DMX REFERENCE

Robin MegaPointe Modified

TRF CLARA S

TRF



Manufacturer	TRF
GDTF file	TRF_Robin_MegaPointe_Modified_73235.gdtf
GDTF revision	Clara S · 2024-09-10
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1 About this manual

This document describes the TRF CLARA S by TRF. It was compiled from the GDTF file TRF_Robin_MegaPointe_Modified_73235.gdtf from the GDTF-Share library.

File revision: “Clara S”.

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 TRF; 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
Power consumption	670 W
Weight	22 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 - Standard 16 - bit	39	13	1, 40, 79, 118, ...
Mode 2 - Reduced 8 - bit	34	15	1, 35, 69, 103, ...

No light? Check these channels

- Mode 1 - Standard 16 - bit: CH 37 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 38 Dimmer above 0
- Mode 2 - Reduced 8 - bit: CH 33 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 34 Dimmer above 0


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

3 Safety instructions


Read the manual before use


Risk of electric shock


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

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 100–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

⚠ 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.

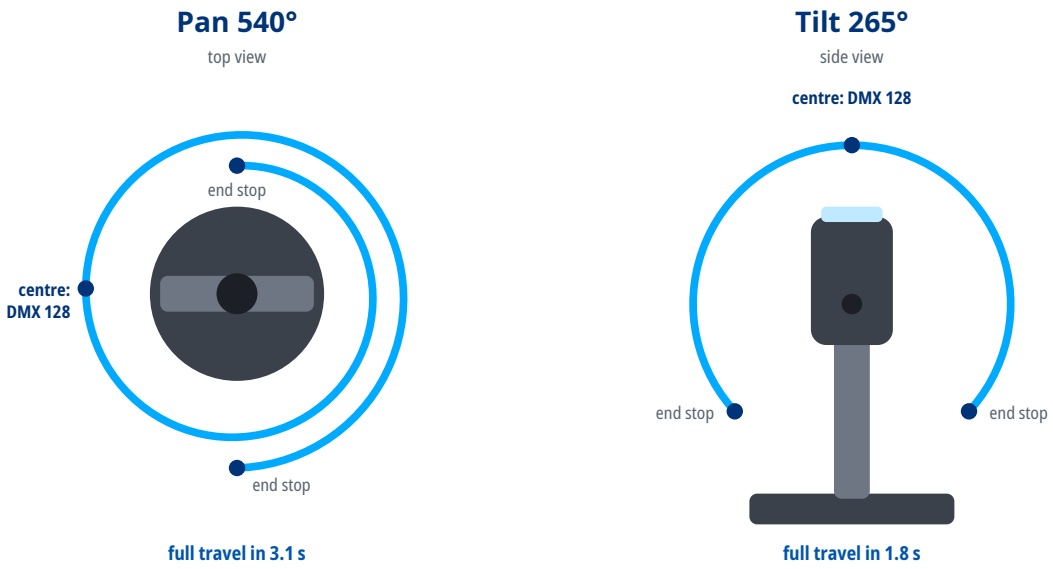
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

“MEGA bright with MEGA features and still compact. The MegaPointe from Robe.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

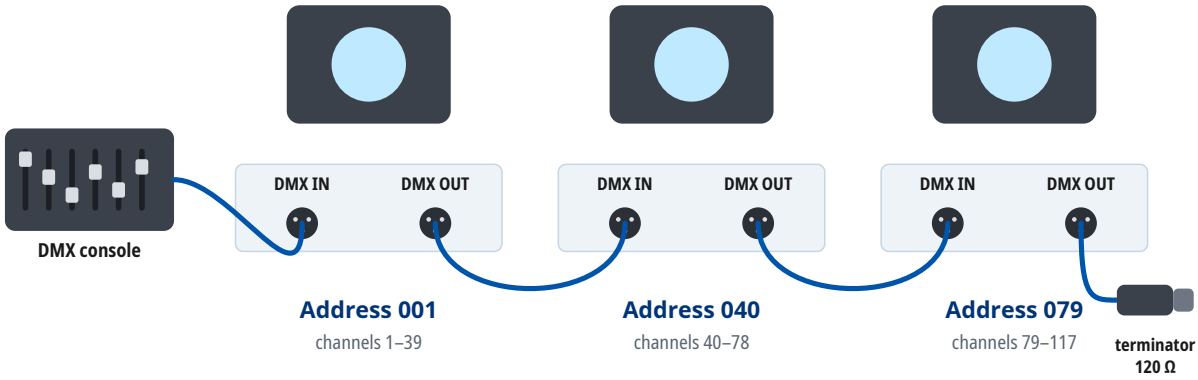
⚠ **WARNING**

- 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: 22 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 1 - Standard 16 - bit: every unit occupies 39 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 “Mode 1 - Standard 16 - bit”: 39.
- 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 “Mode 1 - Standard 16 - bit”, you can use, for example, the start addresses 1, 40, 79, 118.
- 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

	Mode 1 - Standard 16 - bit 39 channels	Mode 2 - Reduced 8 - bit 34 channels
Pan / Tilt	1, 3	1, 3
Dimmer	38	34
Dimmer resolution	16 bit	8 bit
Shutter / strobe	37	33
Color mixing	7–9	7–9
Color wheel	10, 12	10, 11
Gobo wheel	19, 20	18, 19
Gobo rotation	21 *	20 *
Prism	23–26	21–24
Frost	31	29
Zoom	32	30
Focus	34	31
Animation wheel	16–18	15–17
Effects / macros	13, 27, 28	12, 25, 26

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

Gobo wheel 1

1
Gobo 2 Index: Open/Hole
DMX 0

2 
Gobo 1
DMX 5–7

3 
Gobo 2
DMX 8–10

4 
Gobo 3
DMX 11–13

5 
Gobo 4
DMX 14–16

6 
Gobo 5
DMX 17–19

7 
Gobo 6
DMX 20–22

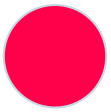
8 
Gobo 7
DMX 23–25

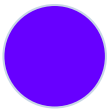
9 
Gobo 8
DMX 26–28

10 
G09 (Leaves)
DMX 29–32

Color wheel 1

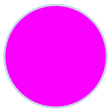
1
Open/White - Positioning
DMX 0–8

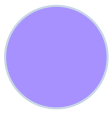
2 
Deep Red - Positioning
DMX 9–18

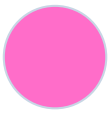
3 
Deep Blue - Positioning
DMX 19–26

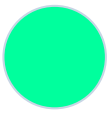
4
Yellow - Positioning
DMX 27–36

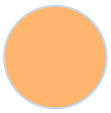
5
Light green - Positioning
DMX 37–46

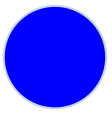
6 
Magenta - Positioning
DMX 47–54

7 
Lavender - Positioning
DMX 55–63

8 
Pink - Positioning
DMX 64–72

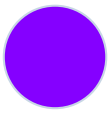
9 
Dark green - Positioning
DMX 73–81

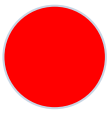
10 
CTO 2700K - Positioning
DMX 82–90

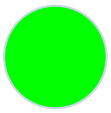
11 
Blue - Positioning
DMX 91–100

12 
Orange - Positioning
DMX 101–109

13
CTO 3200K - Positioning
DMX 110–118

14 
UV (Kongo blue) - Positioning
DMX 119–127

15 
Red

16 
Green

Gobo wheel 2

1
Open/Hole
DMX 0–3

2 
Static Gobo: Gobo 1
DMX 4–9

3 
Static Gobo: Gobo 2
DMX 10–15

4 
Static Gobo: Gobo 3
DMX 16–21

5 
Static Gobo: Gobo 4
DMX 22–27

6 
Static Gobo: Gobo 5
DMX 28–33

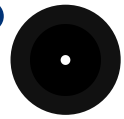
7 
Static Gobo: Gobo 6
DMX 34–39

8 
Static Gobo: Gobo 7
DMX 40–45

9 
Static Gobo: Gobo 8
DMX 46–51

10 
Static Gobo: Gobo 9
DMX 52–57

11 
Static Gobo: Gobo 10
DMX 58–63

12 
Static Gobo: Beam reducer 1
DMX 64–69

13 
Static Gobo: Beam reducer 2
DMX 70–75

14 
Static Gobo: Beam reducer 3
DMX 76–81

15 
G14 (Reducer large)
DMX 82–88

Animation wheel

1
Open
DMX 0–19

2 
Proportional indexing min
DMX 20

Prism 1

1.
Open position/hole
DMX 0–3

2. 
6 facets
Prism 1 - 6 - facet linear
DMX 4–7

3. 
1 facet
Prism 2 - cylindrical
DMX 8–11

4. 
8 facets
P03 (8F Circular)
DMX 12–16

Prism 2

1.
Open position/hole
DMX 0–3

2. 
6 facets
Prism 1 - 6 - facet linear
DMX 4–7

3. 
32 facets
Prism 2 - 32 - facet circular
DMX 8–11

4. 
8 facets
P03 (8F Circular)
DMX 12–16

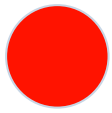
5.
Wheel Slot 1

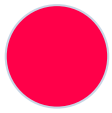
Color wheel 2

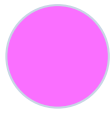
1.
Virtual colour wheel: Open
DMX 0

2. 
Filter 4 (Medium Bastard Amber)
DMX 1–2

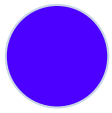
3. 
Filter 10 (Medium Yellow)
DMX 3–4

4. 
Filter 19 (Fire)
DMX 5–6

5. 
Filter 26 (Bright Red)
DMX 7–8

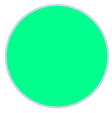
6. 
Filter 58 (Lavender)
DMX 9–10

7. 
Filter 68 (Sky Blue)
DMX 11–12

8. 
Filter 71 (Tokyo Blue)
DMX 13–14

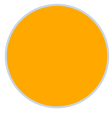
9. 
Filter 79 (Just Blue)
DMX 15–16

10.
Filter 88 (Lime Green)
DMX 17–18

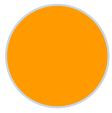
11. 
Filter 90 (Dark Yellow Green)
DMX 19–20

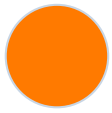
12. 
Filter 100 (Spring Yellow)
DMX 21–22

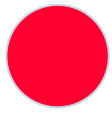
13. 
Filter 101 (Yellow)
DMX 23–24

14. 
Filter 102 (Light Amber)
DMX 25–26

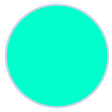
15. 
Filter 103 (Straw)
DMX 27–28

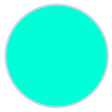
16. 
Filter 104 (Deep Amber)
DMX 29–30

17. 
Filter 105 (Orange)
DMX 31–32

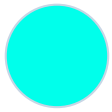
18. 
Filter 106 (Primary Red)
DMX 33–34

19. 
Filter 111 (Dark Pink)
DMX 35–36

20. 
Filter 115 (Peacock Blue)
DMX 37–38

21. 
Filter 116 (Medium Blue - Green)
DMX 39–40

22.
Filter 117 (Steel Blue)
DMX 41–42

23. 
Filter 118 (Light Blue)
DMX 43–44

24. 
Filter 119 (Dark Blue)
DMX 45–46

25 Filter 120 (Deep Blue)
DMX 47–48

26 Filter 121 (Filter Green)
DMX 49–50

27 Filter 128 (Bright Pink)
DMX 51–52

28 Filter 131 (Marine Blue)
DMX 53–54

29 Filter 132 (Medium Blue)
DMX 55–56

30 Filter 134 (Golden Amber)
DMX 57–58

31 Filter 135 (Deep Golden Amber)
DMX 59–60

32 Filter 136 (Pale Lavender)
DMX 61–62

33 Filter 137 (Special Lavender)
DMX 63–64

34 Filter 138 (Pale Green)
DMX 65–66

35 Filter 139 (Primary Green)
DMX 67–68

36 Filter 141 (Bright Blue)
DMX 69–70

37 Filter 147 (Apricot)
DMX 71–72

38 Filter 148 (Bright Rose)
DMX 73–74

39 Filter 152 (Pale Gold)
DMX 75–76

40 Filter 154 (Pale Rose)
DMX 77–78

41 Filter 157 (Pink)
DMX 79–80

42 Filter 158 (Deep Orange)
DMX 81–82

43 Filter 162 (Bastard Amber)
DMX 83–84

44 Filter 164 (Flame Red)
DMX 85–86

45 Filter 165 (Daylight Blue)
DMX 87–88

46 Filter 169 (Lilac Tint)
DMX 89–90

47 Filter 170 (Deep Lavender)
DMX 91–92

48 Filter 172 (Lagoon Blue)
DMX 93–94

49 Filter 179 (Chrome Orange)
DMX 95–96

50 Filter 180 (Dark Lavender)
DMX 97–98

51 Filter 181 (Congo Blue)
DMX 99–100

52 Filter 197 (Alice Blue)
DMX 101–102

53 Filter 201 (Full CT Blue)
DMX 103–104

54 Filter 202 (Half CT Blue)
DMX 105–106

55 Filter 203 (Quarter CT Blue)
DMX 107–108

56 Filter 204 (Full CT Orange)
DMX 109–110

57 Filter 205 (Half CT Orange)
DMX 111–112

58 Filter 206 (Quarter CT Orange)
DMX 113–114

59 Filter 247 (Filter Minus Green)
DMX 115–116

60 Filter 248 (Half Minus Green)
DMX 117–118

61 Filter 281 (Three Quarter CT Blue)
DMX 119–120

62 Filter 285 (Three Quarter CT Orange)
DMX 121–122

63 Filter 352 (Glacier Blue)
DMX 123–124

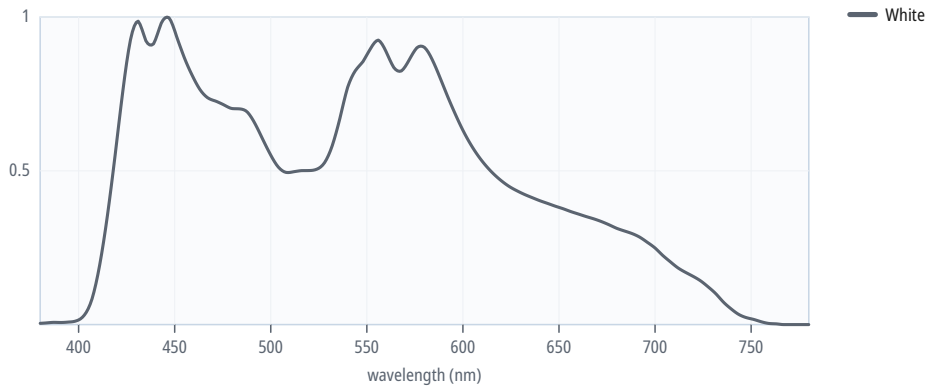
64 Filter 353 (Lighter Blue)
DMX 125–126

65 Filter 715 (Cabana Blue)
DMX 127–128

66 Filter 778 (Millennium Gold)
DMX 129–130

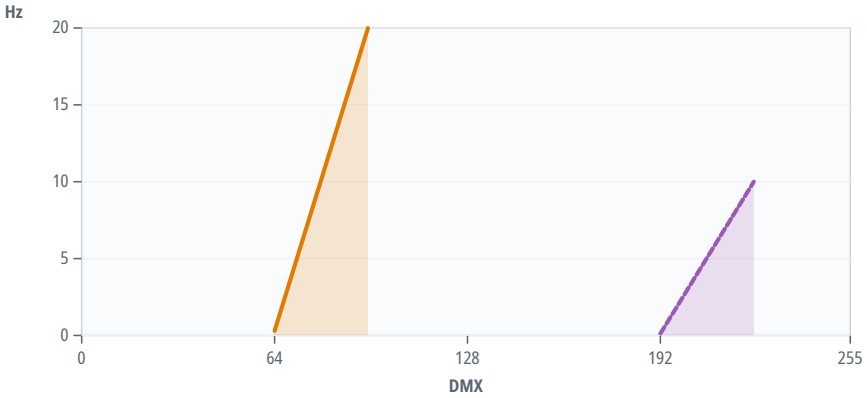
67 Filter 793 (Vanity Fair)
DMX 131–133

Spectra of the light sources



Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

Strobe rate



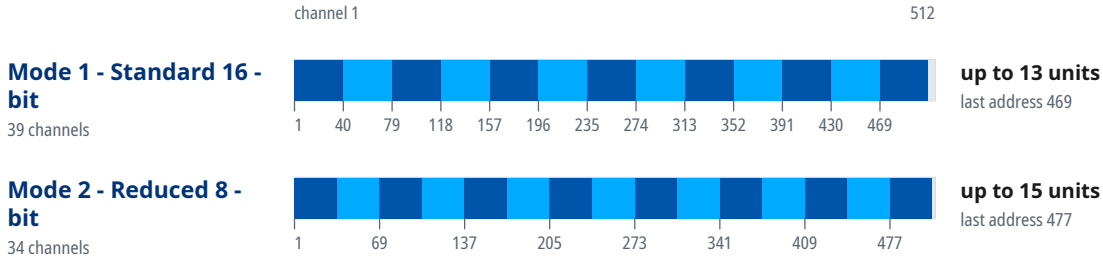
CH 37 · Mode 1 - Standard 16 - bit

64–95: 0.3–20 Hz
Strobe

192–223: 0.125–10 Hz
Random strobe from slow to fast

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 1 - Standard 16 - bit”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	196	11	391	16	U2 · 79
2	40	7	235	12	430	17	U2 · 118
3	79	8	274	13	469	18	U2 · 157
4	118	9	313	14	U2 · 1	19	U2 · 196
5	157	10	352	15	U2 · 40	20	U2 · 235

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
Mode 1 - Standard 16 - bit	39	2
Mode 2 - Reduced 8 - bit	34	2

Mode 1 - Standard 16 - bit

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 37 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 38 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Cyan 0, CH 8 Magenta 0, CH 9 Yellow 0, CH 10 Colors 0, CH 12 Color Macro 0, CH 37 Shutter 32, CH 38 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Pan
		128	Center
		128–255	Pan

CH	Function	DMX	Description
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Tilt
		128	Center
		128–255	Tilt
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Pan/Tilt speed / Time
		0	Standard mode
		1	Max Speed Mode
		2–254	Time from min to Max Speed from max to min
		255	Min Speed Mode
6	Control	0–9	No function
		10–14	DMX input: Wired DMX
		15–19	DMX input: Wireless DMX
		20–24	Graphic display On
		25–29	Graphic display Off
		30–34	High CRI (CRI=90+)
		35–39	Standard CRI (CRI=80)
		40–44	Eco mode (Lamp power 380W)
		45–49	Standard mode (Lamp power 470W)
		50–54	Close proximity mode On
		55–59	Close proximity mode Off
		60–64	Fans mode: Auto
		65–69	Fans mode: High
		70–74	Dimmer curve: Square law
		75–79	Dimmer curve: Linear
		80–84	Autofocus On
		85–89	Autofocus Off
		90–94	Pan/Tilt speed mode
		95–99	Pan/Tilt time mode
		100–101	Blackout while pan/tilt moving
		102–103	Disabled blackout while pan/tilt moving
		104–105	Blackout while prism wheel 1 (wheel 2) moving
		106–107	Disabled blackout while prism wheel 1 (wheel 2) moving
		108–119	No Feature: Reserved
		120–124	Parking position On
		125–129	Parking position Off
		130–139	Lamp On
		140–149	Pan/Tilt reset
		150–159	Colour system reset
		160–169	Gobo wheels reset
		170–179	Dimmer/Shutter/Hot Spot reset
		180–189	Zoom/focus/frost/prism wheels reset

CH	Function	DMX	Description
6	Control (continued)	190–199	Effect wheel reset
		200–209	Total reset
		210–229	No Feature: Reserved
		230–239	Lamp Off
		240–244	RoboSpot enabled
		245–249	RoboSpot disabled - except handle faders and pan/tilt
		250–255	RoboSpot fully disabled except pan/tilt
7	Cyan	0	Min
		1–254	Min ... Max
		255	Max
8	Magenta	0	Min
		1–254	Min ... Max
		255	Max
9	Yellow	0	Min
		1–254	Min ... Max
		255	Max
10	Colors	0–8	Open/White - Positioning
		9–18	Deep Red - Positioning
		19–26	Deep Blue - Positioning
		27–36	Yellow - Positioning
		37–46	Light green - Positioning
		47–54	Magenta - Positioning
		55–63	Lavender - Positioning
		64–72	Pink - Positioning
		73–81	Dark green - Positioning
		82–90	CTO 2700K - Positioning
		91–100	Blue - Positioning
		101–109	Orange - Positioning
		110–118	CTO 3200K - Positioning
		119–127	UV (Kongo blue) - Positioning
		128–129	Open/White (1) - Positioning
		130–134	Deep Red - Indexing
		135–138	Deep Blue - Indexing
		139–143	Yellow - Indexing
		144–147	Light green - Indexing
		148–152	Magenta - Indexing
		153–157	Lavender - Indexing
		158–161	Pink - Indexing
		162–166	Dark green - Indexing
		167–171	CTO 2700K - Indexing
		172–176	Blue - Indexing
		177–180	Orange - Indexing

CH	Function	DMX	Description
10	Colors (continued)	181–185	CTO 3200K - Indexing
		186–189	UV (Kongo blue) - Indexing
		190–191	Color 1 Wheel Spin: Fast to slow 1/9 (600–348.5 °/s)
		192–194	Color 1 Wheel Spin: Fast to slow 2/9 (348.5–214.9 °/s)
		195–197	Color 1 Wheel Spin: Fast to slow 3/9 (214.9–180.9 °/s)
		198–201	Color 1 Wheel Spin: Fast to slow 4/9 (180.9–88 °/s)
		202–204	Color 1 Wheel Spin: Fast to slow 5/9 (88–83.9 °/s)
		205–206	Color 1 Wheel Spin: Fast to slow 6/9 (83.9–48.4 °/s)
		207–209	Color 1 Wheel Spin: Fast to slow 7/9 (48.4–29 °/s)
		210–211	Color 1 Wheel Spin: Fast to slow 8/9 (29–13.6 °/s)
		212–215	Color 1 Wheel Spin: Fast to slow 9/9 (13.6–1.2 °/s)
		216–217	No rotation middle
		218–220	Color 1 Wheel Spin: Slow to fast 1/9 (1.2–13.6 °/s)
		221–222	Color 1 Wheel Spin: Slow to fast 2/9 (13.6–29 °/s)
		223–225	Color 1 Wheel Spin: Slow to fast 3/9 (29–48.4 °/s)
		226–227	Color 1 Wheel Spin: Slow to fast 4/9 (48.4–83.9 °/s)
		228–230	Color 1 Wheel Spin: Slow to fast 5/9 (83.9–88 °/s)
		231	Color 1 Wheel Spin: Slow to fast 5/9 ... Slow to fast 6/9
		232–234	Color 1 Wheel Spin: Slow to fast 6/9 (88–180.9 °/s)
		235–237	Color 1 Wheel Spin: Slow to fast 7/9 (180.9–214.9 °/s)
		238–240	Color 1 Wheel Spin: Slow to fast 8/9 (214.9–348.5 °/s)
		241–243	Color 1 Wheel Spin: Slow to fast 9/9 (348.5–600 °/s)
		244–249	Random colour selection by audio control
		250–254	Color 1 Wheel Random: fast
		255	Color 1 Wheel Random: slow
11	Colors Fine	0–255	Fine adjustment of CH 10
12	Color Macro	0	Virtual colour wheel: Open
		1–2	Filter 4 (Medium Bastard Amber)
		3–4	Filter 10 (Medium Yellow)
		5–6	Filter 19 (Fire)
		7–8	Filter 26 (Bright Red)
		9–10	Filter 58 (Lavender)
		11–12	Filter 68 (Sky Blue)
		13–14	Filter 71 (Tokyo Blue)
		15–16	Filter 79 (Just Blue)
		17–18	Filter 88 (Lime Green)
		19–20	Filter 90 (Dark Yellow Green)
		21–22	Filter 100 (Spring Yellow)
		23–24	Filter 101 (Yellow)
		25–26	Filter 102 (Light Amber)
		27–28	Filter 103 (Straw)
		29–30	Filter 104 (Deep Amber)

CH	Function	DMX	Description
12	Color Macro (continued)	31–32	Filter 105 (Orange)
		33–34	Filter 106 (Primary Red)
		35–36	Filter 111 (Dark Pink)
		37–38	Filter 115 (Peacock Blue)
		39–40	Filter 116 (Medium Blue - Green)
		41–42	Filter 117 (Steel Blue)
		43–44	Filter 118 (Light Blue)
		45–46	Filter 119 (Dark Blue)
		47–48	Filter 120 (Deep Blue)
		49–50	Filter 121 (Filter Green)
		51–52	Filter 128 (Bright Pink)
		53–54	Filter 131 (Marine Blue)
		55–56	Filter 132 (Medium Blue)
		57–58	Filter 134 (Golden Amber)
		59–60	Filter 135 (Deep Golden Amber)
		61–62	Filter 136 (Pale Lavender)
		63–64	Filter 137 (Special Lavender)
		65–66	Filter 138 (Pale Green)
		67–68	Filter 139 (Primary Green)
		69–70	Filter 141 (Bright Blue)
		71–72	Filter 147 (Apricot)
		73–74	Filter 148 (Bright Rose)
		75–76	Filter 152 (Pale Gold)
		77–78	Filter 154 (Pale Rose)
		79–80	Filter 157 (Pink)
		81–82	Filter 158 (Deep Orange)
		83–84	Filter 162 (Bastard Amber)
		85–86	Filter 164 (Flame Red)
		87–88	Filter 165 (Daylight Blue)
		89–90	Filter 169 (Lilac Tint)
		91–92	Filter 170 (Deep Lavender)
		93–94	Filter 172 (Lagoon Blue)
		95–96	Filter 179 (Chrome Orange)
		97–98	Filter 180 (Dark Lavender)
		99–100	Filter 181 (Congo Blue)
		101–102	Filter 197 (Alice Blue)
		103–104	Filter 201 (Full CT Blue)
		105–106	Filter 202 (Half CT Blue)
		107–108	Filter 203 (Quarter CT Blue)
		109–110	Filter 204 (Full CT Orange)
		111–112	Filter 205 (Half CT Orange)
		113–114	Filter 206 (Quarter CT Orange)

CH	Function	DMX	Description
12	Color Macro (continued)	115–116	Filter 247 (Filter Minus Green)
		117–118	Filter 248 (Half Minus Green)
		119–120	Filter 281 (Three Quarter CT Blue)
		121–122	Filter 285 (Three Quarter CT Orange)
		123–124	Filter 352 (Glacier Blue)
		125–126	Filter 353 (Lighter Blue)
		127–128	Filter 715 (Cabana Blue)
		129–130	Filter 778 (Millennium Gold)
		131–132	Filter 793 (Vanity Fair)
		133–255	No function
13	Effects Speed		Effect Speed
		0	Max
		1–254	Max ... min
		255	Min
14	Color Wheel Speed		CMY & Colour wheel time
		0	Function is off
		1	Slow
		2–254	Slow ... fast
		255	Fast
15	Focus Speed		Zoom & Focus & Frost & Prism time
		0	Function is off
		1	Slow
		2–254	Slow ... fast
		255	Fast
16	Animation Wheel		Effect wheel positioning
		0–19	Open
		20	Proportional indexing min
		21–126	Proportional indexing min ... Proportional indexing max
		127	Proportional indexing max
		128	Ramping from open to full position max
		129–169	Ramping from open to full position max ... Ramping from open to full position min
		170	Ramping from open to full position min
		171	Ramping from open to half position max
		172–212	Ramping from open to half position max ... Ramping from open to half position min
		213	Ramping from open to half position min
		214	Ramp from half position to full position max
		215–254	Ramp from half position to full position max ... Ramp from half position to full position min
		255	Ramp from half position to full position min
17	Animation Wheel Rotation		Effect wheel rotation
		0	No rotation

CH	Function	DMX	Description
17	Animation Wheel Rotation (continued)	1–24	Fast to slow 1/7 (193.8–138 °/s)
		25–49	Fast to slow 2/7 (138–78.6 °/s)
		50–74	Fast to slow 3/7 (78.6–49.1 °/s)
		75–99	Fast to slow 4/7 (49.1–19.7 °/s)
		100–119	Fast to slow 5/7 (19.7–1.28 °/s)
		120–124	Fast to slow 6/7 (1.28–0.474 °/s)
		125–127	Fast to slow 7/7 (0.474–0.203 °/s)
		128	No rotation middle
		129–131	Slow to fast 1/7 (0.203–0.474 °/s)
		132–136	Slow to fast 2/7 (0.474–1.28 °/s)
		137–156	Slow to fast 3/7 (1.28–19.7 °/s)
		157–181	Slow to fast 4/7 (19.7–49.1 °/s)
		182–206	Slow to fast 5/7 (49.1–78.6 °/s)
		207–232	Slow to fast 6/7 (78.6–138 °/s)
		233–255	Slow to fast 7/7 (138–193.8 °/s)
18	Animation Wheel Effects		Effect wheel animations
		0–3	No animation
		4–5	Animation Macro 1 (Focus=159 DMX at 5 m)
		6–7	Animation Macro 2 (Focus=154 DMX at 5 m)
		8–9	Animation Macro 3 (Focus=154 DMX at 5 m)
		10–11	Animation Macro 4 (Focus=157 DMX at 5 m)
		12–13	Animation Macro 5 (Focus=157 DMX at 5 m)
		14–15	Animation Macro 6 (Focus=166DMX at 5 m)
		16–17	Animation Macro 7 (Focus=145 DMX at 5 m)
		18–19	Animation Macro 8 (Focus=162 DMX at 5 m)
		20–21	Animation Macro 9 (Focus=162 DMX at 5 m)
		22–23	Animation Macro 10 (Focus=162 DMX at 5m)
		24–25	Animation Macro 1 (Focus=159 DMX at 5 m)
		26–27	Animation Macro 2 (Focus=154 DMX at 5 m)
		28–29	Animation Macro 3 (Focus=154 DMX at 5 m)
		30–31	Animation Macro 4 (Focus=157 DMX at 5 m)
		32–33	Animation Macro 5 (Focus=157 DMX at 5 m)
		34–35	Animation Macro 6 (Focus=166DMX at 5 m)
		36–37	Animation Macro 7 (Focus=145 DMX at 5 m)
		38–39	Animation Macro 8 (Focus=162 DMX at 5 m)
		40–41	Animation Macro 9 (Focus=162 DMX at 5 m)
		42–43	Animation Macro 10 (Focus=162 DMX at 5m)
		44–255	Raw DMX
19	Gobo	0–3	Open/Hole
		4–9	Static Gobo: Gobo 1
		10–15	Static Gobo: Gobo 2
		16–21	Static Gobo: Gobo 3

CH	Function	DMX	Description
19	Gobo (continued)	22–27	Static Gobo: Gobo 4
		28–33	Static Gobo: Gobo 5
		34–39	Static Gobo: Gobo 6
		40–45	Static Gobo: Gobo 7
		46–51	Static Gobo: Gobo 8
		52–57	Static Gobo: Gobo 9
		58–63	Static Gobo: Gobo 10
		64–69	Static Gobo: Beam reducer 1
		70–75	Static Gobo: Beam reducer 2
		76–81	Static Gobo: Beam reducer 3
		82–87	Static Gobo: Beam reducer 4
		88–95	Static Gobo Shake: Gobo 1 (1.5–5.46 Hz)
		96–103	Static Gobo Shake: Gobo 2 (1.5–5.46 Hz)
		104–111	Static Gobo Shake: Gobo 3 (1.5–5.46 Hz)
		112–119	Static Gobo Shake: Gobo 4 (1.5–5.46 Hz)
		120–127	Static Gobo Shake: Gobo 5 (1.5–5.46 Hz)
		128–135	Static Gobo Shake: Gobo 6 (1.5–5.46 Hz)
		136–143	Static Gobo Shake: Gobo 7 (1.5–5.46 Hz)
		144–151	Static Gobo Shake: Gobo 8 (1.5–5.46 Hz)
		152–159	Static Gobo Shake: Gobo 9 (1.5–5.46 Hz)
		160–167	Static Gobo Shake: Gobo 10 (1.5–5.46 Hz)
		168–175	Static Gobo Shake: Beam reducer 1 (1.5–5.46 Hz)
		176–183	Static Gobo Shake: Beam reducer 2 (1.5–5.46 Hz)
		184–191	Static Gobo Shake: Beam reducer 3 (1.5–5.46 Hz)
		192–199	Static Gobo Shake: Beam reducer 4 (1.5–5.46 Hz)
		200–201	Open/hole
		202–204	Static Wheel Spin: Fast to slow - Fast (491.1–228.6 °/s)
		205–220	Static Wheel Spin: Fast to slow - Fast ... Fast to slow - Slow (228.6–2.08 °/s)
		221–222	Static Wheel Spin: Fast to slow - Slow (2.08–2.07 °/s)
		223–224	Static Wheel Spin: Slow to fast - Slow (2.07–2.08 °/s)
		225–240	Static Wheel Spin: Slow to fast - Slow ... Slow to fast - Fast (2.08–228.6 °/s)
		241–243	Static Wheel Spin: Slow to fast - Fast (228.6–491.1 °/s)
		244–249	Random gobo selection by audio control
		250	Auto random gobo selection fast
		251–254	Auto random gobo selection from fast to slow
		255	Auto random gobo selection slow
20	Gobo 2	0	Gobo 2 Index: Open/Hole
		1–4	Hole (flat field)
		5–7	Gobo 1
		8–10	Gobo 2
		11–13	Gobo 3

CH	Function	DMX	Description
20	Gobo 2 (continued)	14–16	Gobo 4
		17–19	Gobo 5
		20–22	Gobo 6
		23–25	Gobo 7
		26–28	Gobo 8
		29–31	Gobo 9
		32–34	Gobo 1 - Rotation
		35–37	Gobo 2 - Rotation
		38–40	Gobo 3 - Rotation
		41–43	Gobo 4 - Rotation
		44–46	Gobo 5 - Rotation
		47–49	Gobo 6 - Rotation
		50–52	Gobo 7 - Rotation
		53–55	Gobo 8 - Rotation
		56–59	Gobo 9 - Rotation
		60–67	Gobo 1 - Shaking Index (0.188–7.14 Hz)
		68–75	Gobo 2 - Shaking Index (0.188–7.14 Hz)
		76–83	Gobo 3 - Shaking Index (0.188–7.14 Hz)
		84–91	Gobo 4 - Shaking Index (0.188–7.14 Hz)
		92–99	Gobo 5 - Shaking Index (0.188–7.14 Hz)
		100–107	Gobo 6 - Shaking Index (0.188–7.14 Hz)
		108–115	Gobo 7 - Shaking Index (0.188–7.14 Hz)
		116–123	Gobo 8 - Shaking Index (0.188–7.14 Hz)
		124–129	Gobo 9 - Shaking Index (0.188–7.14 Hz)
		130–137	Gobo 1 - Shaking Rotation (5.33–0.141 Hz)
		138–145	Gobo 2 - Shaking Rotation (5.33–0.141 Hz)
		146–153	Gobo 3 - Shaking Rotation (5.33–0.141 Hz)
		154–161	Gobo 4 - Shaking Rotation (5.33–0.141 Hz)
		162–169	Gobo 5 - Shaking Rotation (5.33–0.141 Hz)
		170–177	Gobo 6 - Shaking Rotation (5.33–0.141 Hz)
		178–185	Gobo 7 - Shaking Rotation (5.33–0.141 Hz)
		186–193	Gobo 8 - Shaking Rotation (5.33–0.141 Hz)
		194–199	Gobo 9 - Shaking Rotation (5.33–0.141 Hz)
		200–201	Gobo 2 Shake Rot: Open/Hole
		202	Gobo 2 Wheel Spin: Fast to slow - Fast
		203–220	Gobo 2 Wheel Spin: Fast to slow - Fast ... Fast to slow - Slow (56.7–3.33 °/s)
		221–222	Gobo 2 Wheel Spin: Fast to slow - Slow (3.33–2.63 °/s)
		223–224	Gobo 2 Wheel Spin: Slow to fast - Slow (2.63–3.32 °/s)
		225–242	Gobo 2 Wheel Spin: Slow to fast - Slow ... Slow to fast - Fast (3.32–56.7 °/s)
		243	Gobo 2 Wheel Spin: Slow to fast - Fast
		244–249	Random gobo selection by audio control

CH	Function	DMX	Description
20	Gobo 2 (continued)	250	Auto random gobo selection fast
		251–254	Auto random gobo selection from fast to slow
		255	Auto random gobo selection slow
21	Gobo 2 Rotation		When CH 20 is 0–31:
		0–127	Min
		128	Center
		128–255	Max
			When CH 20 is 32–59:
		0	No rotation
		1–24	Fast to slow - Fast (900–372.3 °/s)
		25–123	Fast to slow - Fast ... Fast to slow - Slow (372.3–0.658 °/s)
		124–127	Fast to slow - Slow (0.658–0.215 °/s)
		128	No rotation middle
		129–132	Slow to fast - Slow (0.215–0.658 °/s)
		133–231	Slow to fast - Slow ... Slow to fast - Fast (0.658–372.3 °/s)
		232–255	Slow to fast - Fast (372.3–900 °/s)
			When CH 20 is 60–129:
		0–127	Min
		128	Center
		128–255	Max
			When CH 20 is 130–199:
		0	No rotation
		1–24	Fast to slow - Fast (900–372.3 °/s)
		25–123	Fast to slow - Fast ... Fast to slow - Slow (372.3–0.658 °/s)
		124–127	Fast to slow - Slow (0.658–0.215 °/s)
		128	No rotation middle
		129–132	Slow to fast - Slow (0.215–0.658 °/s)
		133–231	Slow to fast - Slow ... Slow to fast - Fast (0.658–372.3 °/s)
		232–255	Slow to fast - Fast (372.3–900 °/s)
22	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 21
23	Prism	0–3	Open position/hole
		4–7	Prism 1 - 6 - facet linear
		8–11	Prism 2 - cylindrical
		12–15	Prism 3 - 8 - facet 12Deg circular
		16–19	Prism 1 - 6 - facet linear
		20–23	Prism 1: Prism 2 - cylindrical
		24–27	Prism 1: Prism 3 - 8 - facet 12Deg circular
		28–255	Raw DMX
24	Prism Rotation		When CH 23 is 0–15:
		0–127	Min
		128	Center
		129–255	Max

CH	Function	DMX	Description
24	Prism Rotation (continued)		When CH 23 is 16–27:
		0	No rotation
		1–24	Fast to slow - Fast (537.3–276.9 °/s)
		25–124	Fast to slow - Fast ... Fast to slow - Slow (276.9–0.198 °/s)
		125–127	Fast to slow - Slow
		128	No rotation middle
		129–131	Slow to fast - Slow
		132–232	Slow to fast - Slow ... Slow to fast - Fast (0.198–276.9 °/s)
		233–255	Slow to fast - Fast (276.9–537.3 °/s)
25	Prism 2	0–3	Open position/hole
		4–7	Prism 1 - 6 - facet linear
		8–11	Prism 2 - 32 - facet circular
		12–15	Prism 3 - 8 - facet 18Deg circular
		16–19	Prism 2: Prism 1 - 6 - facet linear
		20–23	Prism 2 - 32 - facet circular
		24–27	Prism 2: Prism 3 - 8 - facet 18Deg circular
		28–255	Raw DMX
26	Prism 2 Rotation		When CH 25 is 0–15:
		0–127	Min
		128	Center
		129–255	Max
			When CH 25 is 16–27:
		0	No rotation
		1–24	Fast to slow - Fast (537.3–276.9 °/s)
		25–124	Fast to slow - Fast ... Fast to slow - Slow (276.9–0.198 °/s)
		125–127	Fast to slow - Slow
		128	No rotation middle
		129–131	Slow to fast - Slow
		132–232	Slow to fast - Slow ... Slow to fast - Fast (0.198–276.9 °/s)
		233–255	Slow to fast - Fast (276.9–537.3 °/s)
27	Effects	0–3	Open position/hole
		4–5	Pattern 1
		6–7	Pattern 2
		8–9	Pattern 3
		10–11	Pattern 4
		12–13	Pattern 5
		14–15	Pattern 6
		16–17	Pattern 7
		18–19	Pattern 8
		20–21	Pattern 9
		22–23	Pattern 10
		24–25	Pattern 11

CH	Function	DMX	Description
27	Effects (continued)	26–27	Pattern 12
		28–29	Pattern 1 rotate
		30–31	Pattern 2 rotate
		32–33	Pattern 3 rotate
		34–35	Pattern 4 rotate
		36–37	Pattern 5 rotate
		38–39	Pattern 6 rotate
		40–41	Pattern 7 rotate
		42–43	Pattern 8 rotate
		44–45	Pattern 9 rotate
		46–47	Pattern 10 rotate
		48–49	Pattern 11 rotate
		50–51	Pattern 12 rotate
		52–53	Pattern 13 dynamic
		54–55	Pattern 14 dynamic
		56–57	Pattern 15 dynamic
		58–59	Pattern 16 dynamic
		60–61	Pattern 17 dynamic
		62–63	Pattern 18 dynamic
		64–65	Pattern 19 dynamic
		66–67	Pattern 20 dynamic
		68–255	Raw DMX
28	Effects Rotation		When CH 27 is 0–27:
		0–127	Effects indexing min
		128	Effects indexing center
		129–255	Effects indexing max
			When CH 27 is 28–51:
		0	Effects no rotation 0
		1–127	Forwards effects rotation fast (450–1 °/s)
		128	Forwards effects rotation from fast to slow
		129–255	No rotation (1–450 °/s)
			When CH 27 is 52–67:
		0	Effects no rotation 0
		1–127	Forwards effects rotation fast (450–1 °/s)
		128	No Rotation
		129–255	No rotation (1–450 °/s)
29	Beam Shaper	0–3	Open position/hole
		4–7	Beam shaper 1
		8–11	Beam shaper 2
		12–15	Beam shaper 3
		16–19	Beam shaper 4
		20–23	Beam shaper 1

CH	Function	DMX	Description
29	Beam Shaper (continued)	24–27	Beam shaper 2
		28–31	Beam shaper 3
		32–35	Beam shaper 4
		36–255	Reserved
30	Beam Shaper Rotation		When CH 29 is 0–19:
		0–127	Min
		128	Center
		129–255	Max
			When CH 29 is 20–35:
		0	No rotation
		1–24	Fast to slow 1/7 (537.3–276.9 °/s)
		25–49	Fast to slow 2/7 (276.9–68.1 °/s)
		50–74	Fast to slow 3/7 (68.1–17.3 °/s)
		75–99	Fast to slow 4/7 (17.3–4.15 °/s)
		100–119	Fast to slow 5/7 (4.15–0.986 °/s)
		120–124	Fast to slow 6/7 (0.986–0.198 °/s)
		125–127	Fast to slow 7/7
		128	No rotation middle
		129–131	Slow to fast 1/7
		132–136	Slow to fast 2/7 (0.198–0.986 °/s)
		137–156	Slow to fast 3/7 (0.986–4.15 °/s)
		157–181	Slow to fast 4/7 (4.15–17.3 °/s)
		182–206	Slow to fast 5/7 (17.3–68.1 °/s)
		207–232	Slow to fast 6/7 (68.1–276.9 °/s)
		233–255	Slow to fast 7/7 (276.9–537.3 °/s)
31	Frost	0	Frost: Open
		1–50	Light Frost from 0% to 100% - Light frost
		51–53	100% Light Frost - Light frost
		54–63	Pulse closing from slow to fast - Light frost
		64–73	Pulse opening from fast to slow - Light frost
		74–83	Ramping from fast to slow - Light frost
		84–86	Frost: Open
		87–136	Medium Frost from 0% to 100% - Medium frost
		137–139	100% Medium Frost - Medium frost
		140–149	Pulse closing from slow to fast - Medium frost
		150–159	Pulse opening from fast to slow - Medium frost
		160–169	Ramping from fast to slow - Medium frost
		170–172	Open - Medium frost
		173–222	Medium Frost from 0% to 100% (Light Frost inserted) - Medium frost
		223–225	100% Medium Frost (Light Frost inserted) - Medium frost
		226–235	Pulse closing from slow to fast - Medium frost

CH	Function	DMX	Description
31	Frost (continued)	236–245	Pulse opening from fast to slow - Medium frost
		246–255	Ramping from fast to slow - Medium frost
32	Zoom		When CH 20 is 0:
		0–255	Max ... min
		255	Min
			When CH 20 is 1–255:
		0–255	Max ... min
		255	Min
33	Zoom Fine	0–255	Fine adjustment of CH 32
34	Focus	0–255	Min ... max
		255	Max
35	Focus Fine	0–255	Fine adjustment of CH 34
36	Reflector Adjust		Hot - Spot control
		0	Automatic Hot - Spot control
		1	Min
		2–254	Min ... max
		255	Max
37	Shutter	0–31	Open/Closed: Closed
		32–63	Open/Closed: Open
		64–66	Strobe: Slow to fast 1/12 (0.409–0.466 Hz)
		67–78	Strobe: Slow to fast 1/12 ... Slow to fast 6/12 (0.496–1.7 Hz)
		79–82	Strobe: Slow to fast 6/12 (1.92–3.39 Hz)
		83–94	Strobe: Slow to fast 6/12 ... Slow to fast 11/12 (4.54–8.06 Hz)
		95	Strobe: Slow to fast 11/12
		96–127	Open
		128–130	Strobe Pulse Open: Slow to fast 1/7
		131–134	Strobe Pulse Open: Slow to fast 1/7 ... Slow to fast 4/7 (0.087–0.182 Hz)
		135–136	Strobe Pulse Open: Slow to fast 4/7 (0.274–0.37 Hz)
		137–140	Strobe Pulse Open: Slow to fast 4/7 ... Slow to fast 7/7 (0.526–1 Hz)
		141–143	Strobe Pulse Open: Slow to fast 7/7 (1.08–1.47 Hz)
		144–145	Strobe Pulse Close: Fast to slow 1/7 (1.47–1.16 Hz)
		146–149	Strobe Pulse Close: Fast to slow 1/7 ... Fast to slow 4/7 (1.08–0.667 Hz)
		150–151	Strobe Pulse Close: Fast to slow 4/7 (0.526–0.37 Hz)
		152–155	Strobe Pulse Close: Fast to slow 4/7 ... Fast to slow 7/7 (0.274–0.098 Hz)
		156–159	Strobe Pulse Close: Fast to slow 7/7
		160–191	Open
		192–223	Random strobe from slow to fast (0.125–10 Hz)
		224–255	Open

CH	Function	DMX	Description
38	Dimmer	0–255	Closed … Open
		255	Open
39	Dimmer Fine	0–255	Fine adjustment of CH 38

Mode 2 - Reduced 8 - bit

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 33 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 34 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Cyan 0, CH 8 Magenta 0, CH 9 Yellow 0, CH 10 Colors 0, CH 11 Color Macro 0, CH 33 Shutter 32, CH 34 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Mode 1 - Standard 16 - bit” (p. 14)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Mode 1 - Standard 16 - bit” (p. 15)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Pan/Tilt Speed/Time
		0	Standard mode
		1	Max Speed Mode
		2–254	Pan/Tilt Speed/Time
		255	Min Speed Mode
6	Control		Same as CH 6 in the mode “Mode 1 - Standard 16 - bit” (p. 15)
7	Cyan		Same as CH 7 in the mode “Mode 1 - Standard 16 - bit” (p. 16)
8	Magenta		Same as CH 8 in the mode “Mode 1 - Standard 16 - bit” (p. 16)
9	Yellow		Same as CH 9 in the mode “Mode 1 - Standard 16 - bit” (p. 16)
10	Colors	0–8	Open/White - Positioning
		9–18	Deep Red - Positioning
		19–26	Deep Blue - Positioning
		27–36	Yellow - Positioning
		37–46	Light green - Positioning
		47–54	Magenta - Positioning
		55–63	Lavender - Positioning
		64–72	Pink - Positioning
		73–81	Dark green - Positioning
		82–90	CTO 2700K - Positioning
		91–100	Blue - Positioning
		101–109	Orange - Positioning
		110–118	CTO 3200K - Positioning
		119–126	UV (Kongo blue) - Positioning
		127	UV (Kongo blue) - Positioning ... Open/White (1) - Positioning
		128–129	Open/White (1) - Positioning
		130–134	Deep Red - Indexing
		135–138	Deep Blue - Indexing
		139–143	Yellow - Indexing
		144–147	Light green - Indexing
		148–152	Magenta - Indexing
		153–157	Lavender - Indexing
		158–161	Pink - Indexing
		162–166	Dark green - Indexing
		167–171	CTO 2700K - Indexing
		172–176	Blue - Indexing
		177–180	Orange - Indexing
		181–185	CTO 3200K - Indexing

CH	Function	DMX	Description
10	Colors (continued)	186–189	UV (Kongo blue) - Indexing
		190–191	Color 1 Wheel Spin: Fast to slow 1/9 (600–348.5 °/s)
		192–194	Color 1 Wheel Spin: Fast to slow 2/9 (348.5–214.9 °/s)
		195–197	Color 1 Wheel Spin: Fast to slow 3/9 (214.9–180.9 °/s)
		198–201	Color 1 Wheel Spin: Fast to slow 4/9 (180.9–88 °/s)
		202–204	Color 1 Wheel Spin: Fast to slow 5/9 (88–83.9 °/s)
		205–206	Color 1 Wheel Spin: Fast to slow 6/9 (83.9–48.4 °/s)
		207–209	Color 1 Wheel Spin: Fast to slow 7/9 (48.4–29 °/s)
		210–211	Color 1 Wheel Spin: Fast to slow 8/9 (29–13.6 °/s)
		212–215	Color 1 Wheel Spin: Fast to slow 9/9 (13.6–1.2 °/s)
		216–217	No rotation middle
		218–220	Color 1 Wheel Spin: Slow to fast 1/9 (1.2–13.6 °/s)
		221–222	Color 1 Wheel Spin: Slow to fast 2/9 (13.6–29 °/s)
		223–225	Color 1 Wheel Spin: Slow to fast 3/9 (29–48.4 °/s)
		226–227	Color 1 Wheel Spin: Slow to fast 4/9 (48.4–83.9 °/s)
		228–230	Color 1 Wheel Spin: Slow to fast 5/9 (83.9–88 °/s)
		231	Color 1 Wheel Spin: Slow to fast 5/9 ... Slow to fast 6/9
		232–234	Color 1 Wheel Spin: Slow to fast 6/9 (88–180.9 °/s)
		235–237	Color 1 Wheel Spin: Slow to fast 7/9 (180.9–214.9 °/s)
		238–240	Color 1 Wheel Spin: Slow to fast 8/9 (214.9–348.5 °/s)
		241–243	Color 1 Wheel Spin: Slow to fast 9/9 (348.5–600 °/s)
		244–249	Random colour selection by audio control
		250–254	Color 1 Wheel Random: fast
		255	Color 1 Wheel Random: slow
11	Color Macro		Same as CH 12 in the mode “Mode 1 - Standard 16 - bit” (p. 17)
12	Effects Speed		Same as CH 13 in the mode “Mode 1 - Standard 16 - bit” (p. 19)
13	Color Wheel Speed		CMY Colour wheel time
		0	Function is off
		1	Slow
		2–254	Slow ... fast
		255	Fast
14	Focus Speed		Zoom Focus Frost Prism time
		0	Function is off
		1	Slow
		2–254	Slow ... fast
		255	Fast
15	Animation Wheel		Same as CH 16 in the mode “Mode 1 - Standard 16 - bit” (p. 19)
16	Animation Wheel Rotation		Same as CH 17 in the mode “Mode 1 - Standard 16 - bit” (p. 19)

CH	Function	DMX	Description
17	Animation Wheel Effects		Same as CH 18 in the mode “Mode 1 - Standard 16 - bit” (p. 20)
18	Gobo		Same as CH 19 in the mode “Mode 1 - Standard 16 - bit” (p. 20)
19	Gobo 2	0	Gobo 2 Index: Open/Hole
		1–4	Hole (flat field)
		5–7	Gobo 1
		8–10	Gobo 2
		11–13	Gobo 3
		14–16	Gobo 4
		17–19	Gobo 5
		20–22	Gobo 6
		23–25	Gobo 7
		26–28	Gobo 8
		29–31	Gobo 9
		32–34	Gobo 1 - Rotation
		35–37	Gobo 2 - Rotation
		38–40	Gobo 3 - Rotation
		41–43	Gobo 4 - Rotation
		44–46	Gobo 5 - Rotation
		47–49	Gobo 6 - Rotation
		50–52	Gobo 7 - Rotation
		53–55	Gobo 8 - Rotation
		56–59	Gobo 9 - Rotation
		60–67	Gobo 1 - Shaking Index (0.188–7.14 Hz)
		68–75	Gobo 2 - Shaking Index (0.188–7.14 Hz)
		76–83	Gobo 3 - Shaking Index (0.188–7.14 Hz)
		84–91	Gobo 4 - Shaking Index (0.188–7.14 Hz)
		92–99	Gobo 5 - Shaking Index (0.188–7.14 Hz)
		100–107	Gobo 6 - Shaking Index (0.188–7.14 Hz)
		108–115	Gobo 7 - Shaking Index (0.188–7.14 Hz)
		116–123	Gobo 8 - Shaking Index (0.188–7.14 Hz)
		124–129	Gobo 9 - Shaking Index (0.188–7.14 Hz)
		130–137	Gobo 1 - Shaking Rotation (5.33–0.141 Hz)
		138–145	Gobo 2 - Shaking Rotation (5.33–0.141 Hz)
		146–153	Gobo 3 - Shaking Rotation (5.33–0.141 Hz)
		154–161	Gobo 4 - Shaking Rotation (5.33–0.141 Hz)
		162–169	Gobo 5 - Shaking Rotation (5.33–0.141 Hz)
		170–177	Gobo 6 - Shaking Rotation (5.33–0.141 Hz)
		178–185	Gobo 7 - Shaking Rotation (5.33–0.141 Hz)
		186–193	Gobo 8 - Shaking Rotation (5.33–0.141 Hz)
		194–199	Gobo 9 - Shaking Rotation (5.33–0.141 Hz)

CH	Function	DMX	Description
19	Gobo 2 (continued)	200–201	Gobo 2 Shake Rot: Open/Hole
		202	Gobo 2 Wheel Spin: Fast to slow- Fast
		203–220	Gobo 2 Wheel Spin: Fast to slow- Fast ... Fast to slow - Slow (56.7–3.33 °/s)
		221–222	Gobo 2 Wheel Spin: Fast to slow - Slow (3.33–2.63 °/s)
		223–224	Gobo 2 Wheel Spin: Slow to fast - Slow (2.63–3.32 °/s)
		225–242	Gobo 2 Wheel Spin: Slow to fast - Slow ... Slow to fast - Fast (3.32–56.7 °/s)
		243	Gobo 2 Wheel Spin: Slow to fast - Fast
		244–249	Random gobo selection by audio control
		250	Auto random gobo selection fast
		251–254	Auto random gobo selection from fast to slow
		255	Auto random gobo selection slow
20	Gobo 2 Rotation		When CH 19 is 0–31:
		0–127	Min
		128	Center
		129–255	Max
			When CH 19 is 32–59:
		0	No rotation (56.6–56.2 °/s)
		1–24	Fast to slow - Fast (900–372.3 °/s)
		25–123	Fast to slow - Fast ... Fast to slow - Slow (372.3–0.658 °/s)
		124–127	Fast to slow - Slow (0.658–0.215 °/s)
		128	No rotation middle
		129–132	Slow to fast - Slow (0.215–0.658 °/s)
		133–231	Slow to fast - Slow ... Slow to fast - Fast (0.658–372.3 °/s)
		232–255	Slow to fast - Fast (372.3–900 °/s)
			When CH 19 is 60–129:
		0–127	Min
		128	Center
		129–255	Max
			When CH 19 is 130–199:
		0	No rotation
		1–24	Fast to slow - Fast (900–372.3 °/s)
		25–123	Fast to slow - Fast ... Fast to slow - Slow (372.3–0.658 °/s)
		124–127	Fast to slow - Slow (0.658–0.215 °/s)
		128	No rotation middle
		129–132	Slow to fast - Slow (0.215–0.658 °/s)
		133–231	Slow to fast - Slow ... Slow to fast - Fast (0.658–372.3 °/s)
		232–255	Slow to fast - Fast (372.3–900 °/s)
21	Prism		Same as CH 23 in the mode “Mode 1 - Standard 16 - bit” (p. 23)
22	Prism Rotation		When CH 21 is 0–15:

CH	Function	DMX	Description
22	Prism Rotation (continued)	0–127	Min
		128	Center
		129–255	Max
			When CH 21 is 16–27:
		0	No rotation
		1–24	Fast to slow - Fast (537.3–276.9 °/s)
		25–124	Fast to slow - Fast ... Fast to slow - Slow (276.9–0.198 °/s)
		125–127	Fast to slow - Slow
		128	No rotation middle
		129–131	Slow to fast - Slow
		132–232	Slow to fast - Slow ... Slow to fast - Fast (0.198–276.9 °/s)
		233–255	Slow to fast - Fast (276.9–537.3 °/s)
23	Prism 2		Same as CH 25 in the mode “Mode 1 - Standard 16 - bit” (p. 24)
24	Prism 2 Rotation		When CH 23 is 0–15:
		0–127	Min
		128	Center
		129–255	Max
			When CH 23 is 16–27:
		0	No rotation
		1–24	Fast to slow - Fast (537.3–276.9 °/s)
		25–124	Fast to slow - Fast ... Fast to slow - Slow (276.9–0.198 °/s)
		125–127	Fast to slow - Slow
		128	No rotation middle
		129–131	Slow to fast - Slow
		132–232	Slow to fast - Slow ... Slow to fast - Fast (0.198–276.9 °/s)
		233–255	Slow to fast - Fast (276.9–537.3 °/s)
25	Effects		Same as CH 27 in the mode “Mode 1 - Standard 16 - bit” (p. 24)
26	Effects Rotation		When CH 25 is 0–27:
		0–127	Effects indexing min
		128	Effects indexing center
		129–255	Effects indexing max
			When CH 25 is 28–51:
		0	Effects no rotation 0
		1–127	Forwards effects rotation fast (450–1 °/s)
		128	No rotation
		129–255	Backwards effects rotation from fast (1–450 °/s)
			When CH 25 is 52–67:
		0	Effects no rotation 0
		1–127	Forwards effects rotation from fast to slow (450–1 °/s)
		128	No rotation

CH	Function	DMX	Description
26	Effects Rotation (continued)	129–255	Backwards effects rotation from slow to fast (1–450 °/s)
27	Beam Shaper		Same as CH 29 in the mode “Mode 1 - Standard 16 - bit” (p. 25)
28	Beam Shaper Rotation		When CH 27 is 0–19:
		0–127	Min
		128	Center
		129–255	Max
			When CH 27 is 20–35:
		0	No rotation
		1–24	Fast to slow 1/7 (537.3–276.9 °/s)
		25–49	Fast to slow 2/7 (276.9–68.1 °/s)
		50–74	Fast to slow 3/7 (68.1–17.3 °/s)
		75–99	Fast to slow 4/7 (17.3–4.15 °/s)
		100–119	Fast to slow 5/7 (4.15–0.986 °/s)
		120–124	Fast to slow 6/7 (0.986–0.198 °/s)
		125–127	Fast to slow 7/7
		128	No rotation middle
		129–131	Slow to fast 1/7
		132–136	Slow to fast 2/7 (0.198–0.986 °/s)
		137–156	Slow to fast 3/7 (0.986–4.15 °/s)
		157–181	Slow to fast 4/7 (4.15–17.3 °/s)
		182–206	Slow to fast 5/7 (17.3–68.1 °/s)
		207–232	Slow to fast 6/7 (68.1–276.9 °/s)
		233–255	Slow to fast 7/7 (276.9–537.3 °/s)
29	Frost		Same as CH 31 in the mode “Mode 1 - Standard 16 - bit” (p. 26)
30	Zoom		When CH 19 is 0:
		0	Max
		1–254	Max ... min
		255	Min
			When CH 19 is 1–255:
		0	Max
		1–254	Max ... min
		255	Min
31	Focus	0	Min
		1–254	Min ... max
		255	Max
32	Reflector Adjust		Same as CH 36 in the mode “Mode 1 - Standard 16 - bit” (p. 27)
33	Shutter		Same as CH 37 in the mode “Mode 1 - Standard 16 - bit” (p. 27)

CH	Function	DMX	Description
34	Dimmer	0	Closed
		1–254	Closed ... Open
		255	Open

10 Technical specifications

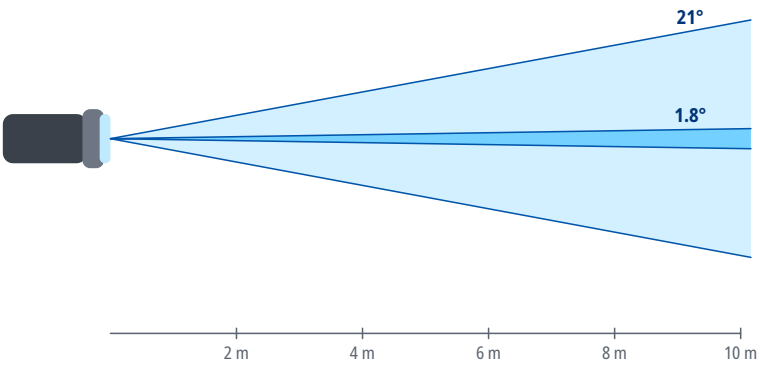
Parameter	Value
Light	
Light source	discharge lamp
Lamp power	470 W
Luminous flux	20,375 lm
Color temperature	6,300 K
Color rendering index (CRI)	80
Optics	
Zoom	1.8–21°
Movement	
Pan	540°
Tilt	265°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RJ45 connectors	RJ45
RDM	yes (manufacturer ID 0x9898, device model ID 0x98E9)
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	670 W
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	22 kg
Operating environment	
Operating temperature	0 to 45 °C

Speeds and ranges

Parameter	Value
Strobe frequency	0.3–20 Hz
Color wheel 1 rotation	up to 470.3 °/s (78 rpm)
Gobo wheel 1 rotation	up to 56.6 °/s (9.4 rpm)
Gobo wheel 2 rotation	up to 491.8 °/s (82 rpm)
Gobo 1 rotation	up to 900 °/s (150 rpm)
Prism 1 rotation	up to 537.3 °/s (90 rpm)
Prism 2 rotation	up to 537.3 °/s (90 rpm)

Parameter	Value
Animation wheel rotation	up to 194.6 °/s (32 rpm)
Effect rotation	up to 30 °/s (5 rpm)
Beam shaper rotation	up to 30 °/s (5 rpm)

Spot diameter



Distance	Ø 1.8°	Ø 21°
2 m	0.06 m	0.74 m
4 m	0.13 m	1.5 m
6 m	0.19 m	2.2 m
8 m	0.25 m	3 m
10 m	0.31 m	3.7 m
15 m	0.47 m	5.6 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.
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.

Problem	Remedy
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.