5	**DMX 45–53**
7	Gobo 6	**DMX 54–62**			
8	Gobo7	**DMX 63–72**			

Prism 1

1
Open
DMX 0–127

2 
8 facets
8F Circular
DMX 128–255

Prism 2

1

Open

DMX 0–127

2

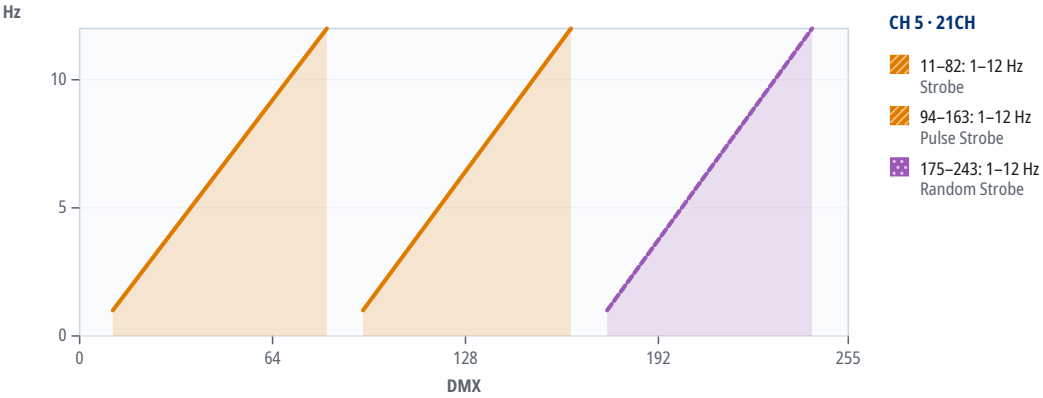


24 facets

24F Circular

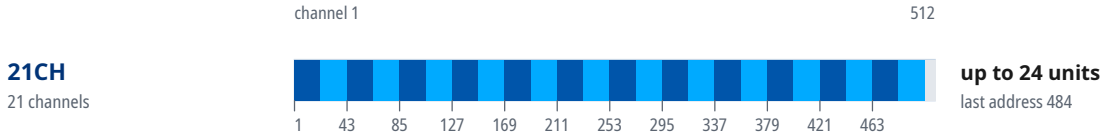
DMX 128–255

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “21CH”

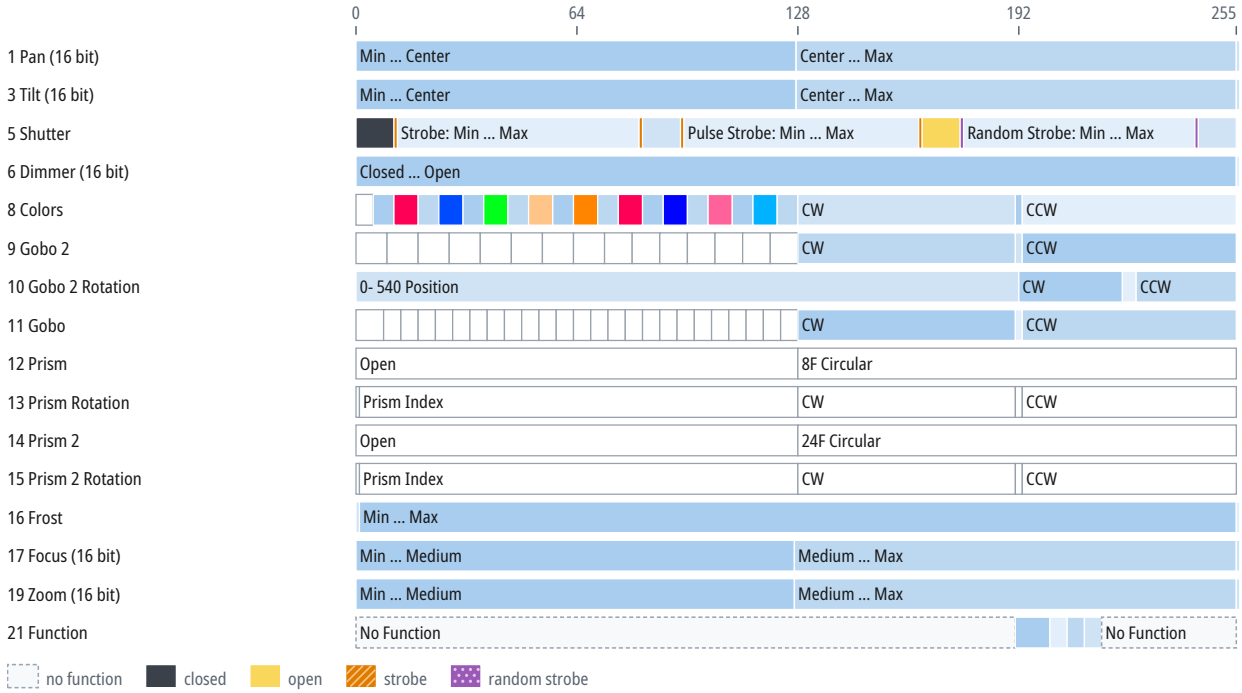
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	106	11	211	16	316
2	22	7	127	12	232	17	337
3	43	8	148	13	253	18	358
4	64	9	169	14	274	19	379
5	85	10	190	15	295	20	400

Mode 21CH

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 5 Shutter at 83–93 or 164–174 “Open” or 244–255; CH 6 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 255, CH 6 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		128–255	Center ... Max
		255	Max

CH	Function	DMX	Description
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Shutter	0–10	Closed
		11	Strobe: Min
		12–81	Strobe: Min ... Max
		82	Strobe: Max
		83–93	Open 1
		94	Pulse Strobe: Min
		95–162	Pulse Strobe: Min ... Max
		163	Pulse Strobe: Max
		164–174	Open
		175	Random Strobe: Min
		176–242	Random Strobe: Min ... Max
		243	Random Strobe: Max
		244–255	Open 3
6	Dimmer	0–255	Closed ... Open
		255	Open
7	Dimmer Fine	0–255	Fine adjustment of CH 6
8	Colors	0–4	Color: Open
		5–10	Open ... Color1
		11–17	Color1
		18–23	Color1 ... Color2
		24–30	Color2
		31–36	Color2 ... Color3
		37–43	Color3
		44–49	Color3 ... Color4
		50–56	Color4
		57–62	Color4 ... Color5
		63–69	Color5
		70–75	Color5 ... Color6
		76–82	Color6
		83–88	Color6 ... Color7
		89–95	Color7
		96–101	Color7 ... Color8
		102–108	Color8
		109–114	Color8 ... Color9
		115–121	Color9
		122–127	Color
		128–190	CW

CH	Function	DMX	Description
8	Colors (continued)	191–192	Color Spin: Stop
		193–255	CCW
9	Gobo 2	0–8	Gobo 2: Open
		9–17	Gobo1
		18–26	Gobo2
		27–35	Gobo3
		36–44	Gobo 4
		45–53	Gobo5
		54–62	Gobo 6
		63–71	Gobo7
		72–79	Gobo1 Shake
		80–87	Gobo2 Shake
		88–95	Gobo3 Shake
		96–103	Gobo 4 Shake
		104–111	Gobo5 Shake
		112–119	Gobo6 Shake
		120–127	Gobo7 Shake
		128–190	CW
		191–192	Gobo 1 Wheel Spin: Stop
		193–255	CCW
10	Gobo 2 Rotation	0–191	0- 540 Position (540°)
		192–221	CW (900–1 °/s)
		222–225	Gobo 2 Select Spin: Stop
		226–255	CCW (1–900 °/s)
11	Gobo	0–7	Gobo 1: Open
		8–12	Gobo1
		13–17	Gobo2
		18–22	Gobo3
		23–27	Gobo4
		28–32	Gobo5
		33–37	Gobo6
		38–42	Gobo7
		43–47	Gobo8
		48–52	Gobo9
		53–57	Gobo10
		58–62	Gobo11
		63–67	Gobo12
		68–72	Gobo1 Shake
		73–77	Gobo2 Shake
		78–82	Gobo3 Shake
		83–87	Gobo4 Shake
		88–92	Gobo5 Shake

CH	Function	DMX	Description
11	Gobo (continued)	93–97	Gobo6 Shake
		98–102	Gobo7 Shake
		103–107	Gobo8 Shake
		108–112	Gobo9 Shake
		113–117	Gobo10 Shake
		118–122	Gobo11 Shake
		123–127	Gobo12 Shake
		128–190	CW
		191–192	Gobo 1 Wheel Spin: Stop
		193–255	CCW
12	Prism	0–127	Open
		128–255	8F Circular
13	Prism Rotation	0	Prism 1 Pos: Open
		1–127	Prism Index
		128–190	CW
		191–192	Prism 1 Pos Rotate: Stop
		193–255	CCW
14	Prism 2	0–127	Open
		128–255	24F Circular
15	Prism 2 Rotation	0	Prism 1 Pos: Open
		1–127	Prism Index
		128–190	CW
		191–192	Prism 1 Pos Rotate: Stop
		193–255	CCW
16	Frost	0	Min
		1–254	Min ... Max
		255	Max
17	Focus	0–127	Min ... Medium
		127–255	Medium ... Max
		255	Max
18	Focus Fine	0–255	Fine adjustment of CH 17
19	Zoom	0–127	Min ... Medium
		127–255	Medium ... Max
		255	Max
20	Zoom Fine	0–255	Fine adjustment of CH 19
21	Function	0–190	No Function
		191–200	No Function ... Complete Reset(Hold 5S)
		201–205	Complete Reset(Hold 5S)
		206–210	Pan/Tilt Reset (Hold 5S)
		211–215	Head Reset (Hold 5S)
		216–255	No Function

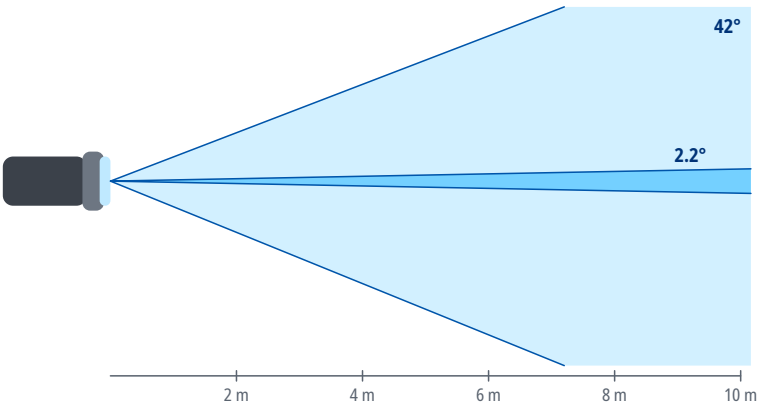
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	360 W
Luminous flux	25,500 lm
Color temperature	7,200 K
Color rendering index (CRI)	100
Optics	
Zoom	2.2–42°
Movement	
Pan	540°
Tilt	270°
Dimensions and construction	
Weight	22 kg
Operating environment	
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Strobe frequency	1–12 Hz
Color wheel rotation	up to 100 °/s (17 rpm)
Gobo wheel 1 rotation	up to 720 °/s (120 rpm)
Gobo wheel 2 rotation	up to 720 °/s (120 rpm)
Gobo 2 rotation	up to 900 °/s (150 rpm)
Prism 1 rotation	up to 180 °/s (30 rpm)

Spot diameter



Distance	Ø 2.2°	Ø 42°
2 m	0.08 m	1.5 m
4 m	0.15 m	3.1 m
6 m	0.23 m	4.6 m
8 m	0.31 m	6.1 m
10 m	0.38 m	7.7 m
15 m	0.58 m	11.5 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.