DMX REFERENCE

Scorpion 6

Lotus Light



Manufacturer	Lotus Light
GDTF file	Lotus_Light_Scorpion_6_101176.gdtf
GDTF revision	Scorpion 6 · 2025-06-23
Generated	2026-11-24

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1 About this manual

This document describes the Scorpion 6 by Lotus Light. It was compiled from the GDTF file Lotus_Light_Scorpion_6_101176.gdtf from the GDTF-Share library.

File revision: “Scorpion 6”.

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 Lotus Light; 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	17.5 kg
Ingress protection	IP20

DMX modes

Mode	Channels	Units in one universe	First start addresses
54 CH	54	9	1, 55, 109, 163, …
34 CH	34	15	1, 35, 69, 103, …

No light? Check these channels

- 54 CH: CH 8 Shutter at 0–15 “No Function”; CH 46 Back Shutter at 0–3
- 34 CH: CH 8 Shutter at 0–15 “No Function”



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.
- Ingress protection rating: IP20.
- 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.

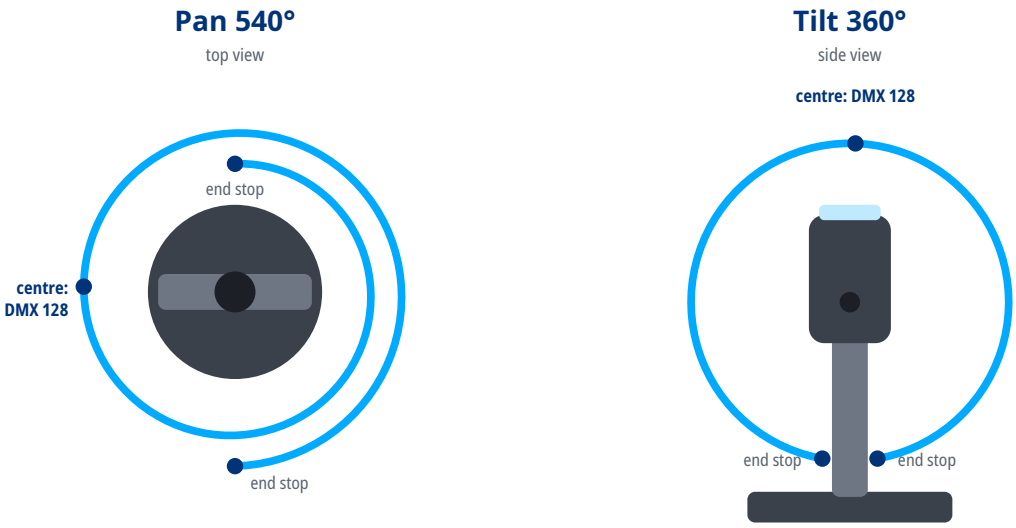
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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

- Scorpion 6 10x60W Pixel line + Wash Effect
- color effect
- Outstanding strobe effect with variable speed
- Wash Light Output Beam Mode
- 5 mt.: 24,100 Lux 3,5°
- 8 mt.: 12,500 Lux 3,5°
- 5 mt.: 1.520 Lux 45°
- 8 mt.: 687 Lux 45°
- Physical
- IP Rating: IP 20
- Net Weight: 17,5kg.
- Dimension: 640mm x 210mm x 369mm
- Cooling: Forced Air With Fan
- Clamp: Omega Brackets 90 Degree Professional Clamp “Optional”
- Connectors: PowerCon + Signal : 3 pin & 5 Pin
- Electrical
- Main Powersupply: 100V-240V 50/60Hz
- Input Power: 700W@230V
- Power Factor: PF>0.90

Range of movement



5 Installation

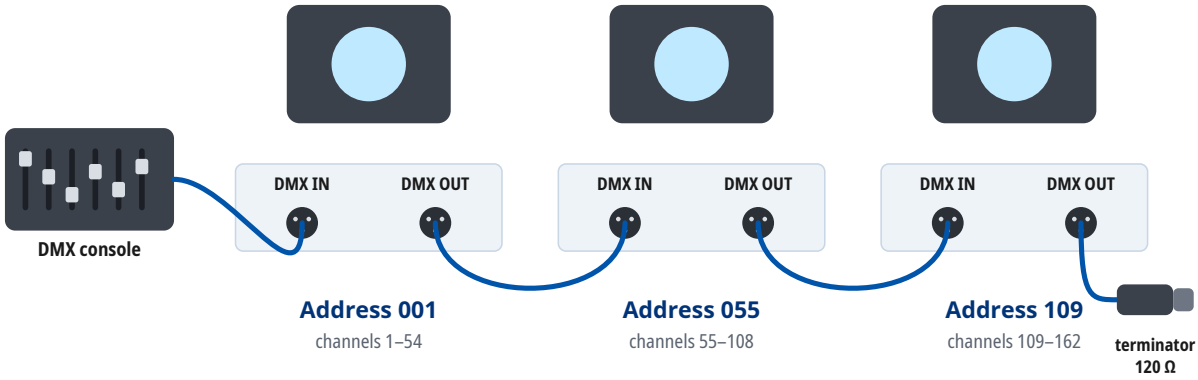
⚠ **WARNING**

- 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: 17.5 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 54 CH: every unit occupies 54 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 “54 CH”: 54.
- 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 “54 CH”, you can use, for example, the start addresses 1, 55, 109, 163.
- 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

	54 CH 54 channels	34 CH 34 channels
Pan / Tilt	1, 3, 6, 7	1, 3, 6, 7
Dimmer	9	9
Shutter / strobe	8	8
Color mixing		12–15
Color temperature	36	
Color wheel	36	16, 19, 20
Gobo wheel	38	
Gobo rotation	39, 40	
Zoom	11	11
Effects / macros	37	17

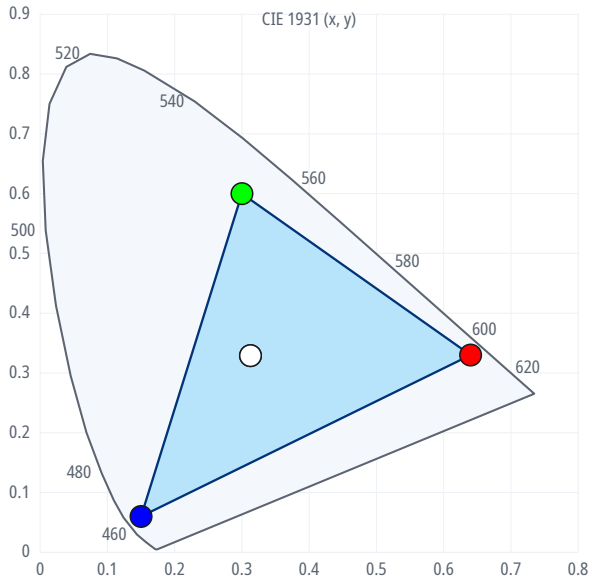
Color wheel

1 2800
2 3200
3 3500
4 4000
5 4500
6 5000
7 5500
8 6000
9 6500
10 7000
11 7500
12 8000

Gobo wheel

1 No function
DMX 0–15
2 R 100%G up B0%
DMX 16–35
3 R downG 100% B0%
DMX 36–55
4 R 0% G 100% B up
DMX 56–75
5 R 0% G100%B up
DMX 76–95
6 R up G0%B100%
DMX 96–115
7 R 100%G0% B down
DMX 116–135
8 R 100%G up B up
DMX 136–155
9 R 100%G down B100%
DMX 156–175
10 R100G 100B100W100%
DMX 176–196

LED colors and the colors they mix



LED	x	y
Red	0.640	0.330
Green	0.300	0.600
Blue	0.150	0.060
White	0.313	0.329
All	0.313	0.329

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

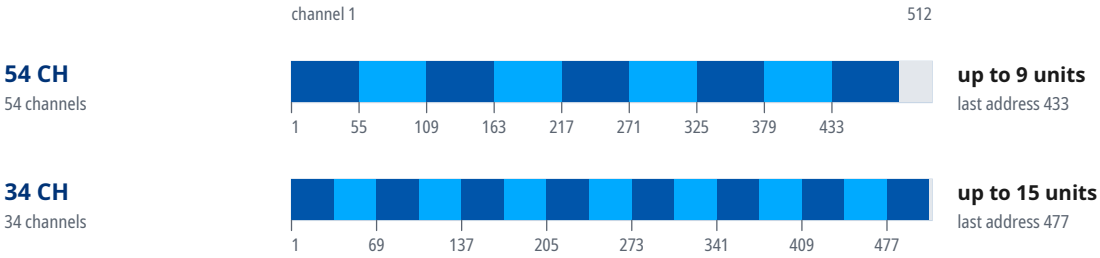
Cells (pixels)



6 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “54 CH”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “54 CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	271	11	U2 · 55	16	U2 · 325
2	55	7	325	12	U2 · 109	17	U2 · 379
3	109	8	379	13	U2 · 163	18	U2 · 433
4	163	9	433	14	U2 · 217	19	U3 · 1
5	217	10	U2 · 1	15	U2 · 271	20	U3 · 55

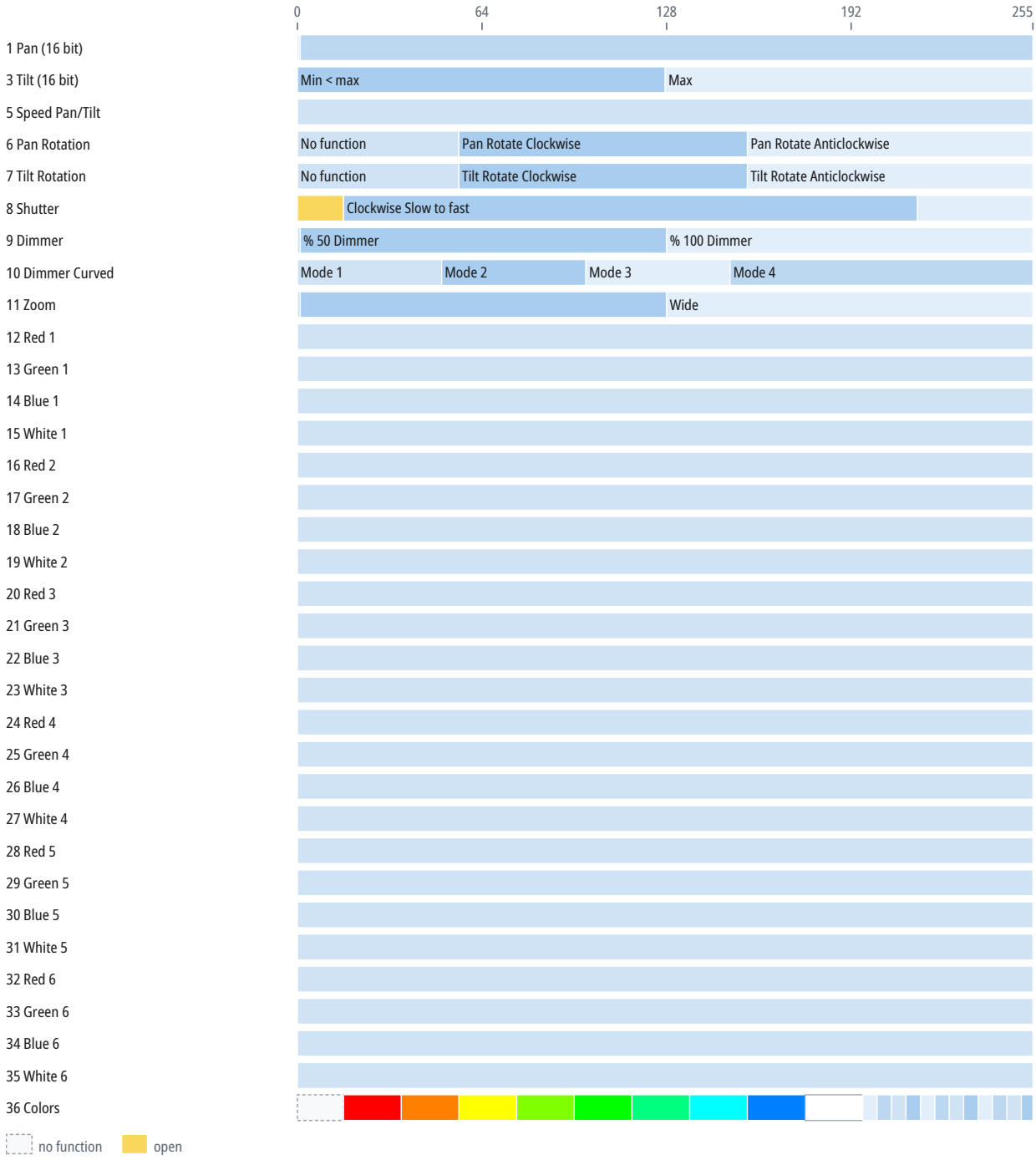
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 54 CH

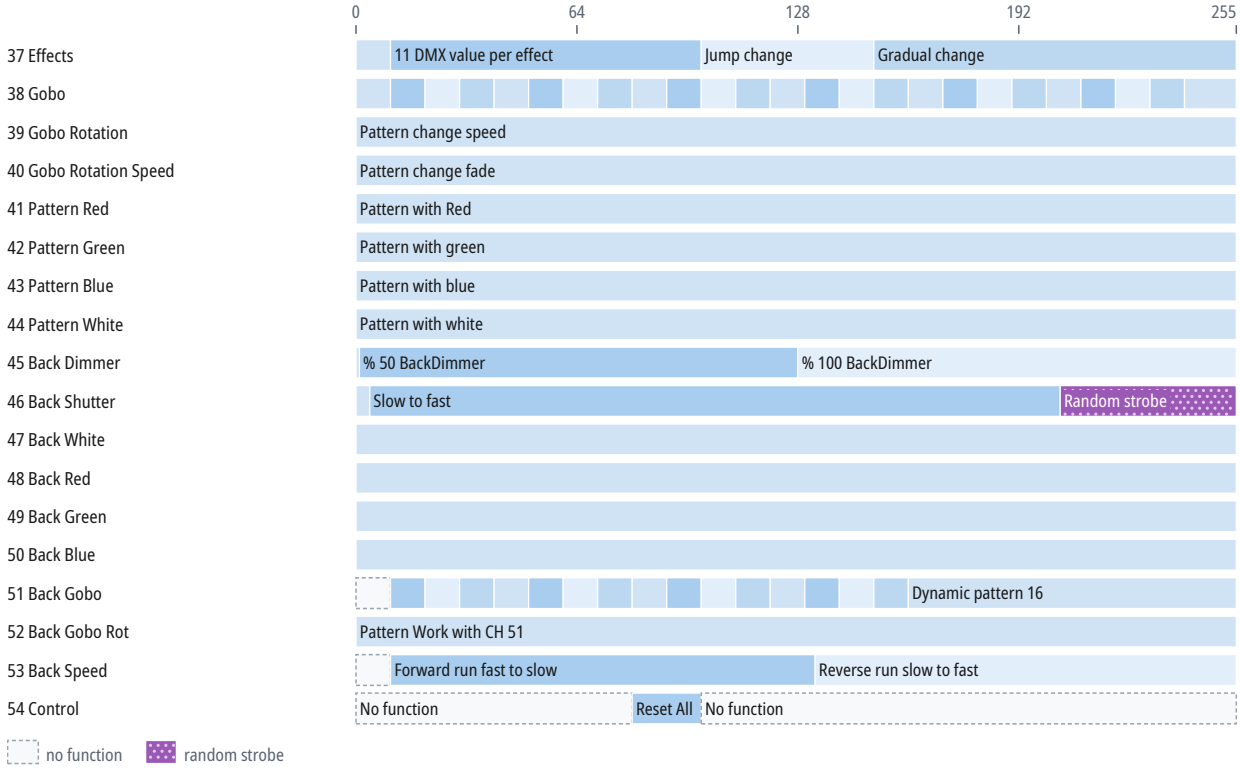
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 8 Shutter at 0–15 “No Function”; CH 46 Back Shutter at 0–3. The GDTF file gives these values for a console's Highlight function: CH 9 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		0	Min < max
		0	Max
		1–255	Pan 1
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0	Min
		0–127	Min < max
		128–255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Pan Rotation	0–55	No function
		56–155	Pan Rotate Clockwise
		156–255	Pan Rotate Anticlockwise
7	Tilt Rotation	0–55	No function
		56–155	Tilt Rotate Clockwise
		156–255	Tilt Rotate Anticlockwise
8	Shutter	0–15	No Function
		16–214	Clockwise Slow to fast
		215–255	Anticlockwise slow to fast
9	Dimmer	0	% 0 Dimmer
		1–127	% 50 Dimmer

CH	Function	DMX	Description
9	Dimmer (continued)	128–255	% 100 Dimmer
10	Dimmer Curved	0–49	Mode 1
		50–99	Mode 2
		100–149	Mode 3
		150–255	Mode 4
11	Zoom	0	Nar
		1–127	Zoom
		128–255	Wide
12	Red 1	0–255	
13	Green 1	0–255	
14	Blue 1	0–255	
15	White 1	0–255	
16	Red 2	0–255	
17	Green 2	0–255	
18	Blue 2	0–255	
19	White 2	0–255	
20	Red 3	0–255	
21	Green 3	0–255	
22	Blue 3	0–255	
23	White 3	0–255	
24	Red 4	0–255	
25	Green 4	0–255	
26	Blue 4	0–255	
27	White 4	0–255	
28	Red 5	0–255	
29	Green 5	0–255	
30	Blue 5	0–255	
31	White 5	0–255	
32	Red 6	0–255	
33	Green 6	0–255	
34	Blue 6	0–255	
35	White 6	0–255	
36	Colors	0–15	No function
		16–35	R 100%G up B0%
		36–55	R downG 100% B0%
		56–75	R 0% G 100% B up
		76–95	R 0% G100%B up
		96–115	R up G0%B100%
		116–135	R 100%G0% B down
		136–155	R 100%G up B up
		156–175	R 100%G down B100%
		176–195	R100%G 100%B100%W100%

CH	Function	DMX	Description
36	Colors (continued)	196–200	2800K
		201–205	3200K
		206–210	3500K
		211–215	4000K
		216–220	4500K
		221–225	5000K
		226–230	5500K
		231–235	6000K
		236–240	6500K
		241–245	7000K
		246–250	7500K
		251–255	8000K
37	Effects		Static Effect
		0–9	No Effect
		10–99	11 DMX value per effect
		100–149	Jump change
		150–255	Gradual change
38	Gobo	0–9	No Effect
		10–19	Static Pattern -1
		20–29	Static Pattern -2
		30–39	Static Pattern -3
		40–49	Static Pattern -4
		50–59	Static Pattern -5
		60–69	Static Pattern -6
		70–79	Static Pattern -7
		80–89	Static Pattern -8
		90–99	Static Pattern -9
		100–109	Static Pattern -10
		110–119	Static Pattern -11
		120–129	Static Pattern -12
		130–139	Static Pattern -13
		140–149	Static Pattern -14
		150–159	Static Pattern -15
		160–169	Static Pattern -16
		170–179	Dynamic Pattern -1
		180–189	Dynamic Pattern -2
		190–199	Dynamic Pattern -3
		200–209	Dynamic Pattern -4
		210–219	Dynamic Pattern -5
		220–229	Dynamic Pattern -6
		230–239	Dynamic Pattern -7
		240–255	Dynamic Pattern -8

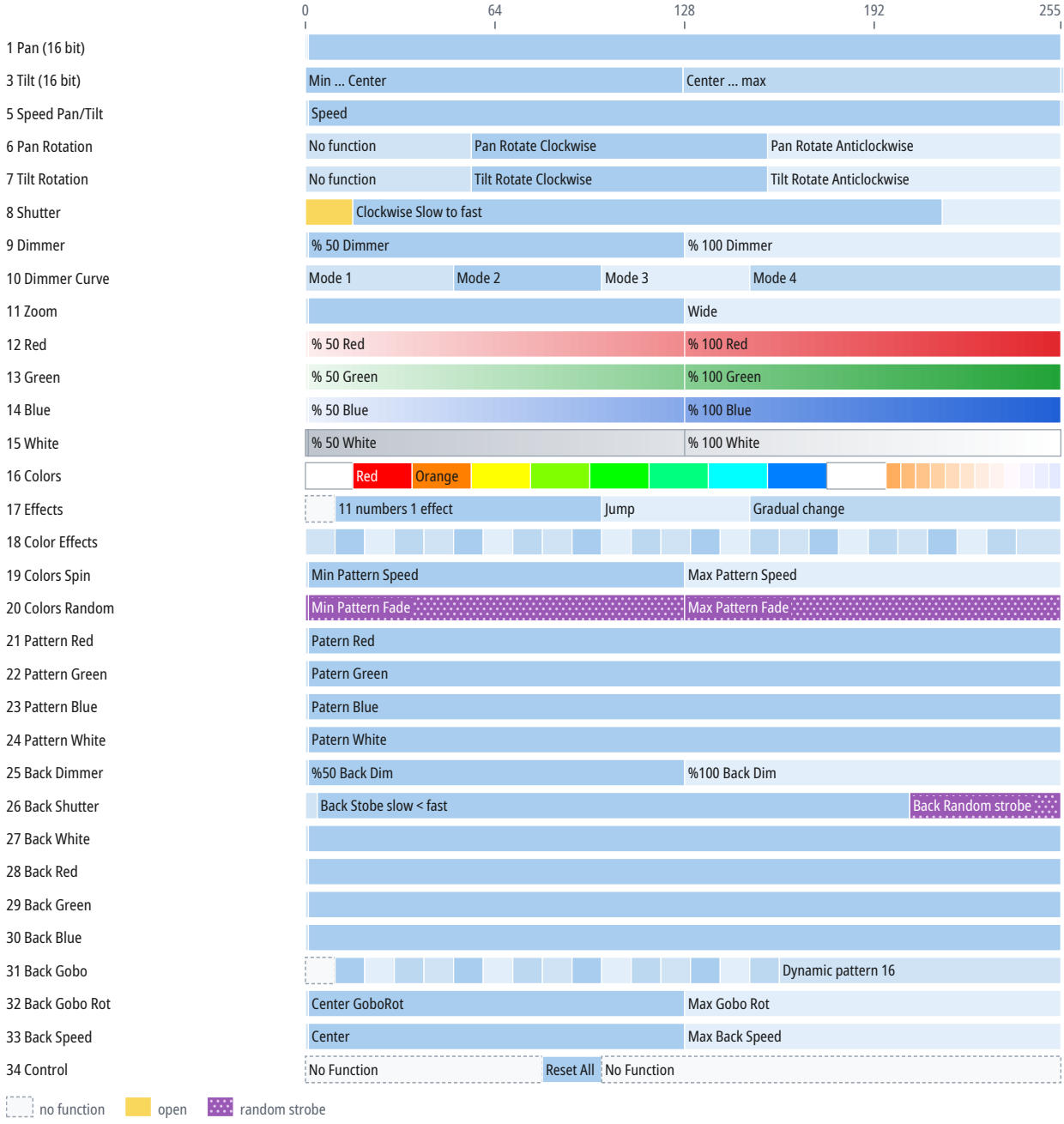
CH	Function	DMX	Description
39	Gobo Rotation	0–255	Pattern change speed
40	Gobo Rotation Speed	0–255	Pattern change fade
41	Pattern Red	0–255	Pattern with Red
42	Pattern Green	0–255	Pattern with green
43	Pattern Blue	0–255	Pattern with blue
44	Pattern White	0–255	Pattern with white
45	Back Dimmer	0	% 0 BackDimmer
		1–127	% 50 BackDimmer
		128–255	% 100 BackDimmer
46	Back Shutter	0–3	Led on
		4–203	Slow to fast
		204–255	Random strobe
47	Back White	0–255	
48	Back Red	0–255	
49	Back Green	0–255	
50	Back Blue	0–255	
51	Back Gobo	0–9	No function
		10–19	Dynamic pattern 1
		20–29	Dynamic pattern 2
		30–39	Dynamic pattern 3
		40–49	Dynamic pattern 4
		50–59	Dynamic pattern 5
		60–69	Dynamic pattern 6
		70–79	Dynamic pattern 7
		80–89	Dynamic pattern 8
		90–99	Dynamic pattern 9
		100–109	Dynamic pattern 10
		110–119	Dynamic pattern 11
		120–129	Dynamic pattern 12
		130–139	Dynamic pattern 13
		140–149	Dynamic pattern 14
		150–159	Dynamic pattern 15
		160–255	Dynamic pattern 16
52	Back Gobo Rot	0–255	Pattern Work with CH 51
53	Back Speed	0–9	No function
		10–132	Forward run fast to slow
		133–255	Reverse run slow to fast
54	Control	0–79	No function
		80–99	Reset All
		100–255	No function

Mode 34 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 8 Shutter at 0–15 “No Function”. The GDTF file gives these values for a console's Highlight function: CH 9 Dimmer 255, CH 12 Red 255, CH 13 Green 255, CH 14 Blue 255, CH 15 White 255.

Channel functions at a glance



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

CH	Function	DMX	Description
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		127–128	Center
		128–255	Center ... max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0	Fast
		1–254	Speed
		255	Slow
6	Pan Rotation		Same as CH 6 in the mode “54 CH” (p. 11)
7	Tilt Rotation		Same as CH 7 in the mode “54 CH” (p. 11)
8	Shutter		No Function
		0–15	No Function
		16–214	Clockwise Slow to fast
		215–255	Anticlockwise slow to fast
9	Dimmer		Same as CH 9 in the mode “54 CH” (p. 11)
10	Dimmer Curve	0–49	Mode 1
		50–99	Mode 2
		100–149	Mode 3
		150–255	Mode 4
11	Zoom		Same as CH 11 in the mode “54 CH” (p. 12)
12	Red	0	Min
		1–127	% 50 Red
		128–255	% 100 Red
13	Green	0	Min
		1–127	% 50 Green
		128–255	% 100 Green
14	Blue	0	Min
		1–127	% 50 Blue
		128–255	% 100 Blue
15	White	0	Min
		1–127	% 50 White
		128–255	% 100 White
16	Colors	0–15	Color 1: Open
		16–35	Red
		36–55	Orange
		56–75	R 0% G100 B up
		76–95	R 0%G100%B up
		96–115	R upG0%B100%
		116–135	R 100%G0%B down
		136–155	R 100%G up B up
		156–175	R100%G downB100%

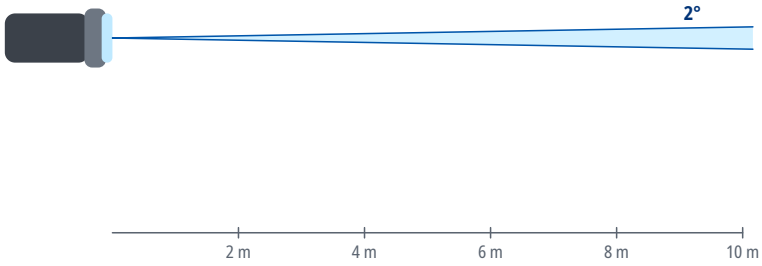
CH	Function	DMX	Description
16	Colors (continued)	176–195	R100G 100B100W100%
		196–200	2800
		201–205	3200
		206–210	3500
		211–215	4000
		216–220	4500
		221–225	5000
		226–230	5500
		231–235	6000
		236–240	6500
		241–245	7000
		246–250	7500
		251–255	8000
17	Effects	0–9	No Function
		10–99	11 numbers 1 effect
		100–149	Jump
		150–255	Gradual change
18	Color Effects	0–9	No Effect
		10–19	Static 1
		20–29	Static 2
		30–39	Static 3
		40–49	Static 4
		50–59	Static 5
		60–69	Static 6
		70–79	Static 7
		80–89	Static 8
		90–99	Static 9
		100–109	Static 10
		110–119	Static 11
		120–129	Static 12
		130–139	Static 13
		140–149	Static 14
		150–159	Static 15
		160–169	Static 16
		170–179	Dynamic 1
		180–189	Dynamic 2
		190–199	Dynamic 3
		200–209	Dynamic 4
		210–219	Dynamic 5
		220–229	Dynamic 6
		230–239	Dynamic 7
		240–255	Dynamic 8

CH	Function	DMX	Description
19	Colors Spin	0	Min
		1–127	Min Pattern Speed
		128–255	Max Pattern Speed
20	Colors Random	0	Min
		1–127	Min Pattern Fade
		128–255	Max Pattern Fade
21	Pattern Red	0	% 0
		1–255	Patern Red
22	Pattern Green	0	Min
		1–255	Patern Green
23	Pattern Blue	0	Min
		1–255	Patern Blue
24	Pattern White	0	Min
		1–255	Patern White
25	Back Dimmer	0	% 0 Back Dim
		1–127	%50 Back Dim
		128–255	%100 Back Dim
26	Back Shutter	0–3	Back Shutter On
		4–203	Back Stobe slow < fast
		204–255	Back Random strobe
27	Back White	0	% 0
		1–255	Back White
28	Back Red	0	% 0
		1–255	Back Red
29	Back Green	0	% 0
		1–255	Back Green
30	Back Blue	0	% 0
		1–255	Back Blue
31	Back Gobo		Same as CH 51 in the mode “54 CH” (p. 14)
32	Back Gobo Rot	0	Min
		1–127	Center GoboRot
		128–255	Max Gobo Rot
33	Back Speed	0	Min
		1–127	Center
		128–255	Max Back Speed
34	Control	0–79	No Function
		80–99	Reset All
		100–255	No Function

10 Technical specifications

Parameter	Value
Light source	LED
Pan	540°
Tilt	360°
Weight	17.5 kg
Ingress protection	IP20
Meaning of the IP code (IEC 60529)	Protected against contact with a finger and solid objects of 12.5 mm diameter and larger; no protection against water
Operating temperature	0 to 40 °C

Spot diameter



Distance	Ø 2°
2 m	0.07 m
4 m	0.14 m
6 m	0.21 m
8 m	0.28 m
10 m	0.35 m
15 m	0.52 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.