DMX REFERENCE

M18 Profile

JB-Lighting



Manufacturer	JB-Lighting
GDTF file	JB-Lighting_M18_Profile_73793.gdtf
GDTF revision	V_1_21 · 2024-09-18
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1 About this manual

This document describes the M18 Profile by JB-Lighting. It was compiled from the GDTF file JB-Lighting_M18_Profile_73793.gdtf from the GDTF-Share library.

File revision: “V_1_21”.

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 JB-Lighting; 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	32 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 (47 ch)	47	10	1, 48, 95, 142, ...
Mode 2 (70 ch)	70	7	1, 71, 141, 211, ...

No light? Check these channels

- Mode 1 (47 ch): CH 6 Shutter at 16–95 “open” or 111 or 126 or 143 or 175 or 207 or 239 or 255; CH 7 Dimmer above 0
- Mode 2 (70 ch): CH 6 Shutter at 16–95 “open” or 111 or 126 or 143 or 175 or 207 or 239 or 255; CH 7 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

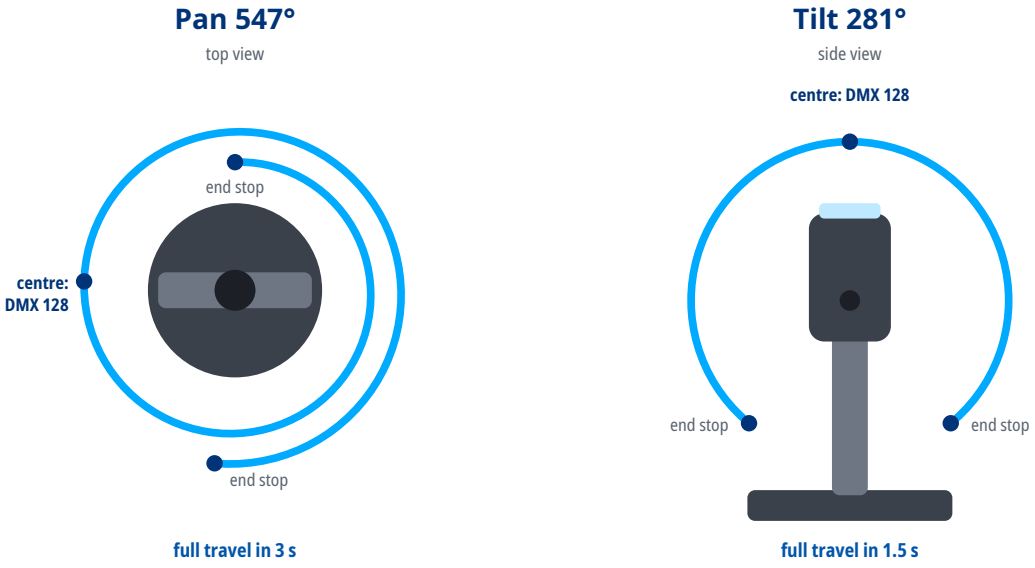
- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them 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



Full-travel times as stated in the GDTF file.

5 Installation

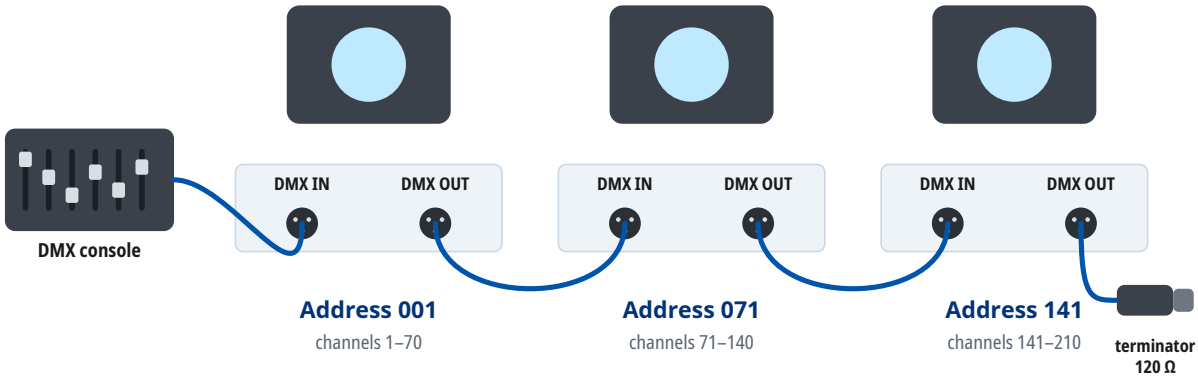
⚠ WARNING

- 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: 32 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 2 (70 ch): every unit occupies 70 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

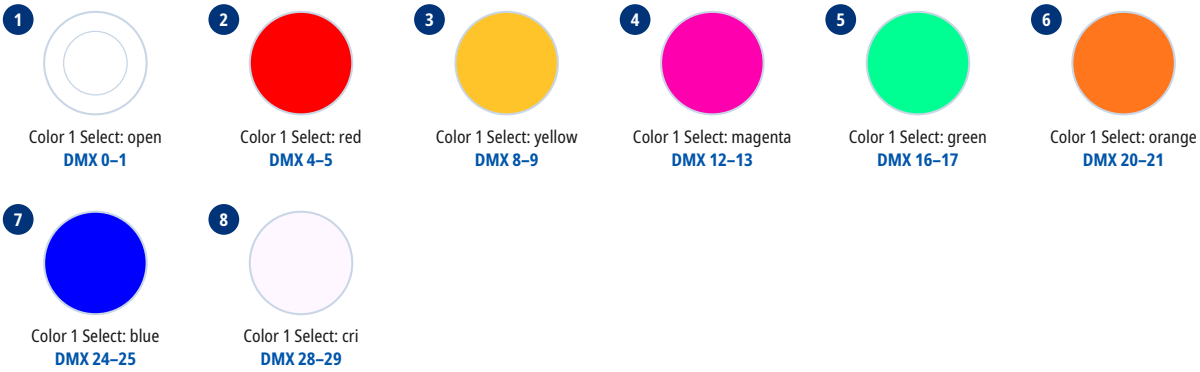
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Mode 2 (70 ch)”: 70.
- Choose start addresses so that the channels of individual devices do not overlap and the last 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 2 (70 ch)”, you can use, for example, the start addresses 1, 71, 141, 211.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

8 Functions at a glance

Functions in each DMX mode

	Mode 1 (47 ch) 47 channels	Mode 2 (70 ch) 70 channels
Pan / Tilt	1, 3	1, 3
Dimmer	7	7
Dimmer resolution	8 bit	16 bit
Shutter / strobe	6	6
Color mixing	28–33	6× (42–52)
Color temperature	34	54
Color wheel	27	41
Gobo wheel	13, 14	17, 18
Gobo rotation	15	19
Prism	38–41	59, 60, 62, 63
Frost	42, 43	65, 66
Zoom	9	11
Focus	8, 10, 11	9, 13, 14
Iris	12	15
Animation wheel	16, 17	21, 22

Color wheel



1 Color 1 Select: open
DMX 0–1

2 Color 1 Select: red
DMX 4–5

3 Color 1 Select: yellow
DMX 8–9

4 Color 1 Select: magenta
DMX 12–13

5 Color 1 Select: green
DMX 16–17

6 Color 1 Select: orange
DMX 20–21

7 Color 1 Select: blue
DMX 24–25

8 Color 1 Select: cri
DMX 28–29

Gobo wheel 1

1 Gobo 1 Select: open
DMX 0–7

2 Gobo 1_1
DMX 8–15


3 Gobo 1_2
DMX 16–23


4 Gobo 1_3
DMX 24–31


5 Gobo 1_4
DMX 32–39


6 Gobo 1_5
DMX 40–47


7 Gobo 1_6
DMX 48–55


8 Gobo 1_7
DMX 56–63


9 Wheel Slot 8
DMX 64–192



Gobo wheel 2

1 Gobo 2 Select: open
DMX 0–7

2 Gobo 2_1
DMX 8–15

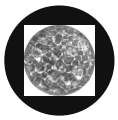

3 Gobo 2_2
DMX 16–23


4 Gobo 2_3
DMX 24–31


5 Gobo 2_4
DMX 32–39


6 Gobo 2_5
DMX 40–47


7 Wheel Slot 6
DMX 48–128



Prism 1

1 Open
DMX 0–7

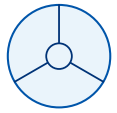
2 5 facets
5 facet linear
DMX 8–255



Prism 2

1 Open
DMX 0–7

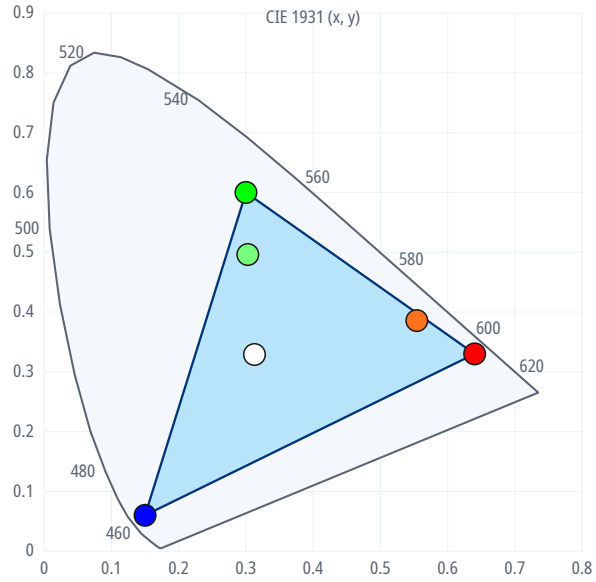
2 3 facets
3 facet circular
DMX 8–255



Animation wheel

1 open	2 water	3 fire

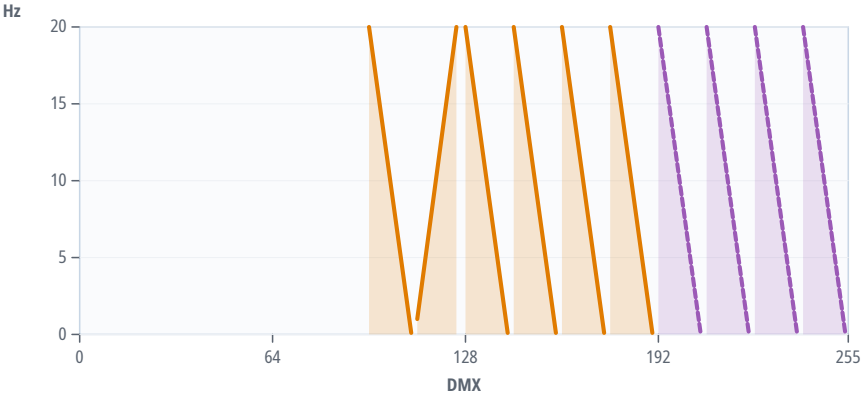
LED colors and the colors they mix



LED	x	y
Light Source 6800 High Power	0.313	0.329
Red	0.640	0.330
Green	0.300	0.600
Blue	0.150	0.060
Amber	0.554	0.386
Lime	0.303	0.496

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

Strobe rate

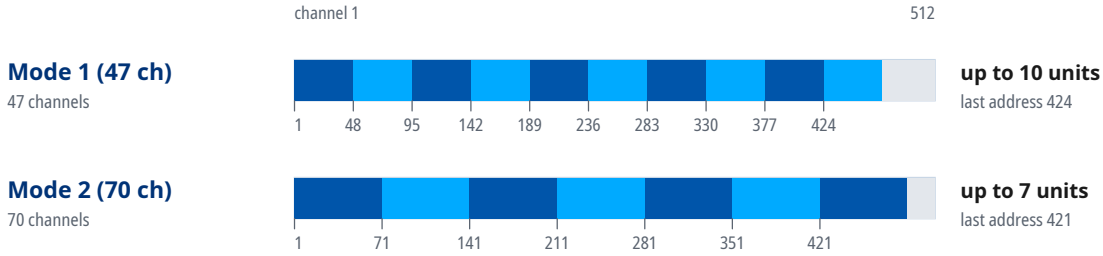


CH 6 · Mode 1 (47 ch)

- 96–110: 20–0.1 Hz StrobePulseOpen
- 112–125: 1–20 Hz Shutter Fade Effect
- 128–142: 20–0.1 Hz Shutter Pulse Open
- 144–158: 20–0.1 Hz Shutter Pulse Close
- 160–174: 20–0.1 Hz Shutter Fade close
- 176–190: 20–0.1 Hz Shutter Fade open
- 192–206: 20–0.1 Hz Shutter Rnd Open
- 208–222: 20–0.1 Hz Shutter Rnd Close

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 2 (70 ch)”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	351	11	U2 · 211	16	U3 · 71
2	71	7	421	12	U2 · 281	17	U3 · 141
3	141	8	U2 · 1	13	U2 · 351	18	U3 · 211
4	211	9	U2 · 71	14	U2 · 421	19	U3 · 281
5	281	10	U2 · 141	15	U3 · 1	20	U3 · 351

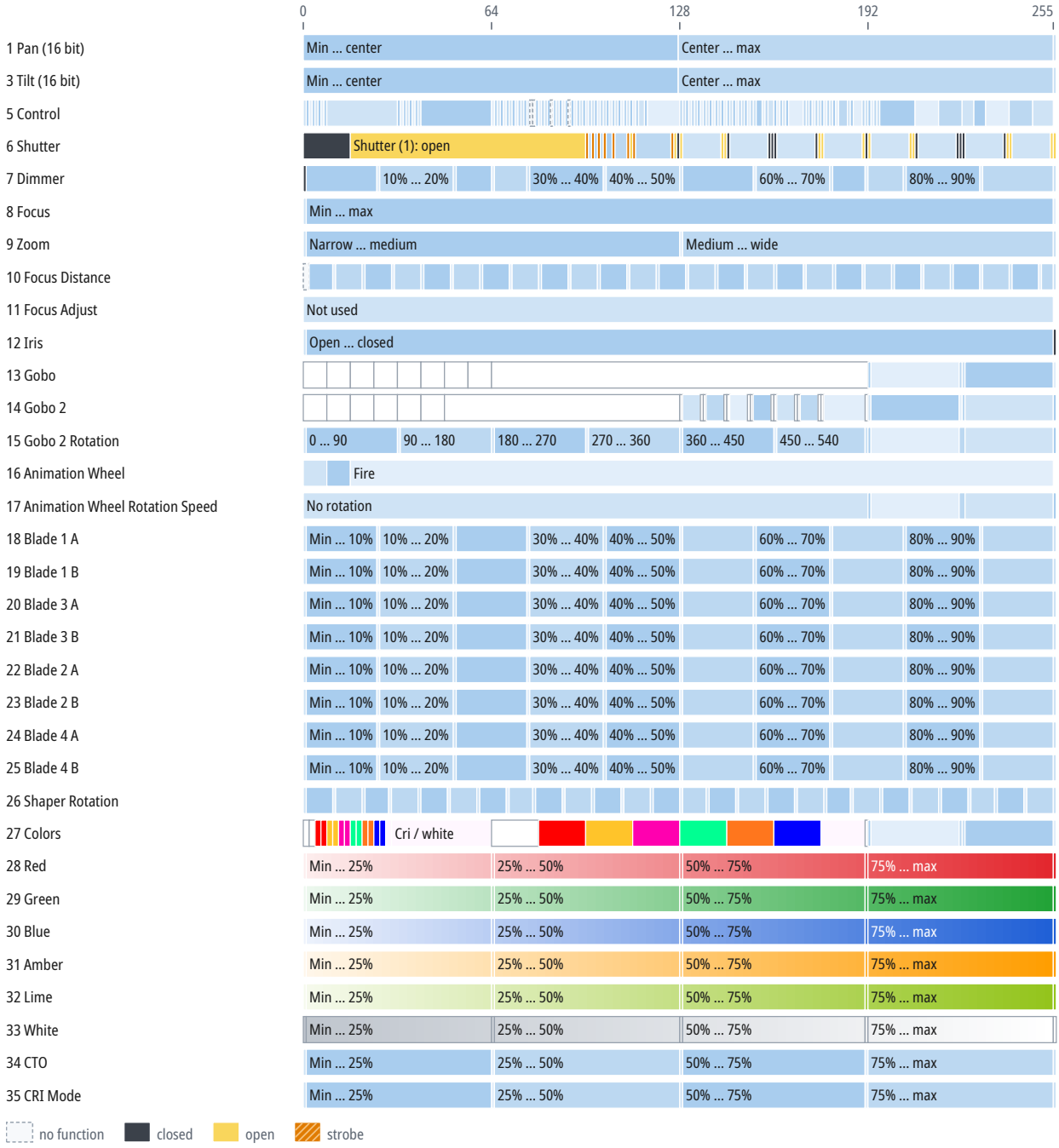
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 1 (47 ch)

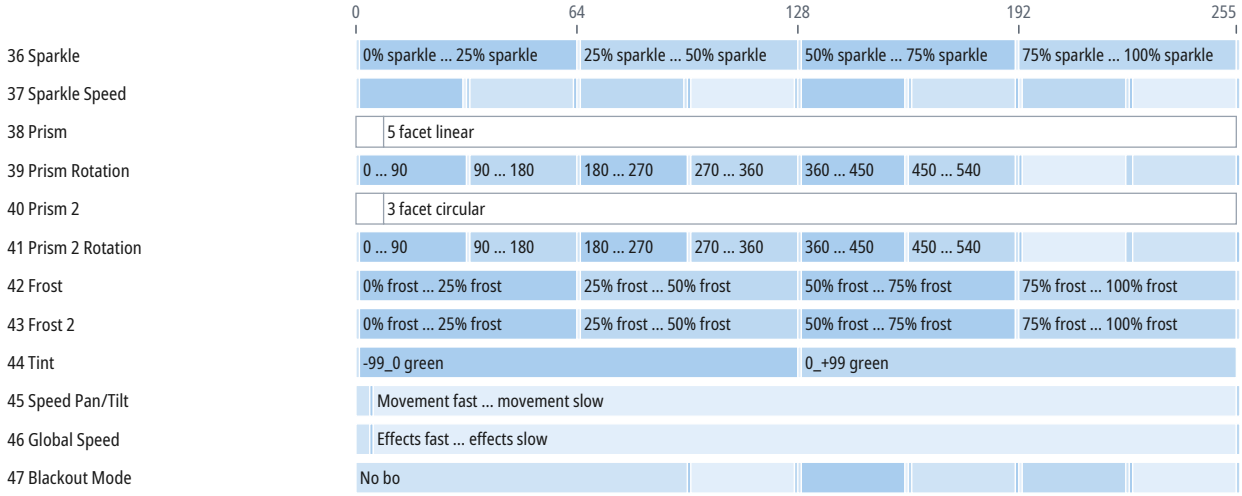
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 6 Shutter at 16–95 “open” or 111 or 126 or 143 or 175 or 207 or 239 or 255; CH 7 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Shutter 16, CH 7 Dimmer 255, CH 28 Red 0, CH 29 Green 0, CH 30 Blue 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... 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	Control	0	Fade out fast
		1–6	Fade out 1...6
		7	Fade out slow
		8–31	Not used (1_0)
		32	(2) fade out fast
		33	(2) fade out 1
		34	(2) fade out 2
		35	(2) fade out 3
		36	(2) fade out 4
		37	(2) fade out 5
		38	(2) fade out 6
		39	(2) fade out slow
		40–63	Not used (2_0)
		64	(3) fade out fast
		65	(3) fade out 1
		66	(3) fade out 2
		67	(3) fade out 3
		68	(3) fade out 4
		69	(3) fade out 5
		70	(3) fade out 6

CH	Function	DMX	Description
5	Control (continued)	71	(3) fade out slow
		72	50%
		73	Color mix power limit: 60%
		74	70%
		75	Color mix power limit: 80%
		76	90%
		77	Color mix power limit: off
		78	Constant color mode: off
		79	Constant color mode: 20%
		80	Constant color mode: 40%
		81	Constant color mode: 60%
		82	Constant color mode: 80%
		83	Constant color mode: max
		84	Constant brightness mode: off
		85	Constant brightness mode: 20%
		86	Constant brightness mode: 40%
		87	Constant brightness mode: 60%
		88	Constant brightness mode: 80%
		89	Constant brightness mode: max
		90	Constant brightness limit: off
		91	Constant brightness limit: 20%
		92	Constant brightness limit: 40%
		93	Constant brightness limit: 60%
		94	Constant brightness limit: 80%
		95	Constant brightness limit: max
		96	(4) fade out fast
		97	(4) fade out 1
		98	(4) fade out 2
		99	(4) fade out 3
		100	(4) fade out 4
		101	(4) fade out 5
		102	(4) fade out 6
		103	(4) fade out slow
		104	Backlight off
		105	Backlight on
		106	Backlight auto
		107	Display standard
		108	Display flip
		109	Not used (6_0)
		110	Main screen standard
		111	Main screen user id
		112	Not used (6_1)

CH	Function	DMX	Description
5	Control (continued)	113	User id set
		114–115	Not used (6_2)
		116	Black body shift
		117–127	Not used (7_0)
		128	(5) fade out fast
		129	(5) fade out 1
		130	(5) fade out 2
		131	(5) fade out 3
		132	(5) fade out 4
		133	(5) fade out 5
		134	(5) fade out 6
		135	(5) fade out slow
		136	Dimmer linear
		137	Dimmer square
		138	Dimmer square inv
		139	Not used (8_0)
		140	rgb/cmy linear
		141	rgb/cmy square
		142	Not used (8_1)
		143	Frost linear
		144	Frost square inv
		145	Not used (8_2)
		146	p/t speed whisper
		147	p/t speed medium
		148	p/t speed follow
		149	p/t speed fast
		150	Effect speed whisper
		151	Effect speed silent
		152	Effect speed medium
		153	Effect speed fast
		154–155	Not used (8_3)
		156	Blmode raw
		157	Blmode move/angle
		158–159	Not used (8_4)
		160	Theatre whisper
		161	Theatre silent
		162	Standard
		163	Boost
		164	Longterm 24/7
		165–169	Not used (9_0)
		170	Variable
		171	2700K

CH	Function	DMX	Description
5	Control (continued)	172	2700K tungsten dim out
		173	3200K
		174	3200K tungsten dim oiut
		175	4200K
		176	5600K
		177	6000K
		178	6500K
		179	7000K
		180	8000K
		181	RAW
		182–184	Not used (10_0)
		185	Color mix RGBW
		186	Color mix RGBALW
		187–189	Settings: not used (11_0)
		190	Fan mode min
		191	Fan mode 20%
		192	Fan mode 40%
		193	Fan mode 60%
		194	Fan mode 80%
		195	Fan mode max
		196–207	Not used (11_1)
		208–215	50Hz (100Hz)
		216–223	60Hz (120Hz)
		224–227	Flex (600Hz)
		228–231	High flex (3000Hz)
		232–239	Camera Mode: not used (11_0)
		240–247	Reset
		248–255	Not used (12_0)
6	Shutter	0–15	Shutter (1): closed
		16–95	Shutter (1): open
		96	20Hz
		97	20Hz ... 15Hz
		98	15Hz
		99	15Hz ... 10Hz
		100	10Hz
		101	10Hz ... 5Hz
		102	5Hz
		103–104	5Hz ... 1Hz
		105	1Hz
		106–109	1Hz ... 1/10Hz
		110	1/10Hz
		111	Shutter (2): open (2)

CH	Function	DMX	Description
6	Shutter (continued)	112	Fade effect slow
		113–124	Fade effect slow ... fade effect fast
		125	Fade effect fast
		126	Shutter (3): open (3)
		127	Shutter (3): closed (2)
		128	Pulse open fast
		129–141	Pulse open fast ... pulse open slow
		142	Pulse open slow
		143	Shutter (4): open (4)
		144	Pulse close fast
		145–157	Pulse close fast ... pulse close slow
		158	Pulse close slow
		159	Shutter (5): closed (3)
		160	Fade close fast
		161–173	Fade close fast ... fade close slow
		174	Fade close slow
		175	Shutter (6): open (5)
		176	Fade open fast
		177–189	Fade open fast ... fade open slow
		190	Fade open slow
		191	Shutter (7): closed (4)
		192	Rnd open fast
		193–205	Rnd open fast ... rnd open slow
		206	Rnd open slow
		207	Shutter (8): open (6)
		208	Rnd close fast
		209–221	Rnd close fast ... rnd close slow
		222	Rnd close slow
		223	Shutter (9): closed (5)
		224	Rnd pulse close fast
		225–237	Shutter Rnd Pulse Close
		238	Rnd pulse close fast
		239	Shutter (10): open (7)
		240	Rnd pulse open fast
		241–253	Shutter Rnd Pulse open
		254	Rnd pulse open fast
		255	Shutter (11): open (8)
7	Dimmer	0	Closed
		1–24	Closed ... 10%
		25	10%
		26–50	10% ... 20%
		51	20%

CH	Function	DMX	Description
7	Dimmer (continued)	52–63	20% … 25%
		64	25%
		65–75	25% … 30%
		76	30%
		77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–190	70% … 75%
		191	75%
		192–203	75% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … open
		255	Open
8	Focus	0	Min
		1–254	Min … max
		255	Max
9	Zoom	0	Narrow
		1–127	Narrow … medium
		128	Medium
		129–254	Medium … wide
		255	Wide
10	Focus Distance	0–1	Off
		2–9	Off … 1m
		10	1m
		11–19	1m … 2m
		20	2m
		21–29	2m … 3m
		30	3m
		31–39	3m … 4m
		40	4m
		41–49	4m … 5m
		50	5m
		51–59	5m … 6m
		60	6m
		61–69	6m … 7m

CH	Function	DMX	Description
10	Focus Distance (continued)	70	7m
		71–79	7m … 8m
		80	8m
		81–89	8m … 9m
		90	9m
		91–99	9m … 10m
		100	10m
		101–109	10m … 11m
		110	11m
		111–119	11m … 12m
		120	12m
		121–129	12m … 13m
		130	13m
		131–139	13m … 14m
		140	14m
		141–149	14m … 15m
		150	15m
		151–159	15m … 16m
		160	16m
		161–169	16m … 17m
		170	17m
		171–179	17m … 18m
		180	18m
		181–189	18m … 19m
		190	19m
		191–199	19m … 20m
		200	20m
		201–209	20m … 21m
		210	21m
		211–219	21m … 22m
		220	22m
		221–229	22m … 23m
		230	23m
		231–239	23m … 24m
		240	24m
		241–249	24m … 25m
		250	25m
		251–254	25m … far
		255	Far
11	Focus Adjust	0–255	Not used
12	Iris	0	Open
		1–254	Open … closed

CH	Function	DMX	Description
12	Iris (continued)	255	Closed
13	Gobo	0–7	Gobo 1 Select: open
		8–15	Gobo 1_1
		16–23	Gobo 1_2
		24–31	Gobo 1_3
		32–39	Gobo 1_4
		40–47	Gobo 1_5
		48–55	Gobo 1_6
		56–63	Gobo 1_7
		64–191	Gobo 1_8
		192	Spin >>> fast
		193–222	Spin >>> fast ... spin >>> slow
		223	Spin >>> slow
		224	Spin <<< slow
		225–254	Spin <<< slow ... spin <<< fast
		255	Spin <<< fast
14	Gobo 2	0–7	Gobo 2 Select: open
		8–15	Gobo 2_1
		16–23	Gobo 2_2
		24–31	Gobo 2_3
		32–39	Gobo 2_4
		40–47	Gobo 2_5
		48–127	Gobo 2_6
		128	Gobo 2 Shake: open (2) fast
		129–134	Gobo 2 Shake: open (2) fast ... open (2) slow
		135	Gobo 2 Shake: open (2) slow
		136	Gobo 2_1 fast
		137–142	Gobo 2_1 fast ... gobo 2_1 slow
		143	Gobo 2_1 slow
		144	Gobo 2_2 fast
		145–150	Gobo 2_2 fast ... gobo 2_2 slow
		151	Gobo 2_2 slow
		152	Gobo 2_3 fast
		153–158	Gobo 2_3 fast ... gobo 2_3 slow
		159	Gobo 2_3 slow
		160	Gobo 2_4 fast
		161–166	Gobo 2_4 fast ... gobo 2_4 slow
		167	Gobo 2_4 slow
		168	Gobo 2_5 fast
		169–174	Gobo 2_5 fast ... gobo 2_5 slow
		175	Gobo 2_5 slow
		176	Gobo 2_6 fast

CH	Function	DMX	Description
14	Gobo 2 (continued)	177–190	Gobo 2_6 fast ... gobo 2_6 slow
		191	Gobo 2_6 slow
		192	Spin >>> fast
		193–222	Spin >>> fast ... spin >>> slow
		223	Spin >>> slow
		224	Spin <<< slow
		225–254	Spin <<< slow ... spin <<< fast
		255	Spin <<< fast
15	Gobo 2 Rotation	0	0
		1–31	0 ... 90
		32	90
		33–63	90 ... 180
		64	180
		65–95	180 ... 270
		96	270
		97–127	270 ... 360
		128	360
		129–159	360 ... 450
		160	450
		161–190	450 ... 540
		191	540
		192	>>>
		193–222	Rotate 100__1% (1080–1 °/s)
		223–224	Gobo 2 Pos Rotate: stop
		225–254	Rotate -1__-100% (1–1080 °/s)
		255	<<<
16	Animation Wheel	0–7	Open
		8–15	Water
		16–255	Fire
17	Animation Wheel Rotation Speed	0–191	No rotation
		192	>>>
		193–222	Rotate 100__1% (1080–1 °/s)
		223–224	Stop
		225–254	Rotate -1__-100% (1–1080 °/s)
		255	<<<
18	Blade 1 A	0	Min
		1–24	Min ... 10%
		25	10%
		26–50	10% ... 20%
		51	20%
		52–75	20% ... 30%
		76	30%

CH	Function	DMX	Description
18	Blade 1 A (continued)	77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
19	Blade 1 B	0	Min
		1–24	Min … 10%
		25	10%
		26–50	10% … 20%
		51	20%
		52–75	20% … 30%
		76	30%
		77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
20	Blade 3 A	0	Min
		1–24	Min … 10%
		25	10%
		26–50	10% … 20%
		51	20%
		52–75	20% … 30%
		76	30%

CH	Function	DMX	Description
20	Blade 3 A (continued)	77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
21	Blade 3 B	0	Min
		1–24	Min … 10%
		25	10%
		26–50	10% … 20%
		51	20%
		52–75	20% … 30%
		76	30%
		77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
22	Blade 2 A	0	Min
		1–24	Min … 10%
		25	10%
		26–50	10% … 20%
		51	20%
		52–75	20% … 30%
		76	30%

CH	Function	DMX	Description
22	Blade 2 A (continued)	77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
23	Blade 2 B	0	Min
		1–24	Min … 10%
		25	10%
		26–50	10% … 20%
		51	20%
		52–75	20% … 30%
		76	30%
		77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
24	Blade 4 A	0	Min
		1–24	Min … 10%
		25	10%
		26–50	10% … 20%
		51	20%
		52–75	20% … 30%
		76	30%

CH	Function	DMX	Description
24	Blade 4 A (continued)	77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
25	Blade 4 B	0	Min
		1–24	Min … 10%
		25	10%
		26–50	10% … 20%
		51	20%
		52–75	20% … 30%
		76	30%
		77–101	30% … 40%
		102	40%
		103–127	40% … 50%
		128	50%
		129–152	50% … 60%
		153	60%
		154–178	60% … 70%
		179	70%
		180–203	70% … 80%
		204	80%
		205–229	80% … 90%
		230	90%
		231–254	90% … max
		255	Max
26	Shaper Rotation		Shaper Rot Index
		0	65
		1–9	65 … 60
		10	60
		11–19	60 … 55
		20	55
		21–28	55 … 50

CH	Function	DMX	Description
26	Shaper Rotation (continued)	29	50
		30–38	50 … 45
		39	45
		40–48	45 … 40
		49	40
		50–58	40 … 35
		59	35
		60–68	35 … 30
		69	30
		70–77	30 … 25
		78	25
		79–87	25 … 20
		88	20
		89–97	20 … 15
		98	15
		99–107	15 … 10
		108	10
		109–117	10 … 5
		118	5
		119–127	5 … 0
		128	0
		129–136	0 … -5
		137	-5
		138–146	-5 … -10
		147	-10
		148–156	-10 … -15
		157	-15
		158–166	-15 … -20
		167	-20
		168–176	-20 … -25
		177	-25
		178–185	-25 … -30
		186	-30
		187–195	-30 … -35
		196	-35
		197–205	-35 … -40
		206	-40
		207–215	-40 … -45
		216	-45
		217–225	-45 … -50
		226	-50
		227–234	-50 … -55

CH	Function	DMX	Description
26	Shaper Rotation (continued)	235	-55
		236–244	-55 … -60
		245	-60
		246–254	-60 … -65
		255	-65
27	Colors	0–1	Color 1 Select: open
		2–3	White / red
		4–5	Color 1 Select: red
		6–7	Red / yellow
		8–9	Color 1 Select: yellow
		10–11	Yellow / magenta
		12–13	Color 1 Select: magenta
		14–15	Magenta / green
		16–17	Color 1 Select: green
		18–19	Green / orange
		20–21	Color 1 Select: orange
		22–23	Orange / blue
		24–25	Color 1 Select: blue
		26–27	Blue / cri
		28–29	Color 1 Select: cri
		30–63	Cri / white
		64–79	Color 1 Continuous: open (2)
		80–95	Color 1 Continuous: red
		96–111	Color 1 Continuous: yellow
		112–127	Color 1 Continuous: magenta
		128–143	Color 1 Continuous: green
		144–159	Color 1 Continuous: orange
		160–175	Color 1 Continuous: blue
		176–190	Color 1 Continuous: cri
		191	Color 1 Continuous: open (3)
		192	Spin >>> fast
		193–222	Spin >>> fast … spin >>> slow
		223	Spin >>> slow
		224	Spin <<< slow
		225–254	Spin <<< slow … spin <<< fast
		255	Spin <<< fast
28	Red		Color Red
		0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%

CH	Function	DMX	Description
28	Red (continued)	129–190	50% … 75%
		191	75%
		192–254	75% … max
		255	Max
29	Green		Color Green
		0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–190	50% … 75%
		191	75%
		192–254	75% … max
		255	Max
30	Blue		Color Blue
		0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–190	50% … 75%
		191	75%
		192–254	75% … max
		255	Max
31	Amber		Color Amber
		0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–190	50% … 75%
		191	75%
		192–254	75% … max
		255	Max
32	Lime		Color Lime
		0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–190	50% … 75%
		191	75%

CH	Function	DMX	Description
32	Lime (continued)	192–254	75% … max
		255	Max
33	White	0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–190	50% … 75%
		191	75%
		192–254	75% … max
		255	Max
34	CTO	0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–190	50% … 75%
		191	75%
		192–254	75% … max
		255	Max
35	CRI Mode	0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–190	50% … 75%
		191	75%
		192–254	75% … max
		255	Max
36	Sparkle	0	0% sparkle
		1–63	0% sparkle … 25% sparkle
		64	25% sparkle
		65–127	25% sparkle … 50% sparkle
		128	50% sparkle
		129–190	50% sparkle … 75% sparkle
		191	75% sparkle
		192–254	75% sparkle … 100% sparkle
		255	100% sparkle
37	Sparkle Speed	0	Sparkle Speed: sparkle faded slow
		1–30	Sparkle Speed: sparkle faded 1__99%
		31	Sparkle Speed: sparkle faded fast
		32	Sparkle Speed: sparkle switched slow

CH	Function	DMX	Description
37	Sparkle Speed (continued)	33–62	Sparkle Speed: sparkle switched 1__99%
		63	Sparkle Speed: sparkle switched fast
		64	Sparkle Speed: sparkle faded slow
		65–94	Sparkle Speed: sparkle faded 1__99%
		95	Sparkle Speed: sparkle faded fast
		96	Sparkle Speed: sparkle switched slow
		97–126	Sparkle Speed: sparkle switched 1__99%
		127	Sparkle Speed: sparkle switched fast
		128	Sparkle Speed: sparkle faded slow
		129–158	Sparkle Speed: sparkle faded 1__99%
		159	Sparkle Speed: sparkle faded fast
		160	Sparkle Speed: sparkle switched slow
		161–190	Sparkle Speed: sparkle switched 1__99%
		191	Sparkle Speed: sparkle switched fast
		192	Sparkle Speed: sparkle faded slow
		193–222	Sparkle Speed: sparkle faded 1__99%
		223	Sparkle Speed: sparkle faded fast
		224	Sparkle Speed: sparkle switched slow
		225–254	Sparkle Speed: sparkle switched 1__99%
		255	Sparkle Speed: sparkle switched fast
38	Prism		Prism (1)
		0–7	Open
		8–255	5 facet linear
39	Prism Rotation	0	0
		1–31	0 ... 90
		32	90
		33–63	90 ... 180
		64	180
		65–95	180 ... 270
		96	270
		97–127	270 ... 360
		128	360
		129–158	360 ... 450
		159	450
		160–190	450 ... 540
		191	540
		192	>>>
		193–222	Rotate 100__1% (1080–1 °/s)
		223–224	Prism 1 Pos Rotate: stop
		225–254	Rotate -1__-100% (1–1080 °/s)
		255	<<<
40	Prism 2		Prism (2)

CH	Function	DMX	Description
40	Prism 2 (continued)	0–7	Open
		8–255	3 facet circular
41	Prism 2 Rotation	0	0
		1–31	0 … 90
		32	90
		33–63	90 … 180
		64	180
		65–95	180 … 270
		96	270
		97–127	270 … 360
		128	360
		129–158	360 … 450
		159	450
		160–190	450 … 540
		191	540
		192	>>>
		193–222	Rotate 100__1% (1080–1 °/s)
		223–224	Prism 2 Pos Rotate: stop
		225–254	Rotate -1__-100% (1–1080 °/s)
		255	<<<
42	Frost	0	0% frost
		1–63	0% frost … 25% frost
		64	25% frost
		65–127	25% frost … 50% frost
		128	50% frost
		129–190	50% frost … 75% frost
		191	75% frost
		192–254	75% frost … 100% frost
		255	100% frost
43	Frost 2	0	0% frost
		1–63	0% frost … 25% frost
		64	25% frost
		65–127	25% frost … 50% frost
		128	50% frost
		129–190	50% frost … 75% frost
		191	75% frost
		192–254	75% frost … 100% frost
		255	100% frost
44	Tint	0	No shift
		1–127	-99_0 green
		128	No shift
		129–255	0_+99 green

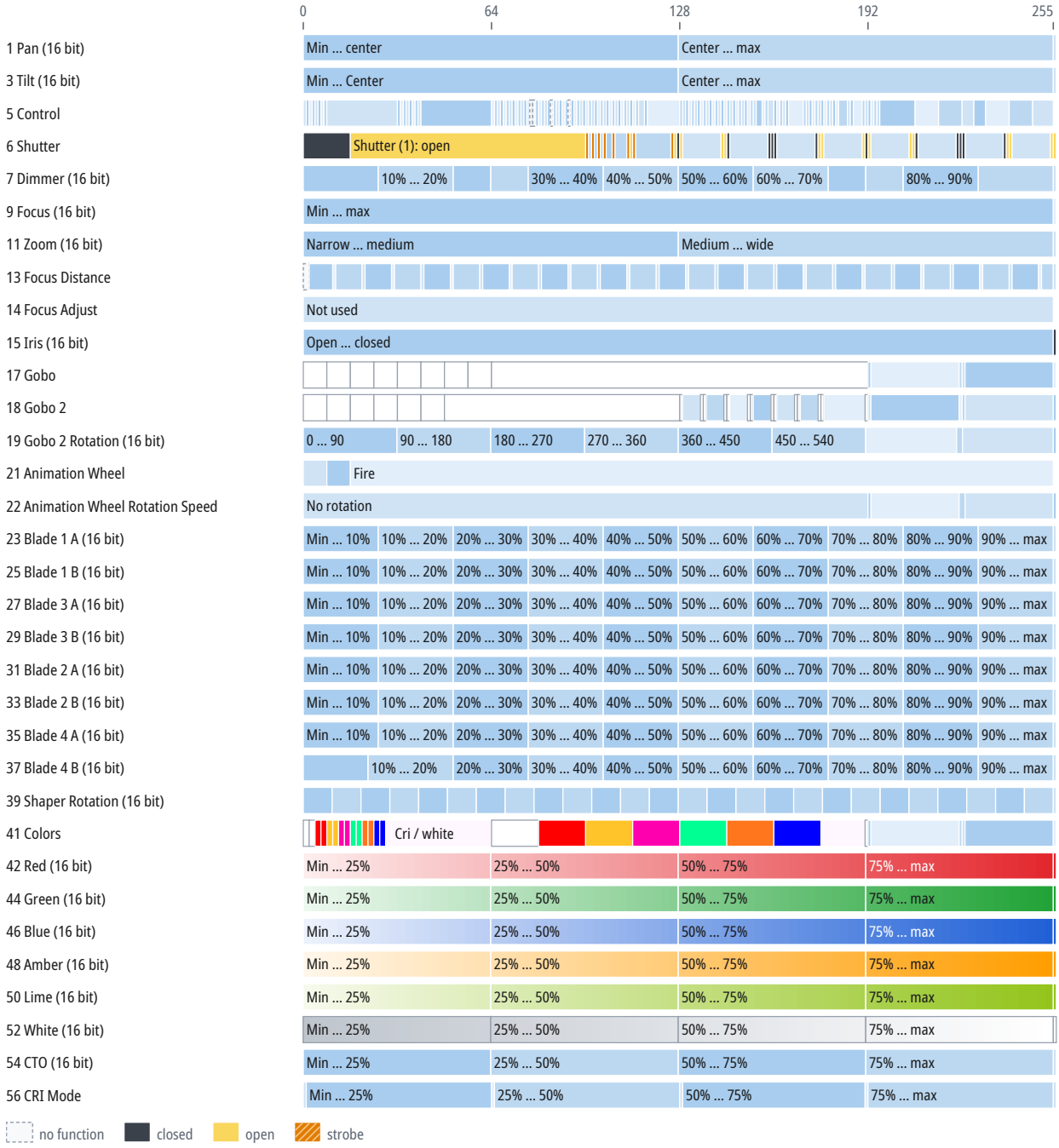
CH	Function	DMX	Description
45	Speed Pan/Tilt	0–3	Real time movement
		4	Movement fast
		5–254	Movement fast ... movement slow
		255	Movement slow
46	Global Speed	0–3	Realtime effects
		4	Effects fast
		5–254	Effects fast ... effects slow
		255	Effects slow
47	Blackout Mode	0–95	No bo
		96	Bo at p/t slow
		97–126	Bo at p/t slow ... bo at p/t fast
		127	Bo at p/t fast
		128	Bo at go co pr cmy ir fr slow
		129–158	Bo at go co pr cmy ir fr slow ... bo at go co pr cmy ir fr fast
		159	Bo at go co pr cmy ir fr fast
		160	Bo at go co pr cmy ir fr fo zo slow
		161–190	Bo at go co pr cmy ir fr fo zo slow ... bo at go co pr cmy ir fr fo zo fast
		191	Bo at go co pr cmy ir fr fo zo fast
		192	Bo at go co pr cmy ir fr p/t slow
		193–222	Bo at go co pr cmy ir fr p/t slow ... bo at go co pr cmy ir fr p/t fast
		223	Bo at go co pr cmy ir fr p/t fast
		224	Bo at go co pr cmy ir fr fo zo p/t slow
		225–254	Bo at go co pr cmy ir fr fo zo p/t slow ... bo at go co pr cmy ir fr fo zo p/t fast
		255	Bo at go co pr cmy ir fr fo zo p/t fast

Mode 2 (70 ch)

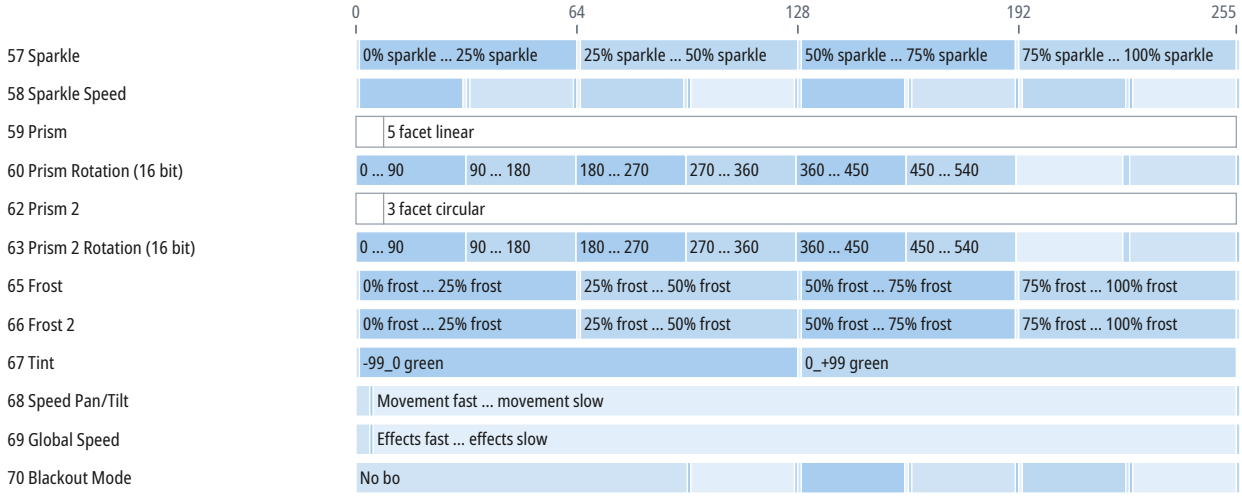
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 6 Shutter at 16–95 “open” or 111 or 126 or 143 or 175 or 207 or 239 or 255; CH 7 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Shutter 16, CH 7 Dimmer 255, CH 42 Red 0, CH 44 Green 0, CH 46 Blue 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 (47 ch)” (p. 12)
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	Control		Same as CH 5 in the mode “Mode 1 (47 ch)” (p. 12)
6	Shutter		Same as CH 6 in the mode “Mode 1 (47 ch)” (p. 15)
7	Dimmer	0–25	Closed ... 10%
		25–51	10% ... 20%
		51–63	20% ... 25%
		64–76	25% ... 30%
		76–102	30% ... 40%
		102–127	40% ... 50%
		128–153	50% ... 60%
		153–179	60% ... 70%
		179–191	70% ... 75%
		191	75%
		192–204	75% ... 80%
		204–230	80% ... 90%
		230–255	90% ... open
		255	Open
8	Dimmer Fine	0–255	Fine adjustment of CH 7
9	Focus	0–255	Min ... max
		255	Max
10	Focus Fine	0–255	Fine adjustment of CH 9
11	Zoom	0–127	Narrow ... medium
		128–255	Medium ... wide

CH	Function	DMX	Description
11	Zoom (continued)	255	Wide
12	Zoom Fine	0–255	Fine adjustment of CH 11
13	Focus Distance		Same as CH 10 in the mode “Mode 1 (47 ch)” (p. 17)
14	Focus Adjust	0–255	Not used
15	Iris	0–255	Open ... closed
		255	Closed
16	Iris Fine	0–255	Fine adjustment of CH 15
17	Gobo		Same as CH 13 in the mode “Mode 1 (47 ch)” (p. 19)
18	Gobo 2		Same as CH 14 in the mode “Mode 1 (47 ch)” (p. 19)
19	Gobo 2 Rotation	0–31	0 ... 90
		32–63	90 ... 180
		64–95	180 ... 270
		96–127	270 ... 360
		128–159	360 ... 450
		160–191	450 ... 540
		191	540
		192	>>>
		192–222	Rotate 100__1% (1080–1 °/s)
		223–224	Gobo 2 Pos Rotate: stop
		225–255	Rotate -1__-100% (1–1080 °/s)
		255	<<<
20	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 19
21	Animation Wheel		Same as CH 16 in the mode “Mode 1 (47 ch)” (p. 20)
22	Animation Wheel Rotation Speed		Same as CH 17 in the mode “Mode 1 (47 ch)” (p. 20)
23	Blade 1 A	0–25	Min ... 10%
		25–51	10% ... 20%
		51–76	20% ... 30%
		76–102	30% ... 40%
		102–127	40% ... 50%
		128–153	50% ... 60%
		153–179	60% ... 70%
		179–204	70% ... 80%
		204–230	80% ... 90%
		230–255	90% ... max
		255	Max
24	Blade 1 A Fine	0–255	Fine adjustment of CH 23
25	Blade 1 B	0–25	Min ... 10%
		25–51	10% ... 20%
		51–76	20% ... 30%
		76–102	30% ... 40%
		102–127	40% ... 50%
		128–153	50% ... 60%

CH	Function	DMX	Description
25	Blade 1 B (continued)	153–179	60% … 70%
		179–204	70% … 80%
		204–230	80% … 90%
		230–255	90% … max
		255	Max
26	Blade 1 B Fine	0–255	Fine adjustment of CH 25
27	Blade 3 A	0–25	Min … 10%
		25–51	10% … 20%
		51–76	20% … 30%
		76–102	30% … 40%
		102–127	40% … 50%
		128–153	50% … 60%
		153–179	60% … 70%
		179–204	70% … 80%
		204–230	80% … 90%
		230–255	90% … max
		255	Max
28	Blade 3 A Fine	0–255	Fine adjustment of CH 27
29	Blade 3 B	0–25	Min … 10%
		25–51	10% … 20%
		51–76	20% … 30%
		76–102	30% … 40%
		102–127	40% … 50%
		128–153	50% … 60%
		153–179	60% … 70%
		179–204	70% … 80%
		204–230	80% … 90%
		230–255	90% … max
		255	Max
30	Blade 3 B Fine	0–255	Fine adjustment of CH 29
31	Blade 2 A	0–25	Min … 10%
		25–51	10% … 20%
		51–76	20% … 30%
		76–102	30% … 40%
		102–127	40% … 50%
		128–153	50% … 60%
		153–179	60% … 70%
		179–204	70% … 80%
		204–230	80% … 90%
		230–255	90% … max
		255	Max
32	Blade 2 A Fine	0–255	Fine adjustment of CH 31

CH	Function	DMX	Description
33	Blade 2 B	0–25	Min … 10%
		25–51	10% … 20%
		51–76	20% … 30%
		76–102	30% … 40%
		102–127	40% … 50%
		128–153	50% … 60%
		153–179	60% … 70%
		179–204	70% … 80%
		204–230	80% … 90%
		230–255	90% … max
		255	Max
34	Blade 2 B Fine	0–255	Fine adjustment of CH 33
35	Blade 4 A	0–25	Min … 10%
		25–51	10% … 20%
		51–76	20% … 30%
		76–102	30% … 40%
		102–127	40% … 50%
		128–153	50% … 60%
		153–179	60% … 70%
		179–204	70% … 80%
		204–230	80% … 90%
		230–255	90% … max
		255	Max
36	Blade 4 A Fine	0–255	Fine adjustment of CH 35
37	Blade 4 B	0–22	Min … 10%
		22–51	10% … 20%
		51–76	20% … 30%
		76–102	30% … 40%
		102–127	40% … 50%
		128–153	50% … 60%
		153–179	60% … 70%
		179–204	70% … 80%
		204–230	80% … 90%
		230–255	90% … max
		255	Max
38	Blade 4 B Fine	0–255	Fine adjustment of CH 37
39	Shaper Rotation		Shaper Rot Index
		0–9	65 … 60
		9–19	60 … 55
		19–29	55 … 50
		29–39	50 … 45
		39–49	45 … 40

CH	Function	DMX	Description
39	Shaper Rotation (continued)	49–59	40 ... 35
		59–68	35 ... 30
		68–78	30 ... 25
		78–88	25 ... 20
		88–98	20 ... 15
		98–108	15 ... 10
		108–118	10 ... 5
		118–127	5 ... 0
		128–137	0 ... -5
		137–147	-5 ... -10
		147–157	-10 ... -15
		157–167	-15 ... -20
		167–177	-20 ... -25
		177–187	-25 ... -30
		187–196	-30 ... -35
		196–206	-35 ... -40
		206–216	-40 ... -45
		216–226	-45 ... -50
		226–236	-50 ... -55
		236–246	-55 ... -60
		246–255	-60 ... -65
		255	-65
40	Shaper Rotation Fine	0–255	Fine adjustment of CH 39
41	Colors	0–1	Color 1 Select: open
		2–3	White / red
		4–5	Color 1 Select: red
		6–7	Red / yellow
		8–9	Color 1 Select: yellow
		10–11	Yellow / magenta
		12–13	Color 1 Select: magenta
		14–15	Magenta / green
		16–17	Color 1 Select: green
		18–19	Green / orange
		20–21	Color 1 Select: orange
		22–23	Orange / blue
		24–25	Color 1 Select: blue
		26–27	Blue / pink
		28–29	Color 1 Select: cri
		30–63	Cri / white
		64–79	Color 1 Continuous: open (2)
		80–95	Color 1 Continuous: red
		96–111	Color 1 Continuous: yellow

CH	Function	DMX	Description
41	Colors (continued)	112–127	Color 1 Continuous: magenta
		128–143	Color 1 Continuous: green
		144–159	Color 1 Continuous: orange
		160–175	Color 1 Continuous: blue
		176–190	Color 1 Continuous: cri
		191	Color 1 Continuous: open (3)
		192	Spin >>> fast
		193–222	Spin >>> fast ... spin >>> slow
		223	Spin >>> slow
		224	Spin <<< slow
		225–254	Spin <<< slow ... spin <<< fast
		255	Spin <<< fast
42	Red		Color Red
		0–63	Min ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max
		255	Max
43	Red Fine	0–255	Fine adjustment of CH 42
44	Green		Color Green
		0–63	Min ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max
		255	Max
45	Green Fine	0–255	Fine adjustment of CH 44
46	Blue		Color Blue
		0–63	Min ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max
		255	Max
47	Blue Fine	0–255	Fine adjustment of CH 46
48	Amber		Color Amber
		0–63	Min ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max

CH	Function	DMX	Description
48	Amber (continued)	255	Max
49	Amber Fine	0–255	Fine adjustment of CH 48
50	Lime		Color Lime
		0–63	Min ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max
		255	Max
51	Lime Fine	0–255	Fine adjustment of CH 50
52	White	0–63	Min ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max
		255	Max
53	White Fine	0–255	Fine adjustment of CH 52
54	CTO	0–63	Min ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max
		255	Max
55	CTO Fine	0–255	Fine adjustment of CH 54
56	CRI Mode		Same as CH 35 in the mode “Mode 1 (47 ch)” (p. 28)
57	Sparkle		Same as CH 36 in the mode “Mode 1 (47 ch)” (p. 28)
58	Sparkle Speed		Same as CH 37 in the mode “Mode 1 (47 ch)” (p. 28)
59	Prism		Same as CH 38 in the mode “Mode 1 (47 ch)” (p. 29)
60	Prism Rotation	0–31	0 ... 90
		32–63	90 ... 180
		64–95	180 ... 270
		96–127	270 ... 360
		128–159	360 ... 450
		159	450
		160–191	450 ... 540
		191	540
		192	>>>
		192–222	Rotate 100__1% (1080–1 °/s)
		223–224	Prism 1 Pos Rotate: stop
		225–255	Rotate -1__-100% (1–1080 °/s)
		255	<<<
61	Prism Rotation Fine	0–255	Fine adjustment of CH 60

CH	Function	DMX	Description
62	Prism 2		Same as CH 40 in the mode “Mode 1 (47 ch)” (p. 29)
63	Prism 2 Rotation	0–31	0 ... 90
		32–63	90 ... 180
		64–95	180 ... 270
		96–127	270 ... 360
		128–159	360 ... 450
		159	450
		160–191	450 ... 540
		191	540
		192	>>>
		192–222	Rotate 100__1% (1080–1 °/s)
		223–224	Prism 2 Pos Rotate: stop
		225–255	Rotate -1__-100% (1–1080 °/s)
		255	<<<
64	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 63
65	Frost		Same as CH 42 in the mode “Mode 1 (47 ch)” (p. 30)
66	Frost 2		Same as CH 43 in the mode “Mode 1 (47 ch)” (p. 30)
67	Tint		Same as CH 44 in the mode “Mode 1 (47 ch)” (p. 30)
68	Speed Pan/Tilt		Same as CH 45 in the mode “Mode 1 (47 ch)” (p. 31)
69	Global Speed		Same as CH 46 in the mode “Mode 1 (47 ch)” (p. 31)
70	Blackout Mode		Same as CH 47 in the mode “Mode 1 (47 ch)” (p. 31)

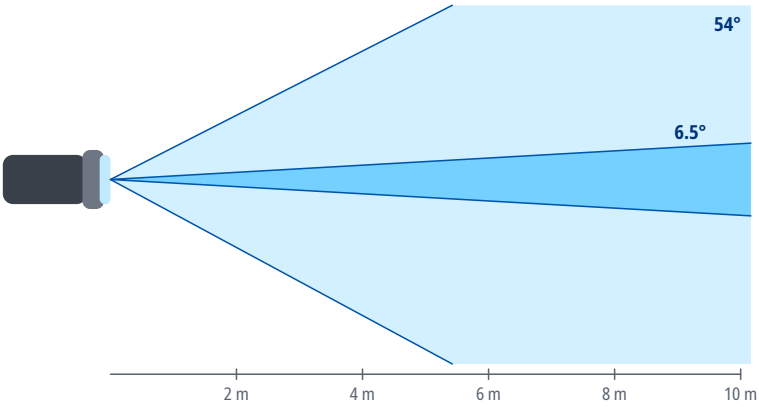
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	1,100 W
Luminous flux	72,000 lm
Color temperature	6,800 K
Color rendering index (CRI)	72
Optics	
Zoom	6.5–54°
Movement	
Pan	546.7°
Tilt	281.2°
Control	
DMX connection	5-pin XLR IN/OUT
RJ45 connectors	RJ45
RDM	yes (manufacturer ID 0x4A42, device model ID 0x0007)
Electrical	
Power connectors	powerCON TRUE1 IN/OUT
Dimensions and construction	
Weight	32 kg
Operating environment	
Operating temperature	0 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2000–8000 K
Strobe frequency	0.1–20 Hz
Color wheel rotation	up to 360 °/s (60 rpm)
Gobo wheel 1 rotation	up to 360 °/s (60 rpm)
Gobo wheel 2 rotation	up to 360 °/s (60 rpm)
Gobo 2 rotation	up to 1080 °/s (180 rpm)
Prism 1 rotation	up to 1080 °/s (180 rpm)
Prism 2 rotation	up to 1080 °/s (180 rpm)
Animation wheel rotation	up to 1080 °/s (180 rpm)

Spot diameter



Distance	Ø 6.5°	Ø 54°
2 m	0.23 m	2 m
4 m	0.45 m	4.1 m
6 m	0.68 m	6.1 m
8 m	0.91 m	8.2 m
10 m	1.1 m	10.2 m
15 m	1.7 m	15.3 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.