DMX REFERENCE

FINE 600L BWSF

HarmanyLX



Manufacturer	HarmanyLX
GDTF file	HarmanyLX_FINE_600L_BWSF_97465.gdtf
GDTF revision	@Fine 600L BSWF, Uploaded to GDTF Share. · 2025-05-20
Generated	2026-11-24

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 5
6 Connections 5
7 Operation 6
8 Functions at a glance 7
9 DMX channels 9
Mode STND 10
Mode 16BT 16
Mode EXTN 20
10 Technical specifications 24
11 Maintenance and cleaning 25
12 Troubleshooting 25
13 Disposal 25

1 About this manual

This document describes the FINE 600L BWSF by HarmanyLX. It was compiled from the GDTF file HarmanyLX_FINE_600L_BWSF_97465.gdtf from the GDTF-Share library.

File revision: “@Fine 600L BSWF, Uploaded to GDTF Share.”.

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 HarmanyLX; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Weight	40.4 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
STND	32	16	1, 33, 65, 97, ...
16BT	40	12	1, 41, 81, 121, ...
EXTN	44	11	1, 45, 89, 133, ...

No light? Check these channels

- STND: CH 1 Shutter at 6–10 or 106–110 or 180–185 or 254–255
- 16BT: CH 1 Shutter at 6–10 or 106–110 or 180–185 or 254–255
- EXTN: CH 1 Shutter at 6–10 or 106–110 or 180–185 or 254–255


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

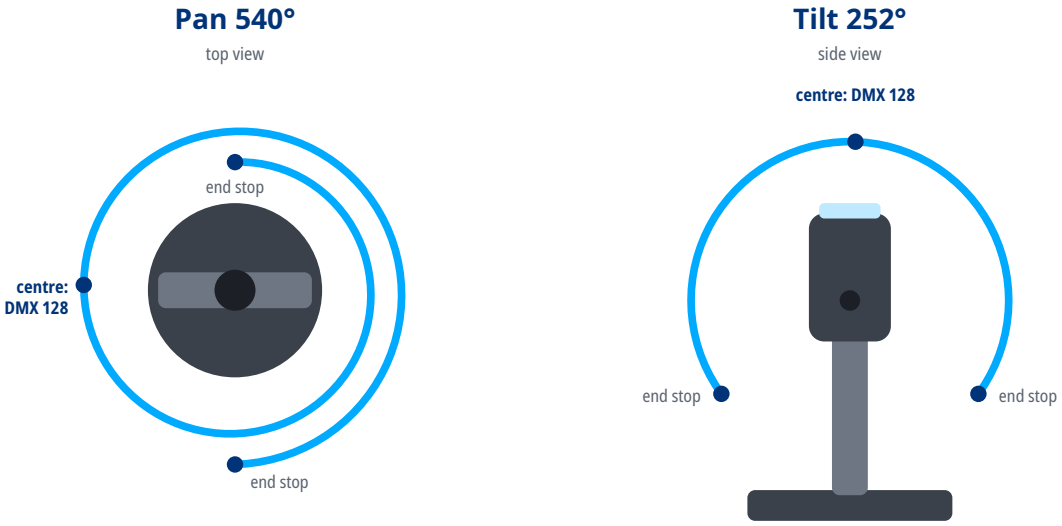
- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them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

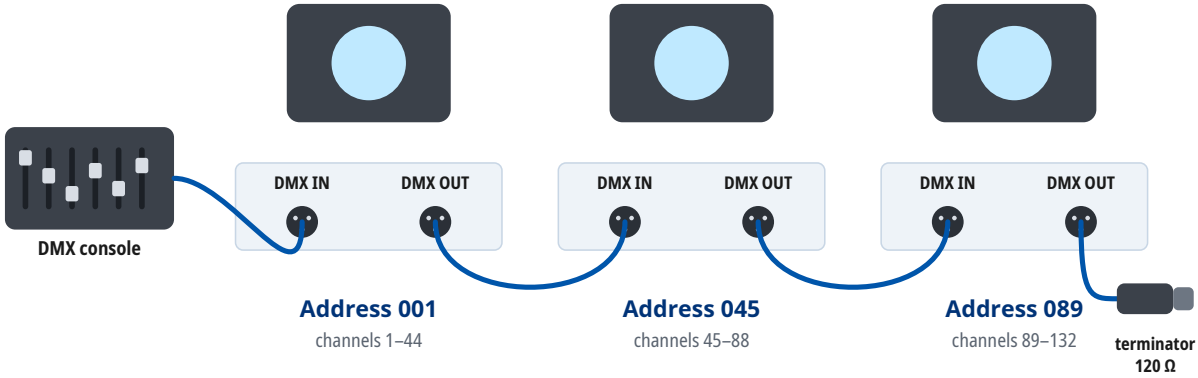
- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 40.4 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 44 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

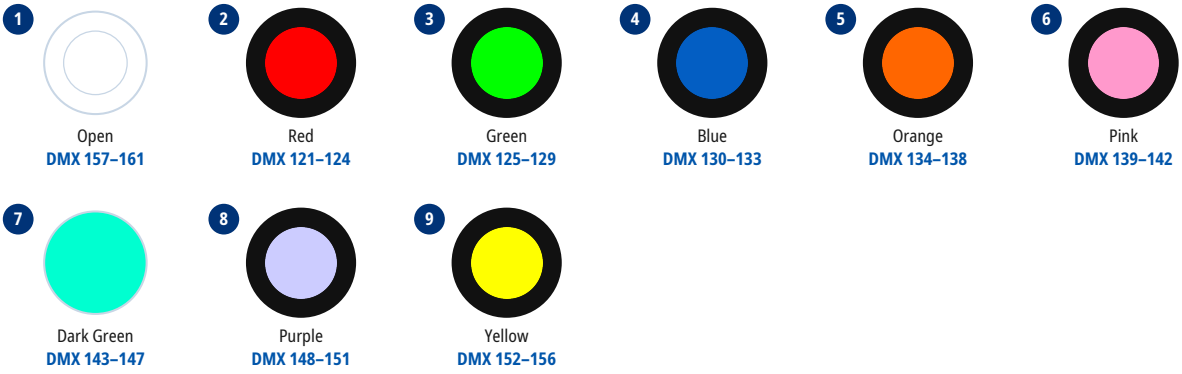
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “EXTN”: 44.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel 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, 45, 89, 133.
- 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 32 channels	16BT 40 channels	EXTN 44 channels
Pan / Tilt	4, 6	4, 6	4, 6
Dimmer	2	2	2
Shutter / strobe	1	1	1
Color mixing	12–14	13–15	13–15
Color temperature	15	16	16
Color wheel	16	17	17
Gobo wheel	8, 10	8, 11	8, 11
Gobo rotation	9	9	9
Prism	17, 18	19, 20	19, 20
Frost	21	27	27
Zoom	20	23	23
Focus	19, 32	21, 25, 26, 40	21, 25, 26, 40
Iris	22	28	28
Effects / macros		18, 38	18, 38

Gobo wheel 1



1. Open — DMX 157–161
2. Red — DMX 121–124
3. Green — DMX 125–129
4. Blue — DMX 130–133
5. Orange — DMX 134–138
6. Pink — DMX 139–142
7. Dark Green — DMX 143–147
8. Purple — DMX 148–151
9. Yellow — DMX 152–156

Gobo wheel 2



1. Gobo: Open — DMX 0–8
2. Gobo 1 — DMX 9–17
3. Gobo 2 — DMX 18–26
4. Gobo 3 — DMX 27–35
5. Gobo 4 — DMX 36–44
6. Gobo 5 — DMX 45–53
7. Gobo 6 — DMX 54–62
8. Gobo 7 — DMX 63–72

Gobo wheel 3

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

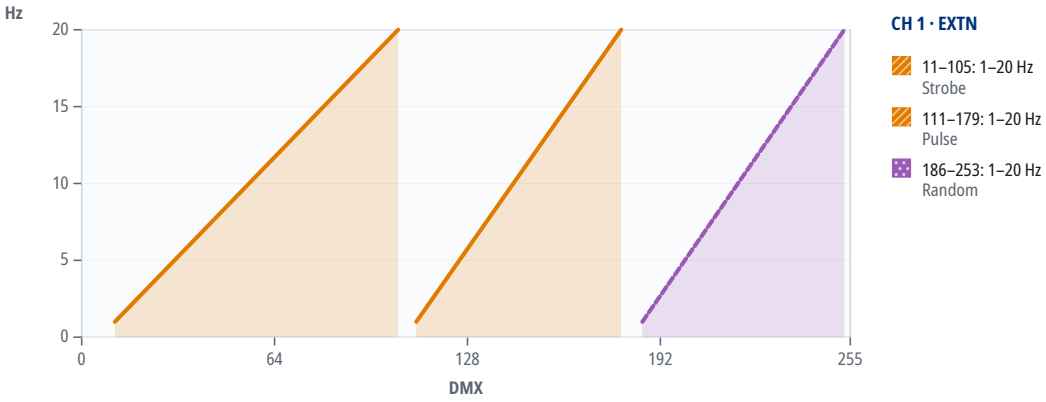
10 
Gobo 9
DMX 65–72

Prism

1
Open
DMX 0–138

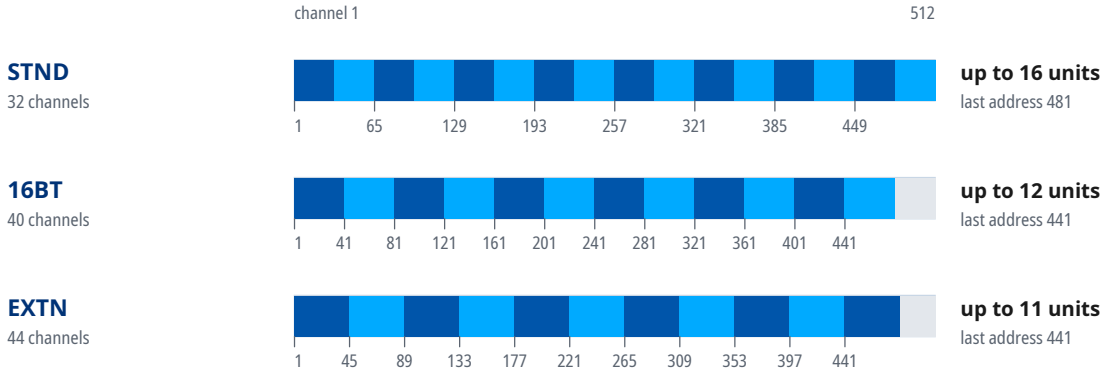
2 
4 facets
Prism
DMX 139–255

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	221	11	441	16	U2 · 177
2	45	7	265	12	U2 · 1	17	U2 · 221
3	89	8	309	13	U2 · 45	18	U2 · 265
4	133	9	353	14	U2 · 89	19	U2 · 309
5	177	10	397	15	U2 · 133	20	U2 · 353

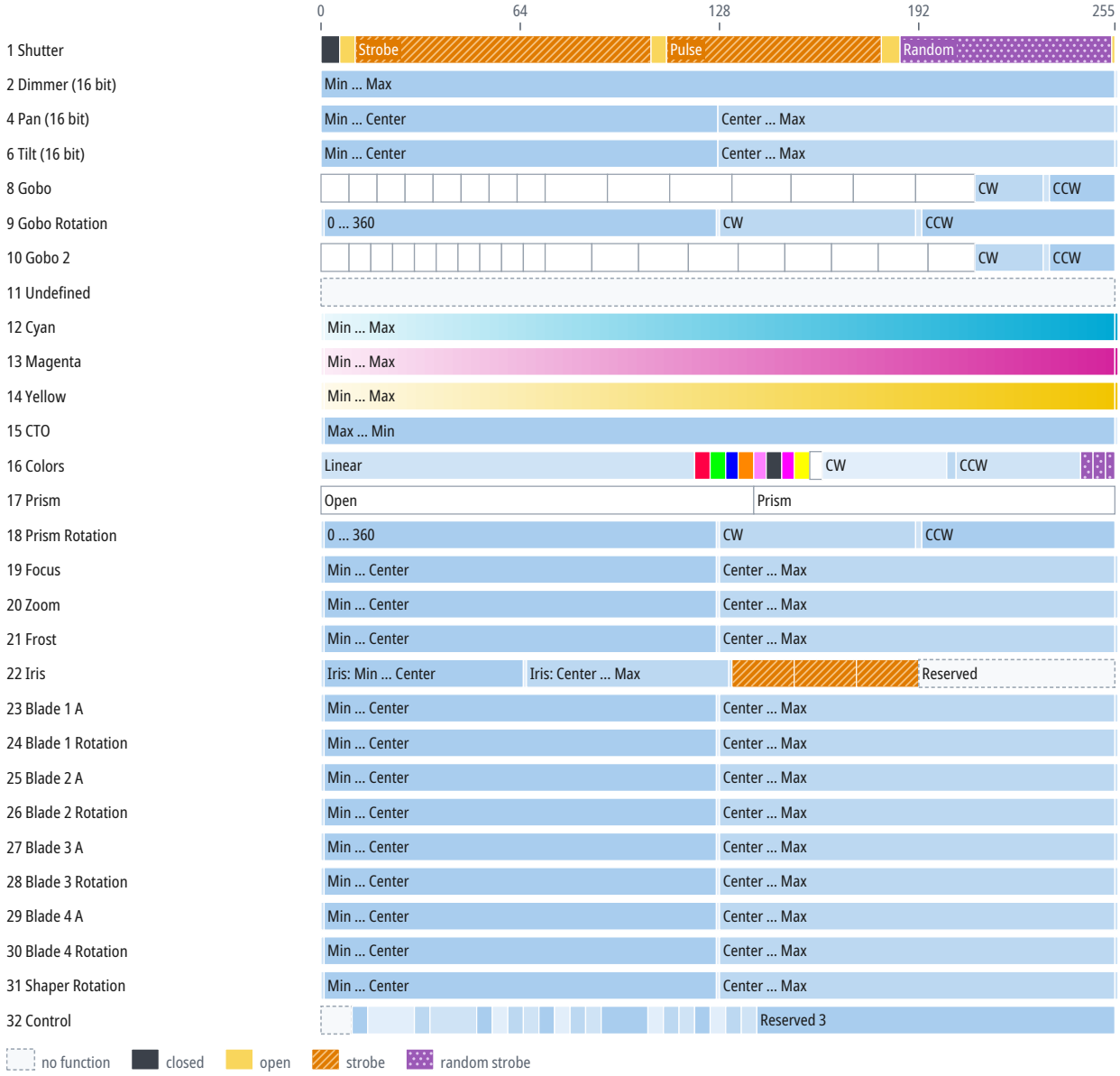
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode STND

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

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Shutter at 6–10 or 106–110 or 180–185 or 254–255. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 6.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter	0–5	Shutter: Close
		6–10	Shutter: Open 1
		11–105	Strobe (1–20 Hz)
		106–110	Open 2
		111–179	Pulse (1–20 Hz)
		180–185	Open 3

CH	Function	DMX	Description
1	Shutter (continued)	186–253	Random (1–20 Hz)
		254–255	Open 4
2	Dimmer	0–255	Min … Max
		255	Max
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Pan	0–127	Min … Center
		127	Center
		128–255	Center … Max
		255	Max
5	Pan Fine	0–255	Fine adjustment of CH 4
6	Tilt	0–127	Min … Center
		127	Center
		128–255	Center … Max
		255	Max
7	Tilt Fine	0–255	Fine adjustment of CH 6
8	Gobo	0–8	Gobo: Open
		9–17	Gobo 1
		18–26	Gobo 2
		27–35	Gobo 3
		36–44	Gobo 4
		45–53	Gobo 5
		54–62	Gobo 6
		63–71	Gobo 7
		72–91	Gobo 1 Shake (0.4–6.6 Hz)
		92–111	Gobo 2 Shake (0.4–6.6 Hz)
		112–131	Gobo 3 Shake (0.4–6.6 Hz)
		132–150	Gobo 4 Shake (0.4–6.6 Hz)
		151–170	Gobo 5 Shake (0.4–6.6 Hz)
		171–190	Gobo 6 Shake (0.4–6.6 Hz)
		191–209	Gobo 7 Shake (0.4–6.6 Hz)
		210–231	CW (70–20 °/s)
		232–233	Gobo 1 Spin: Stop
		234–255	CCW (20–70 °/s)
9	Gobo Rotation	0	0
		1–126	0 … 360
		127	360
		128–190	CW (70–20 °/s)
		191–192	Gobo 1 Pos Rotate: Stop
		193–255	CCW (20–70 °/s)
10	Gobo 2	0–8	Gobo: Open
		9–15	Gobo 1
		16–22	Gobo 2

CH	Function	DMX	Description
10	Gobo 2 (continued)	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)
		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: Stop
		234–255	CCW (20–70 °/s)
11	Undefined	0–255	
12	Cyan	0	Min
		1–254	Min ... Max
		255	Max
13	Magenta	0	Min
		1–254	Min ... Max
		255	Max
14	Yellow	0	Min
		1–254	Min ... Max
		255	Max
15	CTO	0	Max
		1–254	Max ... Min
		255	Min
16	Colors	0–119	Linear
		120–124	Red
		125–129	Green
		130–133	Blue
		134–138	Orange
		139–142	Pink
		143–147	Dark Green
		148–151	Lavender
		152–156	Yellow
		157–160	White

CH	Function	DMX	Description
16	Colors (continued)	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 >
17	Prism	0–138	Open
		139–255	Prism
18	Prism Rotation	0	0
		1–126	0 ... 360
		127	360
		128–190	CW (600–0.2 °/s)
		191–192	Prism 1 Pos Rotate: Stop
		193–255	CCW (0.2–600 °/s)
19	Focus	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
20	Zoom	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
21	Frost	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
22	Iris	0	Iris: Min
		1–64	Iris: Min ... Center
		65	Iris: Center
		66–130	Iris: Center ... Max
		131	Iris: Max
		132–151	Iris Strobe (0.1–5 Hz)
		152–171	Iris Pulse Close (0.1–5 Hz)
		172–191	Iris Pulse Open (0.1–5 Hz)
		192–255	Reserved
23	Blade 1 A	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max

CH	Function	DMX	Description
23	Blade 1 A (continued)	255	Max
24	Blade 1 Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
25	Blade 2 A	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
26	Blade 2 Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
27	Blade 3 A	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
28	Blade 3 Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
29	Blade 4 A	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
30	Blade 4 Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
31	Shaper Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
32	Control	0–9	None

CH	Function	DMX	Description
32	Control (continued)	10–14	Fixture Global Reset
		15–29	Beam Reset
		30–34	Position Reset
		35–49	Reserved 1
		50–54	1-2KHz
		55–59	2-4KHz
		60–64	12KHz
		65–69	24KHz
		70–74	S Curve
		75–79	Sinusoid
		80–84	Cosine Curve
		85–89	Linear Curve
		90–104	Reserved 2
		105–109	Exit
		110–114	Close Range
		115–119	Medium Distance
		120–124	Long Distance
		125–129	Highlight Mode
		130–134	Standard Mode
		135–139	Theater Mode
		140–255	Reserved 3

Mode 16BT

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

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Shutter at 6–10 or 106–110 or 180–185 or 254–255. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 6.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 1 in the mode “STND” (p. 10)
2	Dimmer		Same as CH 2 in the mode “STND” (p. 11)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Pan		Same as CH 4 in the mode “STND” (p. 11)
5	Pan Fine	0–255	Fine adjustment of CH 4
6	Tilt		Same as CH 6 in the mode “STND” (p. 11)
7	Tilt Fine	0–255	Fine adjustment of CH 6
8	Gobo		Same as CH 8 in the mode “STND” (p. 11)
9	Gobo Rotation	0–127	0 ... 360
		127	360
		128–190	CW (70–20 °/s)
		191	CW ... Stop
		191–192	Gobo 1 Pos Rotate: Stop
		193	Stop ... CCW
		193–255	CCW (20–70 °/s)
10	Gobo Rotation Fine	0–255	Fine adjustment of CH 9
11	Gobo 2		Same as CH 10 in the mode “STND” (p. 11)
12	Undefined	0–255	
13	Cyan		Same as CH 12 in the mode “STND” (p. 12)
14	Magenta		Same as CH 13 in the mode “STND” (p. 12)
15	Yellow		Same as CH 14 in the mode “STND” (p. 12)
16	CTO		Same as CH 15 in the mode “STND” (p. 12)
17	Colors	0–119	Linear
		120	Color: Open
		121–124	Red
		125–129	Green
		130–133	Blue
		134–138	Orange
		139–142	Pink
		143–147	Dark Green
		148–151	Purple
		152–156	Yellow
		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 >
18	Color Macro	0–255	Color Macro

CH	Function	DMX	Description
19	Prism		Same as CH 17 in the mode “STND” (p. 13)
20	Prism Rotation		Same as CH 18 in the mode “STND” (p. 13)
21	Focus	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
22	Focus Fine	0–255	Fine adjustment of CH 21
23	Zoom	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Focus Distance	0–5	Close Focus
		6–31	Reserved
		32–57	8 M
		58–83	12 M
		84–109	16 M
		110–255	Reserved
26	Focus Adjust	0–127	Negative offset
		128	Close
		129–255	Positive migration
27	Frost		Same as CH 21 in the mode “STND” (p. 13)
28	Iris		Same as CH 22 in the mode “STND” (p. 13)
29	Blade 1 A		Same as CH 23 in the mode “STND” (p. 13)
30	Blade 1 Rotation		Same as CH 24 in the mode “STND” (p. 14)
31	Blade 2 A		Same as CH 25 in the mode “STND” (p. 14)
32	Blade 2 Rotation		Same as CH 26 in the mode “STND” (p. 14)
33	Blade 3 A		Same as CH 27 in the mode “STND” (p. 14)
34	Blade 3 Rotation		Same as CH 28 in the mode “STND” (p. 14)
35	Blade 4 A		Same as CH 29 in the mode “STND” (p. 14)
36	Blade 4 Rotation		Same as CH 30 in the mode “STND” (p. 14)
37	Shaper Rotation		Same as CH 31 in the mode “STND” (p. 14)
38	Shaper Macros	0–9	None
		10–19	Square
		20–29	Rectangle
		30–39	Triangle
		40–49	Diamond
		50–59	Ladder-shaped
		60–255	Reserved
39	CRI Mode	0–5	None
		6–10	R9-70

CH	Function	DMX	Description
39	CRI Mode (continued)	11–15	R9-80
		16–20	R9-90
		21–255	Reserved
40	Control		Same as CH 32 in the mode “STND” (p. 14)

Mode EXTN

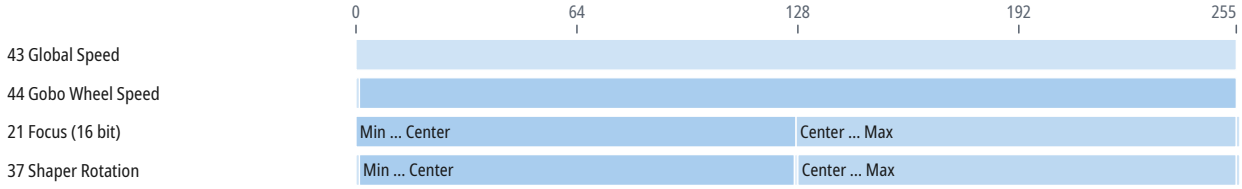
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Shutter at 6–10 or 106–110 or 180–185 or 254–255. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 6.

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. 10)
2	Dimmer		Same as CH 2 in the mode “STND” (p. 11)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Pan		Same as CH 4 in the mode “STND” (p. 11)
5	Pan Fine	0–255	Fine adjustment of CH 4
6	Tilt		Same as CH 6 in the mode “STND” (p. 11)
7	Tilt Fine	0–255	Fine adjustment of CH 6
8	Gobo	0–8	Gobo: Open
		9–17	Gobo 1
		18–26	Gobo 2
		27–35	Gobo 3
		36–44	Gobo 4
		45–53	Gobo 5
		54–62	Gobo 6
		63–71	Gobo 7
		72–91	Gobo 1 Shake (0.4–6.6 Hz)
		92–111	Gobo 2 Shake (0.4–6.6 Hz)
		112–131	Gobo 3 Shake (0.4–6.6 Hz)
		132–150	Gobo 4 Shake (0.4–6.6 Hz)
		151–170	Gobo 5 Shake (0.4–6.6 Hz)
		171–190	Gobo 6 Shake (0.4–6.6 Hz)
		191–209	Gobo 7 Shake (0.4–6.6 Hz)
		210–231	CW (15.6–10 °/s)
		232–233	Gobo 1 Spin: Stop
		234–255	CCW (10–15.6 °/s)
9	Gobo Rotation		Same as CH 9 in the mode “16BT” (p. 17)
10	Gobo Rotation Fine	0–255	Fine adjustment of CH 9
11	Gobo 2		Same as CH 10 in the mode “STND” (p. 11)
12	Undefined	0–255	
13	Cyan		Same as CH 12 in the mode “STND” (p. 12)
14	Magenta		Same as CH 13 in the mode “STND” (p. 12)
15	Yellow		Same as CH 14 in the mode “STND” (p. 12)
16	CTO		Same as CH 15 in the mode “STND” (p. 12)
17	Colors	0–120	Linear
		121–124	Red

CH	Function	DMX	Description
17	Colors (continued)	125–129	Green
		130–133	Blue
		134–138	Orange
		139–142	Pink
		143–147	Dark Green
		148–151	Purple
		152–156	Yellow
		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 >
18	Color Macro	0–255	Color Macro
19	Prism		Same as CH 17 in the mode “STND” (p. 13)
20	Prism Rotation		Same as CH 18 in the mode “STND” (p. 13)
21	Focus		Same as CH 21 in the mode “16BT” (p. 18)
22	Focus Fine	0–255	Fine adjustment of CH 21
23	Zoom		Same as CH 23 in the mode “16BT” (p. 18)
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Focus Distance	0–5	Close Focus
		6–31	Reserved
		32–57	8M
		58–83	12M
		84–109	16M
		110–255	Reserved
26	Focus Adjust		Same as CH 26 in the mode “16BT” (p. 18)
27	Frost		Same as CH 21 in the mode “STND” (p. 13)
28	Iris		Same as CH 22 in the mode “STND” (p. 13)
29	Blade 1 A		Same as CH 23 in the mode “STND” (p. 13)
30	Blade 1 Rotation		Same as CH 24 in the mode “STND” (p. 14)
31	Blade 2 A		Same as CH 25 in the mode “STND” (p. 14)
32	Blade 2 Rotation		Same as CH 26 in the mode “STND” (p. 14)
33	Blade 3 A		Same as CH 27 in the mode “STND” (p. 14)
34	Blade 3 Rotation		Same as CH 28 in the mode “STND” (p. 14)
35	Blade 4 A		Same as CH 29 in the mode “STND” (p. 14)
36	Blade 4 Rotation		Same as CH 30 in the mode “STND” (p. 14)
37	Shaper Rotation		Same as CH 31 in the mode “STND” (p. 14)
38	Shaper Macros		Same as CH 38 in the mode “16BT” (p. 18)
39	CRI Mode		Same as CH 39 in the mode “16BT” (p. 18)
40	Control	0–9	None

CH	Function	DMX	Description
40	Control (continued)	10–14	Reset
		15–29	Beam Reset
		30–34	Position Reset
		35–49	Reserved 1
		50–54	1-2KHz
		55–59	2-4KHz
		60–64	12KHz
		65–69	24KHz
		70–74	S Curve
		75–79	Sinusoid
		80–84	Cosine Curve
		85–89	Linear Curve
		90–104	Reserved 2
		105–109	Exit
		110–114	Close Range
		115–119	Medium Distance
		120–124	Long Distance
		125–129	Highlight Mode
		130–134	Standard Mode
		135–139	Theater Mode
		140–255	Reserved 3
41	Speed Pan/Tilt	0–255	
42	Color Mix Speed	0–255	
43	Global Speed	0–255	
44	Gobo Wheel Speed	0	GoboWheel1MSpeed
		1–255	Gobo Wheel 1 MSpeed 1

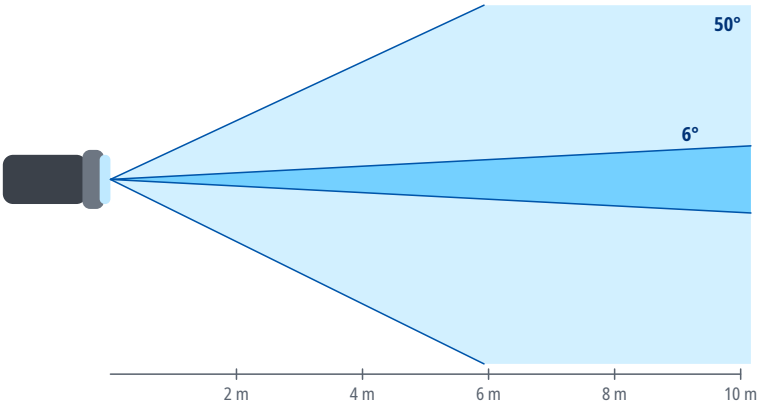
10 Technical specifications

Parameter	Value
Light	
Light source	halogen lamp
Lamp power	1,000 W
Luminous flux	35,000 lm
Color temperature	6,000 K
Color rendering index (CRI)	90
Optics	
Zoom	6–50°
Movement	
Pan	540°
Tilt	252°
Dimensions and construction	
Weight	40.4 kg
Operating environment	
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–6500 K
Strobe frequency	1–20 Hz
Color wheel 1 rotation	up to 46.7 °/s (7.8 rpm)
Gobo wheel 2 rotation	up to 70 °/s (12 rpm)
Gobo wheel 3 rotation	up to 70 °/s (12 rpm)
Gobo 2 rotation	up to 70 °/s (12 rpm)
Prism rotation	up to 600 °/s (100 rpm)

Spot diameter



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

Spot diameter square to the beam axis, calculated from the beam angle.

11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.