DMX REFERENCE

Diamond 19

Prolights



Manufacturer	Prolights
GDTF file	Prolights_Diamond_19_93025.gdtf
GDTF revision	Final · 2025-04-11
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1 About this manual

This document describes the Diamond 19 by Prolights. It was compiled from the GDTF file Prolights_Diamond_19_93025.gdtf from the GDTF-Share library.

File revision: “Final”.

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 Prolights; 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	9.2 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Basic-16	20	25	1, 21, 41, 61, ...
Basic-8	18	28	1, 19, 37, 55, ...
Extended 1	32	16	1, 33, 65, 97, ...
Extended 2	98	5	1, 99, 197, 295, ...
Standard	19	26	1, 20, 39, 58, ...

No light? Check these channels

- Basic-16: CH 6 Shutter at 32–255 “open”; CH 7 Dimmer above 0
- Basic-8: CH 4 Shutter at 32–255 “open”; CH 5 Dimmer above 0
- Extended 1: CH 9 Dimmer above 0
- Extended 2: CH 9 Dimmer above 0
- Standard: CH 6 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

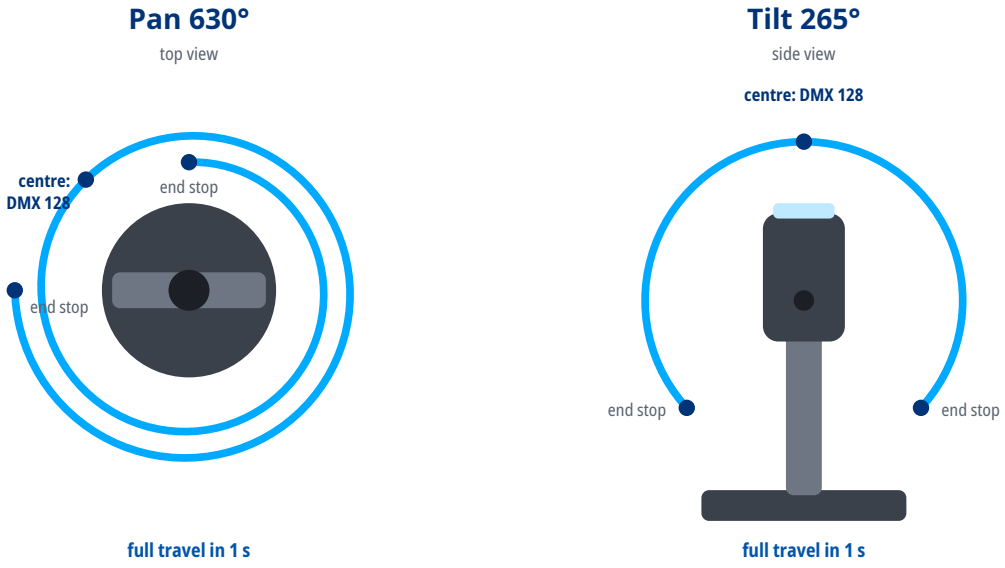
- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them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

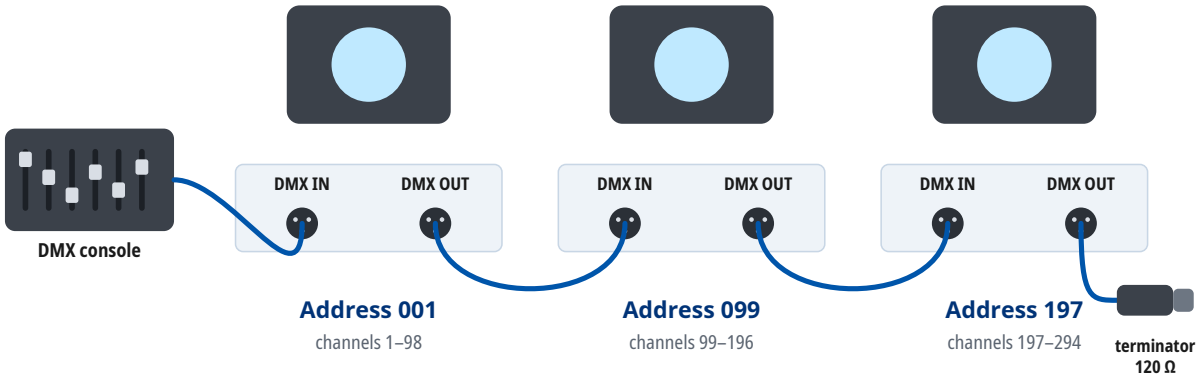
⚠ WARNING

- 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: 9.2 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 Extended 2: every unit occupies 98 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 “Extended 2”: 98.
- 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 “Extended 2”, you can use, for example, the start addresses 1, 99, 197, 295.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

8 Functions at a glance

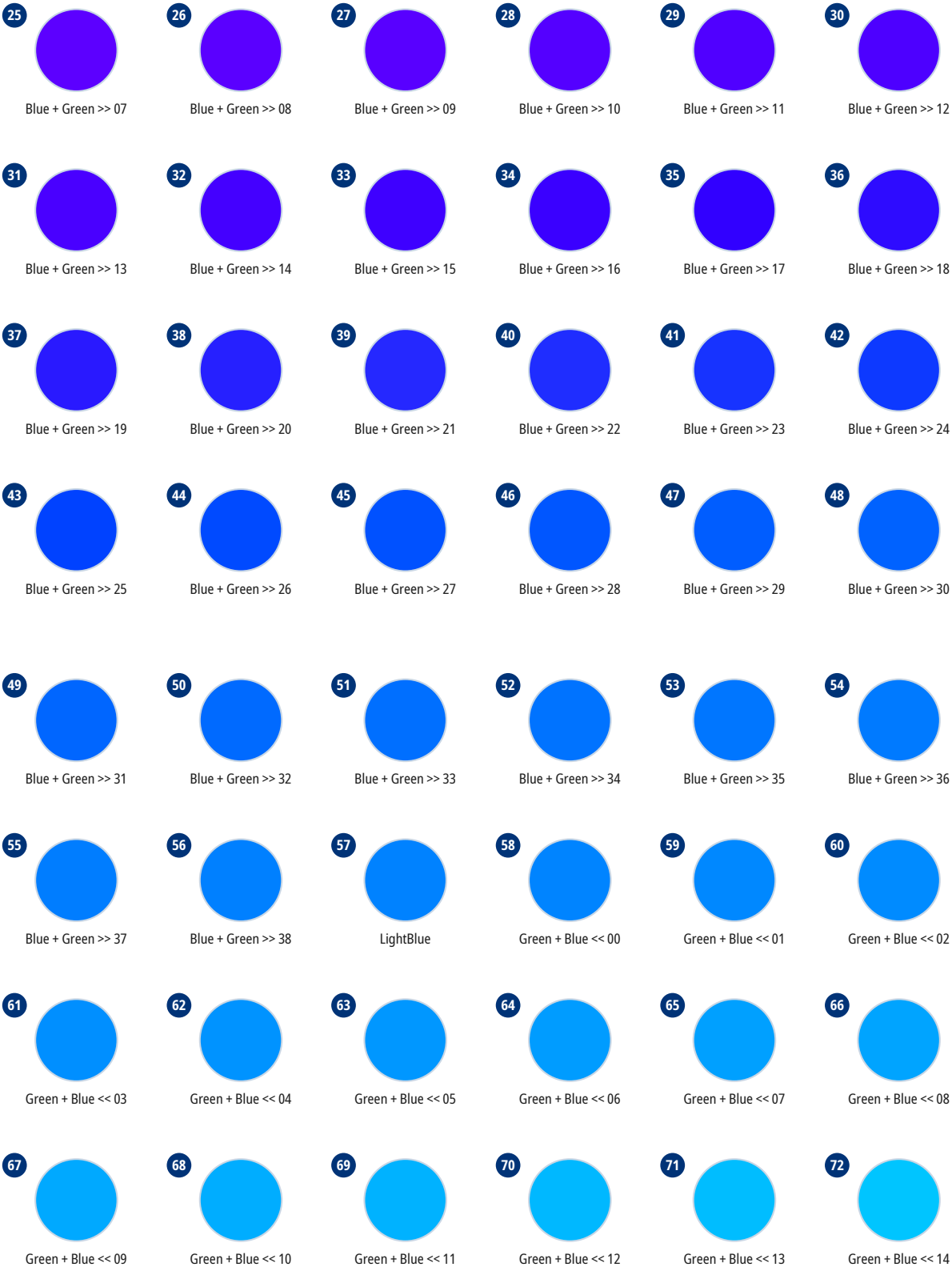
Functions in each DMX mode

	Basic-16 20 channels	Basic-8 18 channels	Extended 1 32 channels	Extended 2 98 channels	Standard 19 channels
Pan / Tilt	1, 3	1, 2	1, 3	1, 3	1, 2
Pan / Tilt resolution	16 bit	8 bit	16 bit	16 bit	8 bit
Dimmer	7	5	9	9	6
Shutter / strobe	6	4	8 *	8 *	5 *
Color mixing	11–14	9–12	13–16	13–16, 22–97	10–13
Zoom	15	13	17	17	14
Effects / macros	10, 16, 17	8, 14, 15	12, 18, 19	12 *	9, 15, 16

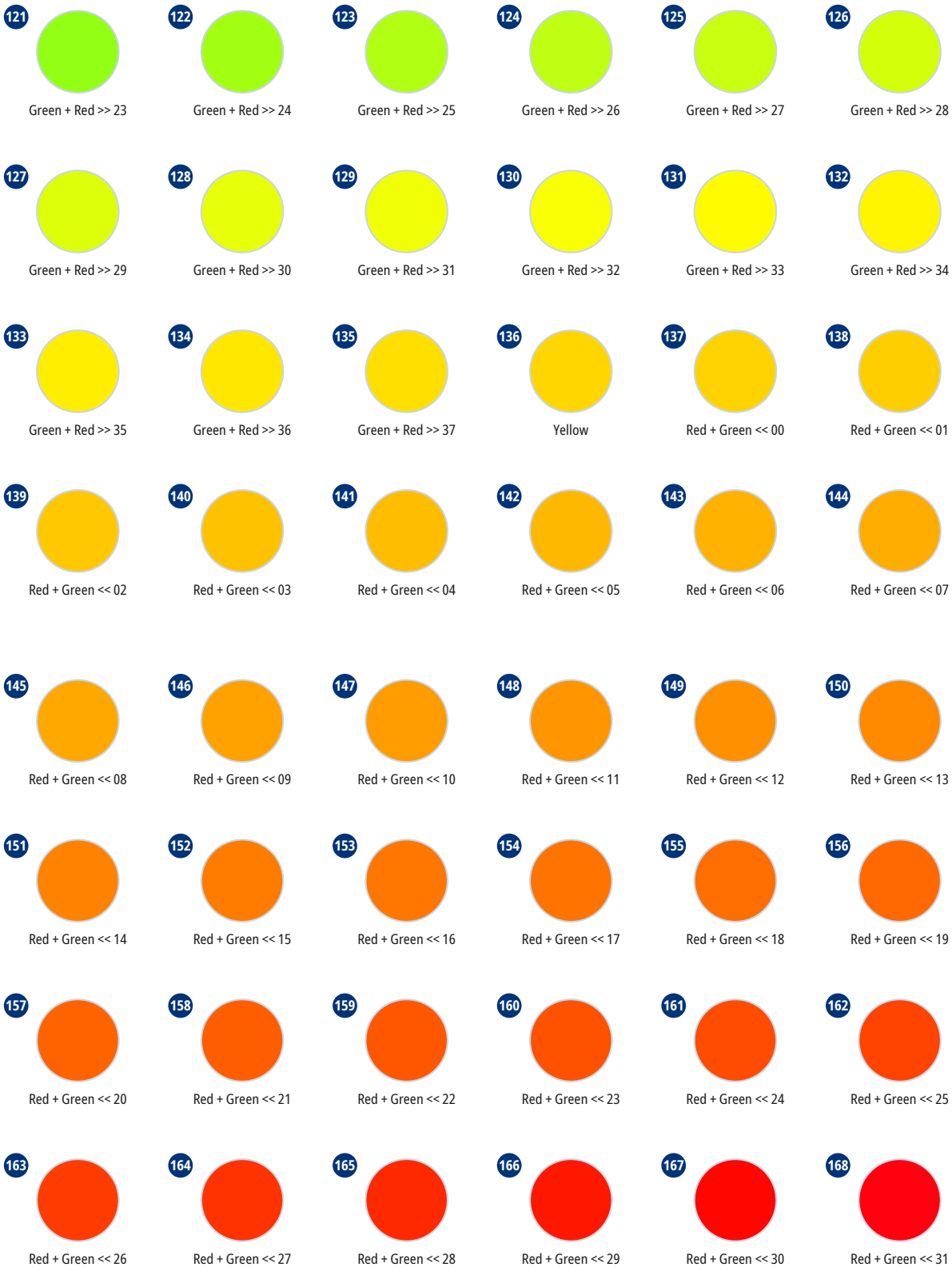
* The function works only when another channel switches it on; see the DMX table.

Color wheel




25
Blue + Green >> 07
26
Blue + Green >> 08
27
Blue + Green >> 09
28
Blue + Green >> 10
29
Blue + Green >> 11
30
Blue + Green >> 12
31
Blue + Green >> 13
32
Blue + Green >> 14
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Blue + Green >> 15
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Blue + Green >> 16
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Blue + Green >> 17
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Blue + Green >> 18
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Blue + Green >> 19
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Blue + Green >> 20
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Blue + Green >> 21
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Blue + Green >> 22
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Blue + Green >> 23
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Blue + Green >> 24
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Blue + Green >> 25
44
Blue + Green >> 26
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Blue + Green >> 27
46
Blue + Green >> 28
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Blue + Green >> 29
48
Blue + Green >> 30
49
Blue + Green >> 31
50
Blue + Green >> 32
51
Blue + Green >> 33
52
Blue + Green >> 34
53
Blue + Green >> 35
54
Blue + Green >> 36
55
Blue + Green >> 37
56
Blue + Green >> 38
57
LightBlue
58
Green + Blue << 00
59
Green + Blue << 01
60
Green + Blue << 02
61
Green + Blue << 03
62
Green + Blue << 04
63
Green + Blue << 05
64
Green + Blue << 06
65
Green + Blue << 07
66
Green + Blue << 08
67
Green + Blue << 09
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Green + Blue << 10
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Green + Blue << 11
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Green + Blue << 12
71
Green + Blue << 13
72
Green + Blue << 14

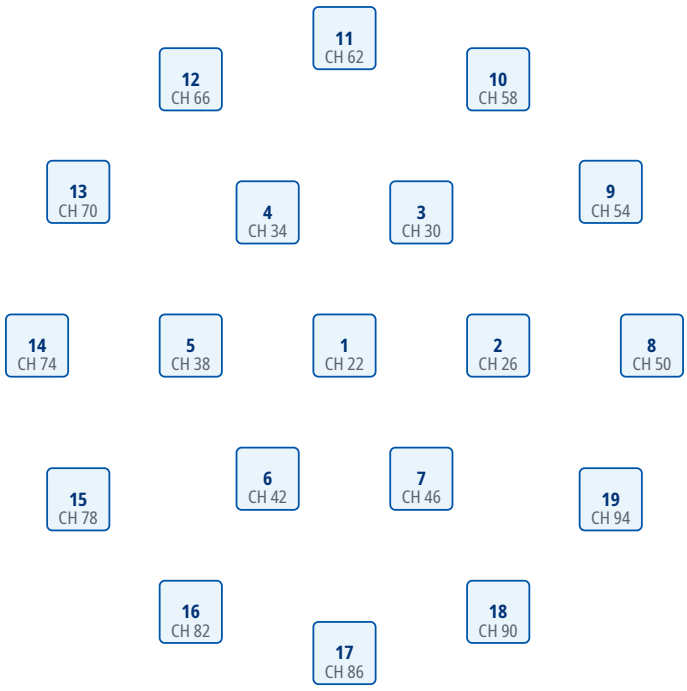

73
Green + Blue << 15
74
Green + Blue << 16
75
Green + Blue << 17
76
Green + Blue << 18
77
Green + Blue << 19
78
Green + Blue << 20
79
Green + Blue << 21
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Green + Blue << 22
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Green + Blue << 28
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Green + Blue << 29
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Green + Blue << 30
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Green + Blue << 31
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Green + Blue << 32
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Green + Blue << 33
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Green + Blue << 34
93
Green + Blue << 35
94
Green + Blue << 36
95
Green + Blue << 37
96
Green + Blue << 38
97
Green
98
Green + Red >> 00
99
Green + Red >> 01
100
Green + Red >> 02
101
Green + Red >> 03
102
Green + Red >> 04
103
Green + Red >> 05
104
Green + Red >> 06
105
Green + Red >> 07
106
Green + Red >> 08
107
Green + Red >> 09
108
Green + Red >> 10
109
Green + Red >> 11
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Green + Red >> 12
111
Green + Red >> 13
112
Green + Red >> 14
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Green + Red >> 15
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Green + Red >> 16
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Green + Red >> 17
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Green + Red >> 19
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Green + Red >> 21


121
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Green + Red >> 26
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Green + Red >> 27
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Green + Red >> 28
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Green + Red >> 31
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Green + Red >> 32
131
Green + Red >> 33
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Green + Red >> 34
133
Green + Red >> 35
134
Green + Red >> 36
135
Green + Red >> 37
136
Yellow
137
Red + Green << 00
138
Red + Green << 01
139
Red + Green << 02
140
Red + Green << 03
141
Red + Green << 04
142
Red + Green << 05
143
Red + Green << 06
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Red + Green << 07
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Red + Green << 08
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Red + Green << 31


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Red + Green << 32
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Red + Green << 33
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Red + Green << 34
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Red + Green << 35
173
Red + Green << 36
174
Red + Green << 37
175
Red + Green << 38
176
Red
177
Red + Blue >> 00
178
Red + Blue >> 01
179
Red + Blue >> 02
180
Red + Blue >> 03
181
Red + Blue >> 04
182
Red + Blue >> 05
183
Red + Blue >> 06
184
Red + Blue >> 07
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Red + Blue >> 08
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Red + Blue >> 09
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Red + Blue >> 27
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Red + Blue >> 28
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Red + Blue >> 29
207
Red + Blue >> 30
208
Red + Blue >> 31
209
Red + Blue >> 32
210
Red + Blue >> 33
211
Red + Blue >> 34
212
Red + Blue >> 35
213
Red + Blue >> 36
214
Red + Blue >> 37
215
Red + Blue >> 38
216
Magenta


217
Blue + Red << 00
218
Blue + Red << 01
219
Blue + Red << 02
220
Blue + Red << 03
221
Blue + Red << 04
222
Blue + Red << 05
223
Blue + Red << 06
224
Blue + Red << 07
225
Blue + Red << 08
226
Blue + Red << 09
227
Blue + Red << 10
228
Blue + Red << 11
229
Blue + Red << 12
230
Blue + Red << 13
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Blue + Red << 14
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Blue + Red << 15
233
Blue + Red << 16
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Blue + Red << 17
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Blue + Red << 18
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Blue + Red << 19
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Blue + Red << 21
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Blue + Red << 22
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Blue + Red << 25
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Blue + Red << 28
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Blue + Red << 29
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Blue + Red << 30
248
Blue

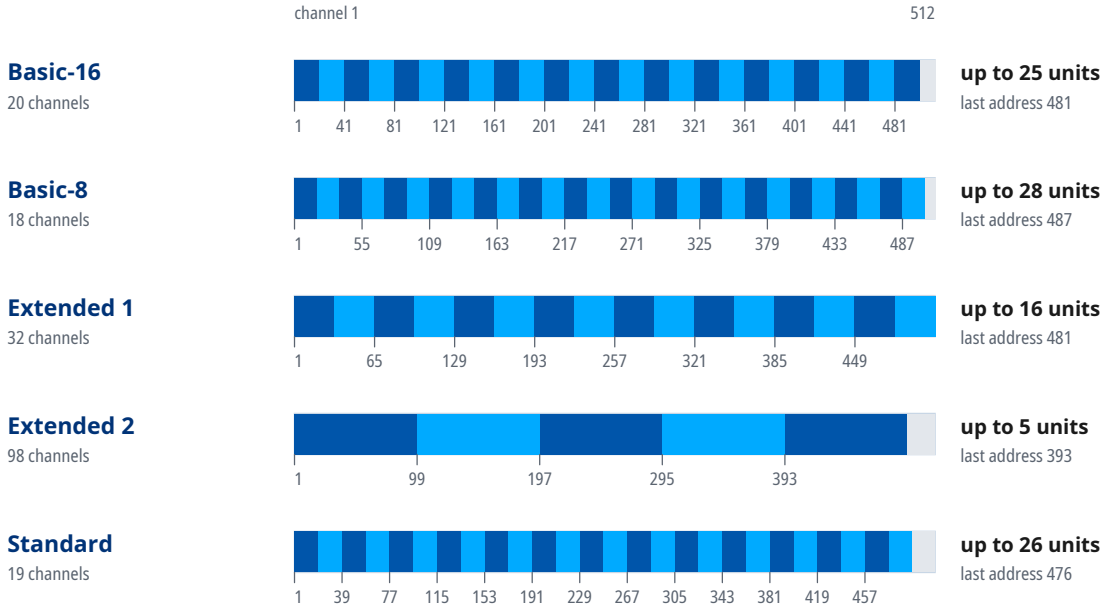
Cells (pixels)



19 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Extended 1”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended 2”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 1	11	U3 · 1	16	U4 · 1
2	99	7	U2 · 99	12	U3 · 99	17	U4 · 99
3	197	8	U2 · 197	13	U3 · 197	18	U4 · 197
4	295	9	U2 · 295	14	U3 · 295	19	U4 · 295
5	393	10	U2 · 393	15	U3 · 393	20	U4 · 393

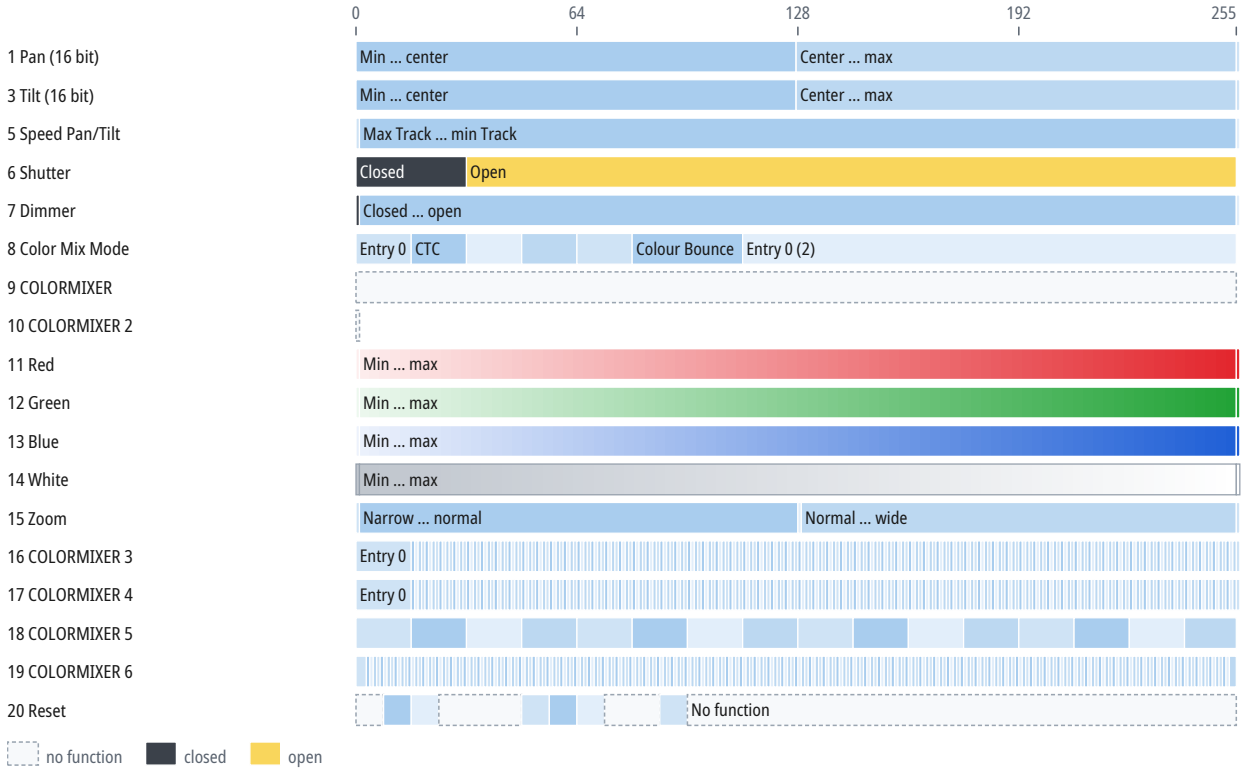
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode Basic-16

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 32–255 “open”; CH 7 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Shutter 48, CH 7 Dimmer 255, CH 11 Red 255, CH 12 Green 255, CH 13 Blue 255, CH 14 White 0.

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	Speed Pan/Tilt	0	Max Track
		1–254	Max Track ... min Track
		255	Min Track
6	Shutter	0–31	Closed
		32–255	Open
7	Dimmer	0	Closed
		1–254	Closed ... open
		255	Open

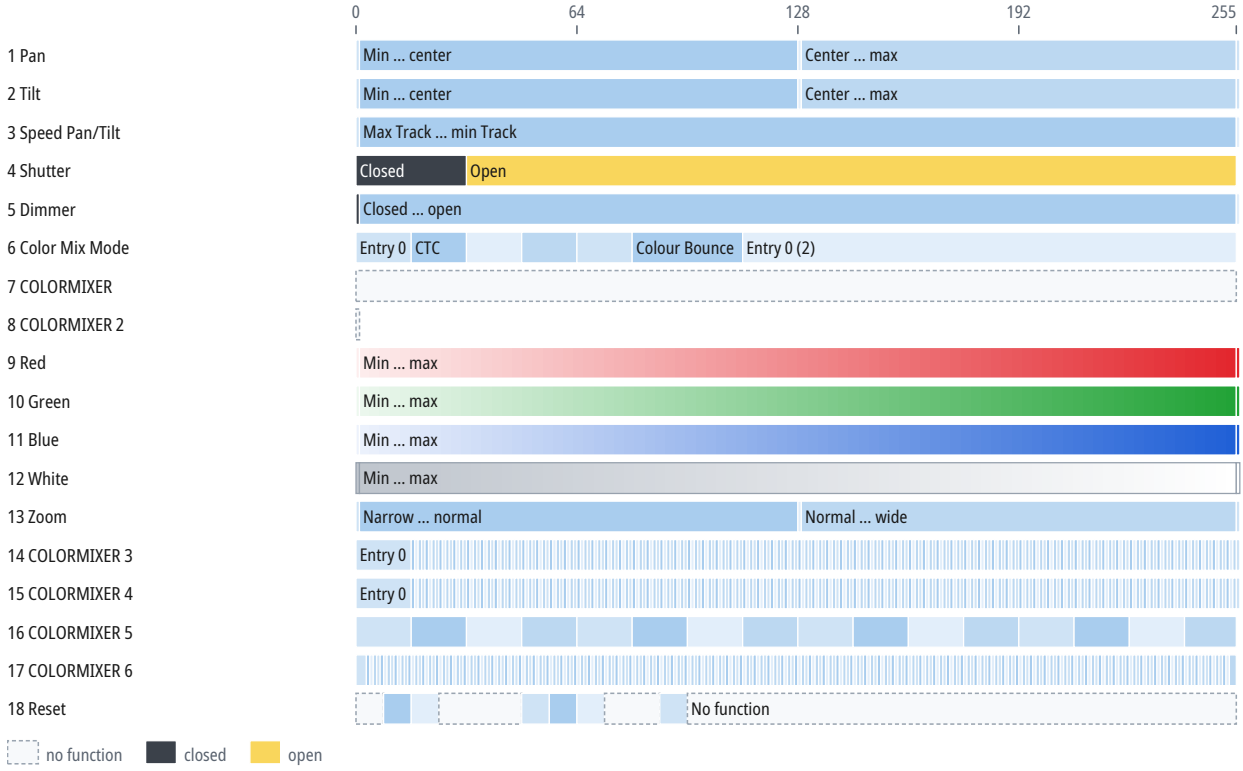
CH	Function	DMX	Description
8	Color Mix Mode	0–15	Entry 0
		16–31	CTC
		32–47	Forward spin
		48–63	Reverse spin
		64–79	Continuous
		80–111	Colour Bounce
		112–255	Entry 0 (2)
9	COLORMIXER		When CH 8 is 0–15:
		0–255	
10	COLORMIXER 2		When CH 8 is 0–79:
		0–255	
			When CH 8 is 80–111:
		0	Entry 0
		1	Red
		2	Green
		3	Blue
		4	White
		5–46	Red 0%/green increasing/blue 100%/white 0%
		47–88	Red 0%/green 100%/blue decreasing/white 0%
		89–130	Red increasing/green 100%/blue 0%/white 0%
		131–172	Red 100%/green decreasing/blue 0%/white 0%
		173–214	Red 100%/green 0%/blue increasing/white 0%
		215–255	Red decreasing/green 0%/blue 100%/white 0%
			When CH 8 is 112–255:
		0–255	
11	Red		Color RGB_R 1
		0	Min
		1–254	Min ... max
		255	Max
12	Green		Color RGB_G 1
		0	Min
		1–254	Min ... max
		255	Max
13	Blue		Color RGB_B 1
		0	Min
		1–254	Min ... max
		255	Max
14	White		Color RGB_W 1
		0	Min
		1–254	Min ... max
		255	Max
15	Zoom	0	Narrow

CH	Function	DMX	Description
15	Zoom (continued)	1–127	Narrow ... normal
		128	Normal
		129–254	Normal ... wide
		255	Wide
16	COLORMIXER 3	0–15	Entry 0
		16–255	Entry 1...240
17	COLORMIXER 4	0–15	Entry 0
		16–255	Entry 1...240
18	COLORMIXER 5	0–15	On pattern
		16–31	Pattern control
		32–47	Pattern effect 1
		48–63	Pattern effect 2
		64–79	Pattern effect 3
		80–95	Pattern effect 4
		96–111	Pattern effect 5
		112–127	Pattern effect 6
		128–143	Pattern effect 7
		144–159	Pattern effect 8
		160–175	Pattern effect 9
		176–191	Pattern effect 10
		192–207	Pattern effect 11
		208–223	Pattern effect 12
		224–239	Pattern effect 13
		240–255	Pattern effect 14
19	COLORMIXER 6	0–2	Max Macro Rate6
		3–252	Entry 1...250
		253–255	Entry 0
20	Reset	0–7	No function
		8–15	Reset
		16–23	PosReset
		24–47	No function
		48–55	NonPosReset
		56–63	Display 0%
		64–71	Display 100%
		72–87	No function
		88–95	FixtureSleep
		96–255	No function

Mode Basic-8

If the device receives DMX in this mode but gives no light, check these channels: CH 4 Shutter at 32–255 “open”; CH 5 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 4 Shutter 48, CH 5 Dimmer 255, CH 9 Red 255, CH 10 Green 255, CH 11 Blue 255, CH 12 White 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–127	Min ... center
		128	Center
		129–254	Center ... max
		255	Max
2	Tilt	0	Min
		1–127	Min ... center
		128	Center
		129–254	Center ... max
		255	Max
3	Speed Pan/Tilt		Same as CH 5 in the mode “Basic-16” (p. 15)
4	Shutter		Same as CH 6 in the mode “Basic-16” (p. 15)
5	Dimmer		Same as CH 7 in the mode “Basic-16” (p. 15)
6	Color Mix Mode		Same as CH 8 in the mode “Basic-16” (p. 16)
7	COLORMIXER		When CH 6 is 0–15:
		0–255	
8	COLORMIXER 2		When CH 6 is 0–79:

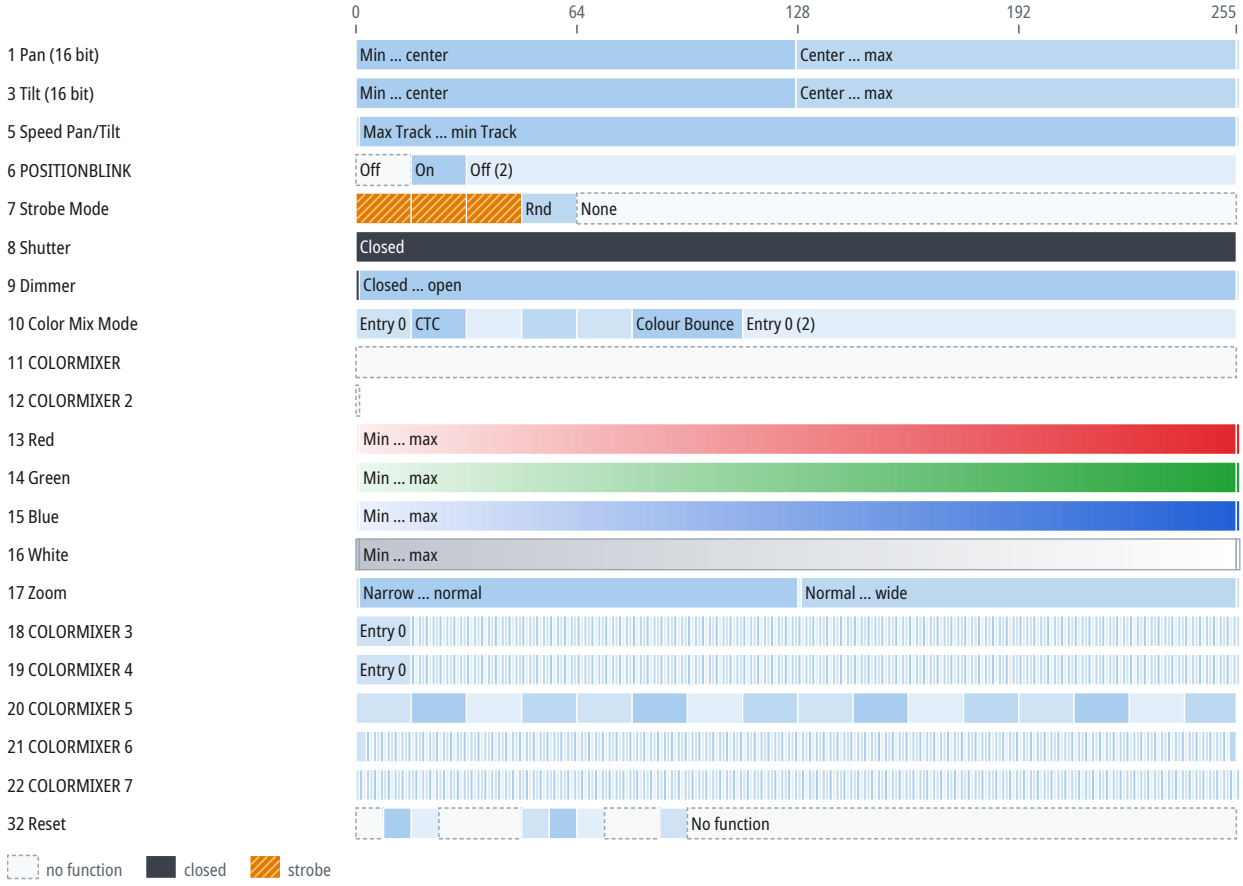
CH	Function	DMX	Description
8	COLORMIXER 2 (continued)	0–255	
			When CH 6 is 80–111:
		0	Entry 0
		1	Red
		2	Green
		3	Blue
		4	White
		5–46	Red 0%/green increasing/blue 100%/white 0%
		47–88	Red 0%/green 100%/blue decreasing/white 0%
		89–130	Red increasing/green 100%/blue 0%/white 0%
		131–172	Red 100%/green decreasing/blue 0%/white 0%
		173–214	Red 100%/green 0%/blue increasing/white 0%
		215–255	Red decreasing/green 0%/blue 100%/white 0%
			When CH 6 is 112–255:
		0–255	
9	Red		Same as CH 11 in the mode “Basic-16” (p. 16)
10	Green		Same as CH 12 in the mode “Basic-16” (p. 16)
11	Blue		Same as CH 13 in the mode “Basic-16” (p. 16)
12	White		Same as CH 14 in the mode “Basic-16” (p. 16)
13	Zoom		Same as CH 15 in the mode “Basic-16” (p. 16)
14	COLORMIXER 3		Same as CH 16 in the mode “Basic-16” (p. 17)
15	COLORMIXER 4		Same as CH 17 in the mode “Basic-16” (p. 17)
16	COLORMIXER 5		Same as CH 18 in the mode “Basic-16” (p. 17)
17	COLORMIXER 6		Same as CH 19 in the mode “Basic-16” (p. 17)
18	Reset		Same as CH 20 in the mode “Basic-16” (p. 17)

Mode Extended 1

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 9 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 9 Dimmer 255, CH 13 Red 255, CH 14 Green 255, CH 15 Blue 255, CH 16 White 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Basic-16” (p. 15)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Basic-16” (p. 15)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “Basic-16” (p. 15)
6	POSITIONBLINK	0–15	Off
		16–31	On
		32–255	Off (2)
7	Strobe Mode	0–15	Normal
		16–31	Pulse Open
		32–47	Pulse Close
		48–63	Rnd
		64–255	None

CH	Function	DMX	Description
8	Shutter		When CH 7 is 0–15:
		0–255	Closed
9	Dimmer		Same as CH 7 in the mode “Basic-16” (p. 15)
10	Color Mix Mode		Same as CH 8 in the mode “Basic-16” (p. 16)
11	COLORMIXER		When CH 10 is 0–15:
		0–255	
12	COLORMIXER 2		When CH 10 is 0–79:
		0–255	
			When CH 10 is 80–111:
		0	Entry 0
		1	Red
		2	Green
		3	Blue
		4	White
		5–46	Red 0%/green increasing/blue 100%/white 0%
		47–88	Red 0%/green 100%/blue decreasing/white 0%
		89–130	Red increasing/green 100%/blue 0%/white 0%
		131–172	Red 100%/green decreasing/blue 0%/white 0%
		173–214	Red 100%/green 0%/blue increasing/white 0%
		215–255	Red decreasing/green 0%/blue 100%/white 0%
			When CH 10 is 112–255:
		0–255	
13	Red		Same as CH 11 in the mode “Basic-16” (p. 16)
14	Green		Same as CH 12 in the mode “Basic-16” (p. 16)
15	Blue		Same as CH 13 in the mode “Basic-16” (p. 16)
16	White		Same as CH 14 in the mode “Basic-16” (p. 16)
17	Zoom		Same as CH 15 in the mode “Basic-16” (p. 16)
18	COLORMIXER 3		Same as CH 16 in the mode “Basic-16” (p. 17)
19	COLORMIXER 4		Same as CH 17 in the mode “Basic-16” (p. 17)
20	COLORMIXER 5		Same as CH 18 in the mode “Basic-16” (p. 17)
21	COLORMIXER 6		Same as CH 19 in the mode “Basic-16” (p. 17)
22	COLORMIXER 7	0–255	Entry 0...255
32	Reset		Same as CH 20 in the mode “Basic-16” (p. 17)

CH 22–31: 10 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 22); the table below gives each cell's channel numbers.

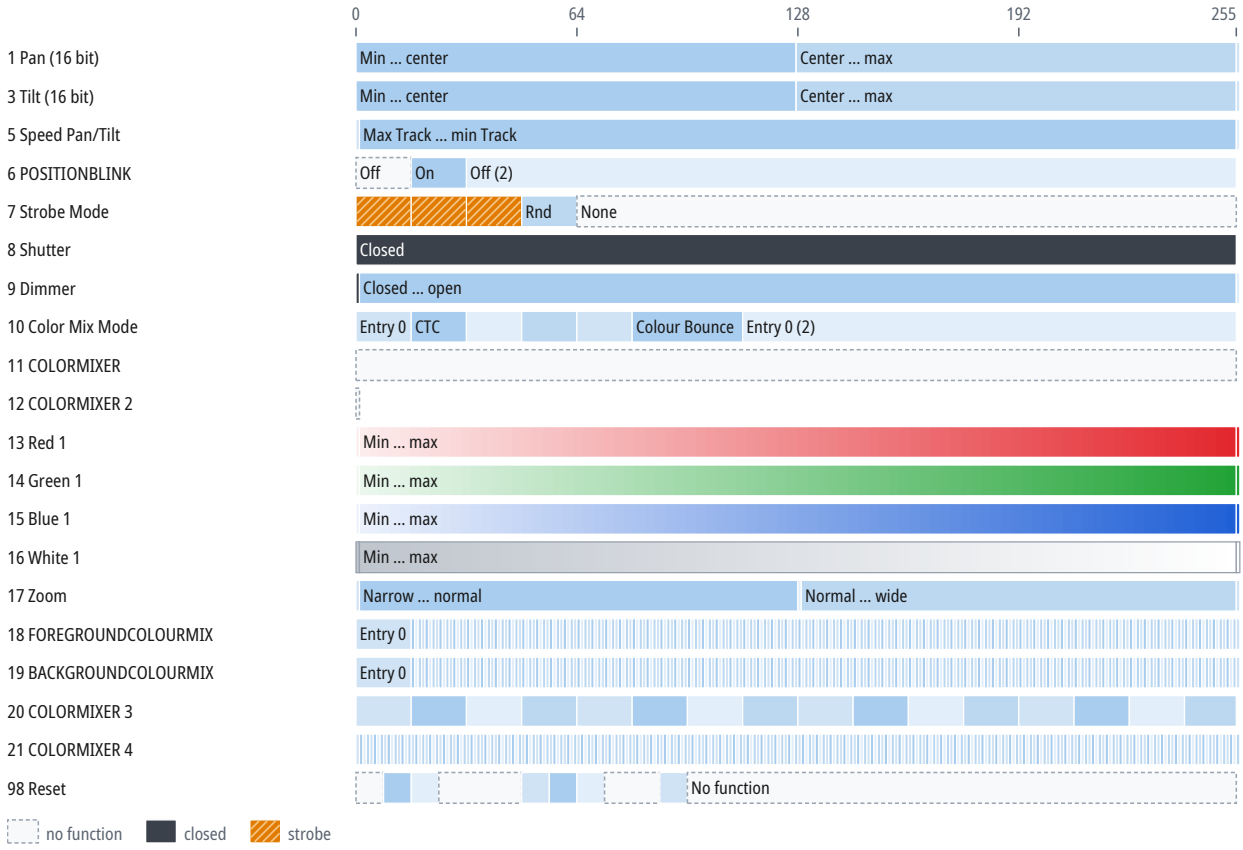
Cell	COLORMIXER	Cell	COLORMIXER	Cell	COLORMIXER	Cell	COLORMIXER	Cell	COLORMIXER	Cell	COLORMIXER
1	22	2	23	3	24	4	25	5	26	6	27
7	28	8	29	9	30	10	31				

Mode Extended 2

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 9 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 9 Dimmer 255, CH 13 Red 1 255, CH 14 Green 1 255, CH 15 Blue 1 255, CH 16 White 1 0, CH 22 Red 255 (the same in each of the 19 cells), CH 23 Green 255 (the same in each of the 19 cells), CH 24 Blue 255 (the same in each of the 19 cells), CH 25 White 0 (the same in each of the 19 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Basic-16” (p. 15)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Basic-16” (p. 15)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “Basic-16” (p. 15)
6	POSITIONBLINK		Same as CH 6 in the mode “Extended 1” (p. 20)
7	Strobe Mode		Same as CH 7 in the mode “Extended 1” (p. 20)
8	Shutter		Same as CH 8 in the mode “Extended 1” (p. 21)
9	Dimmer		Same as CH 7 in the mode “Basic-16” (p. 15)
10	Color Mix Mode		Same as CH 8 in the mode “Basic-16” (p. 16)
11	COLORMIXER		Same as CH 11 in the mode “Extended 1” (p. 21)
12	COLORMIXER 2		Same as CH 12 in the mode “Extended 1” (p. 21)
13	Red 1		Color RGB_R 1

CH	Function	DMX	Description
13	Red 1 (continued)	0	Min
		1–254	Min ... max
		255	Max
14	Green 1		Color RGB_G 1
		0	Min
		1–254	Min ... max
		255	Max
15	Blue 1		Color RGB_B 1
		0	Min
		1–254	Min ... max
		255	Max
16	White 1		Color RGB_W 1
		0	Min
		1–254	Min ... max
		255	Max
17	Zoom		Same as CH 15 in the mode “Basic-16” (p. 16)
18	FOREGROUNDCOLOURMIX	0–15	Entry 0
		16–255	Entry 1...240
19	BACKGROUNDCOLOURMIX	0–15	Entry 0
		16–255	Entry 1...240
20	COLORMIXER 3	0–15	On pattern
		16–31	Pattern control
		32–47	Pattern effect 1
		48–63	Pattern effect 2
		64–79	Pattern effect 3
		80–95	Pattern effect 4
		96–111	Pattern effect 5
		112–127	Pattern effect 6
		128–143	Pattern effect 7
		144–159	Pattern effect 8
		160–175	Pattern effect 9
		176–191	Pattern effect 10
		192–207	Pattern effect 11
		208–223	Pattern effect 12
		224–239	Pattern effect 13
		240–255	Pattern effect 14
21	COLORMIXER 4	0–255	Entry 0...255
22	Red 2		Color RGB_R 1
		0	Min
		1–254	Min ... max
		255	Max
23	Green 2		Color RGB_G 1

CH	Function	DMX	Description
23	Green 2 (continued)	0	Min
		1–254	Min … max
		255	Max
24	Blue 2		Color RGB_B 1
		0	Min
		1–254	Min … max
		255	Max
25	White 2		Color RGB_W 1
		0	Min
		1–254	Min … max
		255	Max
98	Reset		Same as CH 20 in the mode “Basic-16” (p. 17)

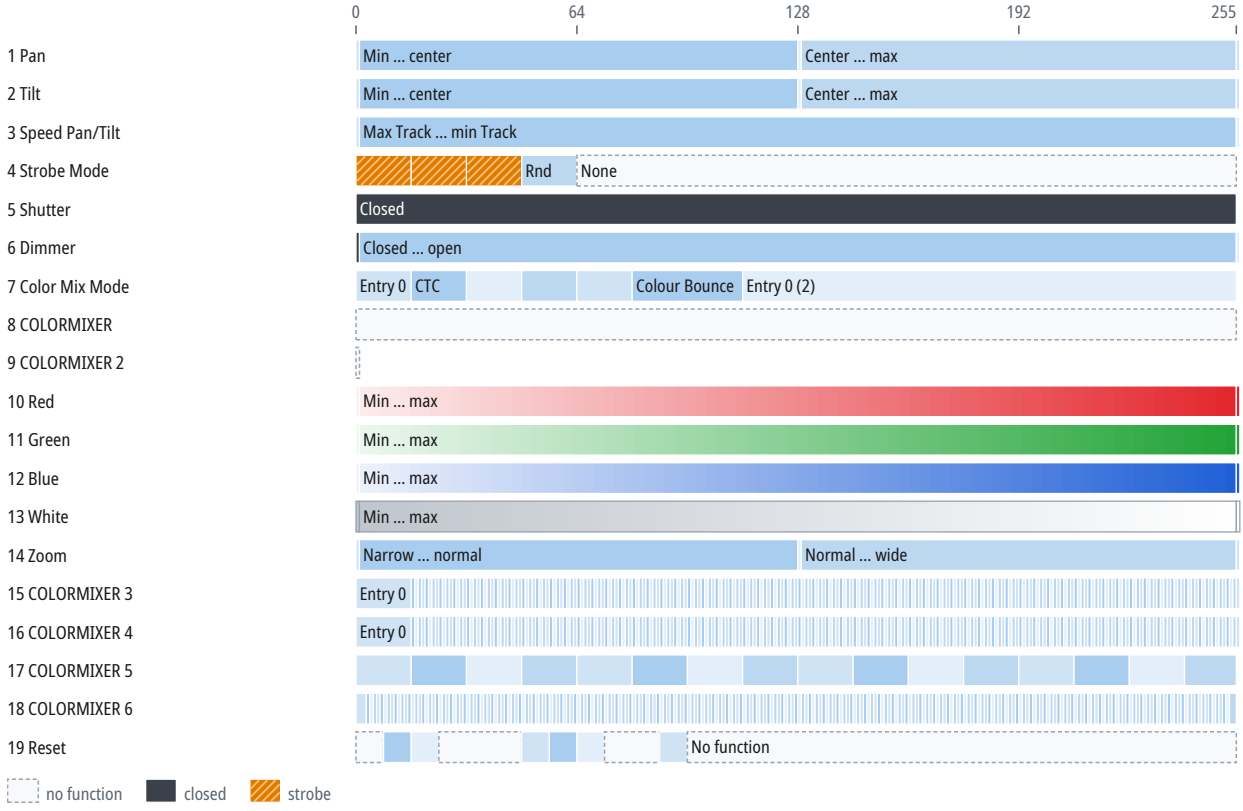
CH 22–97: 19 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 22–25); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	White	Cell	Red	Green	Blue	White
1	22	23	24	25	2	26	27	28	29
3	30	31	32	33	4	34	35	36	37
5	38	39	40	41	6	42	43	44	45
7	46	47	48	49	8	50	51	52	53
9	54	55	56	57	10	58	59	60	61
11	62	63	64	65	12	66	67	68	69
13	70	71	72	73	14	74	75	76	77
15	78	79	80	81	16	82	83	84	85
17	86	87	88	89	18	90	91	92	93
19	94	95	96	97					

Mode Standard

If the device receives DMX in this mode but gives no light, check these channels: CH 6 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Dimmer 255, CH 10 Red 255, CH 11 Green 255, CH 12 Blue 255, CH 13 White 0.

Channel functions at a glance



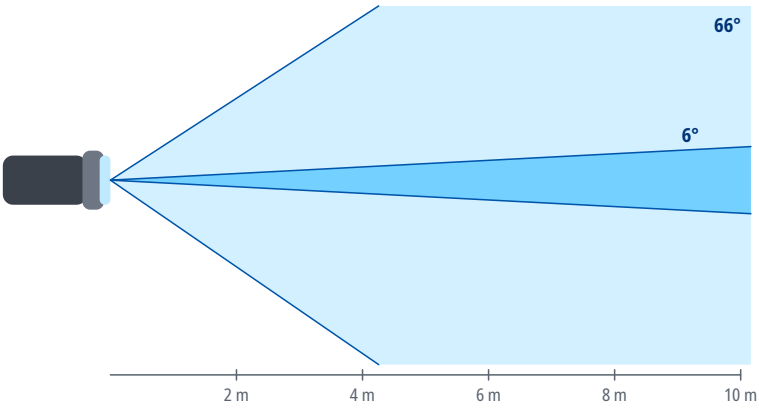
CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Basic-8” (p. 18)
2	Tilt		Same as CH 2 in the mode “Basic-8” (p. 18)
3	Speed Pan/Tilt		Same as CH 5 in the mode “Basic-16” (p. 15)
4	Strobe Mode		Same as CH 7 in the mode “Extended 1” (p. 20)
5	Shutter		When CH 4 is 0–15:
		0–255	Closed
6	Dimmer		Same as CH 7 in the mode “Basic-16” (p. 15)
7	Color Mix Mode		Same as CH 8 in the mode “Basic-16” (p. 16)
8	COLORMIXER		When CH 7 is 0–15:
		0–255	
9	COLORMIXER 2		When CH 7 is 0–79:
		0–255	
			When CH 7 is 80–111:
		0	Entry 0
		1	Red
		2	Green

CH	Function	DMX	Description
9	COLORMIXER 2 (continued)	3	Blue
		4	White
		5–46	Red 0%/green increasing/blue 100%/white 0%
		47–88	Red 0%/green 100%/blue decreasing/white 0%
		89–130	Red increasing/green 100%/blue 0%/white 0%
		131–172	Red 100%/green decreasing/blue 0%/white 0%
		173–214	Red 100%/green 0%/blue increasing/white 0%
		215–255	Red decreasing/green 0%/blue 100%/white 0%
			When CH 7 is 112–255:
		0–255	
10	Red		Same as CH 11 in the mode “Basic-16” (p. 16)
11	Green		Same as CH 12 in the mode “Basic-16” (p. 16)
12	Blue		Same as CH 13 in the mode “Basic-16” (p. 16)
13	White		Same as CH 14 in the mode “Basic-16” (p. 16)
14	Zoom		Same as CH 15 in the mode “Basic-16” (p. 16)
15	COLORMIXER 3		Same as CH 16 in the mode “Basic-16” (p. 17)
16	COLORMIXER 4		Same as CH 17 in the mode “Basic-16” (p. 17)
17	COLORMIXER 5		Same as CH 18 in the mode “Basic-16” (p. 17)
18	COLORMIXER 6		Same as CH 19 in the mode “Basic-16” (p. 17)
19	Reset		Same as CH 20 in the mode “Basic-16” (p. 17)

10 Technical specifications

Parameter	Value
Zoom	6–66°
Pan	630°
Tilt	265°
Weight	9.2 kg
Operating temperature	0 to 45 °C

Spot diameter



Distance	Ø 6°	Ø 66°
2 m	0.21 m	2.6 m
4 m	0.42 m	5.2 m
6 m	0.63 m	7.8 m
8 m	0.84 m	10.4 m
10 m	1 m	13 m
15 m	1.6 m	19.5 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.

Problem	Remedy
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.