DMX REFERENCE

Scan Bar 10RGb

SCBAR10RGB

LaserWorld

Manufacturer	LaserWorld
GDTF file	Laserworld_Scan_Bar_10RGb_126213.gdtf
GDTF revision	Inital dev · 2026-01-26
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Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Installation 5
5 Connections 5
6 Operation 6
7 Functions at a glance 6
8 DMX channels 8
Mode 15 Channel 8
Mode 75 Channel 11
9 Technical specifications 26
10 Maintenance and cleaning 26
11 Troubleshooting 26
12 Disposal 27

1 About this manual

This document describes the SCBAR10RGB by LaserWorld. It was compiled from the GDTF file Laserworld_Scan_Bar_10RGb_126213.gdtf from the GDTF-Share library.

File revision: “Inital dev”.

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.

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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

DMX modes

Mode	Channels	Units in one universe	First start addresses
15 Channel	15	34	1, 16, 31, 46, ...
75 Channel	75	6	1, 76, 151, 226, ...

No light? Check these channels

- 15 Channel: CH 1 Dimmer above 254; CH 12 Shutter at 0 “No Strobe”
- 75 Channel: CH 1 Dimmer 1 above 254; CH 12 Shutter 1 at 0 “No Strobe”; CH 16 Dimmer 2 above 254; CH 27 Shutter 2 at 0 “No Strobe”; CH 31 Dimmer 3 above 254; CH 42 Shutter 3 at 0 “No Strobe”; CH 46 Dimmer 4 above 254; CH 57 Shutter 4 at 0 “No Strobe”; CH 61 Dimmer 5 above 254; CH 72 Shutter 5 at 0 “No Strobe”


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 Installation

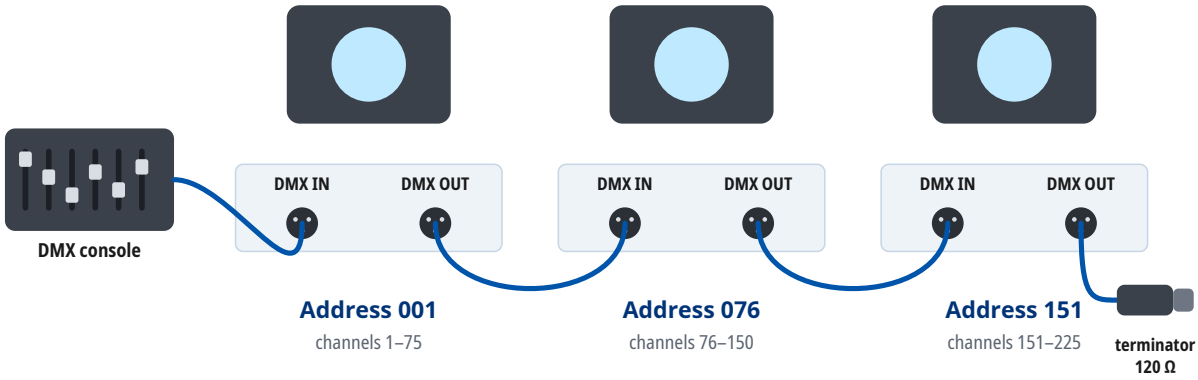
⚠ **WARNING**

- 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.
- 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 75 Channel: every unit occupies 75 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

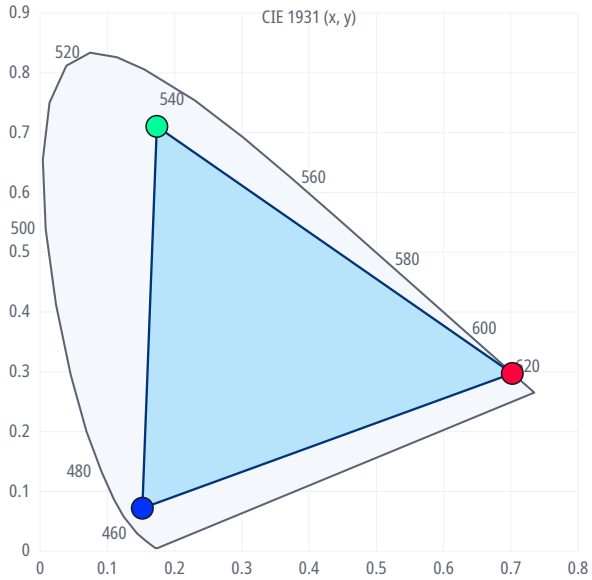
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “75 Channel”: 75.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “75 Channel”, you can use, for example, the start addresses 1, 76, 151, 226.
- 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

	15 Channel 15 channels	75 Channel 75 channels
Pan / Tilt	8, 10	10 channels (8–70)
Dimmer	1	5× (1–61)
Color mixing	2–4	15 channels (2–64)

LED colors and the colors they mix

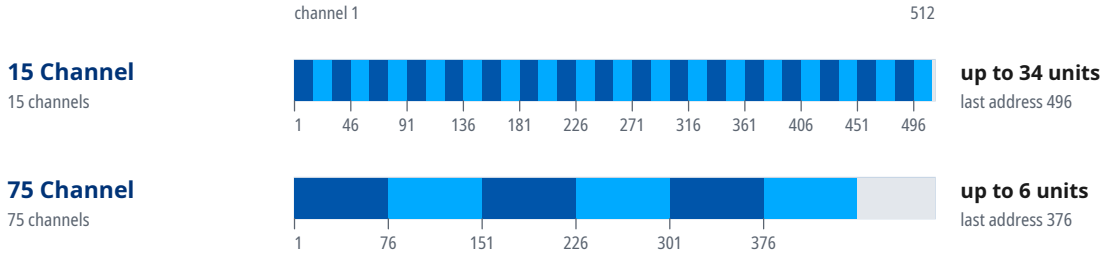


LED	x	y	nm
Red	0.702	0.297	626
Green	0.173	0.711	527
Blue	0.152	0.072	452

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 “75 Channel”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	376	11	U2 · 301	16	U3 · 226
2	76	7	U2 · 1	12	U2 · 376	17	U3 · 301
3	151	8	U2 · 76	13	U3 · 1	18	U3 · 376
4	226	9	U2 · 151	14	U3 · 76	19	U4 · 1
5	301	10	U2 · 226	15	U3 · 151	20	U4 · 76

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 15 Channel

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 1 Dimmer above 254; CH 12 Shutter at 0 “No Strobe”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 2 Red 255, CH 3 Green 255, CH 4 Blue 255.

CH	Function	DMX	Description
1	Dimmer	0–254	Closed
		255	Open
2	Red	0	Min
		1–254	Min … Max
		255	Max
3	Green	0	Min
		1–254	Min … Max
		255	Max
4	Blue	0	Min
		1–254	Min … Max
		255	Max
5	Laser Pattern	0	BO
		1–3	STATIC 1
		4–6	STATIC 2
		7–9	STATIC 3
		10–12	STATIC 4

CH	Function	DMX	Description
5	Laser Pattern (continued)	13–15	STATIC 5
		16–18	STATIC 6
		19–21	STATIC 7
		22–24	STATIC 8
		25–27	STATIC 9
		28–30	STATIC 10
		31–33	STATIC 11
		34–36	STATIC 12
		37–39	STATIC 13
		40–42	STATIC 14
		43–45	STATIC 15
		46–48	STATIC 16
		49–51	STATIC 17
		52–54	STATIC 18
		55–57	STATIC 19
		58–60	STATIC 20
		61–63	STATIC 21
		64–66	STATIC 22
		67–69	STATIC 23
		70–72	STATIC 24
		73–75	STATIC 25
		76–78	STATIC 26
		79–81	STATIC 27
		82–84	STATIC 28
		85–87	STATIC 29
		88–90	STATIC 30
		91–93	STATIC 31
		94–96	STATIC 32
		97–99	STATIC 33
		100–102	STATIC 34
		103–105	STATIC 35
		106–108	STATIC 36
		109–111	STATIC 37
		112–114	STATIC 38
		115–117	STATIC 39
		118–120	STATIC 40
		121–123	STATIC 41
		124–126	STATIC 42
		127–129	STATIC 43
		130–132	STATIC 44
		133–135	STATIC 45
		136–138	STATIC 46

CH	Function	DMX	Description
5	Laser Pattern (continued)	139–141	STATIC 47
		142–144	STATIC 48
		145–147	STATIC 49
		148–150	STATIC 50
		151–153	STATIC 51
		154–156	STATIC 52
		157–159	STATIC 53
		160–162	STATIC 54
		163–165	STATIC 55
		166–168	STATIC 56
		169–171	STATIC 57
		172–174	STATIC 58
		175–177	STATIC 59
		178–180	STATIC 60
		181–183	STATIC 61
		184–186	STATIC 62
		187–189	STATIC 63
		190–192	STATIC 64
		193–195	STATIC 65
		196–198	STATIC 66
		199–201	STATIC 67
		202–204	STATIC 68
		205–207	ANIMATED 1
		208–210	ANIMATED 2
		211–213	ANIMATED 3
		214–216	ANIMATED 4
		217–219	ANIMATED 5
		220–222	ANIMATED 6
		223–225	ANIMATED 7
		226–228	ANIMATED 8
		229–231	ANIMATED 9
		232–234	ANIMATED 10
		235–237	ANIMATED 11
		238–240	ANIMATED 12
		241–243	ANIMATED 13
		244–246	ANIMATED 14
		247–249	ANIMATED 15
		250–252	ANIMATED 16
		253–255	ANIMATED 17
6	Laser Pattern Size	0–126	Narrow
		127–254	Medium
		255	Wide

CH	Function	DMX	Description
7	Laser Pattern Speed	0–126	Slow
		127–254	Normal
		255	Fast
8	Pan	0–255	
9	Pan Fine	0–255	Fine adjustment of CH 8
10	Tilt	0–255	
11	Tilt Fine	0–255	Fine adjustment of CH 10
12	Shutter	0	No Strobe
		1–255	Strobe
13	Laser Rotation	0–127	Index
		127–192	ClockWise
		192–255	Laser Rotation Speed: stop
		255	Counter ClockWise
14	Laser Rotation Fine	0–255	Fine adjustment of CH 13
15	Laser Scan	0–62	Line Scan Speed: Slow
		63–127	Line Scan Speed: Fast
		128–191	Dot Scan Speed: Slow
		192–255	Dot Scan Speed: Fast

Mode 75 Channel

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 1 Dimmer 1 above 254; CH 12 Shutter 1 at 0 “No Strobe”; CH 16 Dimmer 2 above 254; CH 27 Shutter 2 at 0 “No Strobe”; CH 31 Dimmer 3 above 254; CH 42 Shutter 3 at 0 “No Strobe”; CH 46 Dimmer 4 above 254; CH 57 Shutter 4 at 0 “No Strobe”; CH 61 Dimmer 5 above 254; CH 72 Shutter 5 at 0 “No Strobe”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 1 255, CH 2 Red 1 255, CH 3 Green 1 255, CH 4 Blue 1 255, CH 16 Dimmer 2 255, CH 17 Red 2 255, CH 18 Green 2 255, CH 19 Blue 2 255, CH 31 Dimmer 3 255, CH 32 Red 3 255, CH 33 Green 3 255, CH 34 Blue 3 255, CH 46 Dimmer 4 255, CH 47 Red 4 255, CH 48 Green 4 255, CH 49 Blue 4 255, CH 61 Dimmer 5 255, CH 62 Red 5 255, CH 63 Green 5 255, CH 64 Blue 5 255.

CH	Function	DMX	Description
1	Dimmer 1	0–254	Closed
		255	Open
2	Red 1	0	Min
		1–254	Min ... Max
		255	Max
3	Green 1	0	Min
		1–254	Min ... Max
		255	Max
4	Blue 1	0	Min
		1–254	Min ... Max
		255	Max
5	Laser Pattern 1	0	BO

CH	Function	DMX	Description
5	Laser Pattern 1 (continued)	1–3	STATIC 1
		4–6	STATIC 2
		7–9	STATIC 3
		10–12	STATIC 4
		13–15	STATIC 5
		16–18	STATIC 6
		19–21	STATIC 7
		22–24	STATIC 8
		25–27	STATIC 9
		28–30	STATIC 10
		31–33	STATIC 11
		34–36	STATIC 12
		37–39	STATIC 13
		40–42	STATIC 14
		43–45	STATIC 15
		46–48	STATIC 16
		49–51	STATIC 17
		52–54	STATIC 18
		55–57	STATIC 19
		58–60	STATIC 20
		61–63	STATIC 21
		64–66	STATIC 22
		67–69	STATIC 23
		70–72	STATIC 24
		73–75	STATIC 25
		76–78	STATIC 26
		79–81	STATIC 27
		82–84	STATIC 28
		85–87	STATIC 29
		88–90	STATIC 30
		91–93	STATIC 31
		94–96	STATIC 32
		97–99	STATIC 33
		100–102	STATIC 34
		103–105	STATIC 35
		106–108	STATIC 36
		109–111	STATIC 37
		112–114	STATIC 38
		115–117	STATIC 39
		118–120	STATIC 40
		121–123	STATIC 41
		124–126	STATIC 42

CH	Function	DMX	Description
5	Laser Pattern 1 (continued)	127–129	STATIC 43
		130–132	STATIC 44
		133–135	STATIC 45
		136–138	STATIC 46
		139–141	STATIC 47
		142–144	STATIC 48
		145–147	STATIC 49
		148–150	STATIC 50
		151–153	STATIC 51
		154–156	STATIC 52
		157–159	STATIC 53
		160–162	STATIC 54
		163–165	STATIC 55
		166–168	STATIC 56
		169–171	STATIC 57
		172–174	STATIC 58
		175–177	STATIC 59
		178–180	STATIC 60
		181–183	STATIC 61
		184–186	STATIC 62
		187–189	STATIC 63
		190–192	STATIC 64
		193–195	STATIC 65
		196–198	STATIC 66
		199–201	STATIC 67
		202–204	STATIC 68
		205–207	ANIMATED 1
		208–210	ANIMATED 2
		211–213	ANIMATED 3
		214–216	ANIMATED 4
		217–219	ANIMATED 5
		220–222	ANIMATED 6
		223–225	ANIMATED 7
		226–228	ANIMATED 8
		229–231	ANIMATED 9
		232–234	ANIMATED 10
		235–237	ANIMATED 11
		238–240	ANIMATED 12
		241–243	ANIMATED 13
		244–246	ANIMATED 14
		247–249	ANIMATED 15
		250–252	ANIMATED 16

CH	Function	DMX	Description
5	Laser Pattern 1 (continued)	253–255	ANIMATED 17
6	Laser Pattern Size 1	0–126	Narrow
		127–254	Medium
		255	Wide
7	Laser Pattern Speed 1	0–126	Slow
		127–254	Normal
		255	Fast
8	Pan 1	0–255	
9	Pan 1 Fine	0–255	Fine adjustment of CH 8
10	Tilt 1	0–255	
11	Tilt 1 Fine	0–255	Fine adjustment of CH 10
12	Shutter 1	0	No Strobe
		1–255	Strobe
13	Laser Rotation 1	0–127	Index
		127–192	ClockWise
		192–255	Laser Rotation Speed: stop
		255	Counter ClockWise
14	Laser Rotation 1 Fine	0–255	Fine adjustment of CH 13
15	Laser Scan 1	0–62	Line Scan Speed: Slow
		63–127	Line Scan Speed: Fast
		128–191	Dot Scan Speed: Slow
		192–255	Dot Scan Speed: Fast
16	Dimmer 2	0–254	Closed
		255	Open
17	Red 2	0	Min
		1–254	Min ... Max
		255	Max
18	Green 2	0	Min
		1–254	Min ... Max
		255	Max
19	Blue 2	0	Min
		1–254	Min ... Max
		255	Max
20	Laser Pattern 2	0	BO
		1–3	STATIC 1
		4–6	STATIC 2
		7–9	STATIC 3
		10–12	STATIC 4
		13–15	STATIC 5
		16–18	STATIC 6
		19–21	STATIC 7
		22–24	STATIC 8

CH	Function	DMX	Description
20	Laser Pattern 2 (continued)	25–27	STATIC 9
		28–30	STATIC 10
		31–33	STATIC 11
		34–36	STATIC 12
		37–39	STATIC 13
		40–42	STATIC 14
		43–45	STATIC 15
		46–48	STATIC 16
		49–51	STATIC 17
		52–54	STATIC 18
		55–57	STATIC 19
		58–60	STATIC 20
		61–63	STATIC 21
		64–66	STATIC 22
		67–69	STATIC 23
		70–72	STATIC 24
		73–75	STATIC 25
		76–78	STATIC 26
		79–81	STATIC 27
		82–84	STATIC 28
		85–87	STATIC 29
		88–90	STATIC 30
		91–93	STATIC 31
		94–96	STATIC 32
		97–99	STATIC 33
		100–102	STATIC 34
		103–105	STATIC 35
		106–108	STATIC 36
		109–111	STATIC 37
		112–114	STATIC 38
		115–117	STATIC 39
		118–120	STATIC 40
		121–123	STATIC 41
		124–126	STATIC 42
		127–129	STATIC 43
		130–132	STATIC 44
		133–135	STATIC 45
		136–138	STATIC 46
		139–141	STATIC 47
		142–144	STATIC 48
		145–147	STATIC 49
		148–150	STATIC 50

CH	Function	DMX	Description
20	Laser Pattern 2 (continued)	151–153	STATIC 51
		154–156	STATIC 52
		157–159	STATIC 53
		160–162	STATIC 54
		163–165	STATIC 55
		166–168	STATIC 56
		169–171	STATIC 57
		172–174	STATIC 58
		175–177	STATIC 59
		178–180	STATIC 60
		181–183	STATIC 61
		184–186	STATIC 62
		187–189	STATIC 63
		190–192	STATIC 64
		193–195	STATIC 65
		196–198	STATIC 66
		199–201	STATIC 67
		202–204	STATIC 68
		205–207	ANIMATED 1
		208–210	ANIMATED 2
		211–213	ANIMATED 3
		214–216	ANIMATED 4
		217–219	ANIMATED 5
		220–222	ANIMATED 6
		223–225	ANIMATED 7
		226–228	ANIMATED 8
		229–231	ANIMATED 9
		232–234	ANIMATED 10
		235–237	ANIMATED 11
		238–240	ANIMATED 12
		241–243	ANIMATED 13
		244–246	ANIMATED 14
		247–249	ANIMATED 15
		250–252	ANIMATED 16
		253–255	ANIMATED 17
21	Laser Pattern Size 2	0–126	Narrow
		127–254	Medium
		255	Wide
22	Laser Pattern Speed 2	0–126	Slow
		127–254	Normal
		255	Fast
23	Pan 2	0–255	

CH	Function	DMX	Description
24	Pan 2 Fine	0–255	Fine adjustment of CH 23
25	Tilt 2	0–255	
26	Tilt 2 Fine	0–255	Fine adjustment of CH 25
27	Shutter 2	0	No Strobe
		1–255	Strobe
28	Laser Rotation 2	0–127	Index
		127–192	ClockWise
		192–255	Laser Rotation Speed: stop
		255	Counter ClockWise
29	Laser Rotation 2 Fine	0–255	Fine adjustment of CH 28
30	Laser Scan 2	0–62	Line Scan Speed: Slow
		63–127	Line Scan Speed: Fast
		128–191	Dot Scan Speed: Slow
		192–255	Dot Scan Speed: Fast
31	Dimmer 3	0–254	Closed
		255	Open
32	Red 3	0	Min
		1–254	Min ... Max
		255	Max
33	Green 3	0	Min
		1–254	Min ... Max
		255	Max
34	Blue 3	0	Min
		1–254	Min ... Max
		255	Max
35	Laser Pattern 3	0	BO
		1–3	STATIC 1
		4–6	STATIC 2
		7–9	STATIC 3
		10–12	STATIC 4
		13–15	STATIC 5
		16–18	STATIC 6
		19–21	STATIC 7
		22–24	STATIC 8
		25–27	STATIC 9
		28–30	STATIC 10
		31–33	STATIC 11
		34–36	STATIC 12
		37–39	STATIC 13
		40–42	STATIC 14
		43–45	STATIC 15
		46–48	STATIC 16

CH	Function	DMX	Description
35	Laser Pattern 3 (continued)	49–51	STATIC 17
		52–54	STATIC 18
		55–57	STATIC 19
		58–60	STATIC 20
		61–63	STATIC 21
		64–66	STATIC 22
		67–69	STATIC 23
		70–72	STATIC 24
		73–75	STATIC 25
		76–78	STATIC 26
		79–81	STATIC 27
		82–84	STATIC 28
		85–87	STATIC 29
		88–90	STATIC 30
		91–93	STATIC 31
		94–96	STATIC 32
		97–99	STATIC 33
		100–102	STATIC 34
		103–105	STATIC 35
		106–108	STATIC 36
		109–111	STATIC 37
		112–114	STATIC 38
		115–117	STATIC 39
		118–120	STATIC 40
		121–123	STATIC 41
		124–126	STATIC 42
		127–129	STATIC 43
		130–132	STATIC 44
		133–135	STATIC 45
		136–138	STATIC 46
		139–141	STATIC 47
		142–144	STATIC 48
		145–147	STATIC 49
		148–150	STATIC 50
		151–153	STATIC 51
		154–156	STATIC 52
		157–159	STATIC 53
		160–162	STATIC 54
		163–165	STATIC 55
		166–168	STATIC 56
		169–171	STATIC 57
		172–174	STATIC 58

CH	Function	DMX	Description
35	Laser Pattern 3 (continued)	175–177	STATIC 59
		178–180	STATIC 60
		181–183	STATIC 61
		184–186	STATIC 62
		187–189	STATIC 63
		190–192	STATIC 64
		193–195	STATIC 65
		196–198	STATIC 66
		199–201	STATIC 67
		202–204	STATIC 68
		205–207	ANIMATED 1
		208–210	ANIMATED 2
		211–213	ANIMATED 3
		214–216	ANIMATED 4
		217–219	ANIMATED 5
		220–222	ANIMATED 6
		223–225	ANIMATED 7
		226–228	ANIMATED 8
		229–231	ANIMATED 9
		232–234	ANIMATED 10
		235–237	ANIMATED 11
		238–240	ANIMATED 12
		241–243	ANIMATED 13
		244–246	ANIMATED 14
		247–249	ANIMATED 15
		250–252	ANIMATED 16
		253–255	ANIMATED 17
36	Laser Pattern Size 3	0–126	Narrow
		127–254	Medium
		255	Wide
37	Laser Pattern Speed 3	0–126	Slow
		127–254	Normal
		255	Fast
38	Pan 3	0–255	
39	Pan 3 Fine	0–255	Fine adjustment of CH 38
40	Tilt 3	0–255	
41	Tilt 3 Fine	0–255	Fine adjustment of CH 40
42	Shutter 3	0	No Strobe
		1–255	Strobe
43	Laser Rotation 3	0–127	Index
		127–192	ClockWise
		192–255	Laser Rotation Speed: stop

CH	Function	DMX	Description
43	Laser Rotation 3 (continued)	255	Counter ClockWise
44	Laser Rotation 3 Fine	0–255	Fine adjustment of CH 43
45	Laser Scan 3	0–62	Line Scan Speed: Slow
		63–127	Line Scan Speed: Fast
		128–191	Dot Scan Speed: Slow
		192–255	Dot Scan Speed: Fast
46	Dimmer 4	0–254	Closed
		255	Open
47	Red 4	0	Min
		1–254	Min ... Max
		255	Max
48	Green 4	0	Min
		1–254	Min ... Max
		255	Max
49	Blue 4	0	Min
		1–254	Min ... Max
		255	Max
50	Laser Pattern 4	0	BO
		1–3	STATIC 1
		4–6	STATIC 2
		7–9	STATIC 3
		10–12	STATIC 4
		13–15	STATIC 5
		16–18	STATIC 6
		19–21	STATIC 7
		22–24	STATIC 8
		25–27	STATIC 9
		28–30	STATIC 10
		31–33	STATIC 11
		34–36	STATIC 12
		37–39	STATIC 13
		40–42	STATIC 14
		43–45	STATIC 15
		46–48	STATIC 16
		49–51	STATIC 17
		52–54	STATIC 18
		55–57	STATIC 19
		58–60	STATIC 20
		61–63	STATIC 21
		64–66	STATIC 22
		67–69	STATIC 23
		70–72	STATIC 24

CH	Function	DMX	Description
50	Laser Pattern 4 (continued)	73–75	STATIC 25
		76–78	STATIC 26
		79–81	STATIC 27
		82–84	STATIC 28
		85–87	STATIC 29
		88–90	STATIC 30
		91–93	STATIC 31
		94–96	STATIC 32
		97–99	STATIC 33
		100–102	STATIC 34
		103–105	STATIC 35
		106–108	STATIC 36
		109–111	STATIC 37
		112–114	STATIC 38
		115–117	STATIC 39
		118–120	STATIC 40
		121–123	STATIC 41
		124–126	STATIC 42
		127–129	STATIC 43
		130–132	STATIC 44
		133–135	STATIC 45
		136–138	STATIC 46
		139–141	STATIC 47
		142–144	STATIC 48
		145–147	STATIC 49
		148–150	STATIC 50
		151–153	STATIC 51
		154–156	STATIC 52
		157–159	STATIC 53
		160–162	STATIC 54
		163–165	STATIC 55
		166–168	STATIC 56
		169–171	STATIC 57
		172–174	STATIC 58
		175–177	STATIC 59
		178–180	STATIC 60
		181–183	STATIC 61
		184–186	STATIC 62
		187–189	STATIC 63
		190–192	STATIC 64
		193–195	STATIC 65
		196–198	STATIC 66

CH	Function	DMX	Description
50	Laser Pattern 4 (continued)	199–201	STATIC 67
		202–204	STATIC 68
		205–207	ANIMATED 1
		208–210	ANIMATED 2
		211–213	ANIMATED 3
		214–216	ANIMATED 4
		217–219	ANIMATED 5
		220–222	ANIMATED 6
		223–225	ANIMATED 7
		226–228	ANIMATED 8
		229–231	ANIMATED 9
		232–234	ANIMATED 10
		235–237	ANIMATED 11
		238–240	ANIMATED 12
		241–243	ANIMATED 13
		244–246	ANIMATED 14
		247–249	ANIMATED 15
		250–252	ANIMATED 16
		253–255	ANIMATED 17
51	Laser Pattern Size 4	0–126	Narrow
		127–254	Medium
		255	Wide
52	Laser Pattern Speed 4	0–126	Slow
		127–254	Normal
		255	Fast
53	Pan 4	0–255	
54	Pan 4 Fine	0–255	Fine adjustment of CH 53
55	Tilt 4	0–255	
56	Tilt 4 Fine	0–255	Fine adjustment of CH 55
57	Shutter 4	0	No Strobe
		1–255	Strobe
58	Laser Rotation 4	0–127	Index
		127–192	ClockWise
		192–255	Laser Rotation Speed: stop
		255	Counter ClockWise
59	Laser Rotation 4 Fine	0–255	Fine adjustment of CH 58
60	Laser Scan 4	0–62	Line Scan Speed: Slow
		63–127	Line Scan Speed: Fast
		128–191	Dot Scan Speed: Slow
		192–255	Dot Scan Speed: Fast
61	Dimmer 5	0–254	Closed
		255	Open

CH	Function	DMX	Description
62	Red 5	0	Min
		1–254	Min … Max
		255	Max
63	Green 5	0	Min
		1–254	Min … Max
		255	Max
64	Blue 5	0	Min
		1–254	Min … Max
		255	Max
65	Laser Pattern 5	0	BO
		1–3	STATIC 1
		4–6	STATIC 2
		7–9	STATIC 3
		10–12	STATIC 4
		13–15	STATIC 5
		16–18	STATIC 6
		19–21	STATIC 7
		22–24	STATIC 8
		25–27	STATIC 9
		28–30	STATIC 10
		31–33	STATIC 11
		34–36	STATIC 12
		37–39	STATIC 13
		40–42	STATIC 14
		43–45	STATIC 15
		46–48	STATIC 16
		49–51	STATIC 17
		52–54	STATIC 18
		55–57	STATIC 19
		58–60	STATIC 20
		61–63	STATIC 21
		64–66	STATIC 22
		67–69	STATIC 23
		70–72	STATIC 24
		73–75	STATIC 25
		76–78	STATIC 26
		79–81	STATIC 27
		82–84	STATIC 28
		85–87	STATIC 29
		88–90	STATIC 30
		91–93	STATIC 31
		94–96	STATIC 32

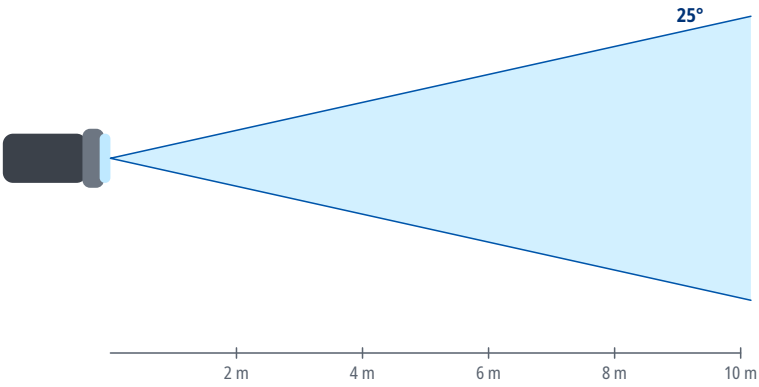
CH	Function	DMX	Description
65	Laser Pattern 5 (continued)	97–99	STATIC 33
		100–102	STATIC 34
		103–105	STATIC 35
		106–108	STATIC 36
		109–111	STATIC 37
		112–114	STATIC 38
		115–117	STATIC 39
		118–120	STATIC 40
		121–123	STATIC 41
		124–126	STATIC 42
		127–129	STATIC 43
		130–132	STATIC 44
		133–135	STATIC 45
		136–138	STATIC 46
		139–141	STATIC 47
		142–144	STATIC 48
		145–147	STATIC 49
		148–150	STATIC 50
		151–153	STATIC 51
		154–156	STATIC 52
		157–159	STATIC 53
		160–162	STATIC 54
		163–165	STATIC 55
		166–168	STATIC 56
		169–171	STATIC 57
		172–174	STATIC 58
		175–177	STATIC 59
		178–180	STATIC 60
		181–183	STATIC 61
		184–186	STATIC 62
		187–189	STATIC 63
		190–192	STATIC 64
		193–195	STATIC 65
		196–198	STATIC 66
		199–201	STATIC 67
		202–204	STATIC 68
		205–207	ANIMATED 1
		208–210	ANIMATED 2
		211–213	ANIMATED 3
		214–216	ANIMATED 4
		217–219	ANIMATED 5
		220–222	ANIMATED 6

CH	Function	DMX	Description
65	Laser Pattern 5 (continued)	223–225	ANIMATED 7
		226–228	ANIMATED 8
		229–231	ANIMATED 9
		232–234	ANIMATED 10
		235–237	ANIMATED 11
		238–240	ANIMATED 12
		241–243	ANIMATED 13
		244–246	ANIMATED 14
		247–249	ANIMATED 15
		250–252	ANIMATED 16
		253–255	ANIMATED 17
66	Laser Pattern Size 5	0–126	Narrow
		127–254	Medium
		255	Wide
67	Laser Pattern Speed 5	0–126	Slow
		127–254	Normal
		255	Fast
68	Pan 5	0–255	
69	Pan 5 Fine	0–255	Fine adjustment of CH 68
70	Tilt 5	0–255	
71	Tilt 5 Fine	0–255	Fine adjustment of CH 70
72	Shutter 5	0	No Strobe
		1–255	Strobe
73	Laser Rotation 5	0–127	Index
		127–192	ClockWise
		192–255	Laser Rotation Speed: stop
		255	Counter ClockWise
74	Laser Rotation 5 Fine	0–255	Fine adjustment of CH 73
75	Laser Scan 5	0–62	Line Scan Speed: Slow
		63–127	Line Scan Speed: Fast
		128–191	Dot Scan Speed: Slow
		192–255	Dot Scan Speed: Fast

9 Technical specifications

Parameter	Value
Light source	LED
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.

Problem	Remedy
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.

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.