DMX REFERENCE

XA 1000 BSWF IP LT

ACME LYRA(XA 1000 BSWF IP)

ACME



Manufacturer	ACME
GDTF file	ACME_XA_1000_BSWF_IP_LT_169037.gdtf
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Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 5
6 Connections 5
7 Operation 6
8 Functions at a glance 7
9 DMX channels 9
Mode 1 45 DMX 10
Mode 2 35 DMX 17
Mode 3 36 DMX 22
Mode 4 26 DMX 24
Mode 5 40 DMX 26
10 Technical specifications 28
11 Maintenance and cleaning 29
12 Troubleshooting 29
13 Disposal 30

1 About this manual

This document describes the ACME LYRA(XA 1000 BSWF IP) by ACME. It was compiled from the GDTF file ACME_XA_1000_BSWF_IP_LT_169037.gdtf from the GDTF-Share library.

File revision: “XA 1000 BSWF IP LT”.

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 ACME; 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	40 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 45 DMX	45	11	1, 46, 91, 136, ...
Mode 2 35 DMX	30	17	1, 31, 61, 91, ...
Mode 3 36 DMX	31	16	1, 32, 63, 94, ...
Mode 4 26 DMX	22	23	1, 23, 45, 67, ...
Mode 5 40 DMX	40	12	1, 41, 81, 121, ...

No light? Check these channels

- Mode 1 45 DMX: CH 33 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 34 Dimmer above 0
- Mode 2 35 DMX: CH 27 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 28 Dimmer above 0
- Mode 3 36 DMX: CH 19 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 20 Dimmer above 0
- Mode 4 26 DMX: CH 19 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 20 Dimmer above 0
- Mode 5 40 DMX: CH 28 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 29 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

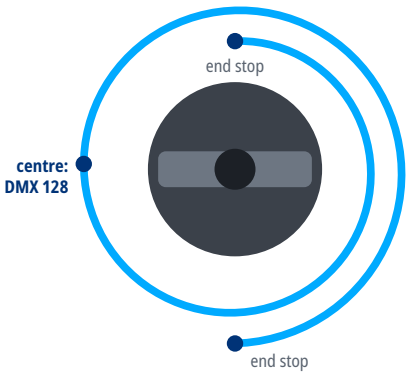
- The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
- Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, 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

Range of movement

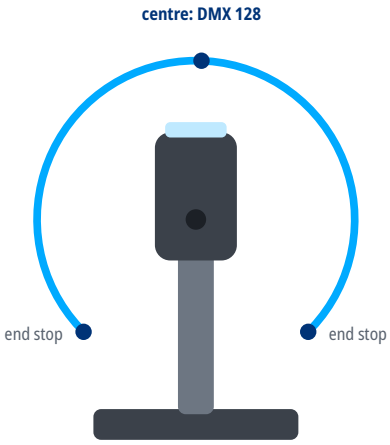
Pan 540°

top view



Tilt 270°

side view



5 Installation

⚠ WARNING

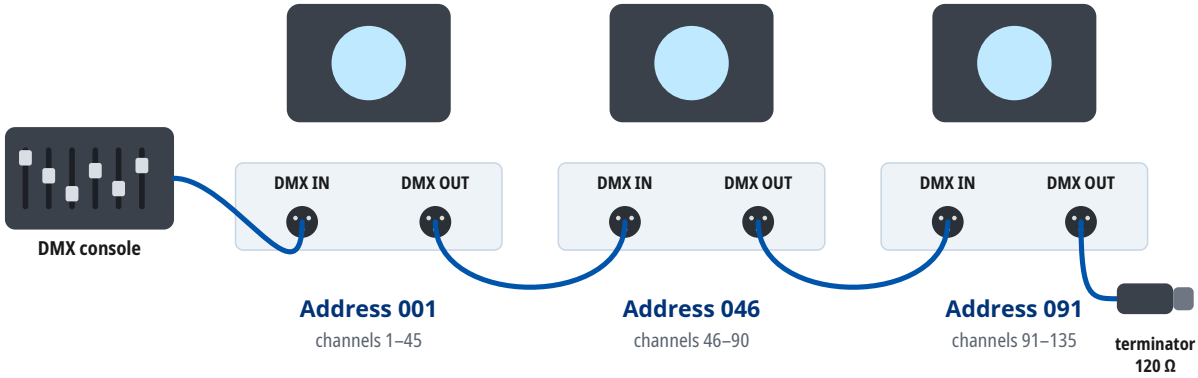
- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 40 kg.
- 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 1 45 DMX: every unit occupies 45 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

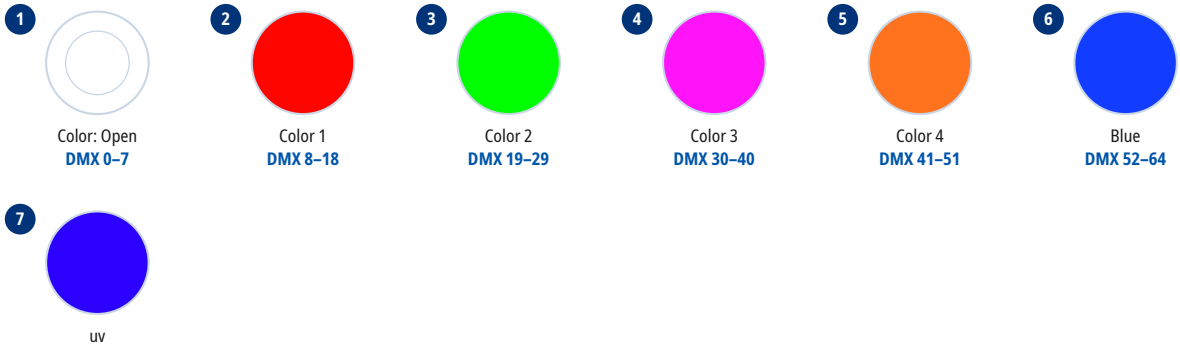
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Mode 1 45 DMX”: 45.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “Mode 1 45 DMX”, you can use, for example, the start addresses 1, 46, 91, 136.
- 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

	Mode 1 45 DMX 45 channels	Mode 2 35 DMX 30 channels	Mode 3 36 DMX 31 channels	Mode 4 26 DMX 22 channels	Mode 5 40 DMX 40 channels
Pan / Tilt	1, 3	1, 3	1, 3	1, 3	1, 3
Dimmer	34	28	20	20	29
Shutter / strobe	33	27	19	19	28
Color mixing	7, 9, 11	6–8	6–8	6–8	6–8
Color temperature	13	9	9	9	9
Color wheel	14, 15	10	10	10	10
Gobo wheel	16, 19	11, 13			11, 14
Gobo rotation	17	12			12
Prism	23–26	16–19			17–20
Frost	27, 28	21, 22	13, 14	13, 14	22, 23
Zoom	29	23	15	15	24
Focus	31	25	17	17	26
Iris	22	15	11	11	16
Animation wheel	20, 21	14			15

Color wheel 1



1 Color: Open — DMX 0–7
2 Color 1 — DMX 8–18
3 Color 2 — DMX 19–29
4 Color 3 — DMX 30–40
5 Color 4 — DMX 41–51
6 Blue — DMX 52–64
7 uv

Gobo wheel 1



1 Gobo: Open — DMX 0–7
2 Gobo 1 — DMX 8–14
3 Gobo 2 — DMX 15–21
4 Gobo 3 — DMX 22–28
5 Gobo 4 — DMX 29–35
6 Gobo 5 — DMX 36–42
7 Gobo 6 — DMX 43–49
8 Gobo 7 — DMX 50–56
9 Gobo 8 — DMX 57–64
10 Gobo 9

Gobo wheel 2

1
Gobo: Open
DMX 0–7

2 
Gobo 1
DMX 8–14

3 
Gobo 2
DMX 15–21

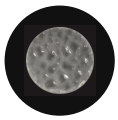
4 
Gobo 3
DMX 22–28

5 
Gobo 4
DMX 29–35

6 
Gobo 5
DMX 36–42

7 
Gobo 6
DMX 43–49

8 
Gobo 7
DMX 50–56

9 
Gobo 8
DMX 57–64

Animation wheel

1
Open

2 
Animation 1

Prism 1

1
Open
DMX 0–8

2 
4 facets
Prism 1
DMX 8–255

Prism 2

1
Open
DMX 0–8

2 
4 facets
Prism2
DMX 8–255

Color wheel 2

1
Color: Open
DMX 0–7

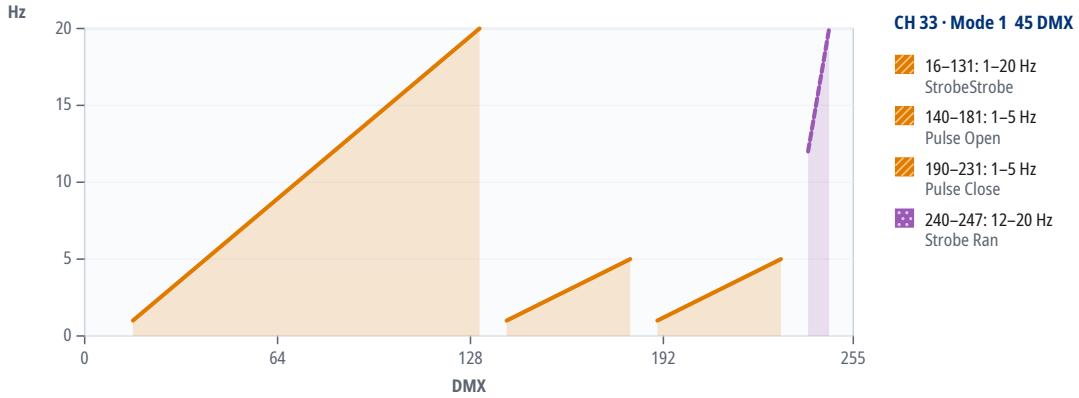
2
CTB
DMX 8–21

3
Color1
DMX 22–35

4 
Color 2
DMX 36–48

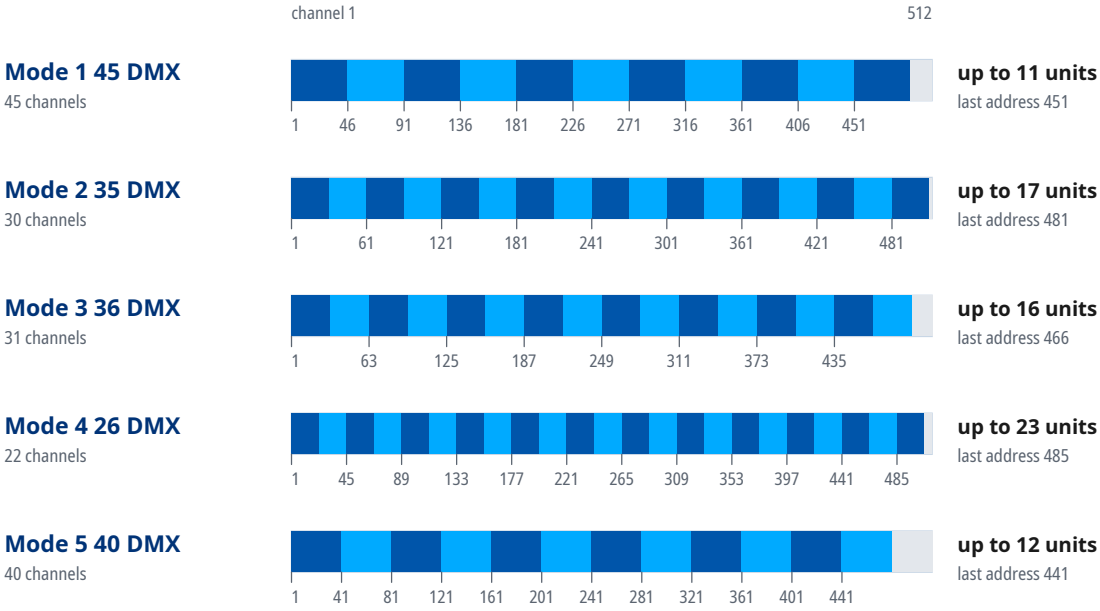
5
CRI
DMX 49–64

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 1 45 DMX”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	226	11	451	16	U2 · 181
2	46	7	271	12	U2 · 1	17	U2 · 226
3	91	8	316	13	U2 · 46	18	U2 · 271
4	136	9	361	14	U2 · 91	19	U2 · 316
5	181	10	406	15	U2 · 136	20	U2 · 361

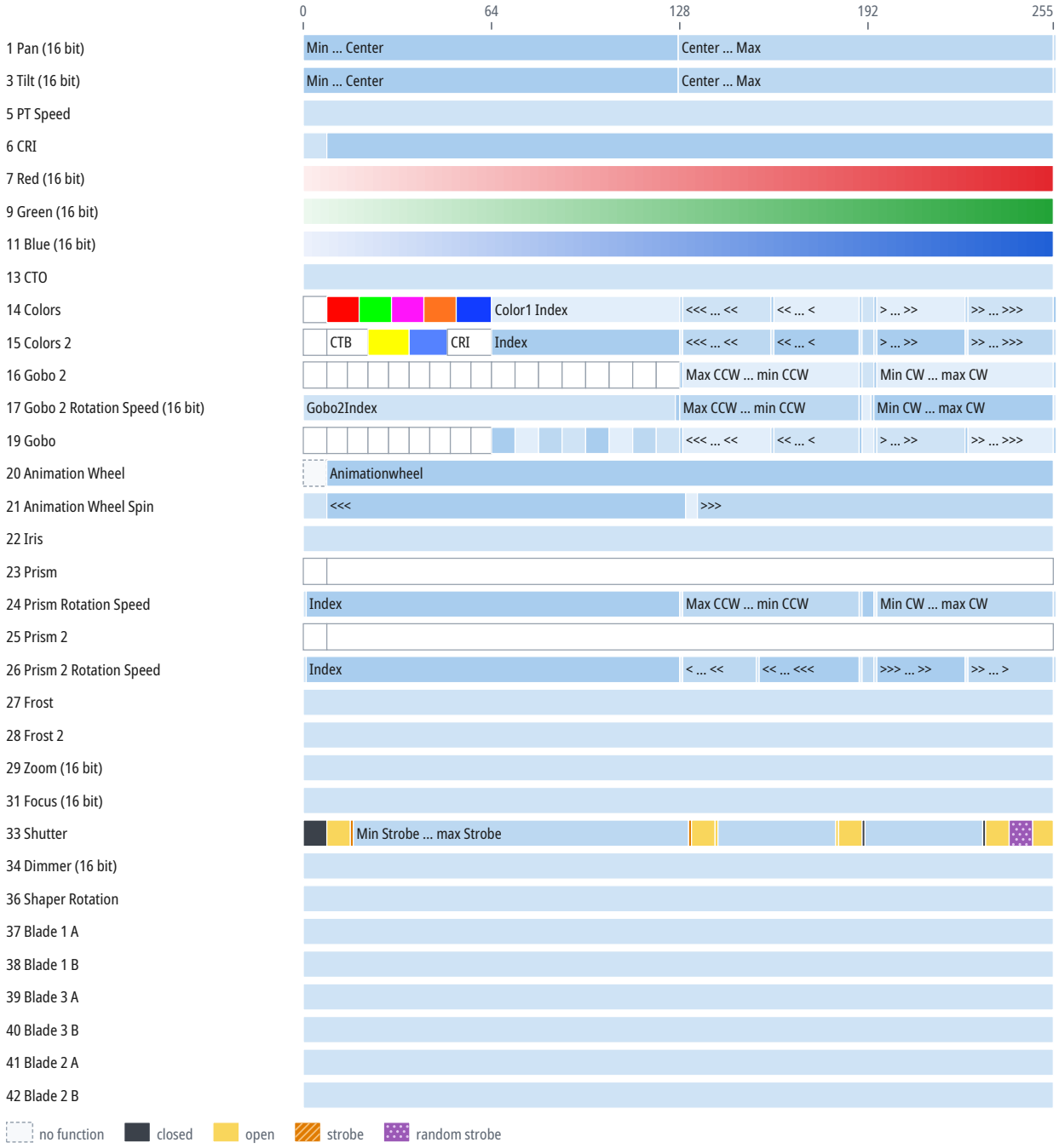
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 1 45 DMX

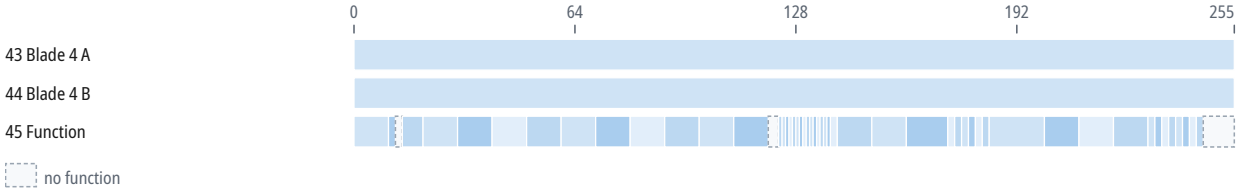
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 33 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 34 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Red 255, CH 9 Green 255, CH 11 Blue 255, CH 33 Shutter 12, CH 34 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min … Center
		127	Center
		128–255	Center … Max
		255	Max
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	PT Speed	0–255	
6	CRI	0–7	Open
		8–255	CRI
7	Red	0–255	
8	Red Fine	0–255	Fine adjustment of CH 7
9	Green	0–255	
10	Green Fine	0–255	Fine adjustment of CH 9
11	Blue	0–255	
12	Blue Fine	0–255	Fine adjustment of CH 11
13	CTO	0–255	6500–2800 K
14	Colors	0–7	Color: Open
		8–18	Color 1
		19–29	Color 2
		30–40	Color 3
		41–51	Color 4
		52–63	Color 5
		64–127	Color1 Index
		128	<<<
		129–158	<<< … <<
		159	<<
		160–188	<< … <
		189	<
		190–193	Stop
		194	>
		195–224	> … >>
		225	>>

CH	Function	DMX	Description
14	Colors (continued)	226–254	>> ... >>>
		255	>>>
15	Colors 2	0–7	Color: Open
		8–21	CTB
		22–35	Color1
		36–48	Color 2
		49–63	CRI
		64–127	Index
		128	<<<
		129–158	<<< ... <<
		159	<<
		160–188	<< ... <
		189	<
		190–193	Stop
		194	>
		195–224	> ... >>
		225	>>
		226–254	>> ... >>>
		255	>>>
16	Gobo 2	0–7	Gobo: Open
		8–14	Gobo 1
		15–21	Gobo 2
		22–28	Gobo 3
		29–35	Gobo 4
		36–42	Gobo 5
		43–49	Gobo 6
		50–56	Gobo 7
		57–63	Gobo 8
		64–71	Gobo1Shake
		72–79	Gobo 2 Shake
		80–87	Gobo3 Shake
		88–95	Gobo4 Shake
		96–103	Gobo5 Shake
		104–111	Gobo6 Shake
		112–119	Gobo7 Shake
		120–127	Gobo8 Shake
		128	Max CCW
		129–188	Max CCW ... min CCW
		189	Min CCW
		190–193	Stop
		194	Min CW

CH	Function	DMX	Description
16	Gobo 2 (continued)	195–254	Min CW ... max CW
		255	Max CW
17	Gobo 2 Rotation Speed	0–127	Gobo2Index
		127–128	Index
		128–189	Max CCW ... min CCW
		189	Min CCW
		189–190	Gobo 2 Rot 1
		190–194	Stop
		194–255	Min CW ... max CW
		255	Max CW
18	Gobo 2 Rotation Speed Fine	0–255	Fine adjustment of CH 17
19	Gobo	0–7	Gobo: Open
		8–14	Gobo 1
		15–21	Gobo 2
		22–28	Gobo 3
		29–35	Gobo 4
		36–42	Gobo 5
		43–49	Gobo 6
		50–56	Gobo 7
		57–63	Gobo 8
		64–71	Gobo 1 Shake
		72–79	Gobo 2 Shake
		80–87	Gobo 3 Shake
		88–95	Gobo 4 Shake
		96–103	Gobo 5 Shake
		104–111	Gobo 6 Shake
		112–119	Gobo 7 Shake
		120–127	Gobo 8 Shake
		128	<<<
		129–158	<<< ... <<
		159	<<
		160–188	<< ... <
		189	<
		190–193	Stop
		194	>
		195–224	> ... >>
		225	>>
		226–254	>> ... >>>
		255	>>>
20	Animation Wheel	0–7	OFF
		8–255	Animationwheel

CH	Function	DMX	Description
21	Animation Wheel Spin	0–7	Open
		8–129	<<< (180–1 °/s)
		130–133	Stop
		134–255	>>> (1–180 °/s)
22	Iris	0–255	
23	Prism	0–7	Open
		8–255	Prism 1
24	Prism Rotation Speed	0	Index: Open
		1–127	Index
		128	Max CCW
		129–188	Max CCW ... min CCW
		189	Min CCW
		190–193	Stop
		194	Min CW
		195–254	Min CW ... max CW
		255	Max CW
25	Prism 2	0–7	Prism: Open
		8–255	Prism2
26	Prism 2 Rotation Speed	0	Index: Open
		1–127	Index
		128	<
		129–153	< ... <<
		154	<<
		155–188	<< ... <<<
		189	<<<
		190–193	Stop
		194	>>>
		195–224	>>> ... >>
		225	>>
		226–254	>> ... >
		255	>
27	Frost	0–255	
28	Frost 2	0–255	
29	Zoom	0–255	50–6°
30	Zoom Fine	0–255	Fine adjustment of CH 29
31	Focus	0–255	
32	Focus Fine	0–255	Fine adjustment of CH 31
33	Shutter	0–7	Closed
		8–15	Open
		16	Min Strobe
		17–130	Min Strobe ... max Strobe
		131	Max Strobe

CH	Function	DMX	Description
33	Shutter (continued)	132–139	Open 2
		140	Min Pulse Open
		141–180	Min Pulse Open ... max Pulse Open
		181	Max Pulse Open
		182–189	Open 3
		190	Min Pulse Close
		191–230	Min Pulse Close ... max Pulse Close
		231	Max Pulse Close
		232–239	Open 4
		240–247	Strobe Ran (12–20 Hz)
		248–255	Open 5
34	Dimmer	0–255	
35	Dimmer Fine	0–255	Fine adjustment of CH 34
36	Shaper Rotation	0–255	
37	Blade 1 A	0–255	
38	Blade 1 B	0–255	
39	Blade 3 A	0–255	
40	Blade 3 B	0–255	
41	Blade 2 A	0–255	
42	Blade 2 B	0–255	
43	Blade 4 A	0–255	
44	Blade 4 B	0–255	
45	Function	0–9	No function
		10–11	Defog: On
		12–13	Defog: Off
		14–19	Blade Mode1
		20–29	Blade Mode2
		30–39	Dim Cure Square Law
		40–49	Dim curve Inv Square Law
		50–59	Dim curve Liner
		60–69	Dim curve S
		70–79	Auto
		80–89	Quiet
		90–99	Light Source Frequency Setting
		100–109	Enable
		110–119	Disable
		120–122	No Function
		123	900Hz
		124	1000Hz
		125	1100Hz
		126	1200Hz
		127	1300Hz

CH	Function	DMX	Description
45	Function (continued)	128	1400Hz
		129	1500Hz
		130	2500Hz
		131	4000Hz
		132	5000Hz
		133	6000Hz
		134	10000Hz
		135	15000hz
		136	20000hz
		137	25000hz
		138–139	No Function 1
		140–149	PT Reset
		150–159	Eff Reset
		160–171	No Function 2
		172–173	Focus Compensate Disable
		174–175	Focus Compensate Near(10m)
		176–177	Focus Compensate Near(20m)
		178–179	Focus Compensate Near(30m)
		180–181	Sun Protection Mode :Off
		182–183	Sun Protection Mode :on
		184–199	No Function 3
		200–209	All Reset
		210–219	Dimmer Speed Fast
		220–229	Dimmer Speed Smooth
		230–231	Gobo Shortcut Mode Enable
		232–233	Gobo Shortcut Mode Disable
		234–235	Color Short cut Mode Enable
		236–237	Color Short cut Mode Disable
		238–239	CTB Compensate Enable
		240–241	CTB Compensate Disable
		242–243	No
		244–245	Yes
		246–255	No Function

Mode 2 35 DMX

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 27 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 28 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Red 255, CH 7 Green 255, CH 8 Blue 255, CH 27 Shutter 12, CH 28 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 45 DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 45 DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Red	0–255	
7	Green	0–255	
8	Blue	0–255	
9	CTO	0–255	6500–2800 K

CH	Function	DMX	Description
10	Colors	0–7	Color: Open
		8–18	Color 1
		19–29	Color 2
		30–40	Color 3
		41–51	Color 4
		52–63	Color 5
		64–127	Color1 Index
		128	Max CCW
		129–188	Max CCW ... min CCW
		189	Min CCW
		190–193	Stop
		194	Min CW
		195–254	Min CW ... max CW
		255	Max CW
11	Gobo	0–7	Gobo: Open
		8–15	Gobo 1
		16–23	Gobo 2
		24–31	Gobo 3
		32–39	Gobo 4
		40–47	Gobo 5
		48–55	Gobo 6
		56–63	Gobo 7
		64–72	Gobo 1 Shake
		73–81	Gobo 2 Shake
		82–90	Gobo 3 Shake
		91–99	Gobo 4 Shake
		100–108	Gobo 5 Shake
		109–117	Gobo 6 Shake
		118–127	Gobo 7 Shake
		128	Max CCW
		129–188	Max CCW ... min CCW
		189	Min CCW
		190–193	Stop
		194	Min CW
		195–254	Min CW ... max CW
		255	Max CW
12	Gobo Rotation	0	Index: Open
		1–127	Gobo1Index
		128	Max CCW
		129–188	Max CCW ... min CCW
		189	Min CCW
		190–193	Stop

CH	Function	DMX	Description
12	Gobo Rotation (continued)	194	Min CW
		195–254	Min CW ... max CW
		255	Max CW
13	Gobo 2	0–7	Gobo: Open
		8–13	Gobo 1
		14–19	Gobo 2
		20–25	Gobo 3
		26–31	Gobo 4
		32–37	Gobo 5
		38–43	Gobo 6
		44–49	Gobo 7
		50–55	Gobo 8
		56–63	Gobo 9
		64–70	Gobo1Shake
		71–77	Gobo 2 Shake
		78–84	Gobo3 Shake
		85–91	Gobo4 Shake
		92–98	Gobo5 Shake
		99–105	Gobo6 Shake
		106–112	Gobo7 Shake
		113–119	Gobo8 Shake
		120–127	Gobo9 Shake
		128	Max CCW
		129–188	Max CCW ... min CCW
		189	Min CCW
		190–193	Stop
		194	Min CW
		195–254	Min CW ... max CW
		255	Max CW
14	Animation Wheel	0–7	Open: OFF
		8	>>>
		9–68	>>> ... >>
		69	>>
		70–128	>> ... >
		129	>
		130–133	Stop
		134	<
		135–194	< ... <<
		195	<<
		196–254	<< ... <<<
		255	<<<
15	Iris	0–255	

CH	Function	DMX	Description
16	Prism		Same as CH 23 in the mode “Mode 1 45 DMX” (p. 14)
17	Prism Rotation Speed		Same as CH 24 in the mode “Mode 1 45 DMX” (p. 14)
18	Prism 2		Same as CH 25 in the mode “Mode 1 45 DMX” (p. 14)
19	Prism 2 Rotation Speed	0	Index: Open
		1–127	Index
		128	Prism 1 Pos Rotate: max CCW
		129–188	Max CCW ... min CCW
		189	Prism 1 Pos Rotate: min CCW
		190–193	Stop
		194	Prism 2 Pos Rotate: min CCW
		195–254	Min CCW ... max CCW
		255	Prism 2 Pos Rotate: max CCW
20	CRI		Same as CH 6 in the mode “Mode 1 45 DMX” (p. 11)
21	Frost	0–255	
22	Frost 2	0–255	
23	Zoom	0–255	50–6°
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Focus	0–255	
26	Focus Fine	0–255	Fine adjustment of CH 25
27	Shutter		Same as CH 33 in the mode “Mode 1 45 DMX” (p. 14)
28	Dimmer	0–255	
29	Dimmer Fine	0–255	Fine adjustment of CH 28
30	Function	0–9	No function
		10–29	Dummy
		30–39	Dim Square Law
		40–49	Dim Inv Square Law
		50–59	Dim Curve Line
		60–69	Dim Curve S
		70–79	Standard
		80–89	Quiet
		90–99	Compatible
		100–109	Frequency Setting
		110–119	Frequency Disable
		120–121	900HZ
		122–123	1000HZ
		124–125	1100HZ
		126–127	1200HZ
		128–129	1300HZ
		130–131	1400HZ
		132–133	1500HZ
		134–135	2500HZ
		136–137	4000HZ

CH	Function	DMX	Description
30	Function (continued)	138–139	5000HZ
		140–141	6000HZ
		142–143	10K
		144–145	15K
		146–147	20K
		148–149	25K
		150–179	No function
		180–189	Dimmer Fast
		190–199	Dim Smooth
		200–209	All Reset
		210–219	Eff Reset
		220–229	PT Reset
		230–255	No function

Mode 3 36 DMX

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 19 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 20 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Red 255, CH 7 Green 255, CH 8 Blue 255, CH 19 Shutter 12, CH 20 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 45 DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 45 DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Red	0–255	
7	Green	0–255	
8	Blue	0–255	

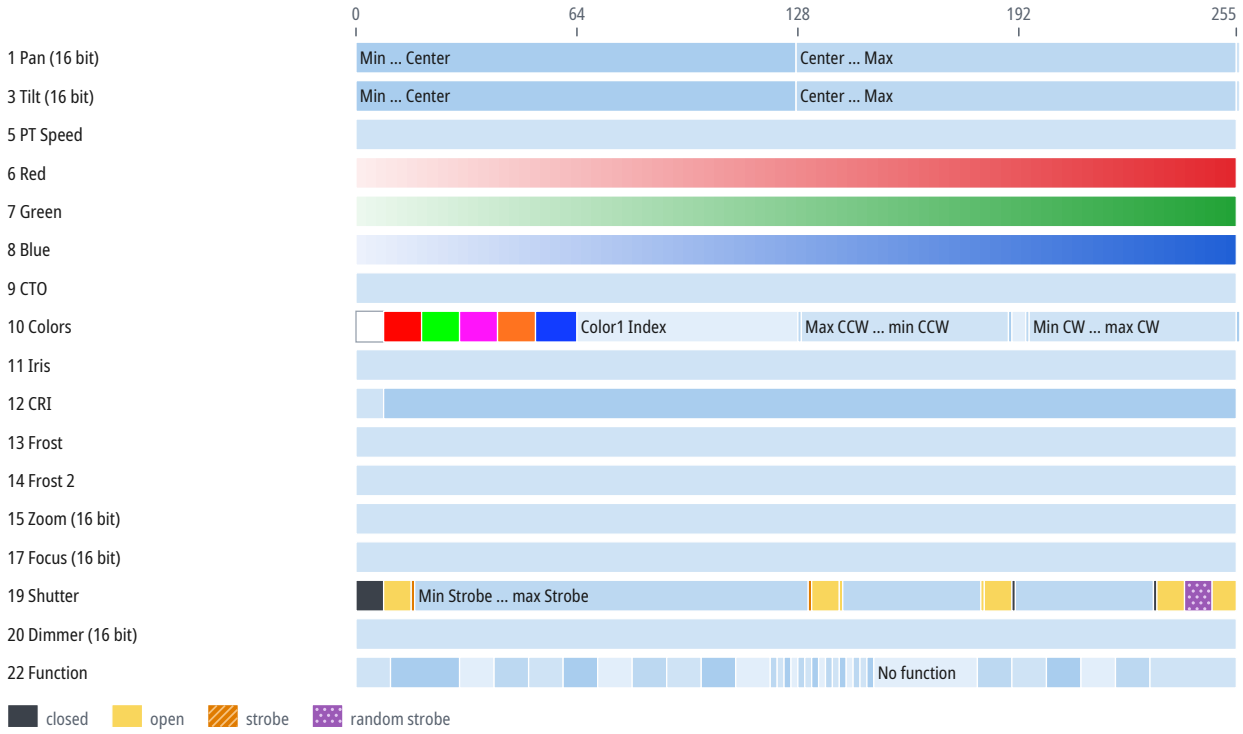
CH	Function	DMX	Description
9	CTO	0–255	6500–2800 K
10	Colors		Same as CH 10 in the mode “Mode 2 35 DMX” (p. 18)
11	Iris	0–255	
12	CRI		Same as CH 6 in the mode “Mode 1 45 DMX” (p. 11)
13	Frost	0–255	
14	Frost 2	0–255	
15	Zoom	0–255	50–6°
16	Zoom Fine	0–255	Fine adjustment of CH 15
17	Focus	0–255	
18	Focus Fine	0–255	Fine adjustment of CH 17
19	Shutter		Same as CH 33 in the mode “Mode 1 45 DMX” (p. 14)
20	Dimmer	0–255	
21	Dimmer Fine	0–255	Fine adjustment of CH 20
22	Shaper Rotation	0–255	
23	Blade 1 A	0–255	
24	Blade 1 B	0–255	
25	Blade 3 A	0–255	
26	Blade 3 B	0–255	
27	Blade 2 A	0–255	
28	Blade 2 B	0–255	
29	Blade 4 A	0–255	
30	Blade 4 B	0–255	
31	Function		Same as CH 30 in the mode “Mode 2 35 DMX” (p. 20)

Mode 4 26 DMX

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 19 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 20 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Red 255, CH 7 Green 255, CH 8 Blue 255, CH 19 Shutter 12, CH 20 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 45 DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 45 DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Red	0–255	
7	Green	0–255	
8	Blue	0–255	
9	CTO	0–255	6500–2800 K
10	Colors		Same as CH 10 in the mode “Mode 2 35 DMX” (p. 18)
11	Iris	0–255	
12	CRI		Same as CH 6 in the mode “Mode 1 45 DMX” (p. 11)
13	Frost	0–255	
14	Frost 2	0–255	
15	Zoom	0–255	50–6°
16	Zoom Fine	0–255	Fine adjustment of CH 15

CH	Function	DMX	Description
17	Focus	0–255	
18	Focus Fine	0–255	Fine adjustment of CH 17
19	Shutter		Same as CH 33 in the mode “Mode 1 45 DMX” (p. 14)
20	Dimmer	0–255	
21	Dimmer Fine	0–255	Fine adjustment of CH 20
22	Function		Same as CH 30 in the mode “Mode 2 35 DMX” (p. 20)

Mode 5 40 DMX

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 28 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 29 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Red 255, CH 7 Green 255, CH 8 Blue 255, CH 28 Shutter 12, CH 29 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 45 DMX” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 45 DMX” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	PT Speed	0–255	
6	Red	0–255	
7	Green	0–255	
8	Blue	0–255	
9	CTO	0–255	6500–2800 K
10	Colors		Same as CH 10 in the mode “Mode 2 35 DMX” (p. 18)
11	Gobo		Same as CH 11 in the mode “Mode 2 35 DMX” (p. 18)
12	Gobo Rotation	0	Index: Open
		0–127	Gobo1Index
		128–189	Max CCW ... min CCW
		189	Min CCW
		190–193	Stop
		194–255	Min CW ... max CW
		255	Max CW
13	Gobo Rotation Fine	0–255	Fine adjustment of CH 12
14	Gobo 2		Same as CH 13 in the mode “Mode 2 35 DMX” (p. 19)
15	Animation Wheel		Same as CH 14 in the mode “Mode 2 35 DMX” (p. 19)
16	Iris	0–255	
17	Prism		Same as CH 23 in the mode “Mode 1 45 DMX” (p. 14)
18	Prism Rotation Speed		Same as CH 24 in the mode “Mode 1 45 DMX” (p. 14)
19	Prism 2		Same as CH 25 in the mode “Mode 1 45 DMX” (p. 14)
20	Prism 2 Rotation Speed		Same as CH 19 in the mode “Mode 2 35 DMX” (p. 20)
21	CRI		Same as CH 6 in the mode “Mode 1 45 DMX” (p. 11)
22	Frost	0–255	
23	Frost 2	0–255	
24	Zoom	0–255	50–6°
25	Zoom Fine	0–255	Fine adjustment of CH 24
26	Focus	0–255	
27	Focus Fine	0–255	Fine adjustment of CH 26
28	Shutter		Same as CH 33 in the mode “Mode 1 45 DMX” (p. 14)
29	Dimmer	0–255	
30	Dimmer Fine	0–255	Fine adjustment of CH 29
31	Shaper Rotation	0–255	
32	Blade 1 A	0–255	
33	Blade 1 B	0–255	
34	Blade 3 A	0–255	

CH	Function	DMX	Description
35	Blade 3 B	0–255	
36	Blade 2 A	0–255	
37	Blade 2 B	0–255	
38	Blade 4 A	0–255	
39	Blade 4 B	0–255	
40	Function		Same as CH 30 in the mode “Mode 2 35 DMX” (p. 20)

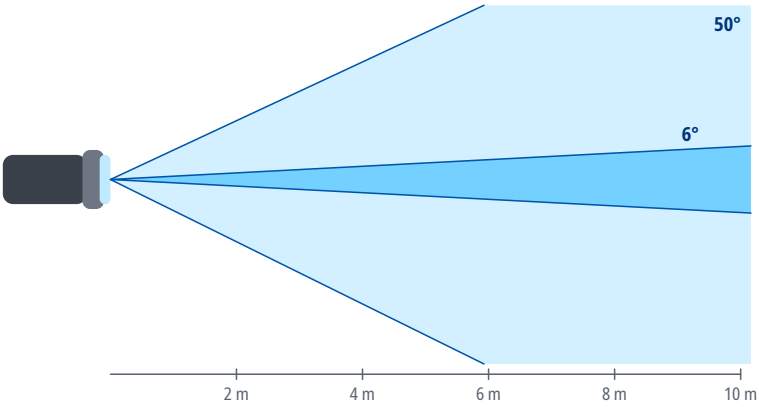
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	1,000 W
Luminous flux	10,000 lm
Color temperature	6,500 K
Color rendering index (CRI)	93
Optics	
Zoom	6–50°
Movement	
Pan	540°
Tilt	270°
Dimensions and construction	
Weight	40 kg
Operating environment	
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2800–6500 K
Strobe frequency	1–20 Hz
Color wheel 1 rotation	up to 120 °/s (20 rpm)
Color wheel 2 rotation	up to 240 °/s (40 rpm)
Gobo wheel 1 rotation	up to 80 °/s (13 rpm)
Gobo wheel 2 rotation	up to 80 °/s (13 rpm)
Gobo 1 rotation	up to 240 °/s (40 rpm)
Gobo 2 rotation	up to 240 °/s (40 rpm)
Prism 1 rotation	up to 420 °/s (70 rpm)
Prism 2 rotation	up to 360 °/s (60 rpm)
Animation wheel rotation	up to 180 °/s (30 rpm)

Spot diameter



Distance	Ø 6°	Ø 50°
2 m	0.21 m	1.9 m
4 m	0.42 m	3.7 m
6 m	0.63 m	5.6 m
8 m	0.84 m	7.5 m
10 m	1 m	9.3 m
15 m	1.6 m	14 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.