DMX REFERENCE

Focus Profile

ADJ



Manufacturer	ADJ
GDTF file	ADJ_Focus_Profile_117341.gdtf
GDTF revision	25-13-11 Release · 2025-11-13
Generated	2026-11-23

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 6
6 Connections 6
7 Operation 7
8 Functions at a glance 8
9 DMX channels 10
Mode Extended Mode 51ch 11
Mode Standard Mode 40ch 23
Mode Basic Mode 36ch 27
10 Technical specifications 30
11 Maintenance and cleaning 31
12 Troubleshooting 31
13 Disposal 31

1 About this manual

This document describes the Focus Profile by ADJ. It was compiled from the GDTF file ADJ_Focus_Profile_117341.gdtf from the GDTF-Share library.

File revision: “25-13-11 Release”.

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 ADJ; 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	27.8 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Extended Mode 51ch	51	10	1, 52, 103, 154, ...
Standard Mode 40ch	40	12	1, 41, 81, 121, ...
Basic Mode 36ch	36	14	1, 37, 73, 109, ...

No light? Check these channels

- Extended Mode 51ch: CH 19 Shutter at 32–63, 96–127, 160–191 or 224–255 “Shutter Open”
- Standard Mode 40ch: CH 14 Shutter at 32–63, 96–127, 160–191 or 224–255 “Shutter Open”
- Basic Mode 36ch: CH 12 Shutter at 32–63, 96–127, 160–191 or 224–255 “Shutter Open”



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.

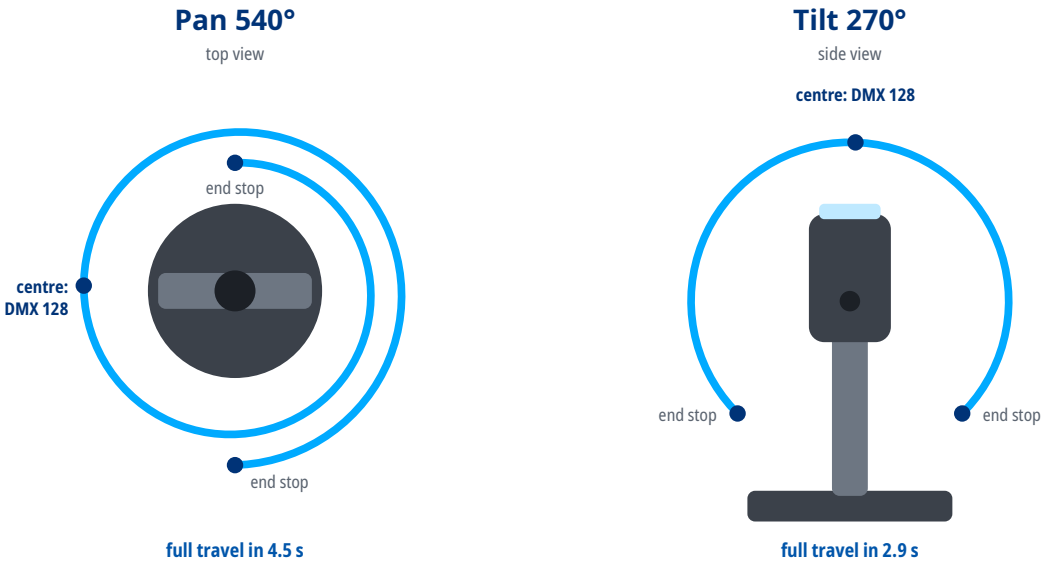
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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

Description in the GDTF file

“The brightest and most feature-rich Focus Series fixture to date, the Focus Profile is a professional caliber automated profile luminaire designed for theatrical, concert touring and event production applications. It features a potent 400W LED engine, with a native color temperature of 6,700K and a CRI in excess of 70, coupled with an exhaustive collection of beam-shaping tools. These include four, independently controllable, rotating framing shutter blades, which can be used to precisely shape the light output. The unit offers full CMY color mixing together with variable CTO color temperature control (2700K to 6700K) and an additional color wheel loaded with 6 dichroic filters comprised of four primaries together with CTB and CRI filters. Two separate GOBO wheels feature 7 replaceable, indexed-rotating GOBOs, and 8 static GOBOs, respectively, while two bi-directional rotating prisms (3-facet and 4-facet) allow for the creation of a wide variety of aerial effects. Motorized focus, iris and zoom (7 – 45°) together with a replaceable (medium) frost filter and an animation wheel complete the lineup of features offered by this powerful and versatile luminaire.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

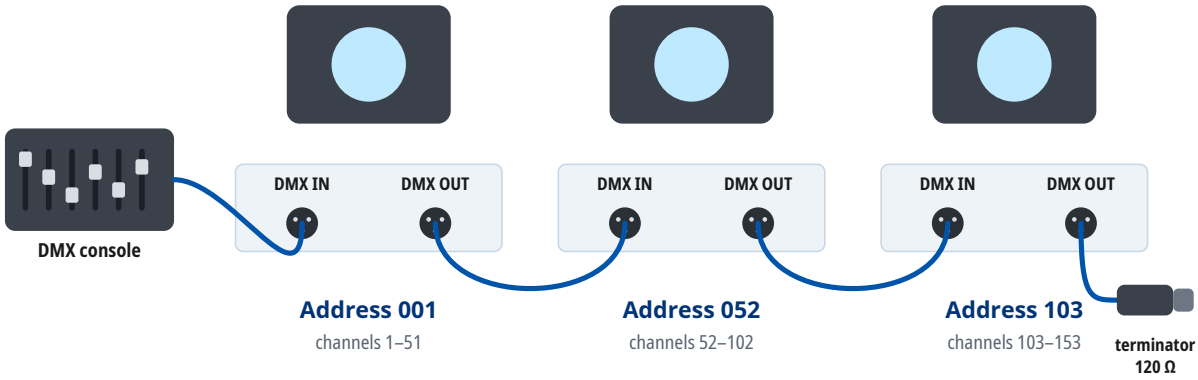
⚠ **WARNING**

- 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: 27.75 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 Mode 51ch: every unit occupies 51 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 Mode 51ch”: 51.
- 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 Mode 51ch”, you can use, for example, the start addresses 1, 52, 103, 154.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

8 Functions at a glance

Functions in each DMX mode

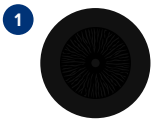
	Extended Mode 51ch 51 channels	Standard Mode 40ch 40 channels	Basic Mode 36ch 36 channels
Pan / Tilt	1, 3	1, 3	1, 2
Pan / Tilt resolution	16 bit	16 bit	8 bit
Dimmer	20	15	13
Dimmer resolution	16 bit	16 bit	8 bit
Shutter / strobe	19	14	12
Color mixing	5, 7, 9	5–7	3–5
Color temperature	11, 13	8, 9	6, 7
Color wheel	14	10	8
Gobo wheel	15, 18	11, 13	9, 11
Gobo rotation	16	12	10
Prism	22, 23, 25, 26	17–20	14–17
Frost	34	24	21
Zoom	30	22	19
Focus	28	21	18
Iris	32	23	20
Animation wheel	35	25	22
Effects / macros	47	36	33

Color wheel



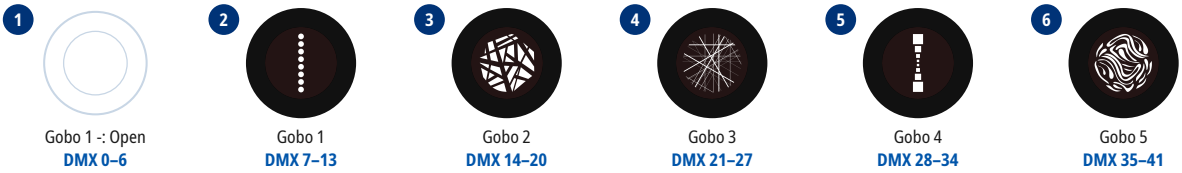
1 Color Off(Open) DMX 0–5
2 Red DMX 6–11
3 Blue DMX 12–17
4 Green DMX 18–23
5 Yellow DMX 24–29
6 CRI DMX 30–35
7 CTB DMX 36–41

Animation wheel



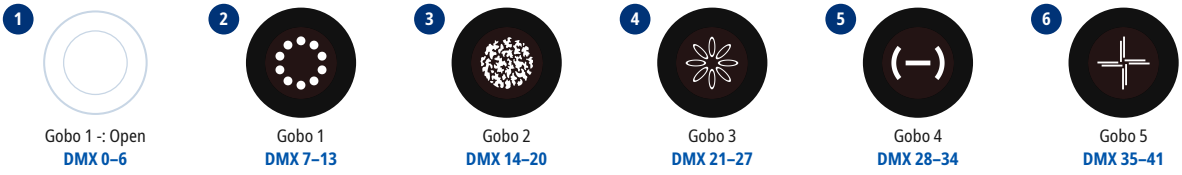
1 Animation Wheel

Gobo wheel 1



1 Gobo 1 -: Open — DMX 0–6
2 Gobo 1 — DMX 7–13
3 Gobo 2 — DMX 14–20
4 Gobo 3 — DMX 21–27
5 Gobo 4 — DMX 28–34
6 Gobo 5 — DMX 35–41
7 Gobo 6 — DMX 42–48
8 Gobo 7 — DMX 49–56

Gobo wheel 2



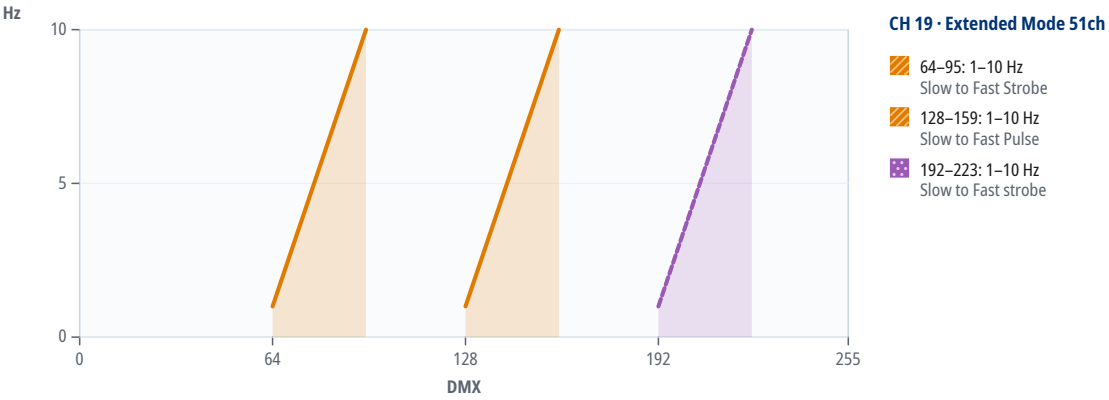
1 Gobo 1 -: Open — DMX 0–6
2 Gobo 1 — DMX 7–13
3 Gobo 2 — DMX 14–20
4 Gobo 3 — DMX 21–27
5 Gobo 4 — DMX 28–34
6 Gobo 5 — DMX 35–41
7 Gobo 6 — DMX 42–48
8 Gobo 7 — DMX 49–55
9 Gobo 8 — DMX 56–63

Prism



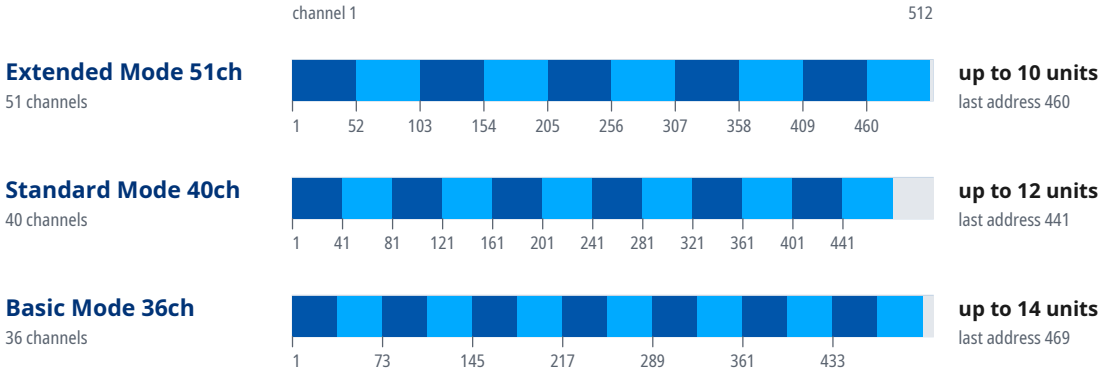
1 3 facets — Prism 1 (circular 3 facet) — CH 22: DMX 32–255
2 4 facets — Prism 2 (4 facet linear) — CH 25: DMX 32–255

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended Mode 51ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	256	11	U2 · 1	16	U2 · 256
2	52	7	307	12	U2 · 52	17	U2 · 307
3	103	8	358	13	U2 · 103	18	U2 · 358
4	154	9	409	14	U2 · 154	19	U2 · 409
5	205	10	460	15	U2 · 205	20	U2 · 460

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.

RDM personalities

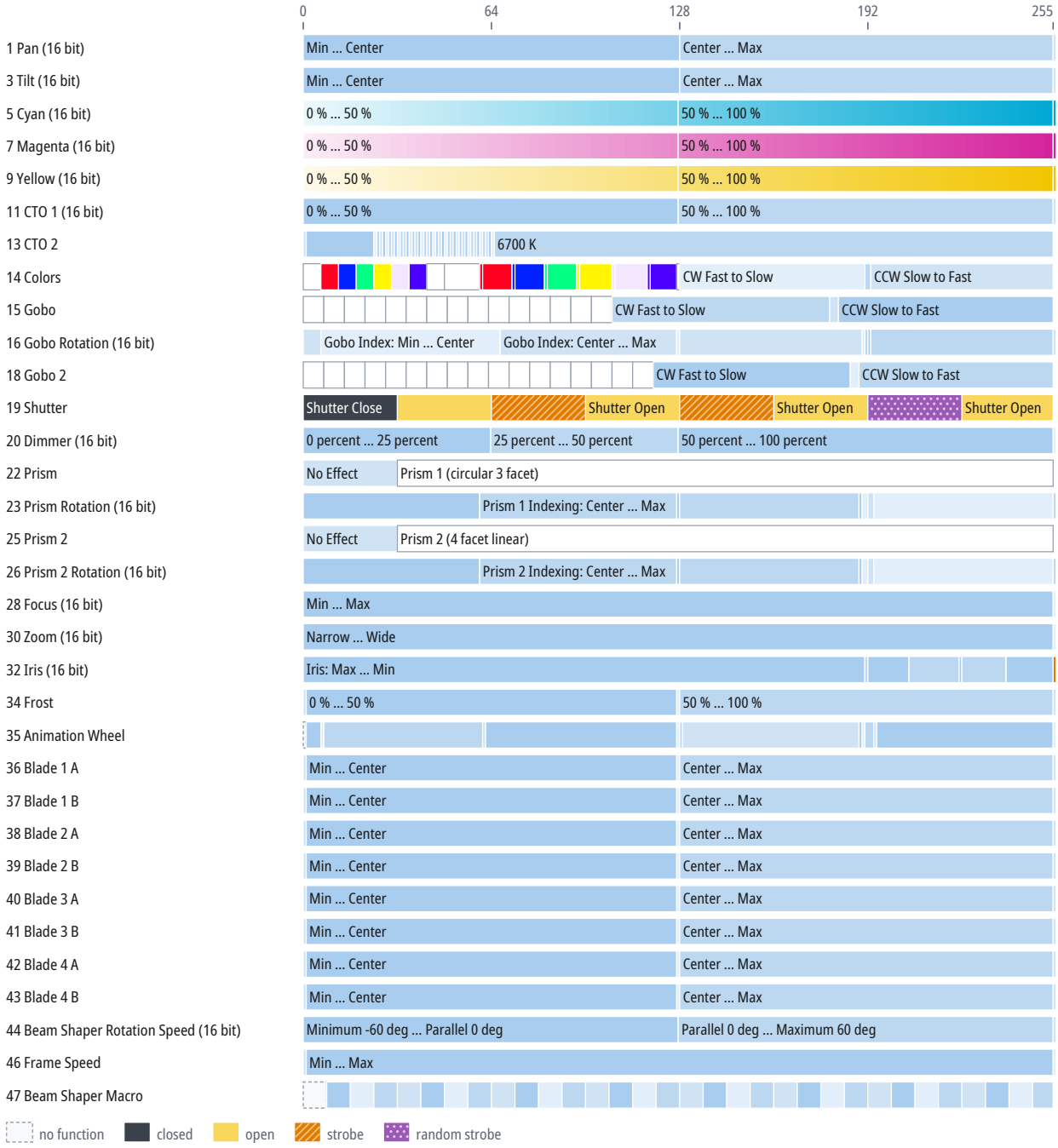
Mode	Channels	RDM personality
Extended Mode 51ch	51	3
Standard Mode 40ch	40	1
Basic Mode 36ch	36	2

Mode Extended Mode 51ch

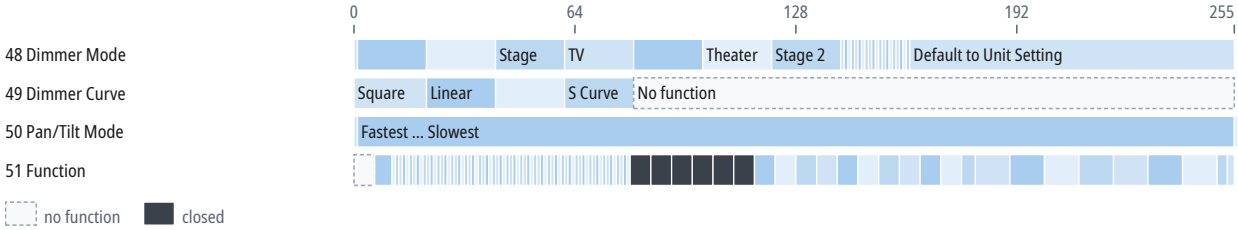
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 19 Shutter at 32–63, 96–127, 160–191 or 224–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 14 Colors 0, CH 19 Shutter 32, CH 20 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–128	Min ... Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–128	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0–127	0 % ... 50 %
		127	50 %
		128–255	50 % ... 100 %
		255	100 %
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta	0–127	0 % ... 50 %
		127	50 %
		128–255	50 % ... 100 %
		255	100 %
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow	0–127	0 % ... 50 %
		127	50 %
		128–255	50 % ... 100 %
		255	100 %
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	CTO 1	0–127	0 % ... 50 %
		127	50 %
		128–255	50 % ... 100 %
		255	100 %
12	CTO 1 Fine	0–255	Fine adjustment of CH 11
13	CTO 2	0–23	Open
		24	2700K
		25	2800K
		26	2900K
		27	3000K
		28	3100K

CH	Function	DMX	Description
13	CTO 2 (continued)	29	3200K
		30	3300K
		31	3400K
		32	3500K
		33	3600K
		34	3700K
		35	3800K
		36	3900K
		37	4000K
		38	4100K
		39	4200K
		40	4300K
		41	4400K
		42	4500K
		43	4600K
		44	4700K
		45	4800K
		46	4900K
		47	5000K
		48	5100K
		49	5200K
		50	5300K
		51	5400K
		52	5500K
		53	5600K
		54	5700K
		55	5800K
		56	5900K
		57	6000K
		58	6100K
		59	6200K
		60	6300K
		61	6400K
		62	6500K
		63	6600K
		64	6700K
		65–255	6700 K
14	Colors	0–5	Color Off(Open)
		6–11	Red
		12–17	Blue
		18–23	Green
		24–29	Yellow

CH	Function	DMX	Description
14	Colors (continued)	30–35	CRI
		36–41	CTB
		42–47	Color off(Open)
		48–59	Open-Red
		60	Red
		61–70	Red-Blue
		71	Blue
		72–81	Blue-Green
		82	Green
		83–92	Green-Yellow
		93	Yellow
		94–104	Yellow-CRI
		105	CRI
		106–116	CRI-CTB
		117	CTB
		118–126	CTB-OPEN
		127	Color off (Open)
		128–190	CW Fast to Slow (360–10 °/s)
		191–192	No Rot
		193–255	CCW Slow to Fast (10–360 °/s)
15	Gobo	0–6	Gobo 1 -: Open
		7–13	Gobo 1
		14–20	Gobo 2
		21–27	Gobo 3
		28–34	Gobo 4
		35–41	Gobo 5
		42–48	Gobo 6
		49–55	Gobo 7
		56–62	Gobo Shake 1 (1–5 Hz)
		63–69	Gobo Shake 2 (1–5 Hz)
		70–76	Gobo Shake 3 (1–5 Hz)
		77–83	Gobo Shake 4 (1–5 Hz)
		84–90	Gobo Shake 5 (1–5 Hz)
		91–97	Gobo Shake 6 (1–5 Hz)
		98–104	Gobo Shake 7 (1–5 Hz)
		105–178	CW Fast to Slow (360–10 °/s)
		179–181	Not Rot
		182–255	CCW Slow to Fast (10–360 °/s)
16	Gobo Rotation	0–6	Gobo Index
		6–67	Gobo Index: Min ... Center
		67–127	Gobo Index: Center ... Max
		127	Gobo Index: Max

CH	Function	DMX	Description
16	Gobo Rotation (continued)	127–128	Gobo Index
		128–190	Clockwise Gobo Rotation fast to slow: Fastest … Slowest
		190	Clockwise Gobo Rotation fast to slow: Slowest
		190–191	Clockwise Gobo Rotation fast to slow
		191–193	No Rotation
		193–255	Counter-Clockwise Gobo Rotation slow to fast: Slowest … Fastest
		255	Counter-Clockwise Gobo Rotation slow to fast: Fastest
17	Gobo Rotation Fine	0–255	Fine adjustment of CH 16
18	Gobo 2	0–6	Gobo 1 -: Open
		7–13	Gobo 1
		14–20	Gobo 2
		21–27	Gobo 3
		28–34	Gobo 4
		35–41	Gobo 5
		42–48	Gobo 6
		49–55	Gobo 7
		56–62	Gobo 8
		63–69	Gobo Shake 1 (1–5 Hz)
		70–76	Gobo Shake 2 (1–5 Hz)
		77–83	Gobo Shake 3 (1–5 Hz)
		84–90	Gobo Shake 4 (1–5 Hz)
		91–97	Gobo Shake 5 (1–5 Hz)
		98–104	Gobo Shake 6 (1–5 Hz)
		105–111	Gobo Shake 7 (1–5 Hz)
		112–118	Gobo Shake 8 (1–5 Hz)
		119–185	CW Fast to Slow (up to 360 °/s (60 rpm))
		186–188	No Rot
		189–255	CCW Slow to Fast (10–360 °/s)
19	Shutter	0–31	Shutter Close
		32–63	Shutter Open/Close: Shutter Open
		64–95	Slow to Fast Strobe (1–10 Hz)
		96–127	Shutter Open
		128–159	Slow to Fast Pulse (1–10 Hz)
		160–191	Shutter Open
		192–223	Slow to Fast strobe (1–10 Hz)
		224–255	Shutter Open
20	Dimmer	0–63	0 percent … 25 percent
		63	25 percent
		64–127	25 percent … 50 percent
		127	50 percent
		128–255	50 percent … 100 percent

CH	Function	DMX	Description
20	Dimmer (continued)	255	100 percent
21	Dimmer Fine	0–255	Fine adjustment of CH 20
22	Prism	0–31	No Effect
		32–255	Prism 1 (circular 3 facet)
23	Prism Rotation	0–60	Prism 1 Indexing: Min ... Center
		60–127	Prism 1 Indexing: Center ... Max
		127	Prism 1 Indexing: Max
		127–128	Prism 1 Indexing
		128–189	Clockwise Prism Rotation fast to slow: Fastest ... Slowest
		189	Clockwise Prism Rotation fast to slow: Slowest
		189–190	Clockwise Prism Rotation fast to slow
		190–194	No Rotation
		194–255	Prism 1 Pos Rotate: Slowest ... Fastest
		255	Prism 1 Pos Rotate: Fastest
24	Prism Rotation Fine	0–255	Fine adjustment of CH 23
25	Prism 2	0–31	No Effect
		32–255	Prism 2 (4 facet linear)
26	Prism 2 Rotation	0–60	Prism 2 Indexing: Min ... Center
		60–127	Prism 2 Indexing: Center ... Max
		127	Prism 2 Indexing: Max
		127–128	Prism 2 Indexing
		128–189	Clockwise Prism Rotation fast to slow: Fastest ... Slowest
		189	Clockwise Prism Rotation fast to slow: Slowest
		189–190	Clockwise Prism Rotation fast to slow
		190–194	No Rotation
		194–255	Prism 1 Pos Rotate: Slowest ... Fastest
		255	Prism 1 Pos Rotate: Fastest
27	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 26
28	Focus	0–255	Min ... Max
		255	Max
29	Focus Fine	0–255	Fine adjustment of CH 28
30	Zoom	0–255	Narrow ... Wide
		255	Wide
31	Zoom Fine	0–255	Fine adjustment of CH 30
32	Iris	0–191	Iris: Max ... Min
		191	Iris: Min
		191–192	Iris
		192–206	Pulse Up Slow ... Pulse Up Med
		206–223	Pulse Up Med ... Pulse Up Fast
		223	Pulse Up Fast
		223–224	Iris Pulse up
		224–239	Pulse Down Slow ... Pulse Down Med

CH	Function	DMX	Description
32	Iris (continued)	239–255	Pulse Down Med ... Pulse Down Fast
		255	Pulse Down Fast
33	Iris Fine	0–255	Fine adjustment of CH 32
34	Frost	0	0 %
		1–126	0 % ... 50 %
		127	50 %
		128–254	50 % ... 100 %
		255	100 %
35	Animation Wheel	0	Animation Rotation OFF: Off
		1–5	Animation Rotation OFF
		6	Animation Wheel Indexing: Min
		7–60	Animation Wheel Indexing: Min ... Center
		61	Animation Wheel Indexing: Center
		62–126	Animation Wheel Indexing: Center ... Max
		127	Animation Wheel Indexing: Max
		128	Clockwise Animation Rotation Fast-Slow: Fast
		129–188	Clockwise Animation Rotation Fast-Slow: Fast ... Slow
		189	Clockwise Animation Rotation Fast-Slow: Slow
		190–193	No Rotation
		194	Counter Clockwise Animation Rotation Slow-Fast: Slow
		195–254	Counter Clockwise Animation Rotation Slow-Fast: Slow ... Fast
		255	Counter Clockwise Animation Rotation Slow-Fast: Fast
36	Blade 1 A	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
37	Blade 1 B	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
38	Blade 2 A	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
39	Blade 2 B	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max

CH	Function	DMX	Description
40	Blade 3 A	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
41	Blade 3 B	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
42	Blade 4 A	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
43	Blade 4 B	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
44	Beam Shaper Rotation Speed		Frame Rotation
		0–127	Minimum -60 deg ... Parallel 0 deg
		127	Parallel 0 deg
		128–255	Parallel 0 deg ... Maximum 60 deg
		255	Maximum 60 deg
45	Beam Shaper Rotation Speed Fine	0–255	Fine adjustment of CH 44
46	Frame Speed	0	Min
		1–254	Min ... Max
		255	Max
47	Beam Shaper Macro		Frame Macros
		0–7	OFF
		8–15	Macro 1
		16–23	Macro 2
		24–31	Macro 3
		32–39	Macro 4
		40–47	Macro 5
		48–55	Macro 6
		56–63	Macro 7
		64–71	Macro 8
		72–79	Macro 9
		80–87	Macro 10
		88–95	Macro 11

CH	Function	DMX	Description
47	Beam Shaper Macro (continued)	96–103	Macro 12
		104–111	Macro 13
		112–119	Macro 14
		120–127	Macro 15
		128–135	Macro 16
		136–143	Macro 17
		144–151	Macro 18
		152–159	Macro 19
		160–167	Macro 20
		168–175	Macro 21
		176–183	Macro 22
		184–191	Macro 23
		192–199	Macro 24
		200–207	Macro 25
		208–215	Macro 26
		216–223	Macro 27
		224–231	Macro 28
		232–239	Macro 29
		240–247	Macro 30
		248–255	Macro 31
48	Dimmer Mode	0	Default to Unit Setting
		1–20	Default to Unit Setting ... Standard
		21–40	Standard
		41–60	Stage
		61–80	TV
		81–100	Architectural
		101–120	Theater
		121–140	Stage 2
		141	0*1 second
		142	0*2 seconds
		143	0*3 seconds
		144	0*4 seconds
		145	0*5 seconds
		146	0*6 seconds
		147	0*7 seconds
		148	0*8 seconds
		149	0*9 seconds
		150	1 second
		151	1*5 seconds
		152–160	2...10 seconds
		161–255	Default to Unit Setting
49	Dimmer Curve		Dimmer Curves

CH	Function	DMX	Description
49	Dimmer Curve (continued)	0–20	Square
		21–40	Linear
		41–60	Inverted Square
		61–80	S Curve
		81–255	No function
50	Pan/Tilt Mode		Pan/Tilt Fast to Slow
		0	Fastest
		1–254	Fastest … Slowest
		255	Slowest
51	Function	0–5	No Function
		6–10	Default refresh rates
		11	900 Hz
		12	910 Hz
		13	920 Hz
		14	930 Hz
		15	940 Hz
		16	950 Hz
		17	960 Hz
		18	970 Hz
		19	980 Hz
		20	990 Hz
		21	1000 Hz
		22	1010 Hz
		23	1020 Hz
		24	1030 Hz
		25	1040 Hz
		26	1050 Hz
		27	1060 Hz
		28	1070 Hz
		29	1080 Hz
		30	1090 Hz
		31	1100 Hz
		32	1110 Hz
		33	1120 Hz
		34	1130 Hz
		35	1140 Hz
		36	1150 Hz
		37	1160 Hz
		38	1170 Hz
		39	1180 Hz
		40	1190 Hz
		41	1210 Hz

CH	Function	DMX	Description
51	Function (continued)	42	1220 Hz
		43	1230 Hz
		44	1240 Hz
		45	1250 Hz
		46	1260 Hz
		47	1270 Hz
		48	1280 Hz
		49	1290 Hz
		50	1300 Hz
		51	1310 Hz
		52	1320 Hz
		53	1330 Hz
		54	1340 Hz
		55	1350 Hz
		56	1360 Hz
		57	1370 Hz
		58	1380 Hz
		59	1390 Hz
		60	1400 Hz
		61	1410 Hz
		62	1420 Hz
		63	1430 Hz
		64	1440 Hz
		65	1450 Hz
		66	1460 Hz
		67	1470 Hz
		68	1480 Hz
		69	1490 Hz
		70	1500 Hz
		71	2500 Hz
		72	4000 Hz
		73	5000 Hz
		74	6000 Hz
		75	10000 Hz
		76	15000 Hz
		77	20000 Hz
		78	25000 Hz
		79	Disable LED refresh Rates
		80–85	Enable blackout while pan/tilt moving
		86–91	Disable blackout while pan/tilt moving
		92–97	Enable blackout while color changing
		98–103	Disable blackout while color changing

CH	Function	DMX	Description
51	Function (continued)	104–109	Enable blackout while gobo changing
		110–115	Disable blackout while gobo changing
		116–121	All motors reset
		122–127	Pan/tilt reset
		128–133	Effect reset
		134–139	Color reset
		140–145	Gobo reset
		146–151	Focus and zoom reset
		152–157	Other motors reset
		158–163	Fan mode low
		164–169	Fan mode high
		170–175	Fan mode auto
		176–179	Idle
		180–189	Internal program 1
		190–199	Internal program 2
		200–209	Internal program 3
		210–219	Internal program 4
		220–229	Internal program 5
		230–239	Internal program 6
		240–249	Internal program 7
		250–252	Enable CT Mode
		253–255	Disable CT Mode

Mode Standard Mode 40ch

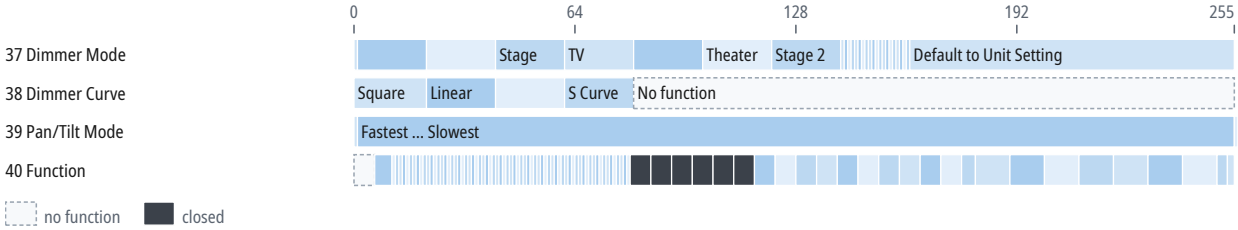
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 14 Shutter at 32–63, 96–127, 160–191 or 224–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 10 Colors 0, CH 14 Shutter 32, CH 15 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extended Mode 51ch” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended Mode 51ch” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0	0 %
		1–126	0 % ... 50 %
		127	50 %
		128–254	50 % ... 100 %
		255	100 %
6	Magenta	0	0 %
		1–126	0 % ... 50 %
		127	50 %
		128–254	50 % ... 100 %
		255	100 %
7	Yellow	0	0 %
		1–126	0 % ... 50 %
		127	50 %
		128–254	50 % ... 100 %
		255	100 %
8	CTO 1	0	0 %
		1–126	0 % ... 50 %
		127	50 %
		128–254	50 % ... 100 %
		255	100 %
9	CTO 2		Same as CH 13 in the mode “Extended Mode 51ch” (p. 12)
10	Colors		Same as CH 14 in the mode “Extended Mode 51ch” (p. 13)
11	Gobo		Same as CH 15 in the mode “Extended Mode 51ch” (p. 14)
12	Gobo Rotation	0–5	Gobo Index
		6	Gobo Index: Min
		7–66	Gobo Index: Min ... Center
		67	Gobo Index: Center
		68–126	Gobo Index: Center ... Max
		127	Gobo Index: Max
		128	Clockwise Gobo Rotation fast to slow: Fastest

CH	Function	DMX	Description
12	Gobo Rotation (continued)	129–189	Clockwise Gobo Rotation fast to slow: Fastest ... Slowest
		190	Clockwise Gobo Rotation fast to slow: Slowest
		191	Clockwise Gobo Rotation fast to slow
		192	No Rotation
		193	Counter-Clockwise Gobo Rotation slow to fast: Slowest
		194–254	Counter-Clockwise Gobo Rotation slow to fast: Slowest ... Fastest
		255	Counter-Clockwise Gobo Rotation slow to fast: Fastest
13	Gobo 2		Same as CH 18 in the mode “Extended Mode 51ch” (p. 15)
14	Shutter		Same as CH 19 in the mode “Extended Mode 51ch” (p. 15)
15	Dimmer		Same as CH 20 in the mode “Extended Mode 51ch” (p. 15)
16	Dimmer Fine	0–255	Fine adjustment of CH 15
17	Prism		Same as CH 22 in the mode “Extended Mode 51ch” (p. 16)
18	Prism Rotation	0	Prism 1 Indexing: Min
		1–59	Prism 1 Indexing: Min ... Center
		60	Prism 1 Indexing: Center
		61–126	Prism 1 Indexing: Center ... Max
		127	Prism 1 Indexing: Max
		128	Clockwise Prism Rotation fast to slow: Fastest
		129–188	Clockwise Prism Rotation fast to slow: Fastest ... Slowest
		189	Clockwise Prism Rotation fast to slow: Slowest
		190–193	No Rotation
		194	Prism 1 Pos Rotate: Slowest
		195–254	Prism 1 Pos Rotate: Slowest ... Fastest
		255	Prism 1 Pos Rotate: Fastest
19	Prism 2	0–31	No Effect
		32–255	Prism 2 (4 linear facet)
20	Prism 2 Rotation	0	Prism 1 Indexing: Min
		1–59	Prism 1 Indexing: Min ... Center
		60	Prism 1 Indexing: Center
		61–126	Prism 1 Indexing: Center ... Max
		127	Prism 1 Indexing: Max
		128	Clockwise Prism Rotation fast to slow: Fastest
		129–188	Clockwise Prism Rotation fast to slow: Fastest ... Slowest
		189	Clockwise Prism Rotation fast to slow: Slowest
		190–193	No Rotation
		194	Prism 1 Pos Rotate: Slowest
		195–254	Prism 1 Pos Rotate: Slowest ... Fastest
		255	Prism 1 Pos Rotate: Fastest
21	Focus	0	Min
		1–254	Min ... Max
		255	Max

CH	Function	DMX	Description
22	Zoom	0	Narrow
		1–254	Narrow ... Wide
		255	Wide
23	Iris	0	Iris: Max
		1–190	Iris: Max ... Min
		191	Iris: Min
		192	Pulse Up Slow
		193–205	Pulse Up Slow ... Pulse Up Med
		206	Pulse Up Med
		207–222	Pulse Up Med ... Pulse Up Fast
		223	Pulse Up Fast
		224	Pulse Down Slow
		225–238	Pulse Down Slow ... Pulse Down Med
		239	Pulse Down Med
		240–254	Pulse Down Med ... Pulse Down Fast
		255	Pulse Down Fast
24	Frost		Same as CH 34 in the mode “Extended Mode 51ch” (p. 17)
25	Animation Wheel		Same as CH 35 in the mode “Extended Mode 51ch” (p. 17)
26	Blade 1 A		Same as CH 36 in the mode “Extended Mode 51ch” (p. 17)
27	Blade 1 B		Same as CH 37 in the mode “Extended Mode 51ch” (p. 17)
28	Blade 2 A		Same as CH 38 in the mode “Extended Mode 51ch” (p. 17)
29	Blade 2 B		Same as CH 39 in the mode “Extended Mode 51ch” (p. 17)
30	Blade 3 A		Same as CH 40 in the mode “Extended Mode 51ch” (p. 18)
31	Blade 3 B		Same as CH 41 in the mode “Extended Mode 51ch” (p. 18)
32	Blade 4 A		Same as CH 42 in the mode “Extended Mode 51ch” (p. 18)
33	Blade 4 B		Same as CH 43 in the mode “Extended Mode 51ch” (p. 18)
34	Beam Shaper Rotation Speed		Frame Rotation
		0	Minimum -60 deg
		1–126	Minimum -60 deg ... Parallel 0 deg
		127	Parallel 0 deg
		128–254	Parallel 0 deg ... Maximum 60 deg
		255	Maximum 60 deg
35	Frame Speed		Same as CH 46 in the mode “Extended Mode 51ch” (p. 18)
36	Beam Shaper Macro		Same as CH 47 in the mode “Extended Mode 51ch” (p. 18)
37	Dimmer Mode		Same as CH 48 in the mode “Extended Mode 51ch” (p. 19)
38	Dimmer Curve		Same as CH 49 in the mode “Extended Mode 51ch” (p. 19)
39	Pan/Tilt Mode		Same as CH 50 in the mode “Extended Mode 51ch” (p. 20)
40	Function		Same as CH 51 in the mode “Extended Mode 51ch” (p. 20)

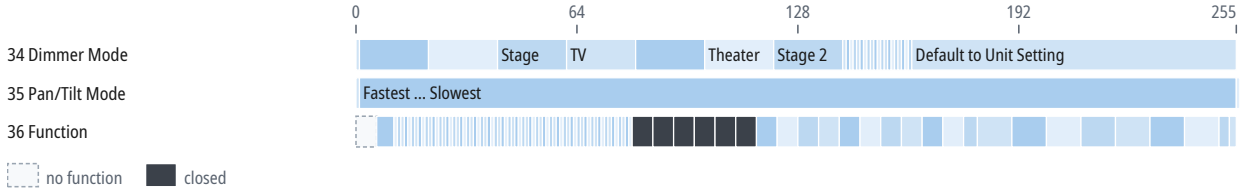
Mode Basic Mode 36ch

If the device receives DMX in this mode but gives no light, check these channels: CH 12 Shutter at 32–63, 96–127, 160–191 or 224–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 3 Cyan 0, CH 4 Magenta 0, CH 5 Yellow 0, CH 8 Colors 0, CH 12 Shutter 32, CH 13 Dimmer 255.

Channel functions at a glance



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	Cyan		Same as CH 5 in the mode “Standard Mode 40ch” (p. 24)
4	Magenta		Same as CH 6 in the mode “Standard Mode 40ch” (p. 24)
5	Yellow		Same as CH 7 in the mode “Standard Mode 40ch” (p. 24)
6	CTO 1		Same as CH 8 in the mode “Standard Mode 40ch” (p. 24)
7	CTO 2		Same as CH 13 in the mode “Extended Mode 51ch” (p. 12)
8	Colors		Same as CH 14 in the mode “Extended Mode 51ch” (p. 13)
9	Gobo		Same as CH 15 in the mode “Extended Mode 51ch” (p. 14)
10	Gobo Rotation		Same as CH 12 in the mode “Standard Mode 40ch” (p. 24)
11	Gobo 2		Same as CH 18 in the mode “Extended Mode 51ch” (p. 15)
12	Shutter		Same as CH 19 in the mode “Extended Mode 51ch” (p. 15)
13	Dimmer	0	0 percent
		1–62	0 percent ... 25 percent
		63	25 percent
		64–126	25 percent ... 50 percent
		127	50 percent
		128–254	50 percent ... 100 percent
		255	100 percent
14	Prism		Same as CH 22 in the mode “Extended Mode 51ch” (p. 16)
15	Prism Rotation		Same as CH 18 in the mode “Standard Mode 40ch” (p. 25)
16	Prism 2		Same as CH 19 in the mode “Standard Mode 40ch” (p. 25)
17	Prism 2 Rotation		Same as CH 20 in the mode “Standard Mode 40ch” (p. 25)
18	Focus		Same as CH 21 in the mode “Standard Mode 40ch” (p. 25)
19	Zoom		Same as CH 22 in the mode “Standard Mode 40ch” (p. 26)
20	Iris		Same as CH 23 in the mode “Standard Mode 40ch” (p. 26)
21	Frost		Same as CH 34 in the mode “Extended Mode 51ch” (p. 17)

CH	Function	DMX	Description
22	Animation Wheel	0–5	Animation Rotation OFF
		6	Animation Wheel Indexing: Min
		7–60	Animation Wheel Indexing: Min ... Center
		61	Animation Wheel Indexing: Center
		62–126	Animation Wheel Indexing: Center ... Max
		127	Animation Wheel Indexing: Max
		128	Clockwise Animation Rotation Fast-Slow: Fast
		129–188	Clockwise Animation Rotation Fast-Slow: Fast ... Slow
		189	Clockwise Animation Rotation Fast-Slow: Slow
		190–193	No Rotation
		194	Counter Clockwise Animation Rotation Slow-Fast: Slow
		195–254	Counter Clockwise Animation Rotation Slow-Fast: Slow ... Fast
		255	Counter Clockwise Animation Rotation Slow-Fast: Fast
23	Blade 1 A		Same as CH 36 in the mode “Extended Mode 51ch” (p. 17)
24	Blade 1 B		Same as CH 37 in the mode “Extended Mode 51ch” (p. 17)
25	Blade 2 A		Same as CH 38 in the mode “Extended Mode 51ch” (p. 17)
26	Blade 2 B		Same as CH 39 in the mode “Extended Mode 51ch” (p. 17)
27	Blade 3 A		Same as CH 40 in the mode “Extended Mode 51ch” (p. 18)
28	Blade 3 B		Same as CH 41 in the mode “Extended Mode 51ch” (p. 18)
29	Blade 4 A		Same as CH 42 in the mode “Extended Mode 51ch” (p. 18)
30	Blade 4 B		Same as CH 43 in the mode “Extended Mode 51ch” (p. 18)
31	Beam Shaper Rotation Speed		Same as CH 34 in the mode “Standard Mode 40ch” (p. 26)
32	Frame Speed		Same as CH 46 in the mode “Extended Mode 51ch” (p. 18)
33	Beam Shaper Macro		Same as CH 47 in the mode “Extended Mode 51ch” (p. 18)
34	Dimmer Mode		Same as CH 48 in the mode “Extended Mode 51ch” (p. 19)
35	Pan/Tilt Mode		Same as CH 50 in the mode “Extended Mode 51ch” (p. 20)
36	Function		Same as CH 51 in the mode “Extended Mode 51ch” (p. 20)

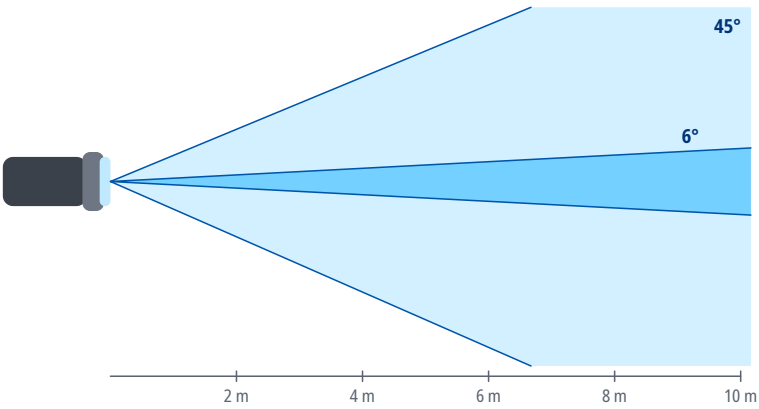
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	1,000 W
Luminous flux	10,000 lm
Color temperature	6,000 K
Color rendering index (CRI)	80
Optics	
Zoom	6–45°
Movement	
Pan	540°
Tilt	270°
Control	
RDM	yes (manufacturer ID 0x1900, device model ID 0x0024)
Dimensions and construction	
Weight	27.8 kg
Operating environment	
Operating temperature	-25 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–6700 K
Strobe frequency	1–10 Hz
Color wheel rotation	up to 360 °/s (60 rpm)
Gobo wheel 1 rotation	up to 360 °/s (60 rpm)
Gobo wheel 2 rotation	up to 360 °/s (60 rpm)
Beam shaper rotation	up to 60 °/s (10 rpm)

Spot diameter



Distance	Ø 6°	Ø 45°
2 m	0.21 m	1.7 m
4 m	0.42 m	3.3 m
6 m	0.63 m	5 m
8 m	0.84 m	6.6 m
10 m	1 m	8.3 m
15 m	1.6 m	12.4 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.