DMX REFERENCE

Focus Wash 400

Focus Wash

ADJ



Manufacturer	ADJ
GDTF file	ADJ_Focus_Wash_400_126272.gdtf
GDTF revision	JAna · 2026-01-26
Generated	2026-11-23

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 6
6 Connections 6
7 Operation 7
8 Functions at a glance 7
9 DMX channels 13
Mode Basic 14
Mode Standard 22
Mode Ext 24
Mode St CMY 26
Mode Ext CMY 27
10 Technical specifications 29
11 Maintenance and cleaning 30
12 Troubleshooting 30
13 Disposal 31

1 About this manual

This document describes the Focus Wash by ADJ. It was compiled from the GDTF file ADJ_Focus_Wash_400_126272.gdtf from the GDTF-Share library.

File revision: “JAna”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by ADJ; product names and trademarks belong to their owners.

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

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

2 Quick reference

Parameter	Value
Weight	10.7 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Basic	17	30	1, 18, 35, 52, ...
Standard	22	23	1, 23, 45, 67, ...
Ext	24	21	1, 25, 49, 73, ...
St CMY	18	28	1, 19, 37, 55, ...
Ext CMY	24	21	1, 25, 49, 73, ...

No light? Check these channels

- Basic: CH 13 Shutter at 32–63 “Shutter Open”
- Standard: CH 16 Shutter at 32–63 “Shutter Open”
- Ext: CH 16 Shutter at 32–63 “Shutter Open”
- St CMY: CH 12 Shutter at 32–63 “Shutter Open”
- Ext CMY: CH 16 Shutter at 32–63 “Shutter Open”


Read the manual before use


Do not stare into the light


Indoor use only

3 Safety instructions



Read the manual before use



Do not stare into the light



Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

⚠ CAUTION

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

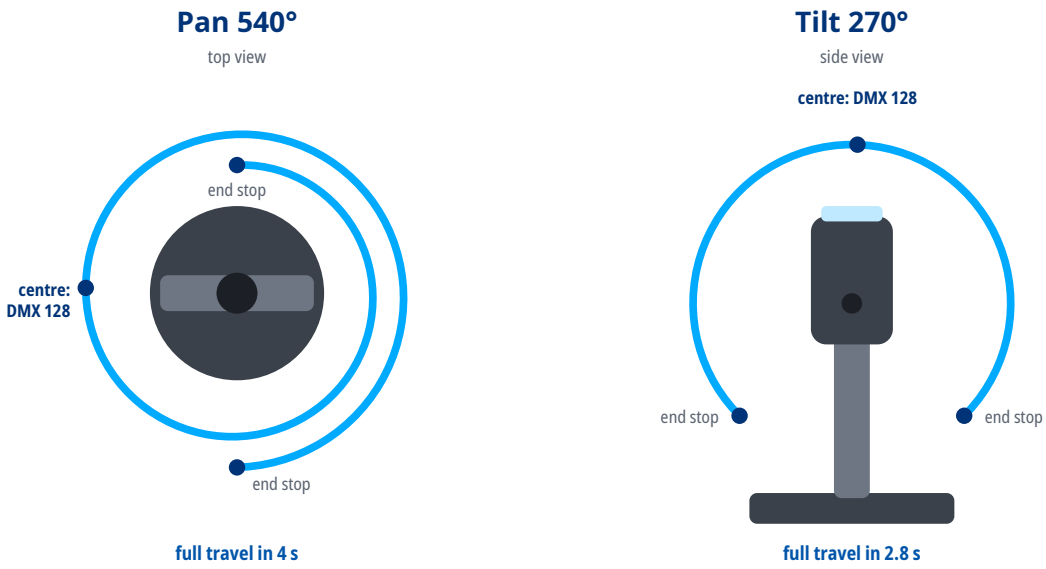
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
> - Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

Description in the GDTF file

“The FOCUS WASH 400 is a 400W, RGBACL (Red, Green, Blue, Amber, Cyan and Lime) LED moving head wash with a 10 to 41 degree motorized zoom, with flicker free operation for TV and film, linear white color temperature control from 2700K - 6500K, and virtual CMY color mixing.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

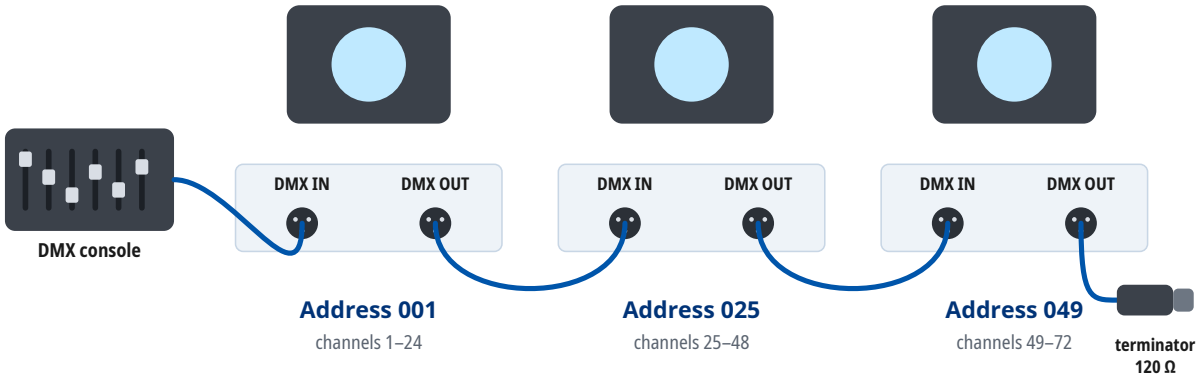
⚠ **WARNING**

- 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: 10.7 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 Ext: every unit occupies 24 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 “Ext”: 24.
- 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 “Ext”, you can use, for example, the start addresses 1, 25, 49, 73.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

8 Functions at a glance

Functions in each DMX mode

	Basic 17 channels	Standard 22 channels	Ext 24 channels	St CMY 18 channels	Ext CMY 24 channels
Pan / Tilt	1, 2	1, 3	1, 3	1, 3	1, 3
Pan / Tilt resolution	8 bit	16 bit	16 bit	16 bit	16 bit
Dimmer	14	17	17	13	17
Dimmer resolution	8 bit	16 bit	16 bit	8 bit	16 bit
Shutter / strobe	13	16	16	12	16
Color mixing	3–8	5–10	5–10	5–7	5, 7, 9
Color temperature	9	11	11	8	11
Color wheel	10, 11	12, 13	12, 13	9, 10	12, 13
Zoom	15	19	19	14	19
Effects / macros	12	15	15		15

Color wheel 1

1 Pale Yellow DMX 1
2 Straw DMX 2
3 Gold Tint DMX 3
4 Spring Yellow DMX 4
5 Medium Yellow DMX 5
6 Yellow DMX 6
7 Deep Amber DMX 7
8 Deep Straw DMX 8
9 Loving Amber DMX 9
10 Gold Amber DMX 10
11 Orange DMX 11
12 Deep Orange DMX 12
13 Dark Amber DMX 13
14 Millennium Gold DMX 14
15 Deep Golden Amber DMX 15
16 Scarlet DMX 16
17 Primary Red DMX 17
18 Bright Red DMX 18
19 Medium Red DMX 19
20 Fire DMX 20
21 Pink DMX 21
22 Medium Pink DMX 22
23 Dark Pink DMX 23
24 Bright Pink DMX 24
25 Bright Rose DMX 25
26 Special Rose Pink DMX 26
27 Vanity Fair DMX 27
28 Magenta DMX 28
29 Dark Magenta DMX 29
30 Rose Purple DMX 30
31 Mauve DMX 31
32 Medium Purple DMX 32
33 Lavender DMX 33
34 Palace blue DMX 34
35 Dark Blue DMX 35
36 Medium Blue DMX 36
37 Deep Blue DMX 37
38 Daylight Blue DMX 38
39 Slate Blue DMX 39
40 Light Blue DMX 40
41 Sky Blue DMX 41
42 Pale Navy Blue DMX 42
43 Marine Blue DMX 43
44 Peacock Blue DMX 44
45 Lagoon Blue DMX 45
46 Medium Blue Green DMX 46
47 Dark Yellow Green DMX 47
48 Primary Green DMX 48

49 Fern Green
DMX 49

50 Moss Green
DMX 50

51 Dark Green
DMX 51

52 Lime Green
DMX 52

53 Pale Green
DMX 53

54 Quarter CT Blue
DMX 54

55 Half CT Blue
DMX 55

56 Full CT Blue
DMX 56

57 Double CT Blue
DMX 57

58 Quarter CT Orange
DMX 58

59 Half CT Orange
DMX 59

60 LEE 204 - Full C T Orange
DMX 60–61

61 Open
DMX 0–1

Color wheel 2

1 No Function
DMX 0

2 2700K

3 2800K

4 2900K

5 2700
DMX 1–60

6 3100K

7 3200K

8 3000
DMX 61–179

9 3400K

10 3200
DMX 180–201

11 3600K

12 3700K

13 3800K

14 3900K

15 4000K

16 4100K

17 4200K

18 4000
DMX 202–207

19 4400K

20 4500K

21 4600K

22 4700K

23 4500
DMX 208–229

24 4900K

25
5000K

26
5100K

27
5200K

28
5000
DMX 230–234

29
5400K

30
5500K

31
5600K

32
5700K

33
5800K

34
5600
DMX 235–239

35
6000K

36
6100K

37
6200K

38
6300K

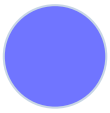
39
6400K

40
6500K

41
10000K

Color wheel 3

1
Off
DMX 0

2 
Color Macro 1
DMX 1–4

3
Color Macro 2
DMX 5–8

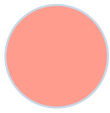
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DMX 9–12

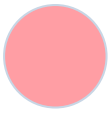
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DMX 13–16

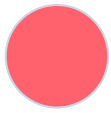
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DMX 17–20

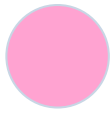
7
Color Macro 6
DMX 21–24

8
Color Macro 7
DMX 25–28

9 
Color Macro 8
DMX 29–32

10 
Color Macro 9
DMX 33–36

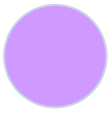
11 
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DMX 37–40

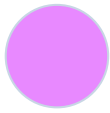
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DMX 41–44

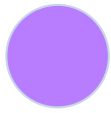
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DMX 45–48

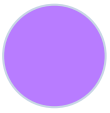
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DMX 49–52

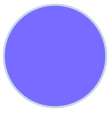
15 
Color Macro 14
DMX 53–56

16 
Color Macro 15
DMX 57–60

17 
Color Macro 16
DMX 61–64

18 
Color Macro 17
DMX 65–68

19 
Color Macro 18
DMX 69–72

20 
Color Macro 19
DMX 73–76

21 
Color Macro 20
DMX 77–80

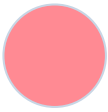
22 
Color Macro 21
DMX 81–84

23 
Color Macro 22
DMX 85–88

24
Color Macro 23
DMX 89–92

25
Color Macro 24
DMX 93–96

26
Color Macro 25
DMX 97–100

27 
Color Macro 26
DMX 101–104

28
Color Macro 27
DMX 105–108

29
Color Macro 28
DMX 109–112

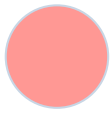
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DMX 113–116

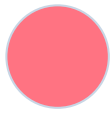
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DMX 117–120

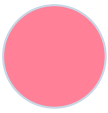
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DMX 121–124

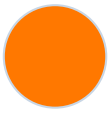
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DMX 128

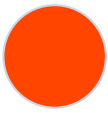
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DMX 129–132

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Color Macro 34
DMX 133–136

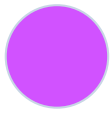
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DMX 137–140

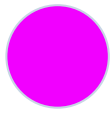
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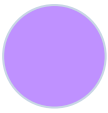
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DMX 145–148

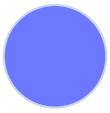
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DMX 149–152

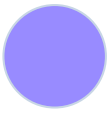
40 
Color Macro 39
DMX 153–156

41 
Color Macro 40
DMX 157–160

42 
Color Macro 41
DMX 161–164

43 
Color Macro 42
DMX 165–168

44 
Color Macro 43
DMX 169–172

45 
Color Macro 44
DMX 173–176

46 
Color Macro 45
DMX 177–180

47 
Color Macro 46
DMX 181–184

48 
Color Macro 47
DMX 185–188

49 
Color Macro 48
DMX 189–192

50 
Color Macro 49
DMX 193–196

51 
Color Macro 50
DMX 197–200

52 
Color Macro 51
DMX 201–204

53 
Color Macro 52
DMX 209

54 
Color Macro 53
DMX 210–212

55 
Color Macro 54
DMX 213–216

56 
Color Macro 55
DMX 217–220

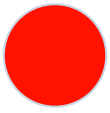
57 
Color Macro 56
DMX 221–224

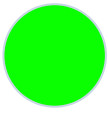
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DMX 225–228

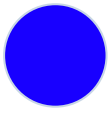
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DMX 229–232

60 
Color Macro 59
DMX 233–236

61 
Color Macro 60
DMX 237–240

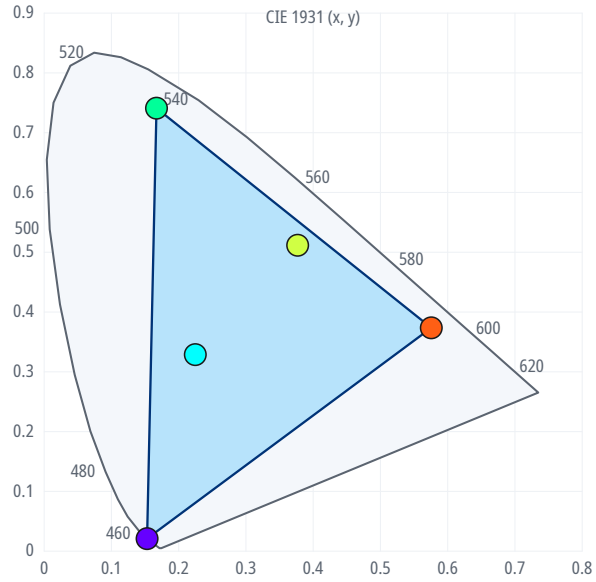
62 
Color Macro 61
DMX 241–244

63 
Color Macro 62
DMX 245–248

64 
Color Macro 63
DMX 249–252

65
Color Macro 64
DMX 253–255

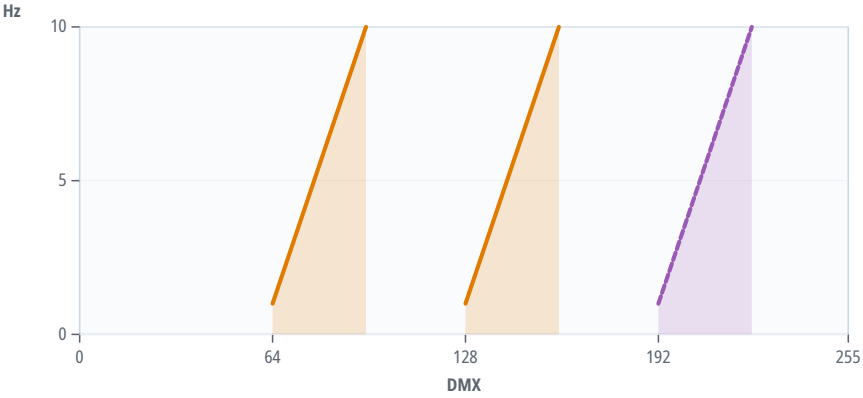
LED colors and the colors they mix



LED	x	y	nm
Green	0.167	0.741	528
Blue	0.153	0.021	453
Amber	0.576	0.374	590
Cyan	0.225	0.329	488
Lime	0.377	0.512	567

The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

Strobe rate



CH 16 · Ext

64–95: 1–10 Hz
Strobe Effect Slow to Fast

128–159: 1–10 Hz
Pulse-Effect in Sequences

192–223: 1–10 Hz
Random Strobe Effect Slow to Fast

9 DMX channels

Units in one DMX universe



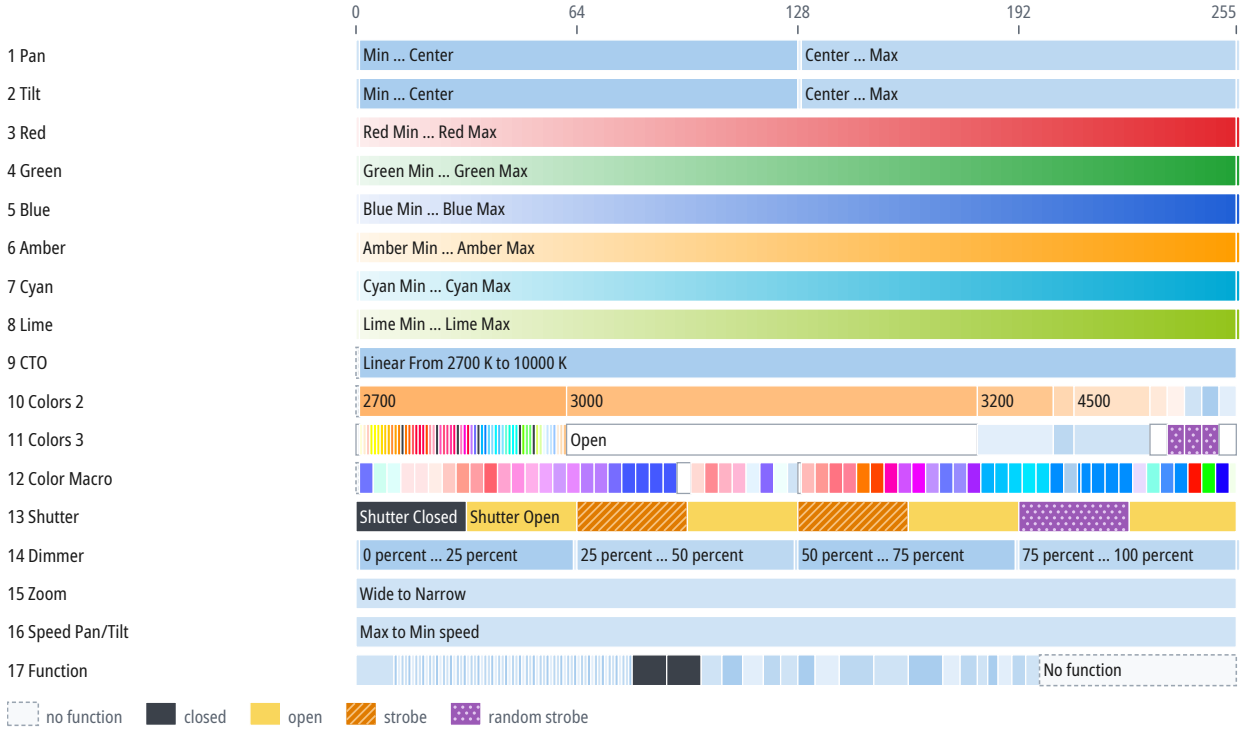
Start addresses of 20 units in the mode “Ext”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	121	11	241	16	361
2	25	7	145	12	265	17	385
3	49	8	169	13	289	18	409
4	73	9	193	14	313	19	433
5	97	10	217	15	337	20	457

Mode Basic

If the device receives DMX in this mode but gives no light, check these channels: CH 13 Shutter at 32–63 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 3 Red 255, CH 4 Green 255, CH 5 Blue 255, CH 11 Colors 3 0, CH 13 Shutter 63, CH 14 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–127	Min ... Center
		128	Center
		129–254	Center ... Max
		255	Max
2	Tilt	0	Min
		1–127	Min ... Center
		128	Center
		129–254	Center ... Max
		255	Max
3	Red	0	Red Min
		1–254	Red Min ... Red Max
		255	Red Max
4	Green	0	Green Min
		1–254	Green Min ... Green Max
		255	Green Max
5	Blue	0	Blue Min
		1–254	Blue Min ... Blue Max

CH	Function	DMX	Description
5	Blue (continued)	255	Blue Max
6	Amber	0	Amber Min
		1–254	Amber Min … Amber Max
		255	Amber Max
7	Cyan	0	Cyan Min
		1–254	Cyan Min … Cyan Max
		255	Cyan Max
8	Lime	0	Lime Min
		1–254	Lime Min … Lime Max
		255	Lime Max
9	CTO		Linear From 2700 K to 10000 K
		0	Off
		1–255	Linear From 2700 K to 10000 K (2700–10000 K)
10	Colors 2		Color Temp Preset
		0	No Function
		1–60	2700
		61–179	3000
		180–201	3200
		202–207	4000
		208–229	4500
		230–234	5000
		235–239	5600
		240–244	6500
		245–249	8000K
		250–255	10000K
11	Colors 3	0	Open
		1	Pale Yellow
		2	Straw
		3	Gold Tint
		4	Spring Yellow
		5	Medium Yellow
		6	Yellow
		7	Deep Amber
		8	Deep Straw
		9	Loving Amber
		10	Gold Amber
		11	Orange
		12	Deep Orange
		13	Dark Amber
		14	Millennium Gold
		15	Deep Golden Amber
		16	Scarlet

CH	Function	DMX	Description
11	Colors 3 (continued)	17	Primary Red
		18	Bright Red
		19	Medium Red
		20	Fire
		21	Pink
		22	Medium Pink
		23	Dark Pink
		24	Bright Pink
		25	Bright Rose
		26	Special Rose Pink
		27	Vanity Fair
		28	Magenta
		29	Dark Magenta
		30	Rose Purple
		31	Mauve
		32	Medium Purple
		33	Lavender
		34	Palace blue
		35	Dark Blue
		36	Medium Blue
		37	Deep Blue
		38	Daylight Blue
		39	Slate Blue
		40	Light Blue
		41	Sky Blue
		42	Pale Navy Blue
		43	Marine Blue
		44	Peacock Blue
		45	Lagoon Blue
		46	Medium Blue Green
		47	Dark Yellow Green
		48	Primary Green
		49	Fern Green
		50	Moss Green
		51	Dark Green
		52	Lime Green
		53	Pale Green
		54	Quarter CT Blue
		55	Half CT Blue
		56	Full CT Blue
		57	Double CT Blue
		58	Quarter CT Orange

CH	Function	DMX	Description
11	Colors 3 (continued)	59	Half CT Orange
		60	Full CT Orange
		61–179	Open
		180–201	Clockwise fast to slow (7200–14 °/s)
		202–207	Color Scroll: Stop
		208–229	Counter-clockwise slow to fast (14–7200 °/s)
		230–234	Open
		235–239	Color Random: Fast
		240–244	Medium
		245–249	Color Random: Slow
		250–255	Open
12	Color Macro	0	Off
		1–4	Color Macro 1
		5–8	Color Macro 2
		9–12	Color Macro 3
		13–16	Color Macro 4
		17–20	Color Macro 5
		21–24	Color Macro 6
		25–28	Color Macro 7
		29–32	Color Macro 8
		33–36	Color Macro 9
		37–40	Color Macro 10
		41–44	Color Macro 11
		45–48	Color Macro 12
		49–52	Color Macro 13
		53–56	Color Macro 14
		57–60	Color Macro 15
		61–64	Color Macro 16
		65–68	Color Macro 17
		69–72	Color Macro 18
		73–76	Color Macro 19
		77–80	Color Macro 20
		81–84	Color Macro 21
		85–88	Color Macro 22
		89–92	Color Macro 23
		93–96	Color Macro 24
		97–100	Color Macro 25
		101–104	Color Macro 26
		105–108	Color Macro 27
		109–112	Color Macro 28
		113–116	Color Macro 29
		117–120	Color Macro 30

CH	Function	DMX	Description
12	Color Macro (continued)	121–124	Color Macro 31
		125–127	Color Macro 31 … Color Macro 32
		128	Color Macro 32
		129–132	Color Macro 33
		133–136	Color Macro 34
		137–140	Color Macro 35
		141–144	Color Macro 36
		145–148	Color Macro 37
		149–152	Color Macro 38
		153–156	Color Macro 39
		157–160	Color Macro 40
		161–164	Color Macro 41
		165–168	Color Macro 42
		169–172	Color Macro 43
		173–176	Color Macro 44
		177–180	Color Macro 45
		181–184	Color Macro 46
		185–188	Color Macro 47
		189–192	Color Macro 48
		193–196	Color Macro 49
		197–200	Color Macro 50
		201–204	Color Macro 51
		205–208	Color Macro 51 … Color Macro 52
		209	Color Macro 52
		210–212	Color Macro 53
		213–216	Color Macro 54
		217–220	Color Macro 55
		221–224	Color Macro 56
		225–228	Color Macro 57
		229–232	Color Macro 58
		233–236	Color Macro 59
		237–240	Color Macro 60
		241–244	Color Macro 61
		245–248	Color Macro 62
		249–252	Color Macro 63
		253–255	Color Macro 64
13	Shutter	0–31	Shutter Closed
		32–63	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)

CH	Function	DMX	Description
13	Shutter (continued)	192–223	Random Strobe Effect Slow to Fast (1–10 Hz)
		224–255	No Function (Shutter Open)
14	Dimmer	0	0 percent
		1–62	0 percent … 25 percent
		63	25 percent
		64–126	25 percent … 50 percent
		127	50 percent
		128–190	50 percent … 75 percent
		191	75 percent
		192–254	75 percent … 100 percent
		255	100 percent
15	Zoom	0–255	Wide to Narrow (41–9°)
16	Speed Pan/Tilt		Pan/Tilt Speed
		0–255	Max to Min speed
17	Function	0–10	Default refresh rates (1200)
		11	900 Hz
		12	910 Hz
		13	920 Hz
		14	930 Hz
		15	940 Hz
		16	950 Hz
		17	960 Hz
		18	970 Hz
		19	980 Hz
		20	990 Hz
		21	1000 Hz
		22	1010 Hz
		23	1020 Hz
		24	1030 Hz
		25	1040 Hz
		26	1050 Hz
		27	1060 Hz
		28	1070 Hz
		29	1080 Hz
		30	1090 Hz
		31	1100 Hz
		32	1110 Hz
		33	1120 Hz
		34	1130 Hz
		35	1140 Hz
		36	1150 Hz
		37	1160 Hz

CH	Function	DMX	Description
17	Function (continued)	38	1170 Hz
		39	1180 Hz
		40	1190 Hz
		41	1210 Hz
		42	1220 Hz
		43	1230 Hz
		44	1240 Hz
		45	1250 Hz
		46	1260 Hz
		47	1270 Hz
		48	1280 Hz
		49	1290 Hz
		50	1300 Hz
		51	1310 Hz
		52	1320 Hz
		53	1330 Hz
		54	1340 Hz
		55	1350 Hz
		56	1360 Hz
		57	1370 Hz
		58	1380 Hz
		59	1390 Hz
		60	1400 Hz
		61	1410 Hz
		62	1420 Hz
		63	1430 Hz
		64	1440 Hz
		65	1450 Hz
		66	1460 Hz
		67	1470 Hz
		68	1480 Hz
		69	1490 Hz
		70	1500 Hz
		71	2500 Hz
		72	4000 Hz
		73	5000 Hz
		74	6000 Hz
		75	10000 Hz
		76	15000 Hz
		77	20000 Hz
		78	25000 Hz
		79	Disable LED refresh Rates

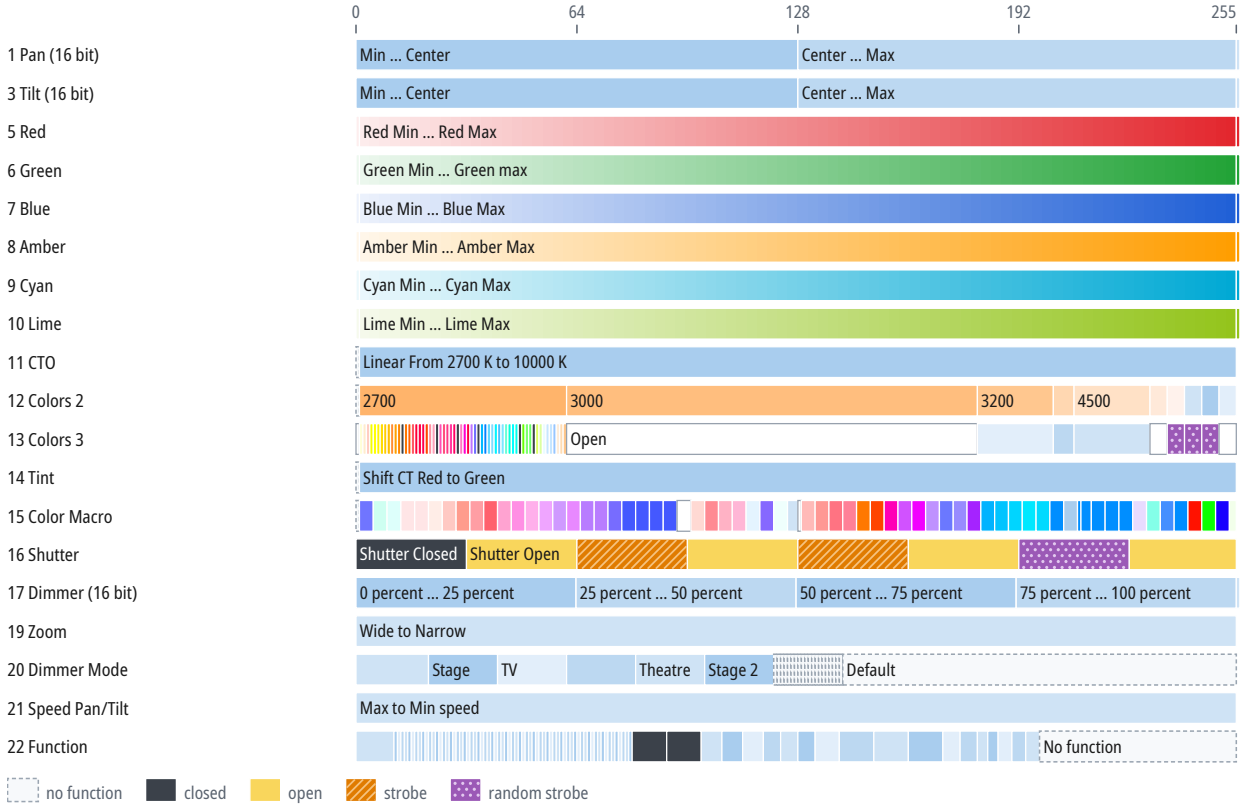
CH	Function	DMX	Description
17	Function (continued)	80–89	Enable blackout while pan/tilt moving
		90–99	Disable blackout while pan/tilt moving
		100–105	Fan Mode Low (hold 3s)
		106–111	Fan Mode High (hold 3s)
		112–117	Fan Mode Auto (hold 3s)
		118–122	Enable Pan Invert (hold 3s)
		123–127	Disable Pan Invert (hold 3s)
		128–132	Enable Tilt Invert (hold 3s)
		133–139	Disable Tilt Invert (hold 3s)
		140–149	Reset All
		150–159	Reset Pan/Tilt
		160–169	Reset Effect
		170–174	Enable Zoom Speed Fast
		175–179	Disable Zoom Speed Fast
		180–182	Enable White Calibration (hold 3s)
		183–185	Disable White Calibration (hold 3s)
		186–189	Fan Mode Mute (hold 3s)
		190–193	Enable Zoom Mode 2 (hold 2s)
		194–197	Disable Zoom Mode 2 (hold 3s)
		198–255	No function

Mode Standard

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 16 Shutter at 32–63 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Red 255, CH 6 Green 255, CH 7 Blue 255, CH 13 Colors 3 0, CH 16 Shutter 63, CH 17 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–128	Min ... Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–128	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Red		Same as CH 3 in the mode “Basic” (p. 14)
6	Green	0	Green Min
		1–254	Green Min ... Green max
		255	Green max
7	Blue		Same as CH 5 in the mode “Basic” (p. 14)
8	Amber		Same as CH 6 in the mode “Basic” (p. 15)
9	Cyan		Same as CH 7 in the mode “Basic” (p. 15)

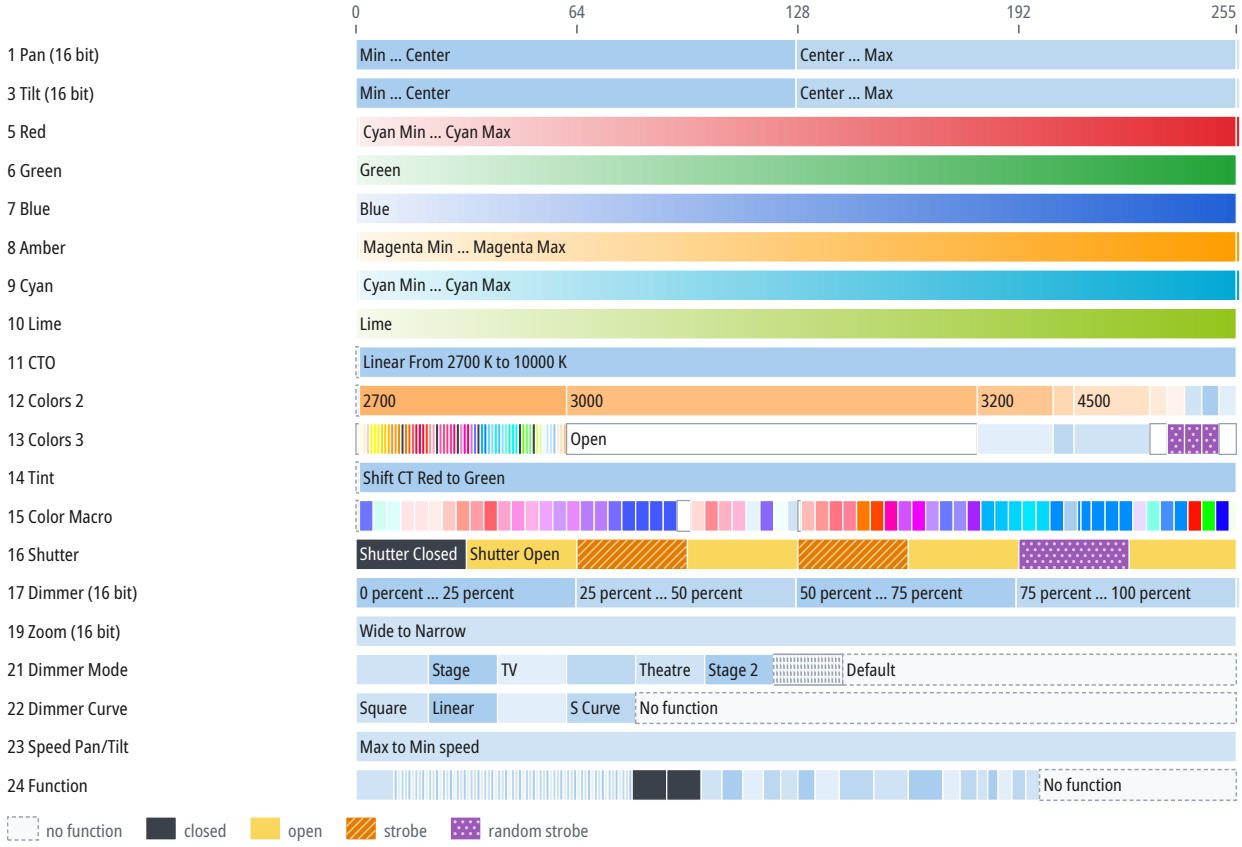
CH	Function	DMX	Description
10	Lime		Same as CH 8 in the mode “Basic” (p. 15)
11	CTO		Same as CH 9 in the mode “Basic” (p. 15)
12	Colors 2		Same as CH 10 in the mode “Basic” (p. 15)
13	Colors 3		Same as CH 11 in the mode “Basic” (p. 15)
14	Tint		Color Temp Red 2 Green
		0	NO Function
		1–255	Shift CT Red to Green
15	Color Macro		Same as CH 12 in the mode “Basic” (p. 17)
16	Shutter		Same as CH 13 in the mode “Basic” (p. 18)
17	Dimmer	0–63	0 percent ... 25 percent
		63	25 percent
		64–127	25 percent ... 50 percent
		127	50 percent
		128–191	50 percent ... 75 percent
		191	75 percent
		192–255	75 percent ... 100 percent
		255	100 percent
18	Dimmer Fine	0–255	Fine adjustment of CH 17
19	Zoom	0–255	Wide to Narrow (41–9°)
20	Dimmer Mode	0–20	Default to unit setting
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–120	Stage 2
		121	0/1s Delay
		122	0/2s Delay
		123	0/3s Delay
		124	0/4s Delay
		125	0/5s Delay
		126	0/6s Delay
		127	0/7s Delay
		128	0/8s Delay
		129	0/9s Delay
		130	1s Delay
		131	1/5s Delay
		132–140	2...10s Delay
		141–255	Default
21	Speed Pan/Tilt		Same as CH 16 in the mode “Basic” (p. 19)
22	Function		Same as CH 17 in the mode “Basic” (p. 19)

Mode Ext

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 16 Shutter at 32–63 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Red 255, CH 6 Green 255, CH 7 Blue 255, CH 13 Colors 3 0, CH 16 Shutter 63, CH 17 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Red	0	Cyan Min
		1–254	Cyan Min ... Cyan Max
		255	Cyan Max
6	Green	0–255	Green
7	Blue	0–255	Blue
8	Amber	0	Magenta Min

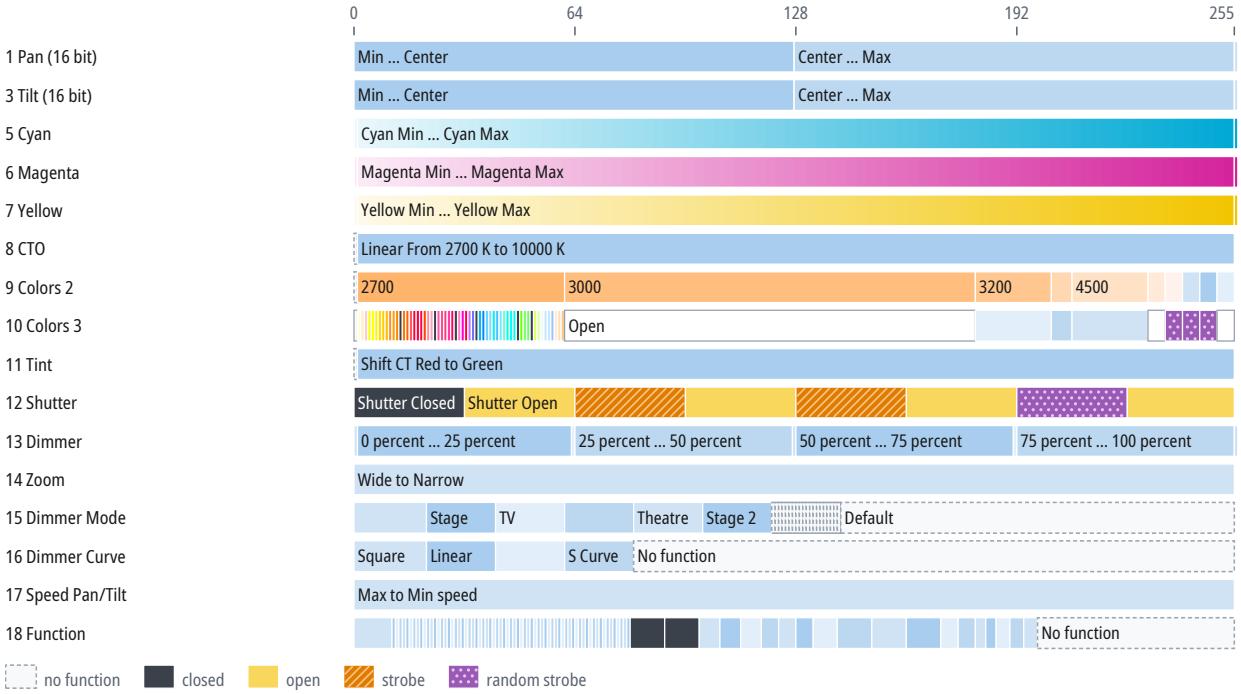
CH	Function	DMX	Description
8	Amber (continued)	1–254	Magenta Min ... Magenta Max
		255	Magenta Max
9	Cyan		Same as CH 7 in the mode “Basic” (p. 15)
10	Lime	0–255	Lime
11	CTO		Same as CH 9 in the mode “Basic” (p. 15)
12	Colors 2		Same as CH 10 in the mode “Basic” (p. 15)
13	Colors 3		Same as CH 11 in the mode “Basic” (p. 15)
14	Tint		Same as CH 14 in the mode “Standard” (p. 23)
15	Color Macro		Same as CH 12 in the mode “Basic” (p. 17)
16	Shutter		Same as CH 13 in the mode “Basic” (p. 18)
17	Dimmer		Same as CH 17 in the mode “Standard” (p. 23)
18	Dimmer Fine	0–255	Fine adjustment of CH 17
19	Zoom	0–255	Wide to Narrow (41–9°)
20	Zoom Fine	0–255	Fine adjustment of CH 19
21	Dimmer Mode		Same as CH 20 in the mode “Standard” (p. 23)
22	Dimmer Curve		Dimmer Curves
		0–20	Square
		21–40	Linear
		41–60	Inverted Square
		61–80	S Curve
		81–255	No function
23	Speed Pan/Tilt		Same as CH 16 in the mode “Basic” (p. 19)
24	Function		Same as CH 17 in the mode “Basic” (p. 19)

Mode St CMY

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 12 Shutter at 32–63 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 10 Colors 3 0, CH 12 Shutter 63, CH 13 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Ext” (p. 24)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Ext” (p. 24)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0	Cyan Min
		1–254	Cyan Min ... Cyan Max
		255	Cyan Max
6	Magenta	0	Magenta Min
		1–254	Magenta Min ... Magenta Max
		255	Magenta Max
7	Yellow	0	Yellow Min
		1–254	Yellow Min ... Yellow Max
		255	Yellow Max
8	CTO		Same as CH 9 in the mode “Basic” (p. 15)
9	Colors 2		Same as CH 10 in the mode “Basic” (p. 15)
10	Colors 3		Same as CH 11 in the mode “Basic” (p. 15)
11	Tint		Same as CH 14 in the mode “Standard” (p. 23)
12	Shutter		Same as CH 13 in the mode “Basic” (p. 18)

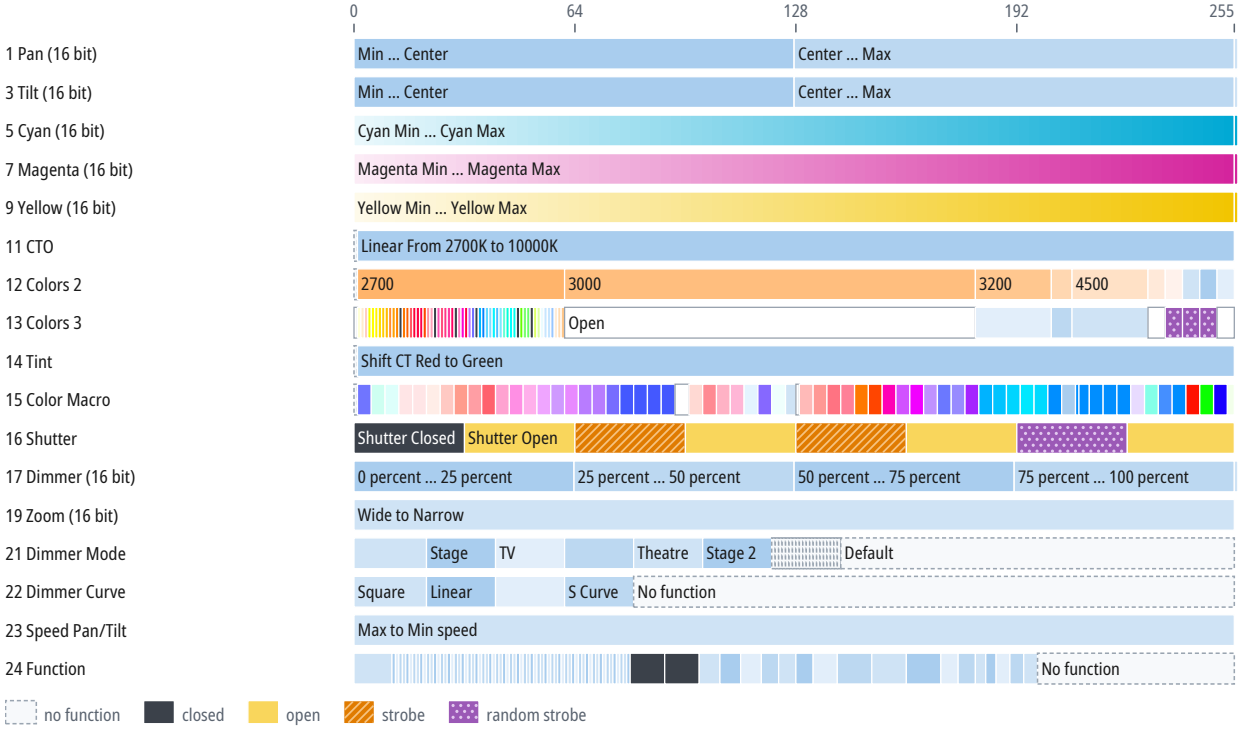
CH	Function	DMX	Description
13	Dimmer		Same as CH 14 in the mode “Basic” (p. 19)
14	Zoom	0–255	Wide to Narrow (41–9°)
15	Dimmer Mode		Same as CH 20 in the mode “Standard” (p. 23)
16	Dimmer Curve		Same as CH 22 in the mode “Ext” (p. 25)
17	Speed Pan/Tilt		Same as CH 16 in the mode “Basic” (p. 19)
18	Function		Same as CH 17 in the mode “Basic” (p. 19)

Mode Ext CMY

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 16 Shutter at 32–63 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 13 Colors 3 0, CH 16 Shutter 63, CH 17 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Ext” (p. 24)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Ext” (p. 24)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0–255	Cyan Min ... Cyan Max
		255	Cyan Max
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta	0–255	Magenta Min ... Magenta Max
		255	Magenta Max
8	Magenta Fine	0–255	Fine adjustment of CH 7

CH	Function	DMX	Description
9	Yellow	0–255	Yellow Min ... Yellow Max
		255	Yellow Max
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	CTO		Color Temp Linear 2700 K to 10000 K
		0	Off
		1–255	Linear From 2700K to 10000K (2700–10000 K)
12	Colors 2		Same as CH 10 in the mode “Basic” (p. 15)
13	Colors 3		Same as CH 11 in the mode “Basic” (p. 15)
14	Tint		Same as CH 14 in the mode “Standard” (p. 23)
15	Color Macro		Same as CH 12 in the mode “Basic” (p. 17)
16	Shutter		Same as CH 13 in the mode “Basic” (p. 18)
17	Dimmer		Same as CH 17 in the mode “Standard” (p. 23)
18	Dimmer Fine	0–255	Fine adjustment of CH 17
19	Zoom	0–255	Wide to Narrow (41–9°)
20	Zoom Fine	0–255	Fine adjustment of CH 19
21	Dimmer Mode		Same as CH 20 in the mode “Standard” (p. 23)
22	Dimmer Curve		Same as CH 22 in the mode “Ext” (p. 25)
23	Speed Pan/Tilt		Same as CH 16 in the mode “Basic” (p. 19)
24	Function		Same as CH 17 in the mode “Basic” (p. 19)

10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	400 W
Luminous flux	4,600 lm
Color temperature	6,500 K
Color rendering index (CRI)	94
Optics	
Zoom	9–41°
Movement	
Pan	540°
Tilt	270°
Dimensions and construction	
Weight	10.7 kg
Operating environment	
Operating temperature	-15 to 45 °C

Speeds and ranges

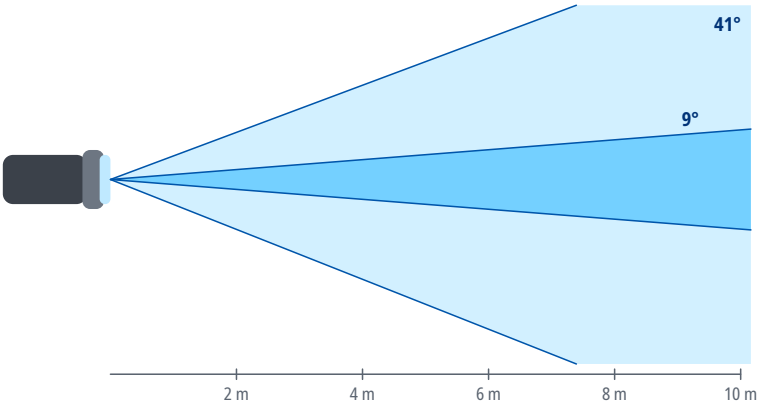
Parameter	Value
Color temperature range	2700–10000 K
Strobe frequency	1–10 Hz
Color wheel 1 rotation	up to 7200 °/s (1200 rpm)

Dimensions

weight 10.7 kg



Spot diameter



Distance	Ø 9°	Ø 41°
2 m	0.31 m	1.5 m
4 m	0.63 m	3 m
6 m	0.94 m	4.5 m
8 m	1.3 m	6 m
10 m	1.6 m	7.5 m
15 m	2.4 m	11.2 m

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

11 Maintenance and cleaning

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

12 Troubleshooting

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

13 Disposal

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

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

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

Recycle the packaging materials according to their type.