DMX REFERENCE

FINE 1700LC ISPOT

Fine Art



Manufacturer	Fine Art
GDTF file	Fine_Art_FINE_1700LC_ISPOT_122656.gdtf
GDTF revision	FINE 1700LC ISPOT · 2025-12-29
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1 About this manual

This document describes the FINE 1700LC ISPOT by Fine Art. It was compiled from the GDTF file Fine_Art_FINE_1700LC_ISPOT_122656.gdtf from the GDTF-Share library.

File revision: “FINE 1700LC ISPOT”.

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 Fine Art; 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	34 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
STND	39	13	1, 40, 79, 118, ...
16BT	48	10	1, 49, 97, 145, ...
EXTN	52	9	1, 53, 105, 157, ...
PERF	48	10	1, 49, 97, 145, ...



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.

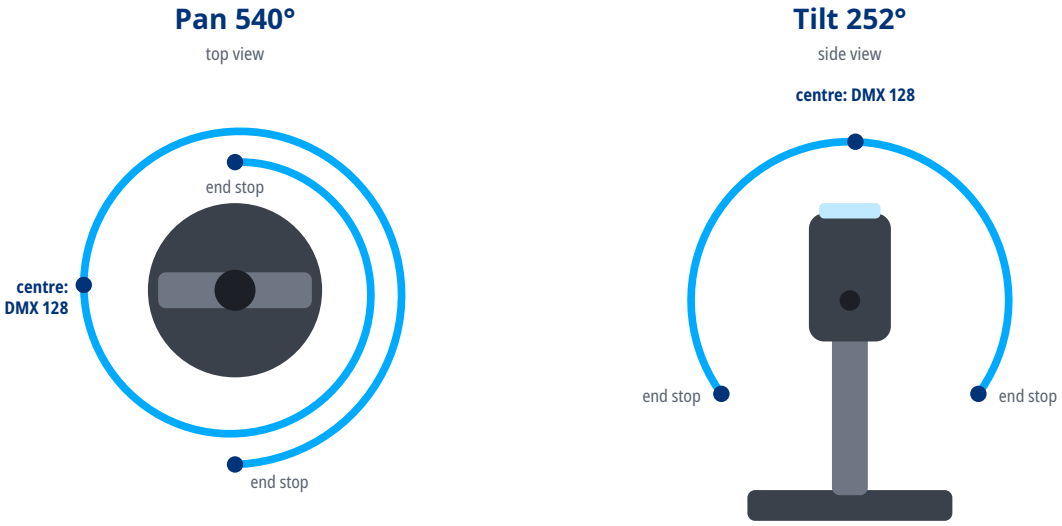
⚠ CAUTION

- 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



5 Installation

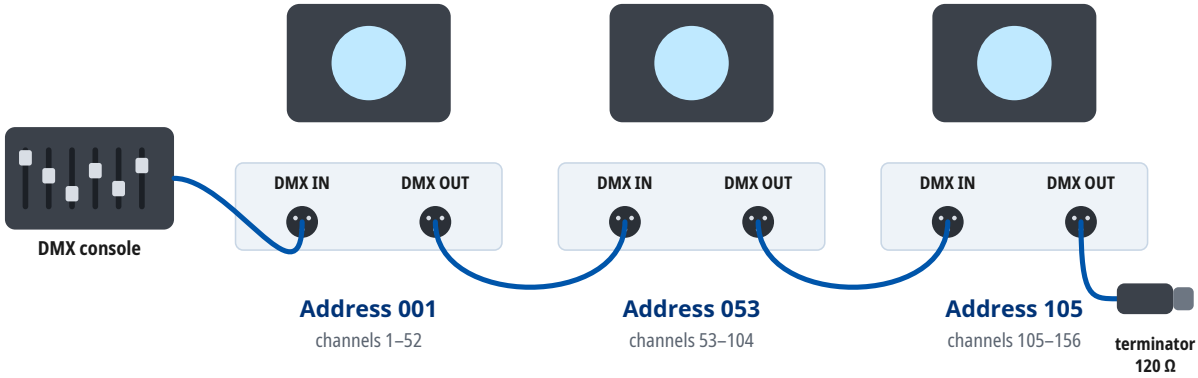
> ⚠ **WARNING**
>
> - Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
> - The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
> - Weight of the device: 34 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 EXTN: every unit occupies 52 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 “EXTN”: 52.
- 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 “EXTN”, you can use, for example, the start addresses 1, 53, 105, 157.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

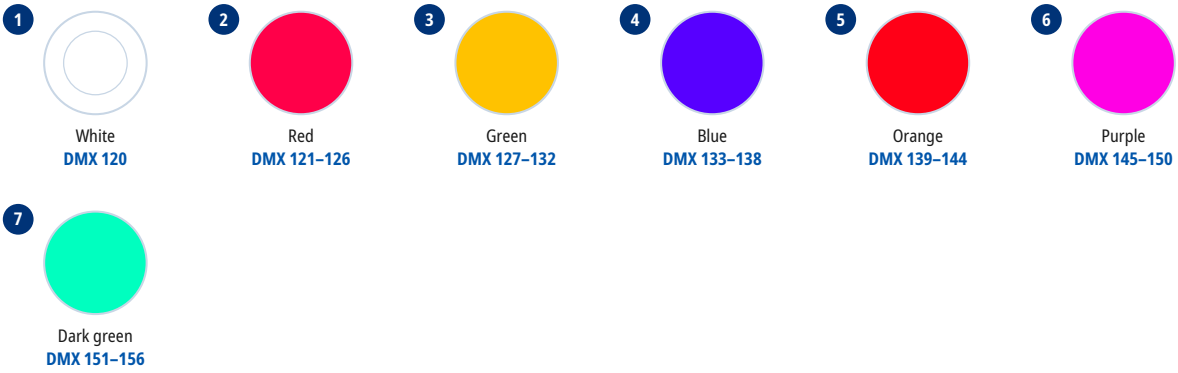
8 Functions at a glance

Functions in each DMX mode

	STND 39 channels	16BT 48 channels	EXTN 52 channels	PERF 48 channels
Pan / Tilt	14, 16	18, 20	22, 24	18, 20
Dimmer	2	2	2	2
Shutter / strobe	1	1	1	1
Color mixing	4–6	4, 6, 8	4, 6, 8	
Color temperature	10	13	17	13
Color wheel	7	10	14	10
Gobo wheel	18, 20	22, 25	26, 29	22, 25
Gobo rotation	19 *	23 *	27 *	23 *
Prism	22, 23	27, 28	31, 32	27, 28
Frost	26, 27	35, 36	39, 40	35, 36
Zoom	25	31	35	31
Focus	24	29	33	29
Iris	28	37	41	37
Animation wheel	21	26	30	26
Effects / macros	38	47	51	47

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

Color wheel 1



Gobo wheel 1

1
Gobo 1: Open
DMX 0–9

2 
Gobo 1
DMX 10–19

3 
Gobo 2
DMX 20–29

4 
Gobo 3
DMX 30–39

5 
Gobo 4
DMX 40–49

6 
Gobo 5
DMX 50–59

7 
G6
DMX 60–72

Animation wheel

1 
animation

Prism

1
Open
DMX 0–11

2 
4 facets
4F Linear
DMX 139–255

3 
4 facets
Prism1 (4F Circular)
DMX 11–139

Gobo wheel 2

1
Gobo: Open
DMX 0–8

2 
Gobo 1
DMX 9–15

3 
Gobo 2
DMX 16–22

4 
Gobo 3
DMX 23–29

5 
Gobo 4
DMX 30–36

6 
Gobo 5
DMX 37–43

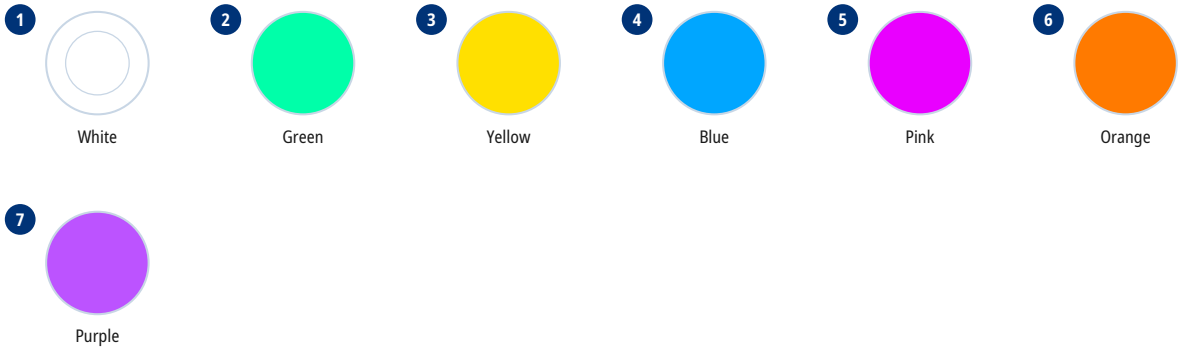
7 
Gobo 6
DMX 44–50

8 
Gobo 7
DMX 51–57

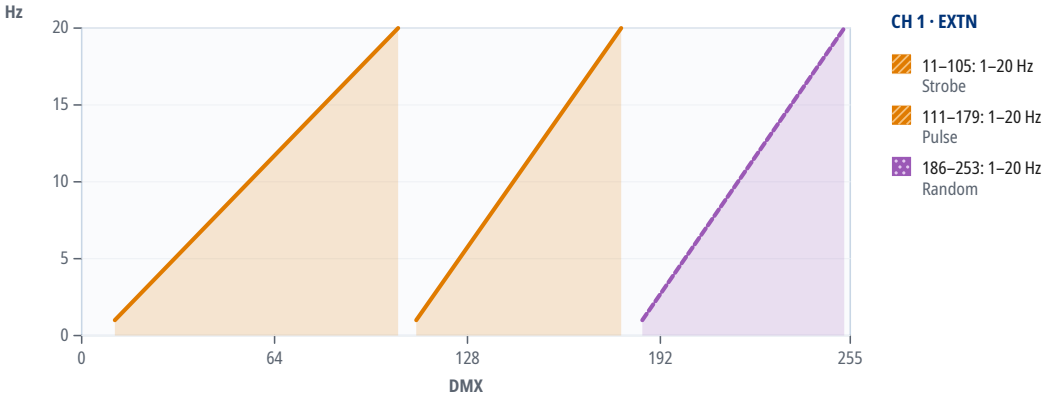
9 
Gobo 8
DMX 58–64

10 
Gobo9
DMX 65–72

Color wheel 2

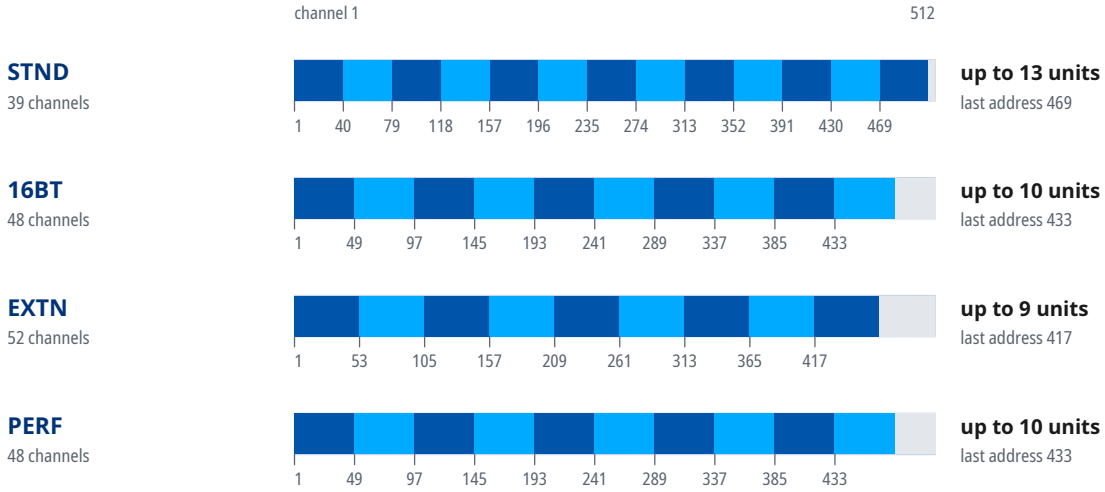


Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “EXTN”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	261	11	U2 · 53	16	U2 · 313
2	53	7	313	12	U2 · 105	17	U2 · 365
3	105	8	365	13	U2 · 157	18	U2 · 417
4	157	9	417	14	U2 · 209	19	U3 · 1
5	209	10	U2 · 1	15	U2 · 261	20	U3 · 53

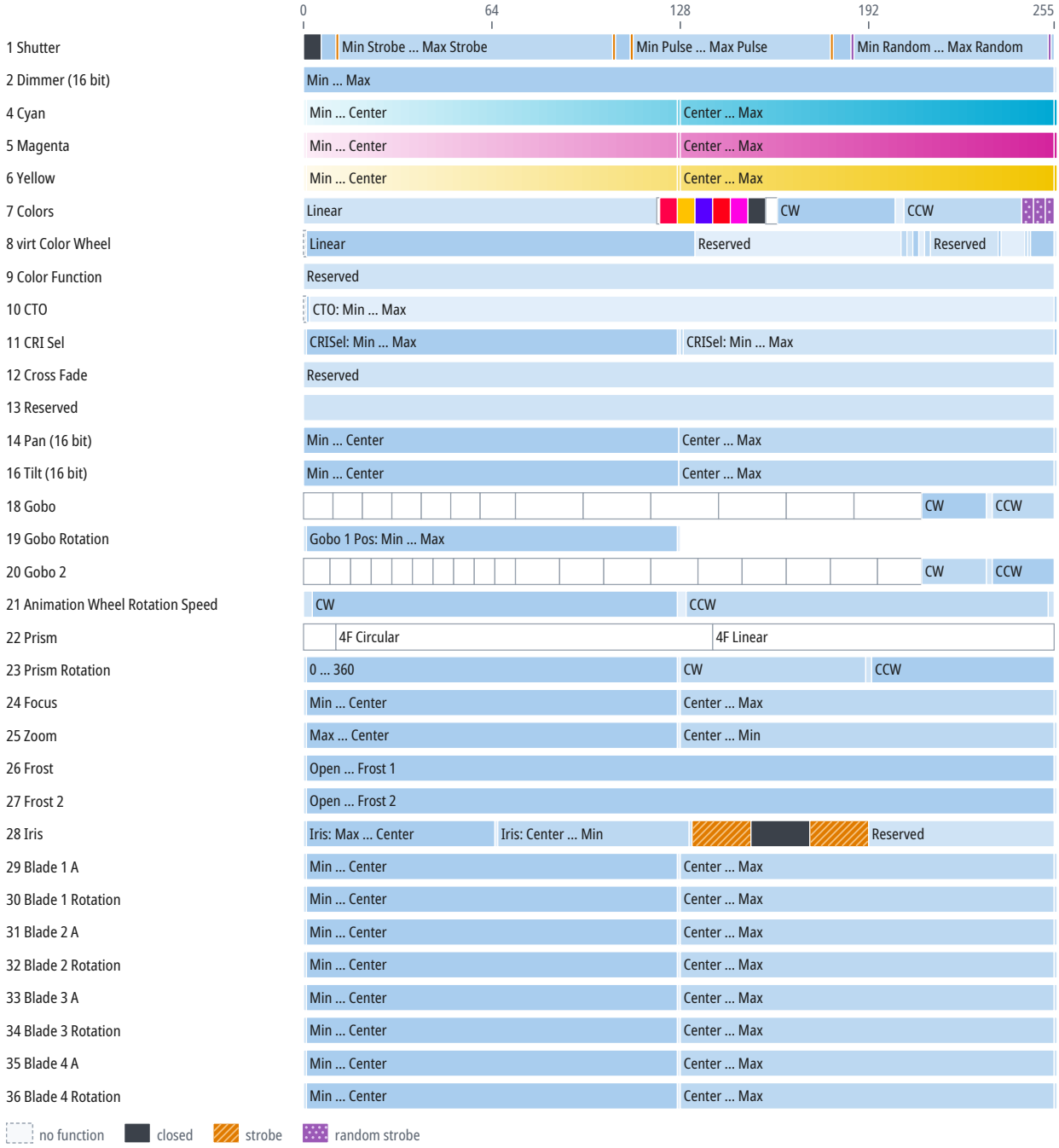
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode STND

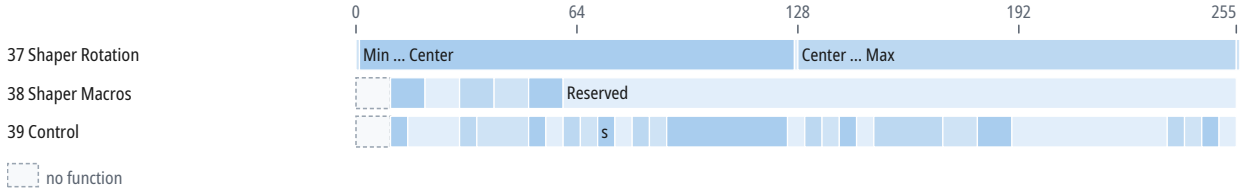
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 6, CH 2 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Shutter	0–5	Close
		6–10	Open1
		11	Min Strobe
		12–104	Min Strobe ... Max Strobe
		105	Max Strobe
		106–110	Open2
		111	Min Pulse
		112–178	Min Pulse ... Max Pulse
		179	Max Pulse
		180–185	Open3
		186	Min Random
		187–252	Min Random ... Max Random
		253	Max Random
		254–255	Open4
2	Dimmer	0–255	Min ... Max
		255	Max
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Cyan	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
5	Magenta	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
6	Yellow	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
7	Colors	0–119	Linear
		120	White
		121–126	Red

CH	Function	DMX	Description
7	Colors (continued)	127–132	Green
		133–138	Blue
		139–144	Orange
		145–150	Purple
		151–156	Dark green
		157–160	White
		161–200	CW (46.7–3.67 °/s)
		201–203	Color 1 Spin: Stop
		204–243	CCW (3.67–46.7 °/s)
		244–247	Random>>>
		248–251	Random>>
		252–255	Random>
8	virt Color Wheel	0	None
		1–132	Linear
		133–202	Reserved
		203–204	750W/80V
		205–206	1000W/240V
		207–208	1200W/240V
		209–210	2000W/230V
		211–212	2500W/230V
		213–235	Reserved
		236	Rainbow effect: Slow
		237–244	Rainbow effect: Slow ... Fast
		245	Rainbow effect: Fast
		246	Rainbow effect: Slow
		247–254	Rainbow effect: Slow ... Fast
		255	Rainbow effect: Fast
9	Color Function	0–255	Reserved
10	CTO	0	None
		1	CTO: Min
		2–254	CTO: Min ... Max
		255	CTO: Max
11	CRI Sel	0	CRISel: Min
		1–126	CRISel: Min ... Max
		127	CRISel: Max
		128	CRISel: Min
		129–254	CRISel: Min ... Max
		255	CRISel: Max
12	Cross Fade	0–255	Reserved
13	Reserved	0–255	
14	Pan	0–127	Min ... Center
		127	Center

CH	Function	DMX	Description
14	Pan (continued)	128–255	Center … Max
		255	Max
15	Pan Fine	0–255	Fine adjustment of CH 14
16	Tilt	0–127	Min … Center
		127	Center
		128–255	Center … Max
		255	Max
17	Tilt Fine	0–255	Fine adjustment of CH 16
18	Gobo	0–9	Gobo 1: Open
		10–19	Gobo 1
		20–29	Gobo 2
		30–39	Gobo 3
		40–49	Gobo 4
		50–59	Gobo 5
		60–71	Gobo 6
		72–94	Gobo 1 Shake (0.4–6.6 Hz)
		95–117	Gobo 2 Shake (0.4–6.6 Hz)
		118–140	Gobo 3 Shake (0.4–6.6 Hz)
		141–163	Gobo 4 Shake (0.4–6.6 Hz)
		164–186	Gobo 5 Shake (0.4–6.6 Hz)
		187–209	Gobo 6 Shake (0.4–6.6 Hz)
		210–231	CW (15.6–10 °/s)
		232–233	Gobo 1 Wheel Spin: Stop
		234–255	CCW (10–15.6 °/s)
19	Gobo Rotation		When CH 18 is 10–209:
		0	Gobo 1 Pos: Min
		1–126	Gobo 1 Pos: Min … Max
		127	Gobo 1 Pos: Max
		128–190	CW (145–8.7 °/s)
		191–192	Gobo 1 Pos Rotate: Stop
		193–255	CCW (8.7–145 °/s)
20	Gobo 2	0–8	Gobo: Open
		9–15	Gobo 1
		16–22	Gobo 2
		23–29	Gobo 3
		30–36	Gobo 4
		37–43	Gobo 5
		44–50	Gobo 6
		51–57	Gobo 7
		58–64	Gobo 8
		65–71	Gobo 9
		72–86	Gobo 1 Shake (0.4–6.6 Hz)

CH	Function	DMX	Description
20	Gobo 2 (continued)	87–101	Gobo 2 Shake (0.4–6.6 Hz)
		102–117	Gobo 3 Shake (0.4–6.6 Hz)
		118–133	Gobo 4 Shake (0.4–6.6 Hz)
		134–148	Gobo 5 Shake (0.4–6.6 Hz)
		149–163	Gobo 6 Shake (0.4–6.6 Hz)
		164–178	Gobo 7 Shake (0.4–6.6 Hz)
		179–194	Gobo 8 Shake (0.4–6.6 Hz)
		195–209	Gobo 9 Shake (0.4–6.6 Hz)
		210–231	CW (70–20 °/s)
		232–233	Gobo 2 Spin: Center
		234–255	CCW (20–70 °/s)
21	Animation Wheel Rotation Speed	0–2	Stop 1
		3–126	CW (75–2.8 °/s)
		127–129	Stop 2
		130–252	CCW (2.8–75 °/s)
		253–255	Stop 3
22	Prism	0–10	Open
		11–138	4F Circular
		139–255	4F Linear
23	Prism Rotation	0	0
		1–126	0 ... 360
		127	360
		128–190	CW (78–2.32 °/s)
		191–192	Prism 1 Pos Rotate: Stop
		193–255	CCW (2.32–78 °/s)
24	Focus	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
25	Zoom	0	Max
		1–126	Max ... Center
		127	Center
		128–254	Center ... Min
		255	Min
26	Frost	0	Open
		1–254	Open ... Frost 1
		255	Frost 1
27	Frost 2	0	Open
		1–254	Open ... Frost 2
		255	Frost 2
28	Iris	0	Iris: Max

CH	Function	DMX	Description
28	Iris (continued)	1–64	Iris: Max … Center
		65	Iris: Center
		66–130	Iris: Center … Min
		131	Iris: Min
		132–151	Iris pulse open (0.1–5 Hz)
		152–171	PluseClosed (0.1–5 Hz)
		172–191	PluseOpen (0.1–5 Hz)
		192–255	Reserved
29	Blade 1 A	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
30	Blade 1 Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
31	Blade 2 A	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
32	Blade 2 Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
33	Blade 3 A	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
34	Blade 3 Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
35	Blade 4 A	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max

CH	Function	DMX	Description
35	Blade 4 A (continued)	255	Max
36	Blade 4 Rotation	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
37	Shaper Rotation	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
38	Shaper Macros	0–9	None
		10–19	Square
		20–29	Rectangle
		30–39	Triangle
		40–49	Rhombus
		50–59	Trapezoid
		60–255	Reserved
39	Control	0–9	None
		10–14	FixtureReset
		15–29	BeamReset
		30–34	PT Reset
		35–49	Control Reserved: Reverved
		50–54	Freq 1_2Khz
		55–59	Freq 2_4Khz
		60–64	Freq 12Khz
		65–69	Freq 24Khz
		70–74	s
		75–79	Default
		80–84	Parabolic
		85–89	Empty Channel Set
		90–124	Control Reserved: Reverved
		125–129	Full power
		130–134	Standard mode
		135–139	Theater mode
		140–144	CMY S Linear
		145–149	CMY Parabola Linear
		150–169	Control Reserved: Reverved
		170–179	Control 1: Fast
		180–189	Control 1: Slow
		190–234	Control Reserved 12

CH	Function	DMX	Description
39	Control (continued)	235–239	Mode 1M The console controls all attributes except the XY attribute
		240–244	Mode 2 The console controls all attributes except those of the head mapped to the faders and wheels and the XY attribute
		245–249	Mode 3 The console controls all attributes except those of the head mapped to the faders XY attributes
		250–255	Mode 4 Console control of all attributes

Mode 16BT

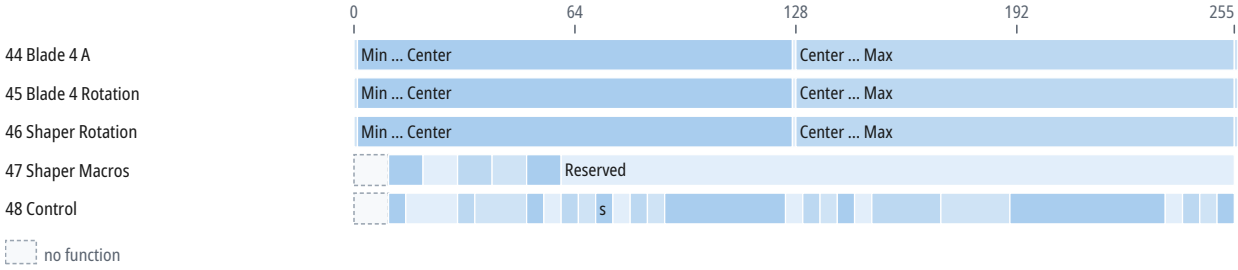
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 6, CH 2 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 1 in the mode “STND” (p. 12)
2	Dimmer		Same as CH 2 in the mode “STND” (p. 12)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Cyan	0–127	Min ... Center
		127–255	Center ... Max
		255	Max
5	Cyan Fine	0–255	Fine adjustment of CH 4
6	Magenta	0–127	Min ... Center
		127–255	Center ... Max
		255	Max
7	Magenta Fine	0–255	Fine adjustment of CH 6
8	Yellow	0–127	Min ... Center
		127–255	Center ... Max
		255	Max
9	Yellow Fine	0–255	Fine adjustment of CH 8
10	Colors		Same as CH 7 in the mode “STND” (p. 12)
11	virt Color Wheel		Same as CH 8 in the mode “STND” (p. 13)
12	Color Function	0–255	Reserved
13	CTO		Same as CH 10 in the mode “STND” (p. 13)
14	Green Corr	0	None
		1–127	Tasting red >> Natural white
		128	Natural white
		129–255	Natural white >> Green
15	CRI Sel		Same as CH 11 in the mode “STND” (p. 13)
16	Cross Fade	0–255	Reserved
17	Reserved	0–255	
18	Pan		Same as CH 14 in the mode “STND” (p. 13)
19	Pan Fine	0–255	Fine adjustment of CH 18
20	Tilt		Same as CH 16 in the mode “STND” (p. 14)
21	Tilt Fine	0–255	Fine adjustment of CH 20
22	Gobo		Same as CH 18 in the mode “STND” (p. 14)
23	Gobo Rotation		When CH 22 is 10–209:
		0–127	Gobo 1 Pos: Min ... Max

CH	Function	DMX	Description
23	Gobo Rotation (continued)	127	Gobo 1 Pos: Max
		127–128	Gobo 1 Pos 1
		128–190	CW (145–8.7 °/s)
		191–192	Gobo 1 Pos Rotate: Stop
		193–255	CCW (8.7–145 °/s)
24	Gobo Rotation Fine	0–255	Fine adjustment of CH 23
25	Gobo 2		Same as CH 20 in the mode “STND” (p. 14)
26	Animation Wheel Rotation Speed		Same as CH 21 in the mode “STND” (p. 15)
27	Prism		Same as CH 22 in the mode “STND” (p. 15)
28	Prism Rotation		Same as CH 23 in the mode “STND” (p. 15)
29	Focus	0–127	Min ... Center
		127–255	Center ... Max
		255	Max
30	Focus Fine	0–255	Fine adjustment of CH 29
31	Zoom	0–127	Max ... Center
		127–255	Center ... Min
		255	Min
32	Zoom Fine	0–255	Fine adjustment of CH 31
33	Auto Fs	0–255	
34	Auto Fs Fine	0–255	Fine adjustment of CH 33
35	Frost		Same as CH 26 in the mode “STND” (p. 15)
36	Frost 2		Same as CH 27 in the mode “STND” (p. 15)
37	Iris		Same as CH 28 in the mode “STND” (p. 15)
38	Blade 1 A		Same as CH 29 in the mode “STND” (p. 16)
39	Blade 1 Rotation		Same as CH 30 in the mode “STND” (p. 16)
40	Blade 2 A		Same as CH 31 in the mode “STND” (p. 16)
41	Blade 2 Rotation		Same as CH 32 in the mode “STND” (p. 16)
42	Blade 3 A		Same as CH 33 in the mode “STND” (p. 16)
43	Blade 3 Rotation		Same as CH 34 in the mode “STND” (p. 16)
44	Blade 4 A		Same as CH 35 in the mode “STND” (p. 16)
45	Blade 4 Rotation		Same as CH 36 in the mode “STND” (p. 17)
46	Shaper Rotation		Same as CH 37 in the mode “STND” (p. 17)
47	Shaper Macros		Same as CH 38 in the mode “STND” (p. 17)
48	Control	0–9	None
		10–14	FixtureReset
		15–29	BeamReset
		30–34	PT Reset
		35–49	Control Reserved: Reverved
		50–54	Freq 1_2Khz
		55–59	Freq 2_4Khz
		60–64	Freq 12Khz
		65–69	Freq 24Khz

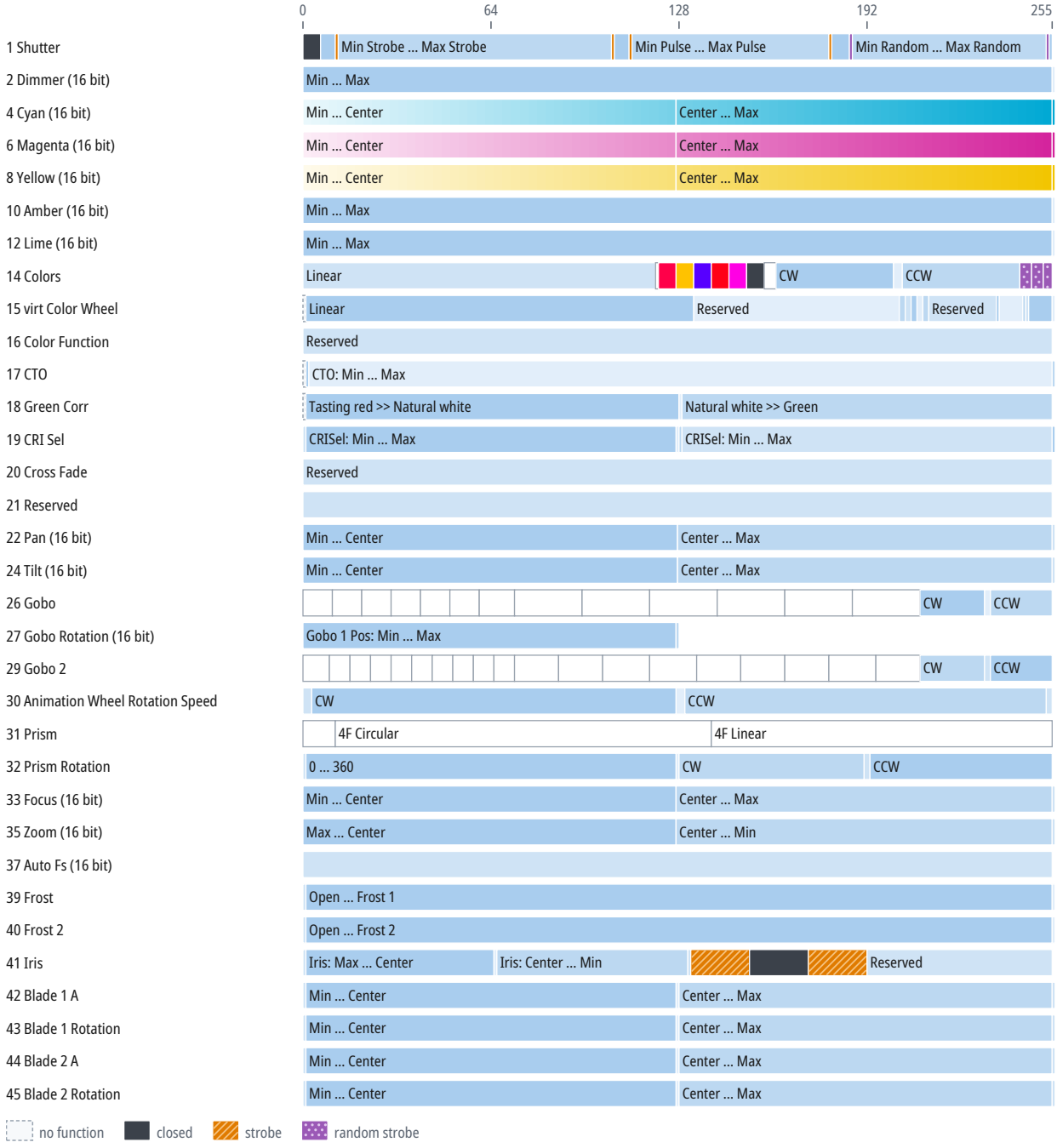
CH	Function	DMX	Description
48	Control (continued)	70–74	s
		75–79	Default
		80–84	Parabolic
		85–89	Empty Channel Set
		90–124	Control Reserved: Reverved
		125–129	Full power
		130–134	Standard mode
		135–139	Theater mode
		140–144	CMY S Linear
		145–149	CMY Parabola Linear
		150–169	Control Reserved: Reverved
		170–189	Lamp Control 11
		190–234	Control Reserved 12
		235–239	Mode 1M The console controls all attributes except the XY attribute
		240–244	Mode 2 The console controls all attributes except those of the head mapped to the faders and wheels and the XY attribute
		245–249	Mode 3 The console controls all attributes except those of the head mapped to the faders XY attributes
		250–255	Mode 4 Console control of all attributes

Mode EXTN

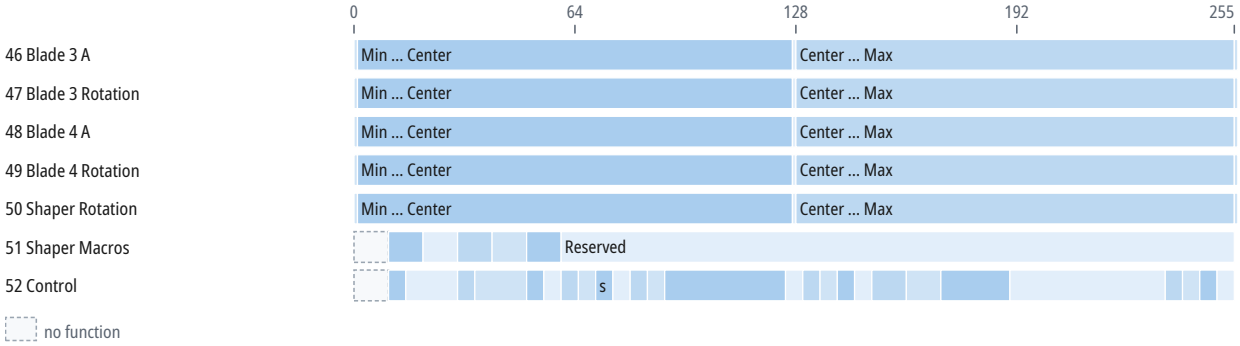
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 6, CH 2 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 1 in the mode “STND” (p. 12)
2	Dimmer		Same as CH 2 in the mode “STND” (p. 12)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Cyan		Same as CH 4 in the mode “16BT” (p. 20)
5	Cyan Fine	0–255	Fine adjustment of CH 4
6	Magenta		Same as CH 6 in the mode “16BT” (p. 20)
7	Magenta Fine	0–255	Fine adjustment of CH 6
8	Yellow		Same as CH 8 in the mode “16BT” (p. 20)
9	Yellow Fine	0–255	Fine adjustment of CH 8
10	Amber	0–255	Min ... Max
		255	Max
11	Amber Fine	0–255	Fine adjustment of CH 10
12	Lime	0–255	Min ... Max
		255	Max
13	Lime Fine	0–255	Fine adjustment of CH 12
14	Colors		Same as CH 7 in the mode “STND” (p. 12)
15	virt Color Wheel		Same as CH 8 in the mode “STND” (p. 13)
16	Color Function	0–255	Reserved
17	CTO		Same as CH 10 in the mode “STND” (p. 13)
18	Green Corr		Same as CH 14 in the mode “16BT” (p. 20)
19	CRI Sel		Same as CH 11 in the mode “STND” (p. 13)
20	Cross Fade	0–255	Reserved
21	Reserved	0–255	
22	Pan		Same as CH 14 in the mode “STND” (p. 13)
23	Pan Fine	0–255	Fine adjustment of CH 22
24	Tilt		Same as CH 16 in the mode “STND” (p. 14)
25	Tilt Fine	0–255	Fine adjustment of CH 24
26	Gobo		Same as CH 18 in the mode “STND” (p. 14)
27	Gobo Rotation		When CH 26 is 10–209:
		0–127	Gobo 1 Pos: Min ... Max
		127	Gobo 1 Pos: Max

CH	Function	DMX	Description
27	Gobo Rotation (continued)	127–128	Gobo 1 Pos 1
		128–190	CW (145–8.7 °/s)
		191–192	Gobo 1 Pos Rotate: Stop
		193–255	CCW (8.7–145 °/s)
28	Gobo Rotation Fine	0–255	Fine adjustment of CH 27
29	Gobo 2		Same as CH 20 in the mode “STND” (p. 14)
30	Animation Wheel Rotation Speed		Same as CH 21 in the mode “STND” (p. 15)
31	Prism		Same as CH 22 in the mode “STND” (p. 15)
32	Prism Rotation		Same as CH 23 in the mode “STND” (p. 15)
33	Focus		Same as CH 29 in the mode “16BT” (p. 21)
34	Focus Fine	0–255	Fine adjustment of CH 33
35	Zoom		Same as CH 31 in the mode “16BT” (p. 21)
36	Zoom Fine	0–255	Fine adjustment of CH 35
37	Auto Fs	0–255	
38	Auto Fs Fine	0–255	Fine adjustment of CH 37
39	Frost		Same as CH 26 in the mode “STND” (p. 15)
40	Frost 2		Same as CH 27 in the mode “STND” (p. 15)
41	Iris		Same as CH 28 in the mode “STND” (p. 15)
42	Blade 1 A		Same as CH 29 in the mode “STND” (p. 16)
43	Blade 1 Rotation		Same as CH 30 in the mode “STND” (p. 16)
44	Blade 2 A		Same as CH 31 in the mode “STND” (p. 16)
45	Blade 2 Rotation		Same as CH 32 in the mode “STND” (p. 16)
46	Blade 3 A		Same as CH 33 in the mode “STND” (p. 16)
47	Blade 3 Rotation		Same as CH 34 in the mode “STND” (p. 16)
48	Blade 4 A		Same as CH 35 in the mode “STND” (p. 16)
49	Blade 4 Rotation		Same as CH 36 in the mode “STND” (p. 17)
50	Shaper Rotation		Same as CH 37 in the mode “STND” (p. 17)
51	Shaper Macros		Same as CH 38 in the mode “STND” (p. 17)
52	Control	0–9	None
		10–14	FixtureReset
		15–29	BeamReset
		30–34	PT Reset
		35–49	Control Reserved: Reverved
		50–54	Freq 1_2Khz
		55–59	Freq 2_4Khz
		60–64	Freq 12Khz
		65–69	Freq 24Khz
		70–74	s
		75–79	Default
		80–84	Parabolic
		85–89	Empty Channel Set
		90–124	Control Reserved: Reverved

CH	Function	DMX	Description
52	Control (continued)	125–129	Full power
		130–134	Standard mode
		135–139	Theater mode
		140–144	CMY S Linear
		145–149	CMY Parabola Linear
		150–159	RGBAL
		160–169	Control Reserved: Reverved
		170–189	Lamp Control 11
		190–234	Control Reserved 12
		235–239	Mode 1M The console controls all attributes except the XY attribute
		240–244	Mode 2 The console controls all attributes except those of the head mapped to the faders and wheels and the XY attribute
		245–249	Mode 3 The console controls all attributes except those of the head mapped to the faders XY attributes
		250–255	Mode 4 Console control of all attributes

Mode PERF

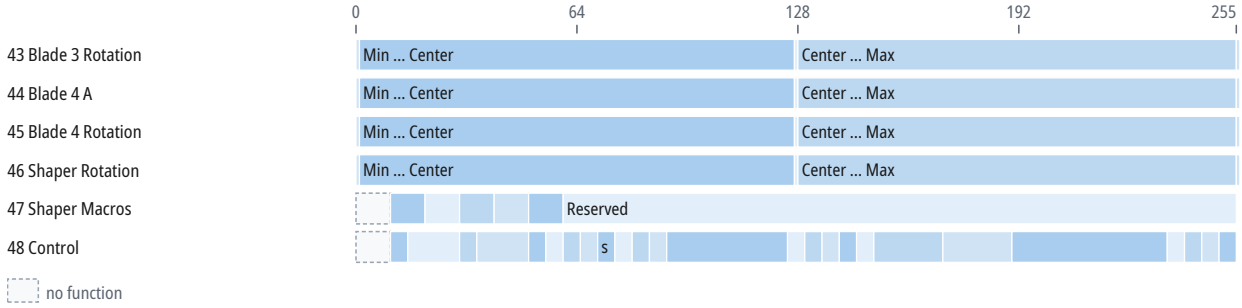
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 6, CH 2 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 1 in the mode “STND” (p. 12)
2	Dimmer		Same as CH 2 in the mode “STND” (p. 12)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	CIE X	0–255	Min ... Max
		255	Max
5	CIE X Fine	0–255	Fine adjustment of CH 4
6	CIE Y	0–255	Min ... Max
		255	Max
7	CIE Y Fine	0–255	Fine adjustment of CH 6
8	Reserved 1	0–255	
9	Reserved 2	0–255	
10	Colors		Same as CH 7 in the mode “STND” (p. 12)
11	virt Color Wheel		Same as CH 8 in the mode “STND” (p. 13)
12	Color Function	0–255	Reserved
13	CTO		Same as CH 10 in the mode “STND” (p. 13)
14	Green Corr		Same as CH 14 in the mode “16BT” (p. 20)
15	CRI Sel		Same as CH 11 in the mode “STND” (p. 13)
16	Cross Fade	0–255	Reserved
17	Reserved	0–255	
18	Pan		Same as CH 14 in the mode “STND” (p. 13)
19	Pan Fine	0–255	Fine adjustment of CH 18
20	Tilt		Same as CH 16 in the mode “STND” (p. 14)
21	Tilt Fine	0–255	Fine adjustment of CH 20
22	Gobo		Same as CH 18 in the mode “STND” (p. 14)
23	Gobo Rotation		Same as CH 23 in the mode “16BT” (p. 20)
24	Gobo Rotation Fine	0–255	Fine adjustment of CH 23
25	Gobo 2		Same as CH 20 in the mode “STND” (p. 14)
26	Animation Wheel Rotation Speed		Same as CH 21 in the mode “STND” (p. 15)
27	Prism		Same as CH 22 in the mode “STND” (p. 15)
28	Prism Rotation		Same as CH 23 in the mode “STND” (p. 15)
29	Focus		Same as CH 29 in the mode “16BT” (p. 21)
30	Focus Fine	0–255	Fine adjustment of CH 29

CH	Function	DMX	Description
31	Zoom		Same as CH 31 in the mode “16BT” (p. 21)
32	Zoom Fine	0–255	Fine adjustment of CH 31
33	Auto Fs	0–255	
34	Auto Fs Fine	0–255	Fine adjustment of CH 33
35	Frost		Same as CH 26 in the mode “STND” (p. 15)
36	Frost 2		Same as CH 27 in the mode “STND” (p. 15)
37	Iris		Same as CH 28 in the mode “STND” (p. 15)
38	Blade 1 A		Same as CH 29 in the mode “STND” (p. 16)
39	Blade 1 Rotation		Same as CH 30 in the mode “STND” (p. 16)
40	Blade 2 A		Same as CH 31 in the mode “STND” (p. 16)
41	Blade 2 Rotation		Same as CH 32 in the mode “STND” (p. 16)
42	Blade 3 A		Same as CH 33 in the mode “STND” (p. 16)
43	Blade 3 Rotation		Same as CH 34 in the mode “STND” (p. 16)
44	Blade 4 A		Same as CH 35 in the mode “STND” (p. 16)
45	Blade 4 Rotation		Same as CH 36 in the mode “STND” (p. 17)
46	Shaper Rotation		Same as CH 37 in the mode “STND” (p. 17)
47	Shaper Macros		Same as CH 38 in the mode “STND” (p. 17)
48	Control		Same as CH 48 in the mode “16BT” (p. 21)

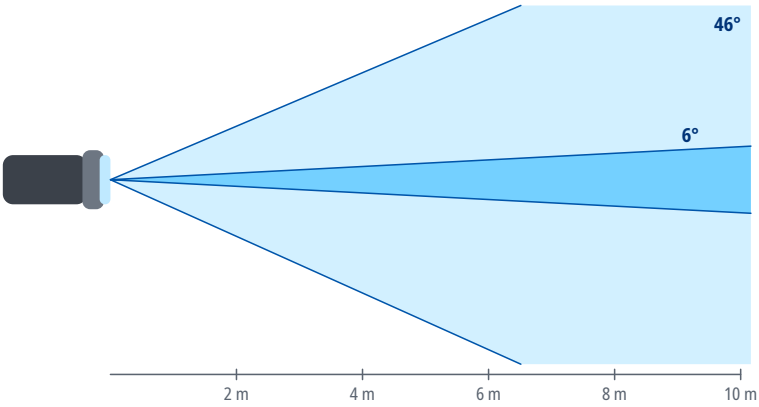
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	1,211 W
Luminous flux	30,000 lm
Color temperature	6,200 K
Color rendering index (CRI)	95
Optics	
Zoom	6–46°
Movement	
Pan	540°
Tilt	252°
Dimensions and construction	
Weight	34 kg
Operating environment	
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2500–8000 K
Strobe frequency	1–20 Hz
Color wheel 1 rotation	up to 46.7 °/s (7.8 rpm)
Gobo wheel 1 rotation	up to 15.6 °/s (2.6 rpm)
Gobo wheel 2 rotation	up to 70 °/s (12 rpm)
Gobo 1 rotation	up to 145 °/s (24 rpm)
Prism rotation	up to 78 °/s (13 rpm)
Animation wheel rotation	up to 75 °/s (12 rpm)

Spot diameter



Distance	Ø 6°	Ø 46°
2 m	0.21 m	1.7 m
4 m	0.42 m	3.4 m
6 m	0.63 m	5.1 m
8 m	0.84 m	6.8 m
10 m	1 m	8.5 m
15 m	1.6 m	12.7 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.