DMX REFERENCE

LUT-TX

LUT Transmitter

Light Up Toys



Manufacturer	Light Up Toys
GDTF file	Light_Up_Toys_LUT-TX_104532.gdtf
GDTF revision	Working / Tested R.Stumpp, Uploaded to GDTF Share. · 2025-07-20
Generated	2026-11-24

Contents

1 About this manual ... 2
2 Quick reference ... 2
3 Safety instructions ... 3
4 Installation ... 4
5 Connections ... 4
6 Operation ... 5
7 Functions at a glance ... 5
8 DMX channels ... 6
Mode Standard mode ... 7
9 Technical specifications ... 14
10 Maintenance and cleaning ... 15
11 Troubleshooting ... 15
12 Disposal ... 15

1 About this manual

This document describes the LUT Transmitter by Light Up Toys. It was compiled from the GDTF file Light_Up_Toys_LUT-TX_104532.gdtf from the GDTF-Share library.

File revision: “Working / Tested R.Stumpp, Uploaded to GDTF Share.”.

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 Light Up Toys; 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
Power consumption	30 W
Weight	1 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Standard mode	35	14	1, 36, 71, 106, ...


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

3 Safety instructions


Read the manual before use


Risk of electric shock


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

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 100–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

⚠ 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.

4 Installation

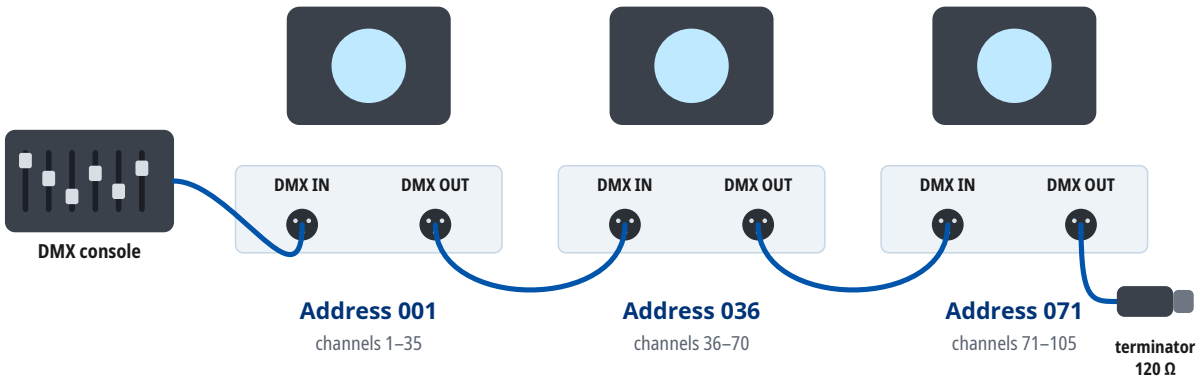
⚠ WARNING

- 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: 1 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 Standard mode: every unit occupies 35 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

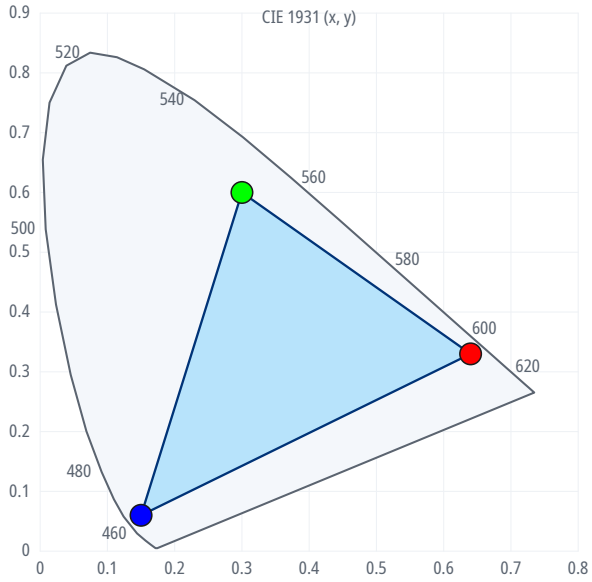
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Standard mode”: 35.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “Standard mode”, you can use, for example, the start addresses 1, 36, 71, 106.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

7 Functions at a glance

Functions in each DMX mode

	Standard mode 35 channels
Dimmer	✓
Color mixing	1–3, 26–28

LED colors and the colors they mix

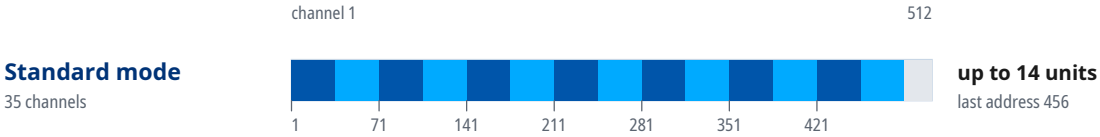


LED	x	y	nm
Red	0.640	0.330	626
Green	0.300	0.600	527
Blue	0.150	0.060	452

The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Standard mode”

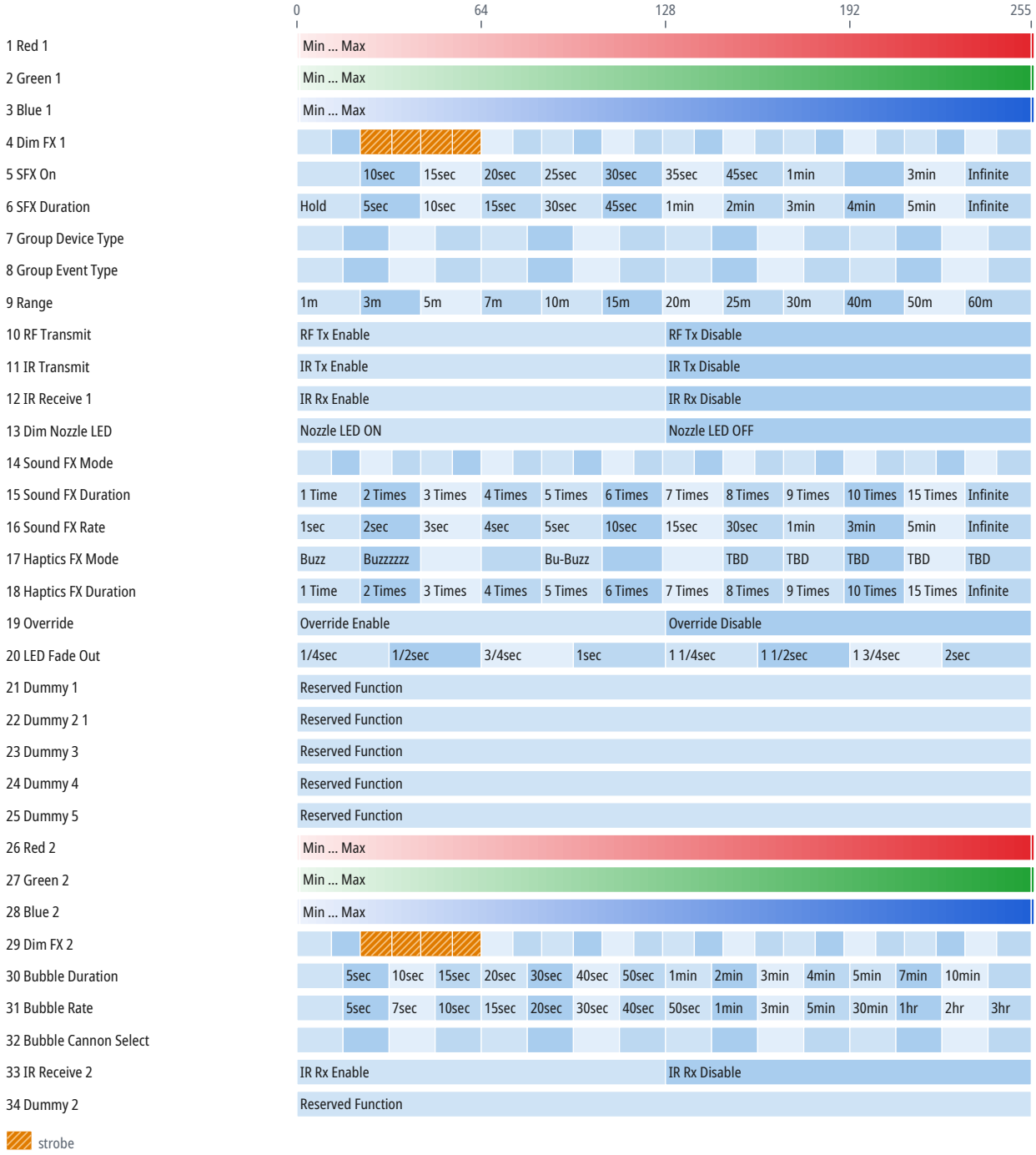
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	176	11	351	16	U2 · 36
2	36	7	211	12	386	17	U2 · 71
3	71	8	246	13	421	18	U2 · 106
4	106	9	281	14	456	19	U2 · 141
5	141	10	316	15	U2 · 1	20	U2 · 176

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.

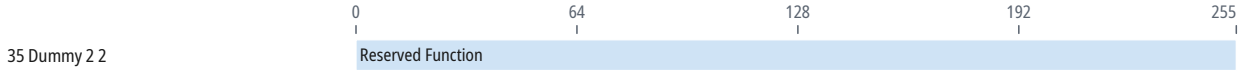
Mode Standard mode

The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0	Min
		1–254	Min ... Max
		255	Max
2	Green 1	0	Min
		1–254	Min ... Max
		255	Max
3	Blue 1	0	Min
		1–254	Min ... Max
		255	Max
4	Dim FX 1	0–11	Solid Color
		12–21	Flicker 1
		22–32	Pulse 1
		33–42	Pulse 2
		43–53	Strobe 1
		54–63	Strobe 2
		64–74	Heartbeat 1
		75–84	Heartbeat 2
		85–95	Sporadic Flicker 1
		96–105	Sporadic Flicker 2
		106–116	Flash 1
		117–126	Flash 2
		127–137	Lightning Strike 1
		138–147	Lightning Strike 2
		148–158	Shooting 1
		159–168	Shooting 2
		169–179	Building
		180–189	Blinking
		190–200	Chasing 1
		201–210	Chasing 2
		211–221	Fading In and Out 1
		222–231	Fading In and Out 2
		232–242	Flickers Fade Out
		243–255	Fade Out Light
5	SFX On	0–21	Off (No SFX)
		22–42	10sec
		43–63	15sec
		64–84	20sec
		85–105	25sec
		106–126	30sec
		127–147	35sec
		148–168	45sec

CH	Function	DMX	Description
5	SFX On (continued)	169–189	1min
		190–210	1min30sec
		211–231	3min
		232–255	Infinite
6	SFX Duration	0–21	Hold
		22–42	5sec
		43–63	10sec
		64–84	15sec
		85–105	30sec
		106–126	45sec
		127–147	1min
		148–168	2min
		169–189	3min
		190–210	4min
		211–231	5min
		232–255	Infinite
7	Group Device Type	0–15	Hold/Disable
		16–31	All Devices
		32–47	Interactive Lanterns
		48–63	2024 Interactive Ornament
		64–79	Water Parade BW
		80–255	Future Item
8	Group Event Type	0–15	Hold/Disable
		16–31	Summer Event
		32–47	Halloween Event
		48–63	Christmas Event
		64–255	Future Event
9	Range	0–21	1m
		22–42	3m
		43–63	5m
		64–84	7m
		85–105	10m
		106–126	15m
		127–147	20m
		148–168	25m
		169–189	30m
		190–210	40m
		211–231	50m
		232–255	60m
10	RF Transmit	0–127	RF Tx Enable
		128–255	RF Tx Disable
11	IR Transmit	0–127	IR Tx Enable

CH	Function	DMX	Description
11	IR Transmit (continued)	128–255	IR Tx Disable
12	IR Receive 1	0–127	IR Rx Enable
		128–255	IR Rx Disable
13	Dim Nozzle LED	0–127	Nozzle LED ON
		128–255	Nozzle LED OFF
14	Sound FX Mode	0–11	Hold (No Sound)
		12–21	Sound FX 1
		22–32	Sound FX 2
		33–42	Sound FX 3
		43–53	Sound FX 4
		54–63	Sound FX 5
		64–74	Sound FX 6
		75–84	Sound FX 7
		85–95	Sound FX 8
		96–105	Sound FX 9
		106–116	Sound FX 10
		117–126	Sound FX 11
		127–137	Sound FX 12
		138–147	Sound FX 13
		148–158	Sound FX 14
		159–168	Sound FX 15
		169–179	Sound FX 16
		180–189	Sound FX 17
		190–200	Sound FX 18
		201–210	Sound FX 19
		211–221	Sound FX 20
		222–231	Sound FX 21
		232–242	Sound FX 22
		243–255	Sound FX 23
15	Sound FX Duration	0–21	1 Time
		22–42	2 Times
		43–63	3 Times
		64–84	4 Times
		85–105	5 Times
		106–126	6 Times
		127–147	7 Times
		148–168	8 Times
		169–189	9 Times
		190–210	10 Times
		211–231	15 Times
		232–255	Infinite
16	Sound FX Rate	0–21	1sec

CH	Function	DMX	Description
16	Sound FX Rate (continued)	22–42	2sec
		43–63	3sec
		64–84	4sec
		85–105	5sec
		106–126	10sec
		127–147	15sec
		148–168	30sec
		169–189	1min
		190–210	3min
		211–231	5min
		232–255	Infinite
17	Haptics FX Mode	0–21	Buzz
		22–42	Buzzzzzz
		43–63	Buzz-Buzzzzzz
		64–84	Buzz-Buzzzzzz-Buzz
		85–105	Bu-Buzz
		106–126	Buzz-Bu-Buzz-Bu
		127–147	Bu-Bu-Bu-Buzzzzzz
		148–255	TBD
18	Haptics FX Duration	0–21	1 Time
		22–42	2 Times
		43–63	3 Times
		64–84	4 Times
		85–105	5 Times
		106–126	6 Times
		127–147	7 Times
		148–168	8 Times
		169–189	9 Times
		190–210	10 Times
		211–231	15 Times
		232–255	Infinite
19	Override	0–127	Override Enable
		128–255	Override Disable
20	LED Fade Out	0–31	1/4sec
		32–63	1/2sec
		64–95	3/4sec
		96–127	1sec
		128–159	1 1/4sec
		160–191	1 1/2sec
		192–223	1 3/4sec
		224–255	2sec
21	Dummy 1	0–255	Reserved Function

CH	Function	DMX	Description
22	Dummy 2 1	0–255	Reserved Function
23	Dummy 3	0–255	Reserved Function
24	Dummy 4	0–255	Reserved Function
25	Dummy 5	0–255	Reserved Function
26	Red 2	0	Min
		1–254	Min ... Max
		255	Max
27	Green 2	0	Min
		1–254	Min ... Max
		255	Max
28	Blue 2	0	Min
		1–254	Min ... Max
		255	Max
29	Dim FX 2	0–11	Solid Color
		12–21	Flicker 1
		22–32	Pulse 1
		33–42	Pulse 2
		43–53	Strobe 1
		54–63	Strobe 2
		64–74	Heartbeat 1
		75–84	Heartbeat 2
		85–95	Sporadic Flicker 1
		96–105	Sporadic Flicker 2
		106–116	Flash 1
		117–126	Flash 2
		127–137	Lightning Strike 1
		138–147	Lightning Strike 2
		148–158	Shooting 1
		159–168	Shooting 2
		169–179	Building
		180–189	Blinking
		190–200	Chasing 1
		201–210	Chasing 2
		211–221	Fading In and Out 1
		222–231	Fading In and Out 2
		232–242	Flickers Fade Out
		243–255	Fade Out Light
30	Bubble Duration	0–15	Hold / Off
		16–31	5sec
		32–47	10sec
		48–63	15sec
		64–79	20sec

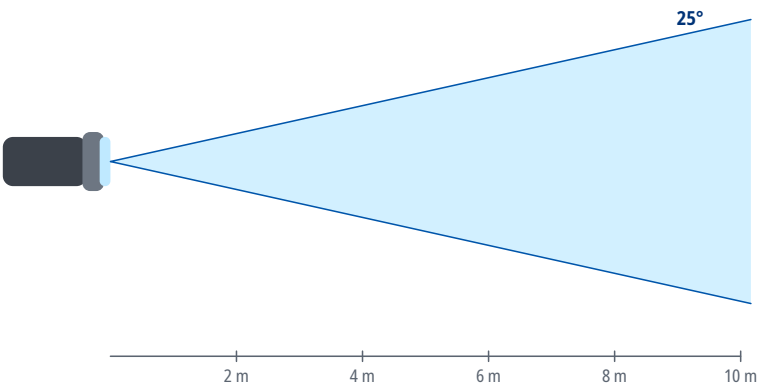
CH	Function	DMX	Description
30	Bubble Duration (continued)	80–95	30sec
		96–111	40sec
		112–127	50sec
		128–143	1min
		144–159	2min
		160–175	3min
		176–191	4min
		192–207	5min
		208–223	7min
		224–239	10min
		240–255	Infinite
31	Bubble Rate	0–15	No Interval
		16–31	5sec
		32–47	7sec
		48–63	10sec
		64–79	15sec
		80–95	20sec
		96–111	30sec
		112–127	40sec
		128–143	50sec
		144–159	1min
		160–175	3min
		176–191	5min
		192–207	30min
		208–223	1hr
		224–239	2hr
		240–255	3hr
32	Bubble Cannon Select	0–15	Hold (No Control)
		16–31	All Bubble Cannon
		32–47	Bubble Cannon 1
		48–63	Bubble Cannon 2
		64–79	Bubble Cannon 3
		80–95	Bubble Cannon 4
		96–111	Bubble Cannon 5
		112–127	Bubble Cannon 6
		128–143	Bubble Cannon 7
		144–159	Bubble Cannon 8
		160–175	Bubble Cannon 9
		176–191	Bubble Cannon 10
		192–207	Bubble Cannon 11
		208–223	Bubble Cannon 12
		224–239	Bubble Cannon 13

CH	Function	DMX	Description
32	Bubble Cannon Select (continued)	240–255	Bubble Cannon 14
33	IR Receive 2	0–127	IR Rx Enable
		128–255	IR Rx Disable
34	Dummy 2	0–255	Reserved Function
35	Dummy 2 2	0–255	Reserved Function

9 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	
Beam angle	25°
Control	
DMX connection	5-pin XLR IN/OUT
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	30 W
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	1 kg
Operating environment	
Operating temperature	0 to 40 °C

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.