DMX REFERENCE

Artiste Picasso

Elation



Manufacturer	Elation
GDTF file	Elation_Artiste_Picasso_96333.gdtf
GDTF revision	25-09-05 Release · 2025-05-09
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1 About this manual

This document describes the Artiste Picasso by Elation. It was compiled from the GDTF file Elation_Artiste_Picasso_96333.gdtf from the GDTF-Share library.

File revision: “25-09-05 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 Elation; 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	36.2 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Standard Pan540	36	14	1, 37, 73, 109, ...
Extended Pan540	62	8	1, 63, 125, 187, ...
Extended Pan630	62	8	1, 63, 125, 187, ...
Standard Pan630	36	14	1, 37, 73, 109, ...



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.

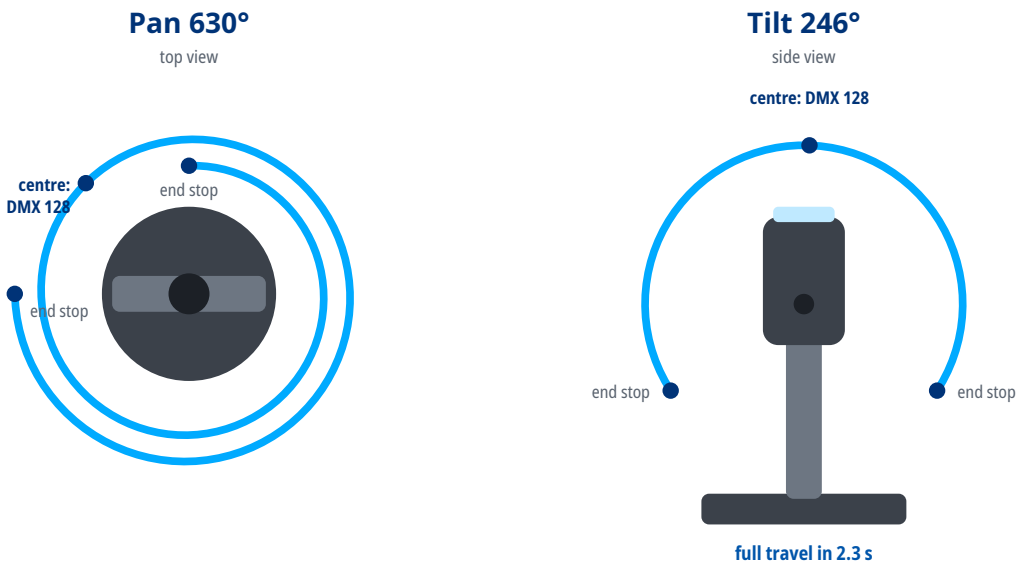
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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 Artiste Picasso™ is a full-featured innovative theatrical-grade luminaire featuring a new 620W 6,800K Cool White LED engine with advanced optics that deliver over 23,000 total lumen output, ultra wide and fast 7° to 55° zoom, a full CMY color mixing system producing a full spectrum of shades from pastels to rich saturated colors, linear CTO color correction, 6 dichroic colors including a high 87 CRI filter, 7 rotating/indexing glass and 7 static-stamped metal interchangeable gobos, 4 rotating full blackout framing blades with +/- 45° individual blade rotation, full 360° bi-directional animation wheel, 4-facet and linear rotating prisms and 2 frost filters, internal color, framing, prism, and frost macros, motorized iris with variable pulse effects, motorized focus and auto-focus feature, 16-bit pan, tilt, and dimming control, variable dimming curve modes, high speed electronic shutter and strobe, adjustable LED refresh rate and gamma brightness for flicker free operation for TV and FILM, silent fan mode for noise-sensitive applications, DMX, RDM (Remote Device Management), Art-NET™, and sACN protocol support, Elation’s E-FLY™ internal wireless DMX transceiver, locking 5pin XLR DMX, RJ45 ethernet, and power connections, full color 180° reversible LCD control panel, battery backup for display power, and a multi-voltage universal auto switching power supply (100-240v).”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

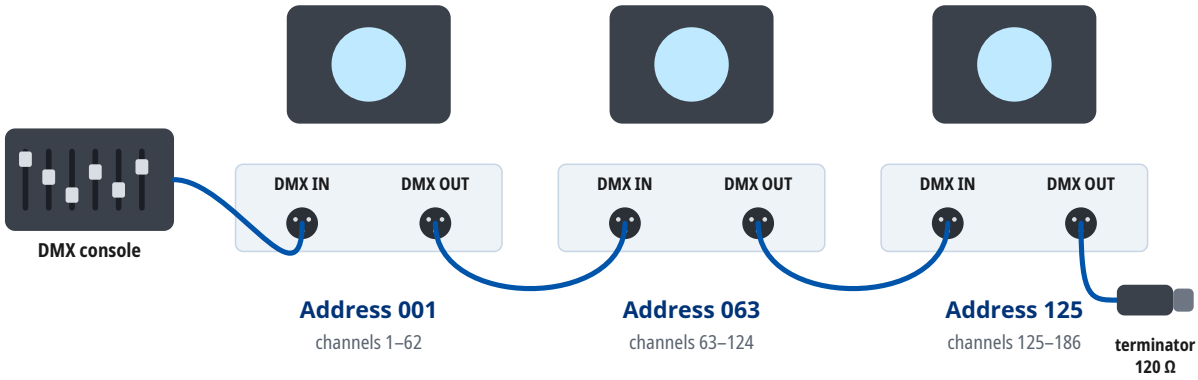
⚠ WARNING

- 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: 36.2 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode Extended Pan540: every unit occupies 62 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 Pan540”: 62.
- 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 Pan540”, you can use, for example, the start addresses 1, 63, 125, 187.
- 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

	Standard Pan540 36 channels	Extended Pan540 62 channels	Extended Pan630 62 channels	Standard Pan630 36 channels
Pan / Tilt	1, 3	1, 3	1, 3	1, 3
Dimmer	21	32	32	21
Shutter / strobe	20	31	31	20
Color mixing	5–7	5, 7, 9	5, 7, 9	5–7
Color temperature	8	11	11	8
Color wheel	9	13	13	9
Gobo wheel	10, 13	15, 18	15, 18	10, 13
Gobo rotation	11	16	16	11
Prism	14–16	20, 21, 23	20, 21, 23	14–16
Frost	25	37	37	25
Zoom	19	27	27	19
Focus	17	25, 29	25, 29	17
Iris	24	35	35	24
Animation wheel	26	38	38	26
Effects / macros	14, 36	4 channels (20–62)	4 channels (20–62)	14, 36

Color wheel

1. OPEN / WHITE
   DMX 0–19
2. RED
   DMX 20–37
3. GREEN
   DMX 38–55
4. HIGH CRI
   DMX 56–73
5. ORANGE
   DMX 74–91
6. MINUS GREEN
   DMX 92–109
7. Blue
   DMX 110–128

Gobo wheel 1

1
Gobo: OPEN
DMX 0–9

2 
Rotating Gobo 1
DMX 10–19

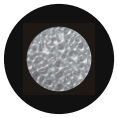
3 
Rotating Gobo 2
DMX 20–29

4 
Rotating Gobo 3
DMX 30–39

5 
Rotating Gobo 4
DMX 40–49

6 
Rotating Gobo 5
DMX 50–59

7 
Rotating Gobo 6
DMX 60–69

8 
GB020
DMX 70–78

Gobo wheel 2

1
Gobo: OPEN
DMX 0–9

2 
Static / Fixed Gobo 1
DMX 10–19

3 
Static / Fixed Gobo 2
DMX 20–29

4 
Static / Fixed Gobo 3
DMX 30–39

5 
Static / Fixed Gobo 4
DMX 40–49

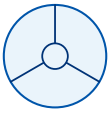
6 
Static / Fixed Gobo 5
DMX 50–59

7 
Static / Fixed Gobo 6
DMX 60–69

8 
M487
DMX 70–78

Prism

1
Prism: OPEN
DMX 0–63

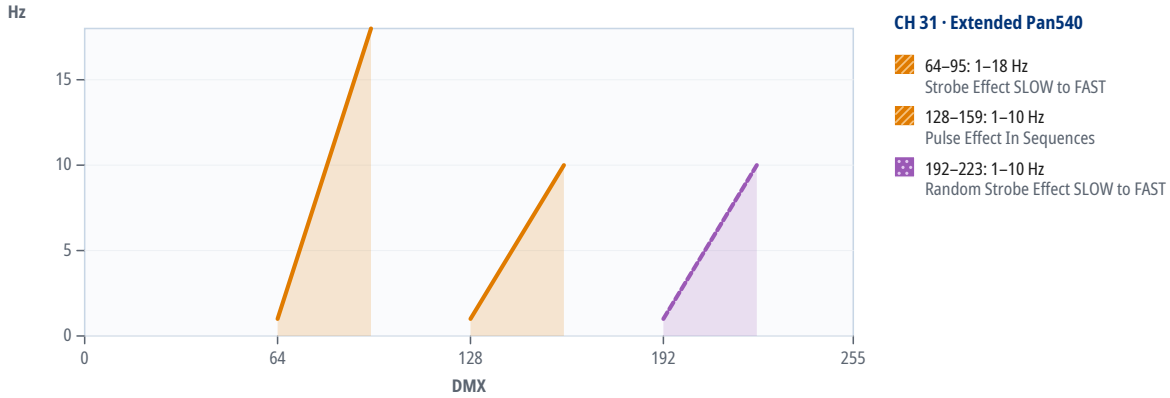
2 
3 facets
PRISM 1
DMX 64–95

3 
4 facets
4-Facet Circular Prism 2
DMX 96–128

Animation wheel

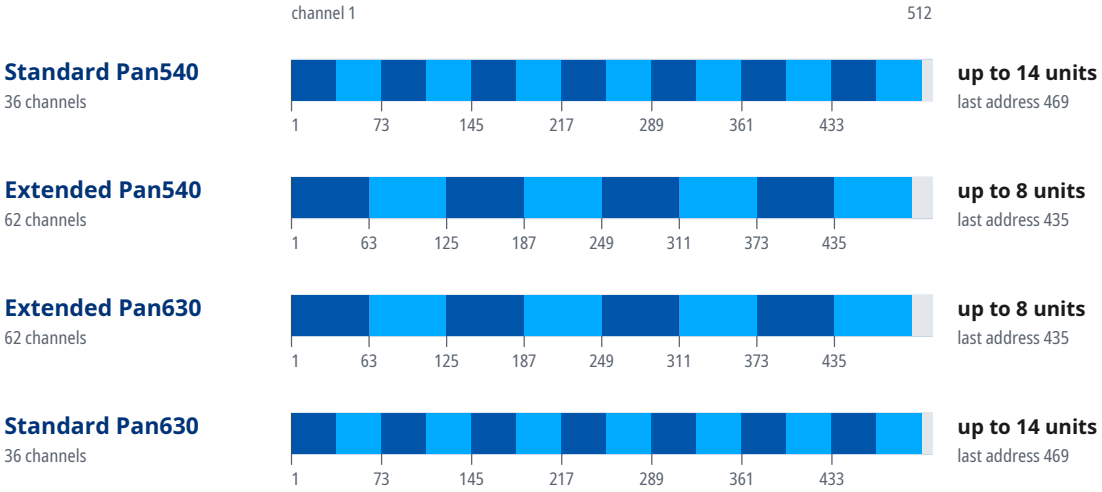
1 
25-022-1102

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended Pan540”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	311	11	U2 · 125	16	U2 · 435
2	63	7	373	12	U2 · 187	17	U3 · 1
3	125	8	435	13	U2 · 249	18	U3 · 63
4	187	9	U2 · 1	14	U2 · 311	19	U3 · 125
5	249	10	U2 · 63	15	U2 · 373	20	U3 · 187

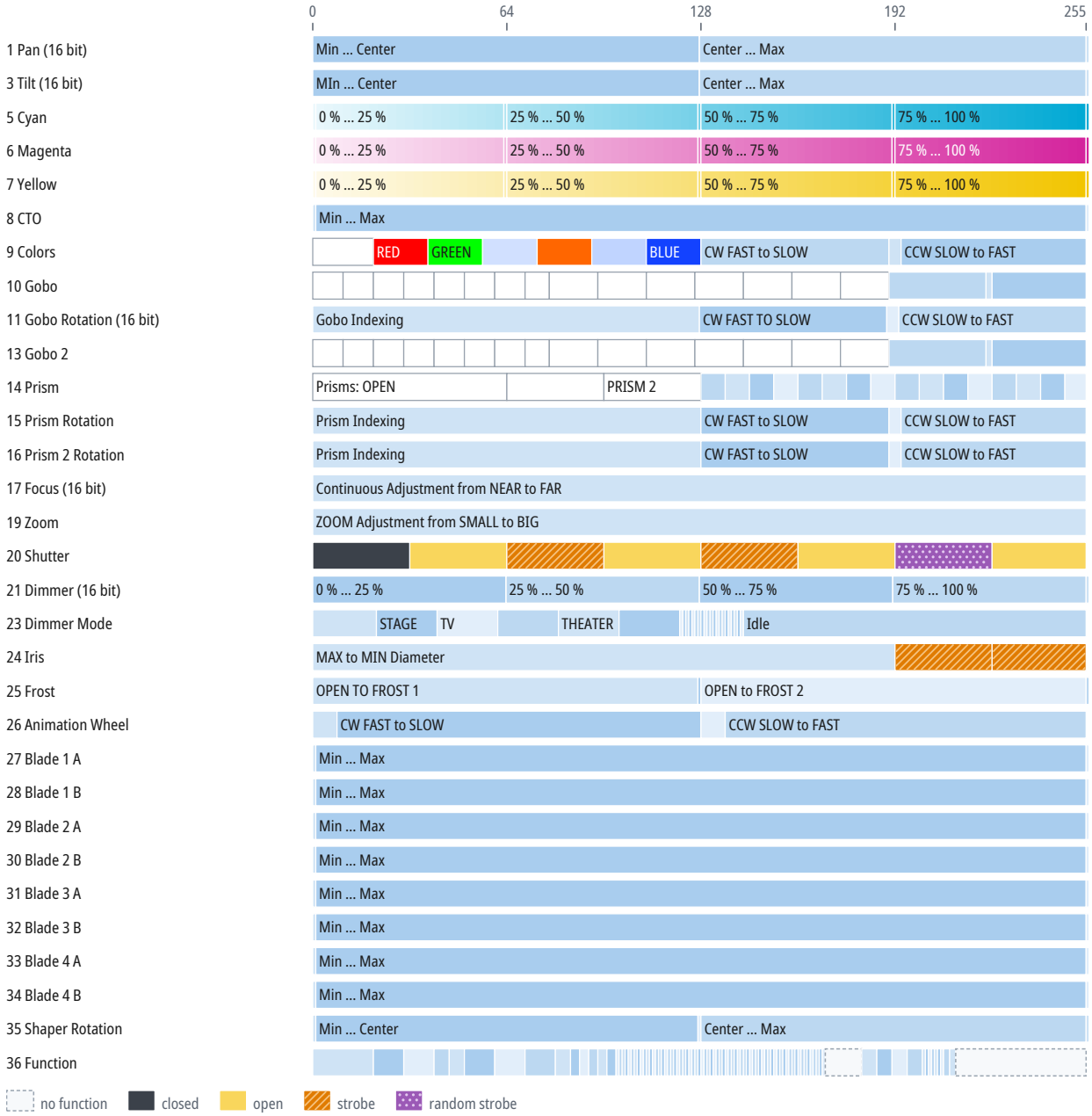
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode Standard Pan540

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 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 20 Shutter 47, CH 21 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1

CH	Function	DMX	Description
3	Tilt	0–127	MIn ... Center
		127	Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0	0 %
		1–62	0 % ... 25 %
		63	25 %
		64–126	25 % ... 50 %
		127	50 %
		128–190	50 % ... 75 %
		191	75 %
		192–254	75 % ... 100 %
		255	100 %
6	Magenta	0	0 %
		1–62	0 % ... 25 %
		63	25 %
		64–126	25 % ... 50 %
		127	50 %
		128–190	50 % ... 75 %
		191	75 %
		192–254	75 % ... 100 %
		255	100 %
7	Yellow	0	0 %
		1–62	0 % ... 25 %
		63	25 %
		64–126	25 % ... 50 %
		127	50 %
		128–190	50 % ... 75 %
		191	75 %
		192–254	75 % ... 100 %
		255	100 %
8	CTO	0	Min
		1–254	Min ... Max
		255	Max
9	Colors	0–19	OPEN / WHITE
		20–37	RED
		38–55	GREEN
		56–73	HIGH CRI
		74–91	ORANGE
		92–109	MINUS GREEN
		110–127	BLUE

CH	Function	DMX	Description
9	Colors (continued)	128–189	CW FAST to SLOW (7200–14 °/s)
		190–193	NO Rotation
		194–255	CCW SLOW to FAST (14–7200 °/s)
10	Gobo	0–9	Gobo: OPEN
		10–19	Rotating Gobo 1
		20–29	Rotating Gobo 2
		30–39	Rotating Gobo 3
		40–49	Rotating Gobo 4
		50–59	Rotating Gobo 5
		60–69	Rotating Gobo 6
		70–77	Rotating Gobo 7
		78–93	Gobo 1 Shake SLOW to FAST
		94–109	Gobo 2 Shake SLOW to FAST
		110–125	Gobo 3 Shake SLOW to FAST
		126–141	Gobo 4 Shake SLOW to FAST
		142–157	Gobo 5 Shake SLOW to FAST
		158–173	Gobo 6 Shake SLOW to FAST
		174–189	Gobo 7 Shake SLOW to FAST
		190–221	CW FAST to SLOW (7200–14 °/s)
		222–223	NO Rotation
		224–255	CCW SLOW to FAST (14–7200 °/s)
11	Gobo Rotation	0–127	Gobo Indexing (360°)
		128–189	CW FAST TO SLOW (360–10 °/s)
		190–193	NO Rotation
		194–255	CCW SLOW to FAST (10–360 °/s)
12	Gobo Rotation Fine	0–255	Fine adjustment of CH 11
13	Gobo 2	0–9	Gobo: OPEN
		10–19	Static / Fixed Gobo 1
		20–29	Static / Fixed Gobo 2
		30–39	Static / Fixed Gobo 3
		40–49	Static / Fixed Gobo 4
		50–59	Static / Fixed Gobo 5
		60–69	Static / Fixed Gobo 6
		70–77	Static / Fixed Gobo 7
		78–93	Shake SLOW to FAST Static / Fixed Gobo 1
		94–109	Shake SLOW to FAST Static / Fixed Gobo 2
		110–125	Shake SLOW to FAST Static / Fixed Gobo 3
		126–141	Shake SLOW to FAST Static / Fixed Gobo 4
		142–157	Shake SLOW to FAST Static / Fixed Gobo 5
		158–173	Shake SLOW to FAST Static / Fixed Gobo 6
		174–189	Shake SLOW to FAST Static / Fixed Gobo 7
		190–221	CW FAST to SLOW (7200–14 °/s)

CH	Function	DMX	Description
13	Gobo 2 (continued)	222–223	NO
		224–255	CCW SLOW to FAST (14–7200 °/s)
14	Prism	0–63	Prisms: OPEN
		64–95	PRISM 1
		96–127	PRISM 2
		128–135	Prism / Gobo Macro 1
		136–143	Prism / Gobo Macro 2
		144–151	Prism / Gobo Macro 3
		152–159	Prism / Gobo Macro 4
		160–167	Prism / Gobo Macro 5
		168–175	Prism / Gobo Macro 6
		176–183	Prism / Gobo Macro 7
		184–191	Prism / Gobo Macro 8
		192–199	Prism / Gobo Macro 9
		200–207	Prism / Gobo Macro 10
		208–215	Prism / Gobo Macro 11
		216–223	Prism / Gobo Macro 12
		224–231	Prism / Gobo Macro 13
		232–239	Prism / Gobo Macro 14
		240–247	Prism / Gobo Macro 15
		248–255	Prism / Gobo Macro 16
15	Prism Rotation	0–127	Prism Indexing (360°)
		128–189	CW FAST to SLOW (7200–14 °/s)
		190–193	NO Rotation
		194–255	CCW SLOW to FAST (14–7200 °/s)
16	Prism 2 Rotation	0–127	Prism Indexing (360°)
		128–189	CW FAST to SLOW (7200–14 °/s)
		190–193	NO Rotation
		194–255	CCW SLOW to FAST (14–7200 °/s)
17	Focus	0–255	Continuous Adjustment from NEAR to FAR
18	Focus Fine	0–255	Fine adjustment of CH 17
19	Zoom	0–255	ZOOM Adjustment from SMALL to BIG (7–55°)
20	Shutter	0–31	Shutter CLOSED
		32–63	NO Function (Shutter OPEN)
		64–95	Strobe Effect SLOW to FAST (1–18 Hz)
		96–127	NO Function (Shutter OPEN)
		128–159	Pulse Effect In Sequences (1–10 Hz)
		160–191	NO Function (Shutter OPEN)
		192–223	Random Strobe Effect SLOW to FAST (1–10 Hz)
		224–255	NO Function (Shutter OPEN)
21	Dimmer	0–63	0 % … 25 %
		63	25 %

CH	Function	DMX	Description
21	Dimmer (continued)	64–127	25 % … 50 %
		127	50 %
		128–191	50 % … 75 %
		191	75 %
		192–255	75 % … 100 %
		255	100 %
22	Dimmer Fine	0–255	Fine adjustment of CH 21
23	Dimmer Mode	0–20	STANDARD
		21–40	STAGE
		41–60	TV
		61–80	ARCHITECTURAL
		81–100	THEATER
		101–120	DEFAULT to FIXTURE DIMMER CURVE SETTING
		121	0s
		122	0'1s
		123	0'2s
		124	0'3s
		125	0'4s
		126	0'5s
		127	0'6s
		128	0'7s
		129	0'8s
		130	0'9s
		131	1s
		132	1'5s
		133–141	2…10s
		142–255	Idle
24	Iris	0–191	MAX to MIN Diameter
		192–223	Pulse Opening FAST to SLOW (1–0.01 Hz)
		224–255	Pulse Closing SLOW to FAST
25	Frost	0–126	OPEN TO FROST 1
		127	100% FROST 1
		128–254	OPEN to FROST 2
		255	100% FROST 2
26	Animation Wheel	0–7	Animation Wheel: OPEN
		8–127	CW FAST to SLOW (7200–14 °/s)
		128–135	NO Rotation
		136–255	CCW SLOW to FAST (14–7200 °/s)
27	Blade 1 A	0	Min
		1–254	Min … Max
		255	Max
28	Blade 1 B	0	Min

CH	Function	DMX	Description
28	Blade 1 B (continued)	1–254	Min … Max
		255	Max
29	Blade 2 A	0	Min
		1–254	Min … Max
		255	Max
30	Blade 2 B	0	Min
		1–254	Min … Max
		255	Max
31	Blade 3 A	0	Min
		1–254	Min … Max
		255	Max
32	Blade 3 B	0	Min
		1–254	Min … Max
		255	Max
33	Blade 4 A	0	Min
		1–254	Min … Max
		255	Max
34	Blade 4 B	0	Min
		1–254	Min … Max
		255	Max
35	Shaper Rotation	0	Min
		1–126	Min … Center
		127	Center
		128–254	Center … Max
		255	Max
36	Function	0–19	COLOR GOBO Change Normal
		20–29	COLOR Change to Any Position
		30–39	COLOR GOBO Change to Any Position
		40–44	Low Noise Mute
		45–49	Low Noise Studio
		50–59	Fan Control Low
		60–69	Fan Control High
		70–79	Fan Control Auto
		80–84	All MOTORS Reset
		85–87	SCAN MOTORS Reset
		88–90	COLOR MOTORS Reset
		91–93	GOBO MOTORS Reset
		94–96	FOCUS ZOOM MOTORS Reset
		97–99	OTHER MOTORS Reset
		100	900 Hz LED Refresh Rate
		101	910 Hz LED Refresh Rate
		102	920 Hz LED Refresh Rate

CH	Function	DMX	Description
36	Function (continued)	103	930 Hz LED Refresh Rate
		104	940 Hz LED Refresh Rate
		105	950 Hz LED Refresh Rate
		106	960 Hz LED Refresh Rate
		107	970 Hz LED Refresh Rate
		108	980 Hz LED Refresh Rate
		109	990 Hz LED Refresh Rate
		110	1000 Hz LED Refresh Rate
		111	1010 Hz LED Refresh Rate
		112	1020 Hz LED Refresh Rate
		113	1030 Hz LED Refresh Rate
		114	1040 Hz LED Refresh Rate
		115	1050 Hz LED Refresh Rate
		116	1060 Hz LED Refresh Rate
		117	1070 Hz LED Refresh Rate
		118	1080 Hz LED Refresh Rate
		119	1090 Hz LED Refresh Rate
		120	1100 Hz LED Refresh Rate
		121	1110 Hz LED Refresh Rate
		122	1120 Hz LED Refresh Rate
		123	1130 Hz LED Refresh Rate
		124	1140 Hz LED Refresh Rate
		125	1150 Hz LED Refresh Rate
		126	1160 Hz LED Refresh Rate
		127	1170 Hz LED Refresh Rate
		128	1180 Hz LED Refresh Rate
		129	1190 Hz LED Refresh Rate
		130	1200 Hz LED Refresh Rate
		131	1210 Hz LED Refresh Rate
		132	1220 Hz LED Refresh Rate
		133	1230 Hz LED Refresh Rate
		134	1240 Hz LED Refresh Rate
		135	1250 Hz LED Refresh Rate
		136	1260 Hz LED Refresh Rate
		137	1270 Hz LED Refresh Rate
		138	1280 Hz LED Refresh Rate
		139	1290 Hz LED Refresh Rate
		140	1300 Hz LED Refresh Rate
		141	1310 Hz LED Refresh Rate
		142	1320 Hz LED Refresh Rate
		143	1330 Hz LED Refresh Rate
		144	1340 Hz LED Refresh Rate

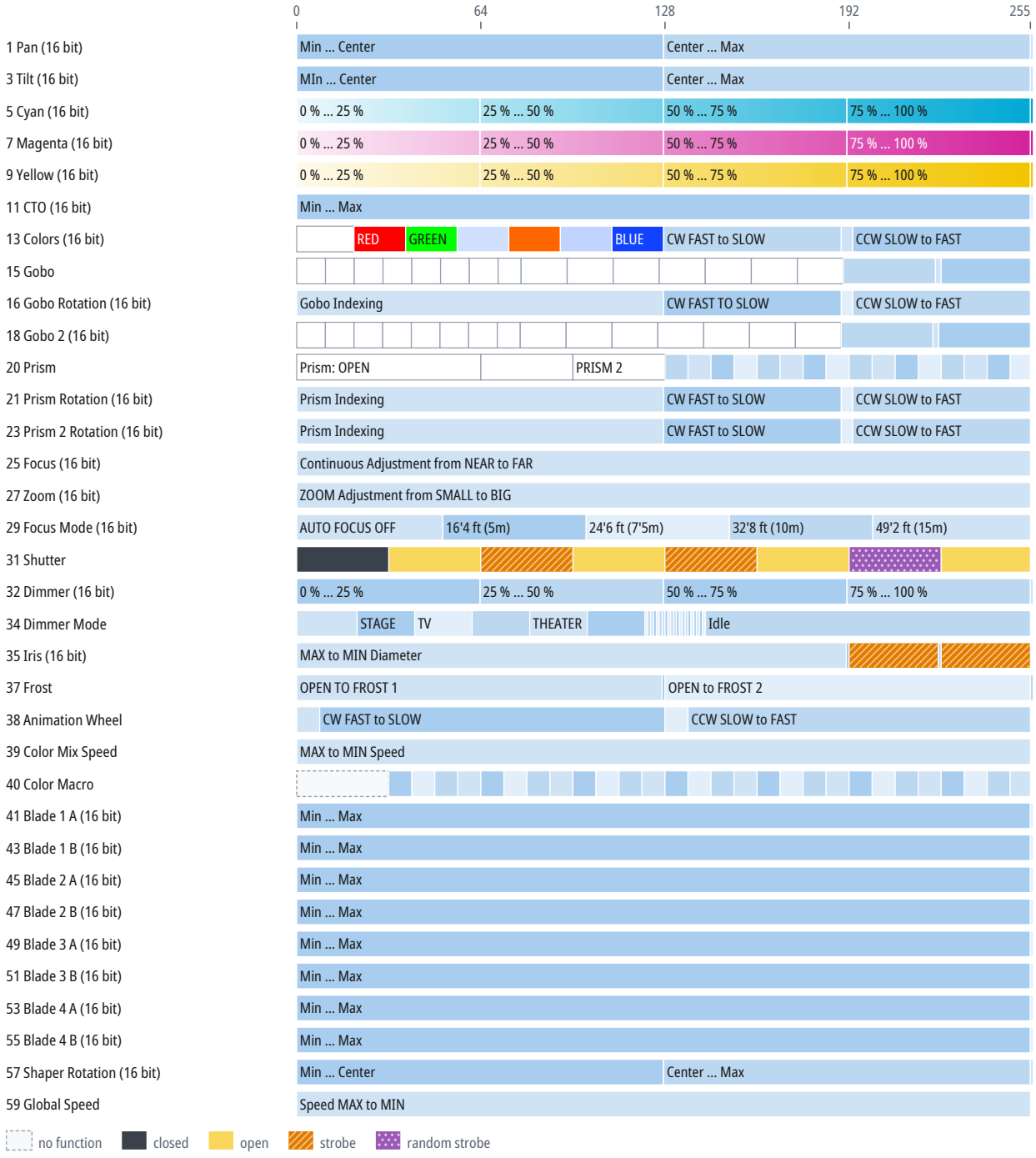
CH	Function	DMX	Description
36	Function (continued)	145	1350 Hz LED Refresh Rate
		146	1360 Hz LED Refresh Rate
		147	1370 Hz LED Refresh Rate
		148	1380 Hz LED Refresh Rate
		149	1390 Hz LED Refresh Rate
		150	1400 Hz LED Refresh Rate
		151	1410 Hz LED Refresh Rate
		152	1420 Hz LED Refresh Rate
		153	1430 Hz LED Refresh Rate
		154	1440 Hz LED Refresh Rate
		155	1450 Hz LED Refresh Rate
		156	1460 Hz LED Refresh Rate
		157	1470 Hz LED Refresh Rate
		158	1480 Hz LED Refresh Rate
		159	1490 Hz LED Refresh Rate
		160	1500 Hz LED Refresh Rate
		161	2500 Hz LED Refresh Rate
		162	4000 Hz LED Refresh Rate
		163	5000 Hz LED Refresh Rate
		164	6000 Hz LED Refresh Rate
		165	10000 Hz LED Refresh Rate
		166	15000 Hz LED Refresh Rate
		167	20000 Hz LED Refresh Rate
		168	25000 Hz LED Refresh Rate
		169–180	No Feature: RESERVED
		181–185	Dimmer Curve Linear (Default)
		186–190	Dimmer Curve Square
		191–195	Dimmer Curve Inverse Square
		196–200	Dimmer Curve S-Curve
		201	INTERNAL PROGRAM 1 (Scenes 1-8)
		202	INTERNAL PROGRAM 2 (Scenes 9-16)
		203	INTERNAL PROGRAM 3 (Scenes 17-24)
		204	INTERNAL PROGRAM 4 (Scenes 25-32)
		205	INTERNAL PROGRAM 5 (Scenes 33-40)
		206	INTERNAL PROGRAM 6 (Scenes 41-48)
		207	INTERNAL PROGRAM 7 (Scenes 49-56)
		208–209	Hibernate Off
		210–211	Hibernate On
		212–255	No Feature: RESERVED

Mode Extended Pan540

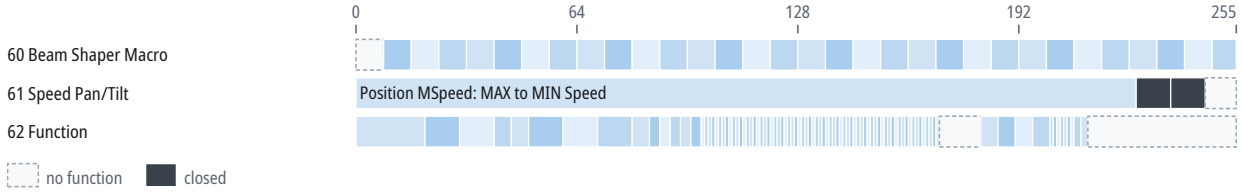
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 31 Shutter 47, CH 32 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 “Standard Pan540” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Standard Pan540” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0–63	0 % … 25 %
		63	25 %
		64–127	25 % … 50 %
		127	50 %
		128–191	50 % … 75 %
		191	75 %
		192–255	75 % … 100 %
		255	100 %
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta	0–63	0 % … 25 %
		63	25 %
		64–127	25 % … 50 %
		127	50 %
		128–191	50 % … 75 %
		191	75 %
		192–255	75 % … 100 %
		255	100 %
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow	0–63	0 % … 25 %
		63	25 %
		64–127	25 % … 50 %
		127	50 %
		128–191	50 % … 75 %
		191	75 %
		192–255	75 % … 100 %
		255	100 %
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	CTO	0–255	Min … Max
		255	Max
12	CTO Fine	0–255	Fine adjustment of CH 11
13	Colors		Same as CH 9 in the mode “Standard Pan540” (p. 12)

CH	Function	DMX	Description
14	Colors Fine	0–255	Fine adjustment of CH 13
15	Gobo		Same as CH 10 in the mode “Standard Pan540” (p. 13)
16	Gobo Rotation		Same as CH 11 in the mode “Standard Pan540” (p. 13)
17	Gobo Rotation Fine	0–255	Fine adjustment of CH 16
18	Gobo 2		Same as CH 13 in the mode “Standard Pan540” (p. 13)
19	Gobo 2 Fine	0–255	Fine adjustment of CH 18
20	Prism	0–63	Prism: OPEN
		64–95	PRISM 1
		96–127	PRISM 2
		128–135	Prism / Gobo Macro 1
		136–143	Prism / Gobo Macro 2
		144–151	Prism / Gobo Macro 3
		152–159	Prism / Gobo Macro 4
		160–167	Prism / Gobo Macro 5
		168–175	Prism / Gobo Macro 6
		176–183	Prism / Gobo Macro 7
		184–191	Prism / Gobo Macro 8
		192–199	Prism / Gobo Macro 9
		200–207	Prism / Gobo Macro 10
		208–215	Prism / Gobo Macro 11
		216–223	Prism / Gobo Macro 12
		224–231	Prism / Gobo Macro 13
		232–239	Prism / Gobo Macro 14
		240–247	Prism / Gobo Macro 15
		248–255	Prism / Gobo Macro 16
21	Prism Rotation		Same as CH 15 in the mode “Standard Pan540” (p. 14)
22	Prism Rotation Fine	0–255	Fine adjustment of CH 21
23	Prism 2 Rotation	0–127	Prism Indexing (720°)
		128–189	CW FAST to SLOW (7200–14 °/s)
		190–193	NO Rotation
		194–255	CCW SLOW to FAST (14–7200 °/s)
24	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 23
25	Focus	0–255	Continuous Adjustment from NEAR to FAR
26	Focus Fine	0–255	Fine adjustment of CH 25
27	Zoom	0–255	ZOOM Adjustment from SMALL to BIG (7–55°)
28	Zoom Fine	0–255	Fine adjustment of CH 27
29	Focus Mode	0–50	AUTO FOCUS OFF
		51–100	16'4 ft (5m)
		101–150	24'6 ft (7'5m)
		151–200	32'8 ft (10m)
		201–255	49'2 ft (15m)

CH	Function	DMX	Description
30	Focus Mode Fine	0–255	Fine adjustment of CH 29
31	Shutter		Same as CH 20 in the mode “Standard Pan540” (p. 14)
32	Dimmer		Same as CH 21 in the mode “Standard Pan540” (p. 14)
33	Dimmer Fine	0–255	Fine adjustment of CH 32
34	Dimmer Mode		Same as CH 23 in the mode “Standard Pan540” (p. 15)
35	Iris	0–191	MAX to MIN Diameter
		191–192	Iris
		192–223	Pulse Opening FAST to SLOW (1–0.01 Hz)
		223–224	Iris Pulse Open
		224–255	Pulse Closing SLOW to FAST
36	Iris Fine	0–255	Fine adjustment of CH 35
37	Frost		Same as CH 25 in the mode “Standard Pan540” (p. 15)
38	Animation Wheel		Same as CH 26 in the mode “Standard Pan540” (p. 15)
39	Color Mix Speed	0–255	MAX to MIN Speed
40	Color Macro	0–31	No Feature: OFF
		32–39	Macro 1
		40–47	Macro 2
		48–55	Macro 3
		56–63	Macro 4
		64–71	Macro 5
		72–79	Macro 6
		80–87	Macro 7
		88–95	Macro 8
		96–103	Macro 9
		104–111	Macro 10
		112–119	Macro 11
		120–127	Macro 12
		128–135	Macro 13
		136–143	Macro 14
		144–151	Macro 15
		152–159	Macro 16
		160–167	Macro 17
		168–175	Macro 18
		176–183	Macro 19
		184–191	Macro 20
		192–199	Macro 21
		200–207	Macro 22
		208–215	Macro 23
		216–223	Macro 24
		224–231	Macro 25
		232–239	Macro 26

CH	Function	DMX	Description
40	Color Macro (continued)	240–247	Macro 27
		248–255	RANDOM CMY
41	Blade 1 A	0–255	Min ... Max
		255	Max
42	Blade 1 A Fine	0–255	Fine adjustment of CH 41
43	Blade 1 B	0–255	Min ... Max
		255	Max
44	Blade 1 B Fine	0–255	Fine adjustment of CH 43
45	Blade 2 A	0–255	Min ... Max
		255	Max
46	Blade 2 A Fine	0–255	Fine adjustment of CH 45
47	Blade 2 B	0–255	Min ... Max
		255	Max
48	Blade 2 B Fine	0–255	Fine adjustment of CH 47
49	Blade 3 A	0–255	Min ... Max
		255	Max
50	Blade 3 A Fine	0–255	Fine adjustment of CH 49
51	Blade 3 B	0–255	Min ... Max
		255	Max
52	Blade 3 B Fine	0–255	Fine adjustment of CH 51
53	Blade 4 A	0–255	Min ... Max
		255	Max
54	Blade 4 A Fine	0–255	Fine adjustment of CH 53
55	Blade 4 B	0–255	Min ... Max
		255	Max
56	Blade 4 B Fine	0–255	Fine adjustment of CH 55
57	Shaper Rotation	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
58	Shaper Rotation Fine	0–255	Fine adjustment of CH 57
59	Global Speed		BLADE Speed
		0–255	Speed MAX to MIN
60	Beam Shaper Macro	0–7	OFF
		8–15	Macro 01
		16–23	Macro 02
		24–31	Macro 03
		32–39	Macro 04
		40–47	Macro 05
		48–55	Macro 06
		56–63	Macro 07
		64–71	Macro 08

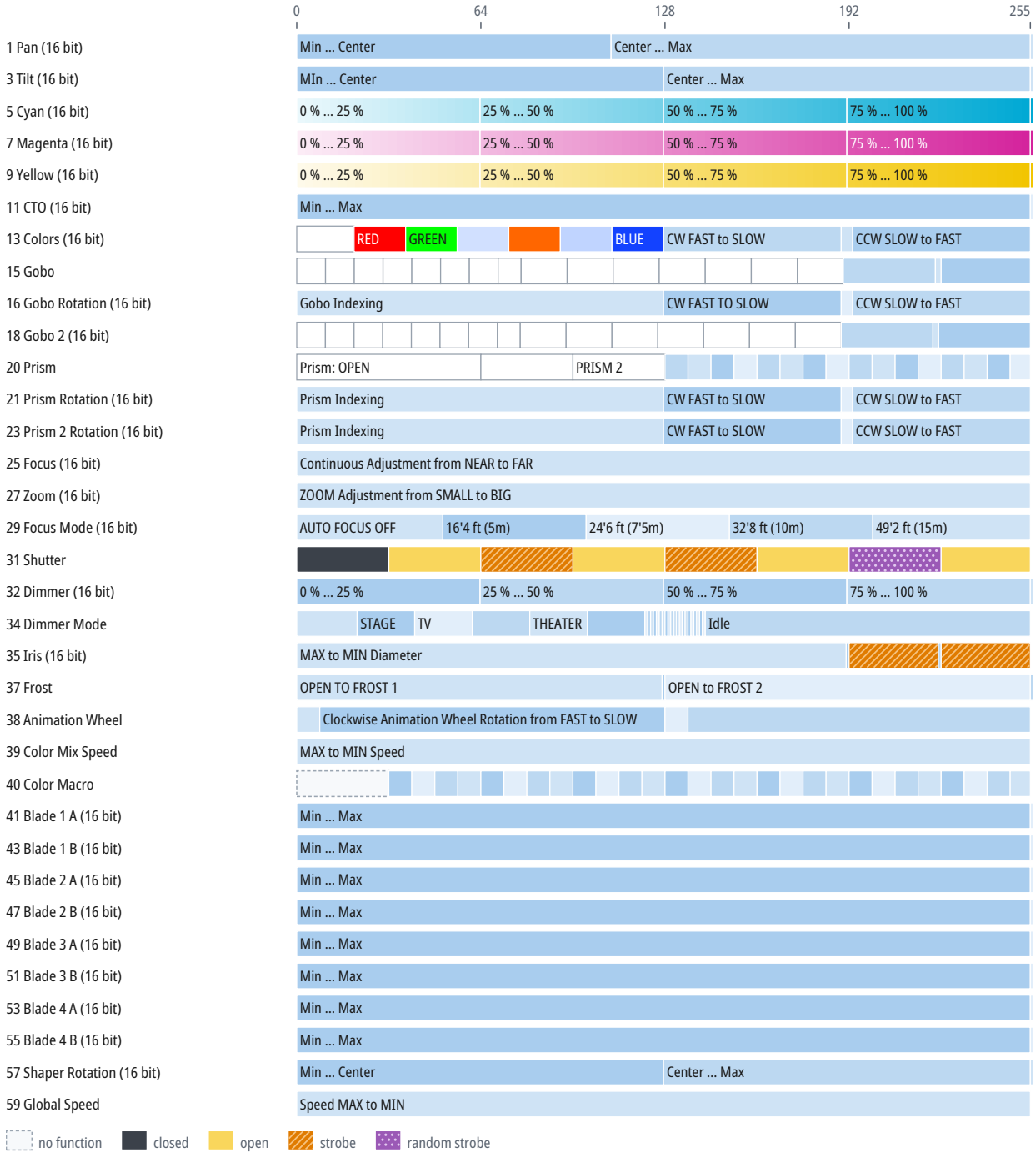
CH	Function	DMX	Description
60	Beam Shaper Macro (continued)	72–79	Macro 09
		80–87	Macro 10
		88–95	Macro 11
		96–103	Macro 12
		104–111	Macro 13
		112–119	Macro 14
		120–127	Macro 15
		128–135	Macro 16
		136–143	Macro 17
		144–151	Macro 18
		152–159	Macro 19
		160–167	Macro 20
		168–175	Macro 21
		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
61	Speed Pan/Tilt	0–225	Position MSpeed: MAX to MIN Speed
		226–235	Blackout by Movement
		236–245	Blackout by ALL Wheel Movement
		246–255	NO FUNCTION
62	Function		Same as CH 36 in the mode “Standard Pan540” (p. 16)

Mode Extended Pan630

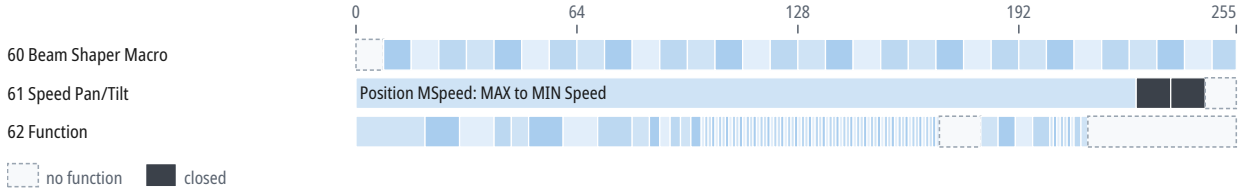
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 31 Shutter 47, CH 32 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–109	Min ... Center
		109–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Standard Pan540” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan		Same as CH 5 in the mode “Extended Pan540” (p. 20)
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta		Same as CH 7 in the mode “Extended Pan540” (p. 20)
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow		Same as CH 9 in the mode “Extended Pan540” (p. 20)
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	CTO		Same as CH 11 in the mode “Extended Pan540” (p. 20)
12	CTO Fine	0–255	Fine adjustment of CH 11
13	Colors		Same as CH 9 in the mode “Standard Pan540” (p. 12)
14	Colors Fine	0–255	Fine adjustment of CH 13
15	Gobo		Same as CH 10 in the mode “Standard Pan540” (p. 13)
16	Gobo Rotation	0–127	Gobo Indexing (360°)
		128–189	CW FAST TO SLOW (360–6 °/s)
		190–193	NO Rotation
		194–255	CCW SLOW to FAST (6–360 °/s)
17	Gobo Rotation Fine	0–255	Fine adjustment of CH 16
18	Gobo 2		Same as CH 13 in the mode “Standard Pan540” (p. 13)
19	Gobo 2 Fine	0–255	Fine adjustment of CH 18
20	Prism		Same as CH 20 in the mode “Extended Pan540” (p. 21)
21	Prism Rotation		Same as CH 15 in the mode “Standard Pan540” (p. 14)
22	Prism Rotation Fine	0–255	Fine adjustment of CH 21
23	Prism 2 Rotation		Same as CH 23 in the mode “Extended Pan540” (p. 21)
24	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 23
25	Focus	0–255	Continuous Adjustment from NEAR to FAR
26	Focus Fine	0–255	Fine adjustment of CH 25
27	Zoom	0–255	ZOOM Adjustment from SMALL to BIG (7–55°)
28	Zoom Fine	0–255	Fine adjustment of CH 27
29	Focus Mode		Same as CH 29 in the mode “Extended Pan540” (p. 21)
30	Focus Mode Fine	0–255	Fine adjustment of CH 29

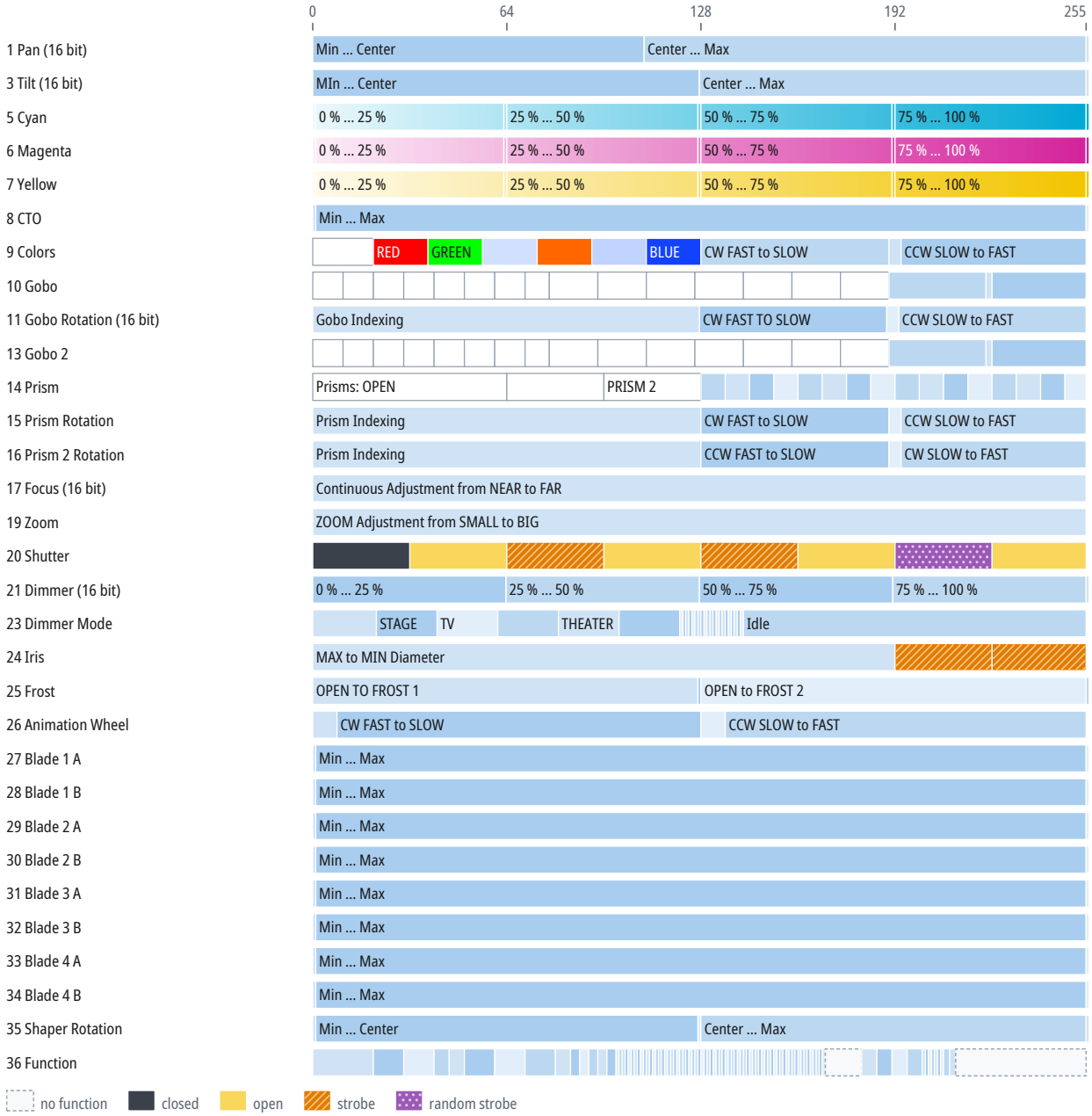
CH	Function	DMX	Description
31	Shutter		Same as CH 20 in the mode “Standard Pan540” (p. 14)
32	Dimmer		Same as CH 21 in the mode “Standard Pan540” (p. 14)
33	Dimmer Fine	0–255	Fine adjustment of CH 32
34	Dimmer Mode		Same as CH 23 in the mode “Standard Pan540” (p. 15)
35	Iris		Same as CH 35 in the mode “Extended Pan540” (p. 22)
36	Iris Fine	0–255	Fine adjustment of CH 35
37	Frost		Same as CH 25 in the mode “Standard Pan540” (p. 15)
38	Animation Wheel	0–7	Animation Wheel: OPEN
		8–127	Clockwise Animation Wheel Rotation from FAST to SLOW (7200–14 °/s)
		128–135	NO Rotation
		136–255	Counter-Clockwise Animation Wheel Rotation from SLOW to FAST (14–7200 °/s)
39	Color Mix Speed	0–255	MAX to MIN Speed
40	Color Macro		Same as CH 40 in the mode “Extended Pan540” (p. 22)
41	Blade 1 A		Same as CH 41 in the mode “Extended Pan540” (p. 23)
42	Blade 1 A Fine	0–255	Fine adjustment of CH 41
43	Blade 1 B		Same as CH 43 in the mode “Extended Pan540” (p. 23)
44	Blade 1 B Fine	0–255	Fine adjustment of CH 43
45	Blade 2 A		Same as CH 45 in the mode “Extended Pan540” (p. 23)
46	Blade 2 A Fine	0–255	Fine adjustment of CH 45
47	Blade 2 B		Same as CH 47 in the mode “Extended Pan540” (p. 23)
48	Blade 2 B Fine	0–255	Fine adjustment of CH 47
49	Blade 3 A		Same as CH 49 in the mode “Extended Pan540” (p. 23)
50	Blade 3 A Fine	0–255	Fine adjustment of CH 49
51	Blade 3 B		Same as CH 51 in the mode “Extended Pan540” (p. 23)
52	Blade 3 B Fine	0–255	Fine adjustment of CH 51
53	Blade 4 A		Same as CH 53 in the mode “Extended Pan540” (p. 23)
54	Blade 4 A Fine	0–255	Fine adjustment of CH 53
55	Blade 4 B		Same as CH 55 in the mode “Extended Pan540” (p. 23)
56	Blade 4 B Fine	0–255	Fine adjustment of CH 55
57	Shaper Rotation		Same as CH 57 in the mode “Extended Pan540” (p. 23)
58	Shaper Rotation Fine	0–255	Fine adjustment of CH 57
59	Global Speed		Same as CH 59 in the mode “Extended Pan540” (p. 23)
60	Beam Shaper Macro		Same as CH 60 in the mode “Extended Pan540” (p. 23)
61	Speed Pan/Tilt		Same as CH 61 in the mode “Extended Pan540” (p. 24)
62	Function		Same as CH 36 in the mode “Standard Pan540” (p. 16)

Mode Standard Pan630

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 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 20 Shutter 47, CH 21 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extended Pan630” (p. 26)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Standard Pan540” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan		Same as CH 5 in the mode “Standard Pan540” (p. 12)

CH	Function	DMX	Description
6	Magenta		Same as CH 6 in the mode “Standard Pan540” (p. 12)
7	Yellow		Same as CH 7 in the mode “Standard Pan540” (p. 12)
8	CTO		Same as CH 8 in the mode “Standard Pan540” (p. 12)
9	Colors		Same as CH 9 in the mode “Standard Pan540” (p. 12)
10	Gobo		Same as CH 10 in the mode “Standard Pan540” (p. 13)
11	Gobo Rotation		Same as CH 11 in the mode “Standard Pan540” (p. 13)
12	Gobo Rotation Fine	0–255	Fine adjustment of CH 11
13	Gobo 2	0–9	Gobo: OPEN
		10–19	Static / Fixed Gobo 1
		20–29	Static / Fixed Gobo 2
		30–39	Static / Fixed Gobo 3
		40–49	Static / Fixed Gobo 4
		50–59	Static / Fixed Gobo 5
		60–69	Static / Fixed Gobo 6
		70–77	Static / Fixed Gobo 7
		78–93	Shake SLOW to FAST Static / Fixed Gobo 1
		94–109	Shake SLOW to FAST Static / Fixed Gobo 2
		110–125	Shake SLOW to FAST Static / Fixed Gobo 3
		126–141	Shake SLOW to FAST Static / Fixed Gobo 4
		142–157	Shake SLOW to FAST Static / Fixed Gobo 5
		158–173	Shake SLOW to FAST Static / Fixed Gobo 6
		174–189	Shake SLOW to FAST Static / Fixed Gobo 7
		190–221	CW FAST to SLOW (7200–14 °/s)
		222–223	NO Rotation
		224–255	CCW SLOW to FAST (14–7200 °/s)
14	Prism		Same as CH 14 in the mode “Standard Pan540” (p. 14)
15	Prism Rotation		Same as CH 15 in the mode “Standard Pan540” (p. 14)
16	Prism 2 Rotation	0–127	Prism Indexing (360°)
		128–189	CCW FAST to SLOW (7200–14 °/s)
		190–193	NO Rotation
		194–255	CW SLOW to FAST (14–7200 °/s)
17	Focus	0–255	Continuous Adjustment from NEAR to FAR
18	Focus Fine	0–255	Fine adjustment of CH 17
19	Zoom	0–255	ZOOM Adjustment from SMALL to BIG (7–55°)
20	Shutter	0–31	Shutter CLOSED
		32–63	NO Function (Shutter OPEN)
		64–95	Strobe Effect SLOW to FAST (1–10 Hz)
		96–127	NO Function (Shutter OPEN)
		128–159	Pulse Effect In Sequences (1–10 Hz)
		160–191	NO Function (Shutter OPEN)
		192–223	Random Strobe Effect SLOW to FAST (1–10 Hz)
		224–255	NO Function (Shutter OPEN)

CH	Function	DMX	Description
21	Dimmer		Same as CH 21 in the mode “Standard Pan540” (p. 14)
22	Dimmer Fine	0–255	Fine adjustment of CH 21
23	Dimmer Mode		Same as CH 23 in the mode “Standard Pan540” (p. 15)
24	Iris		Same as CH 24 in the mode “Standard Pan540” (p. 15)
25	Frost		Same as CH 25 in the mode “Standard Pan540” (p. 15)
26	Animation Wheel		Same as CH 26 in the mode “Standard Pan540” (p. 15)
27	Blade 1 A		Same as CH 27 in the mode “Standard Pan540” (p. 15)
28	Blade 1 B		Same as CH 28 in the mode “Standard Pan540” (p. 15)
29	Blade 2 A		Same as CH 29 in the mode “Standard Pan540” (p. 16)
30	Blade 2 B		Same as CH 30 in the mode “Standard Pan540” (p. 16)
31	Blade 3 A		Same as CH 31 in the mode “Standard Pan540” (p. 16)
32	Blade 3 B		Same as CH 32 in the mode “Standard Pan540” (p. 16)
33	Blade 4 A		Same as CH 33 in the mode “Standard Pan540” (p. 16)
34	Blade 4 B		Same as CH 34 in the mode “Standard Pan540” (p. 16)
35	Shaper Rotation		Same as CH 35 in the mode “Standard Pan540” (p. 16)
36	Function		Same as CH 36 in the mode “Standard Pan540” (p. 16)

10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	620 W
Luminous flux	35,000 lm
Color temperature	8,000 K
Color rendering index (CRI)	70
Optics	
Zoom	7–55°
Movement	
Pan	630°
Tilt	246°
Control	
DMX connection	5-pin XLR IN/OUT
RJ45 connectors	RJ45 IN/OUT
RDM	yes (manufacturer ID 0x22A6, device model ID 0x1492)
Electrical	
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	36.2 kg
Operating environment	
Operating temperature	-10 to 45 °C

Speeds and ranges

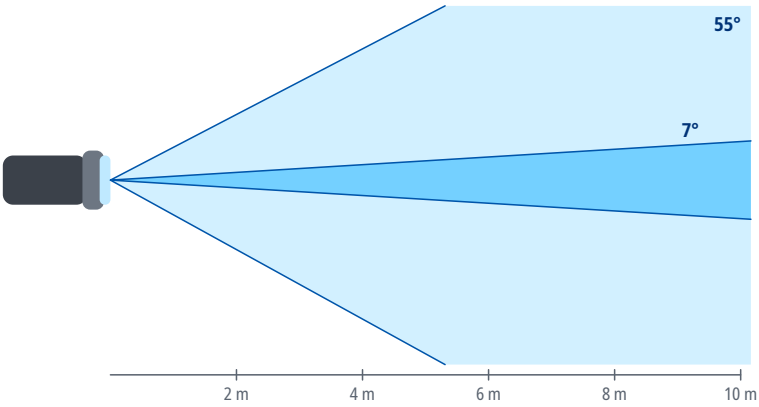
Parameter	Value
Strobe frequency	1–18 Hz
LED frequency	900–25000 Hz
Color wheel rotation	up to 7200 °/s (1200 rpm)
Gobo wheel 1 rotation	up to 7200 °/s (1200 rpm)
Gobo wheel 2 rotation	up to 7200 °/s (1200 rpm)
Gobo 1 rotation	up to 360 °/s (60 rpm)
Prism rotation	up to 7200 °/s (1200 rpm)
Prism rotation	up to 7200 °/s (1200 rpm)
Animation wheel rotation	up to 7200 °/s (1200 rpm)

Dimensions

weight 36.2 kg



Spot diameter



Distance	Ø 7°	Ø 55°
2 m	0.24 m	2.1 m
4 m	0.49 m	4.2 m
6 m	0.73 m	6.2 m
8 m	0.98 m	8.3 m
10 m	1.2 m	10.4 m
15 m	1.8 m	15.6 m

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

11 Maintenance and cleaning

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

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.

Problem	Remedy
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

13 Disposal

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

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

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

Recycle the packaging materials according to their type.