DMX REFERENCE

JWash400

JWash400 RGBW

Sagitter



Manufacturer	Sagitter
GDTF file	Sagitter_JWash400_137737.gdtf
GDTF revision	08/04/26v2 · 2026-04-08
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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 9
Mode 43 Ch 10
Mode 31 Ch 15
Mode 25 Ch 17
10 Technical specifications 18
11 Maintenance and cleaning 19
12 Troubleshooting 19
13 Disposal 20

1 About this manual

This document describes the JWash400 RGBW by Sagitter. It was compiled from the GDTF file Sagitter_JWash400_137737.gdtf from the GDTF-Share library.

File revision: “08/04/26v2”.

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 Sagitter; 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	850 W
Weight	12 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
43 Ch	43	11	1, 44, 87, 130, ...
31 Ch	31	16	1, 32, 63, 94, ...
25 Ch	25	20	1, 26, 51, 76, ...

No light? Check these channels

- 43 Ch: CH 6 Dimmer 1 above 0; CH 7 Strobe 1 at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 30 Dimmer 2 above 0; CH 39 Dimmer 3 above 0; CH 40 Dimmer 4 above 0
- 31 Ch: CH 6 Dimmer 1 above 0; CH 7 Strobe 1 at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 18 Dimmer 2 above 0; CH 27 Dimmer 3 above 0; CH 28 Dimmer 4 above 0
- 25 Ch: CH 6 Dimmer 1 above 0; CH 7 Strobe 1 at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 18 Dimmer 2 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.

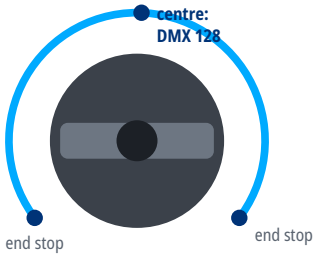
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

Range of movement

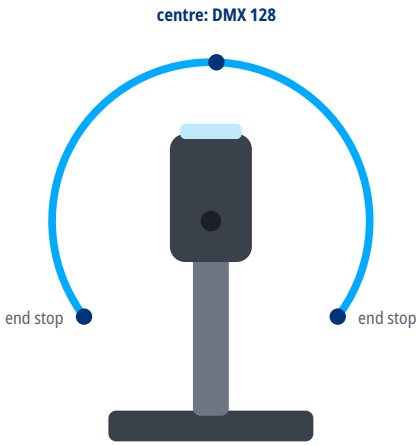
Pan 254°

top view



Tilt 254°

side view



5 Installation

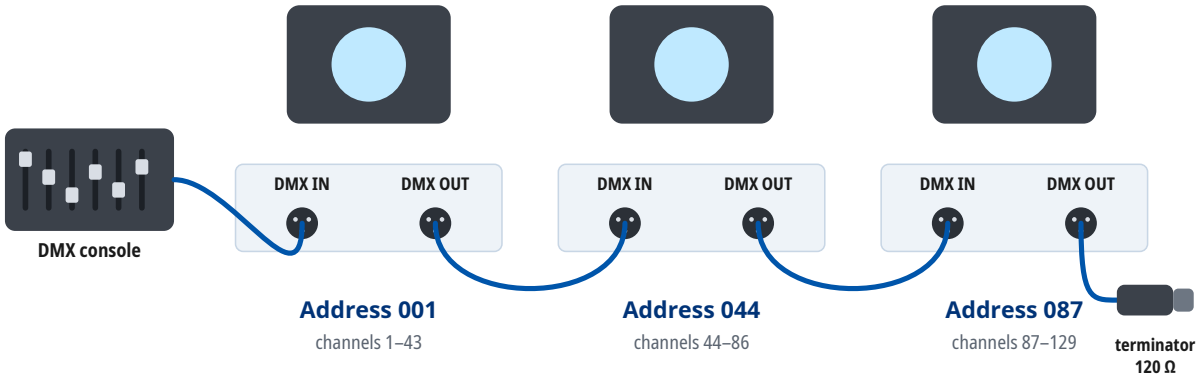
⚠ WARNING

- 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: 12 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 43 Ch: every unit occupies 43 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

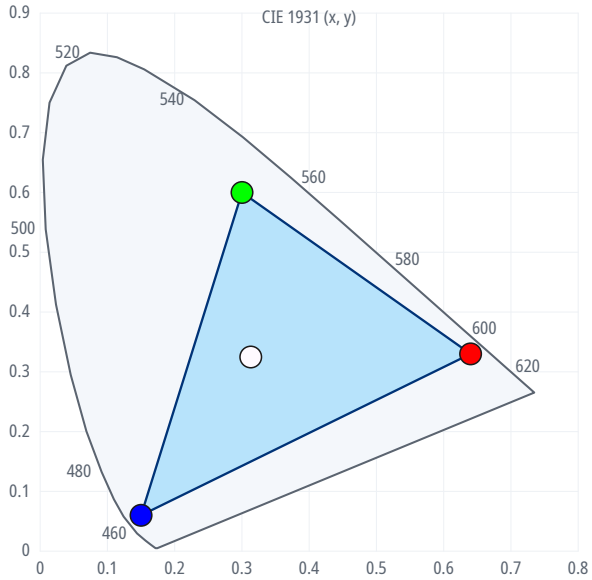
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “43 Ch”: 43.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “43 Ch”, you can use, for example, the start addresses 1, 44, 87, 130.
- 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

	43 Ch 43 channels	31 Ch 31 channels	25 Ch 25 channels
Pan / Tilt	1, 3	1, 3	1, 3
Dimmer	6, 30, 39, 40	6, 18, 27, 28	6, 18
Shutter / strobe	7, 31	7, 19	7, 19
Color mixing	22 channels (8–43)	8–11, 20–22, 29–31	8–11, 20–22
Color temperature	14	14	14
Zoom	12	12	12
Effects / macros	13, 15, 16, 35–38	13, 15, 16, 23–26	13, 15, 16, 23–25
Pixel control	✓	✓	

LED colors and the colors they mix

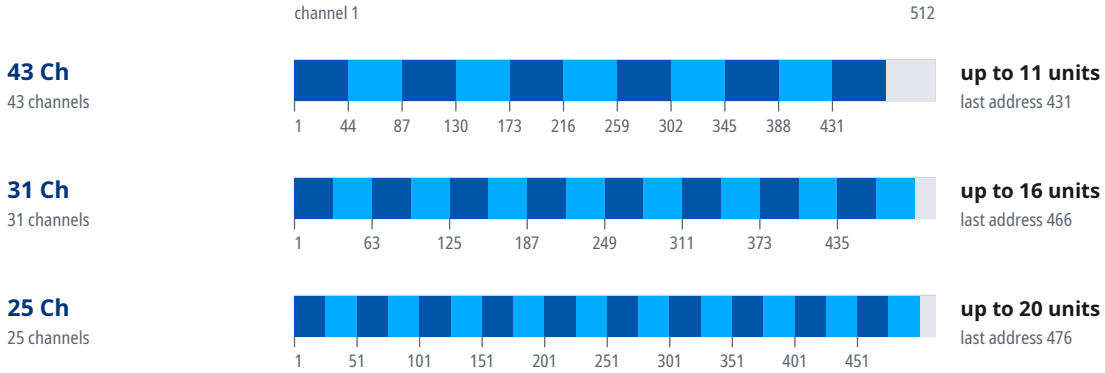


LED	x	y
White	0.313	0.325
Red	0.640	0.330
Green	0.300	0.600
Blue	0.150	0.060

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

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “43 Ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	216	11	431	16	U2 · 173
2	44	7	259	12	U2 · 1	17	U2 · 216
3	87	8	302	13	U2 · 44	18	U2 · 259
4	130	9	345	14	U2 · 87	19	U2 · 302
5	173	10	388	15	U2 · 130	20	U2 · 345

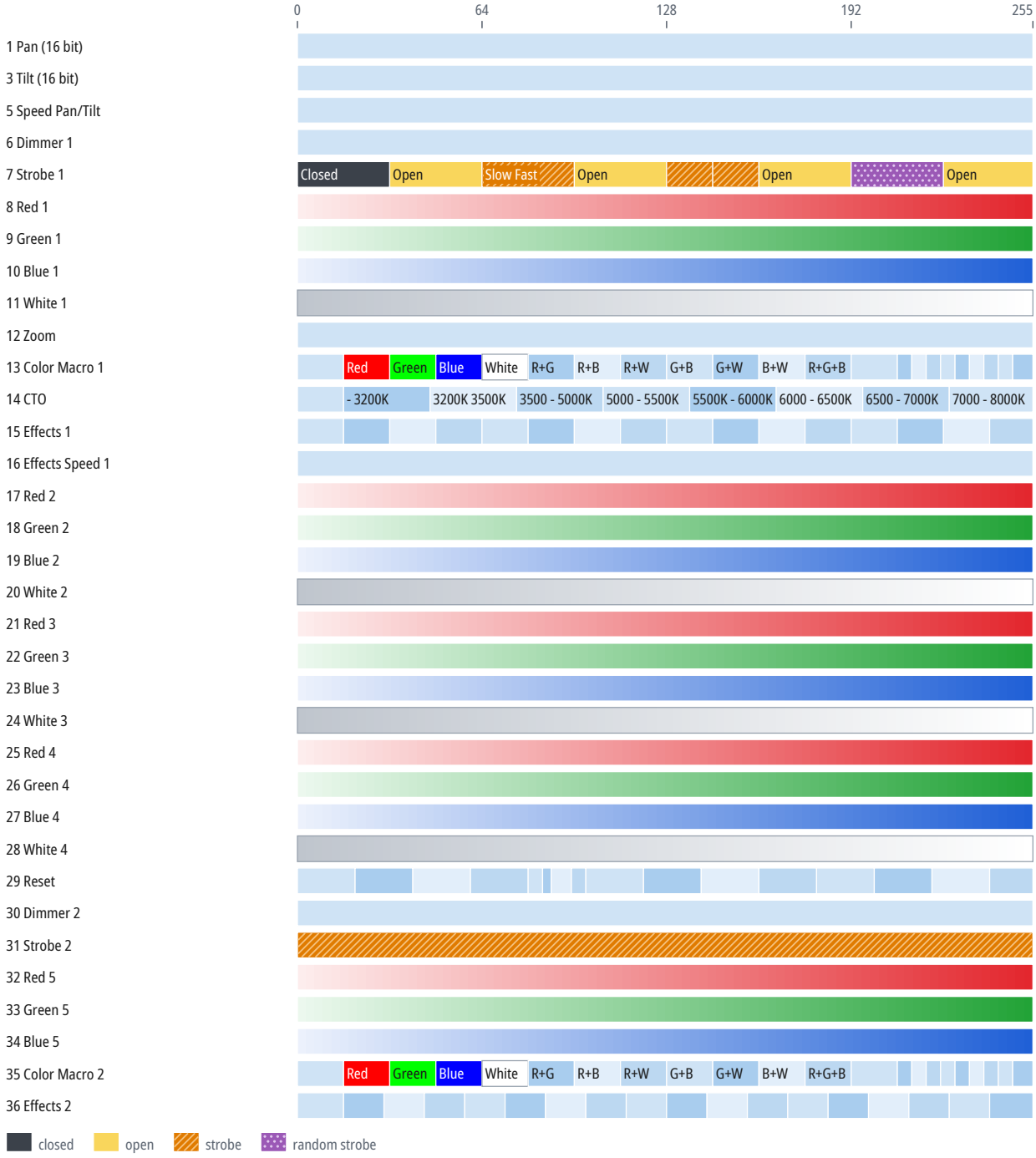
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 43 Ch

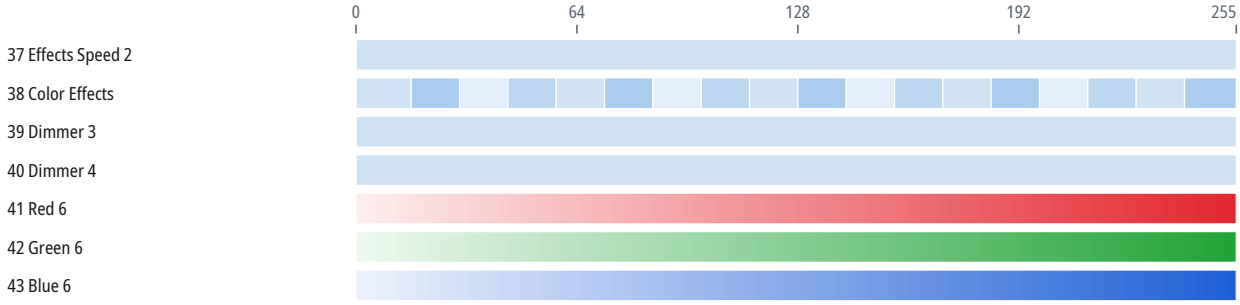
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 6 Dimmer 1 above 0; CH 7 Strobe 1 at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 30 Dimmer 2 above 0; CH 39 Dimmer 3 above 0; CH 40 Dimmer 4 above 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–255	254°
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	254°
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Dimmer 1	0–255	
7	Strobe 1	0–31	Closed
		32–63	Open
		64–95	Slow Fast
		96–127	Open
		128–143	Pulse In Slow Fast
		144–159	Pulse Out Slow Fast
		160–191	Open
		192–223	Random Slow Fast
		224–255	Open
8	Red 1	0–255	
9	Green 1	0–255	
10	Blue 1	0–255	
11	White 1	0–255	
12	Zoom	0–255	
13	Color Macro 1	0–15	No Functions
		16–31	Red
		32–47	Green
		48–63	Blue
		64–79	White
		80–95	R+G
		96–111	R+B
		112–127	R+W
		128–143	G+B
		144–159	G+W
		160–175	B+W
		176–191	R+G+B

CH	Function	DMX	Description
13	Color Macro 1 (continued)	192–207	R+G+B+W
		208–212	2700K
		213–217	3200K
		218–222	3500K
		223–227	5000K
		228–232	5500K
		233–237	6000K
		238–242	6500K
		243–247	7000K
		248–255	8000K
14	CTO	0–15	No Functions
		16–45	- 3200K
		46–75	3200K 3500K
		76–105	3500 - 5000K
		106–135	5000 - 5500K
		136–165	5500K - 6000K
		166–195	6000 - 6500K
		196–225	6500 - 7000K
		226–255	7000 - 8000K
15	Effects 1	0–15	No Functions
		16–31	Macro 1
		32–47	Macro 2
		48–63	Macro 3
		64–79	Macro 4
		80–95	Macro 5
		96–111	Macro 6
		112–127	Macro 7
		128–143	Macro 8
		144–159	Macro Sound 1
		160–175	Macro Sound 2
		176–191	Macro Sound 3
		192–207	Macro Sound 4
		208–223	Macro Sound 5
		224–239	Macro Sound 6
		240–255	Macro Sound 7
16	Effects Speed 1	0–255	
17	Red 2	0–255	
18	Green 2	0–255	
19	Blue 2	0–255	
20	White 2	0–255	
21	Red 3	0–255	
22	Green 3	0–255	

CH	Function	DMX	Description
23	Blue 3	0–255	
24	White 3	0–255	
25	Red 4	0–255	
26	Green 4	0–255	
27	Blue 4	0–255	
28	White 4	0–255	
29	Reset	0–79	No Functions
		80–84	Reset Motors
		85–87	Reset P/T
		88–94	Reset P/T ... Reset Zoom
		95–99	Reset Zoom
		100–119	Program 1
		120–139	Program 2
		140–159	Program 3
		160–179	Program 4
		180–199	Program 5
		200–219	Program 6
		220–239	Program 7
		240–255	Program Sound
30	Dimmer 2	0–255	
31	Strobe 2	0–255	
32	Red 5	0–255	
33	Green 5	0–255	
34	Blue 5	0–255	
35	Color Macro 2	0–15	No Functions
		16–31	Red
		32–47	Green
		48–63	Blue
		64–79	White
		80–95	R+G
		96–111	R+B
		112–127	R+W
		128–143	G+B
		144–159	G+W
		160–175	B+W
		176–191	R+G+B
		192–207	R+G+B+W
		208–212	2700K
		213–217	3200K
		218–222	3500K
		223–227	5000K
		228–232	5500K

CH	Function	DMX	Description
35	Color Macro 2 (continued)	233–237	6000K
		238–242	6500K
		243–247	7000K
		248–255	8000K
36	Effects 2	0–15	No Functions
		16–29	Dynamic Macro 1
		30–43	Dynamic Macro 2
		44–57	Dynamic Macro 3
		58–71	Dynamic Macro 4
		72–85	Dynamic Macro 5
		86–99	Dynamic Macro 6
		100–113	Dynamic Macro 7
		114–127	Dynamic Macro 8
		128–141	Dynamic Macro 9
		142–155	Dynamic Macro 10
		156–169	Dynamic Macro 11
		170–183	Dynamic Macro 12
		184–197	Dynamic Macro 13
		198–211	Dynamic Macro 14
		212–225	Dynamic Macro 16
		226–239	Dynamic Macro 17
		240–255	Dynamic Macro 18
37	Effects Speed 2	0–255	
38	Color Effects	0–15	No Functions
		16–29	Dynamic Macro 1
		30–43	Dynamic Macro 2
		44–57	Dynamic Macro 3
		58–71	Dynamic Macro 4
		72–85	Dynamic Macro 5
		86–99	Dynamic Macro 6
		100–113	Dynamic Macro 7
		114–127	Dynamic Macro 8
		128–141	Dynamic Macro 9
		142–155	Dynamic Macro 10
		156–169	Dynamic Macro 11
		170–183	Dynamic Macro 12
		184–197	Dynamic Macro 13
		198–211	Dynamic Macro 14
		212–225	Dynamic Macro 16
		226–239	Dynamic Macro 17
		240–255	Dynamic Macro 18
39	Dimmer 3	0–255	

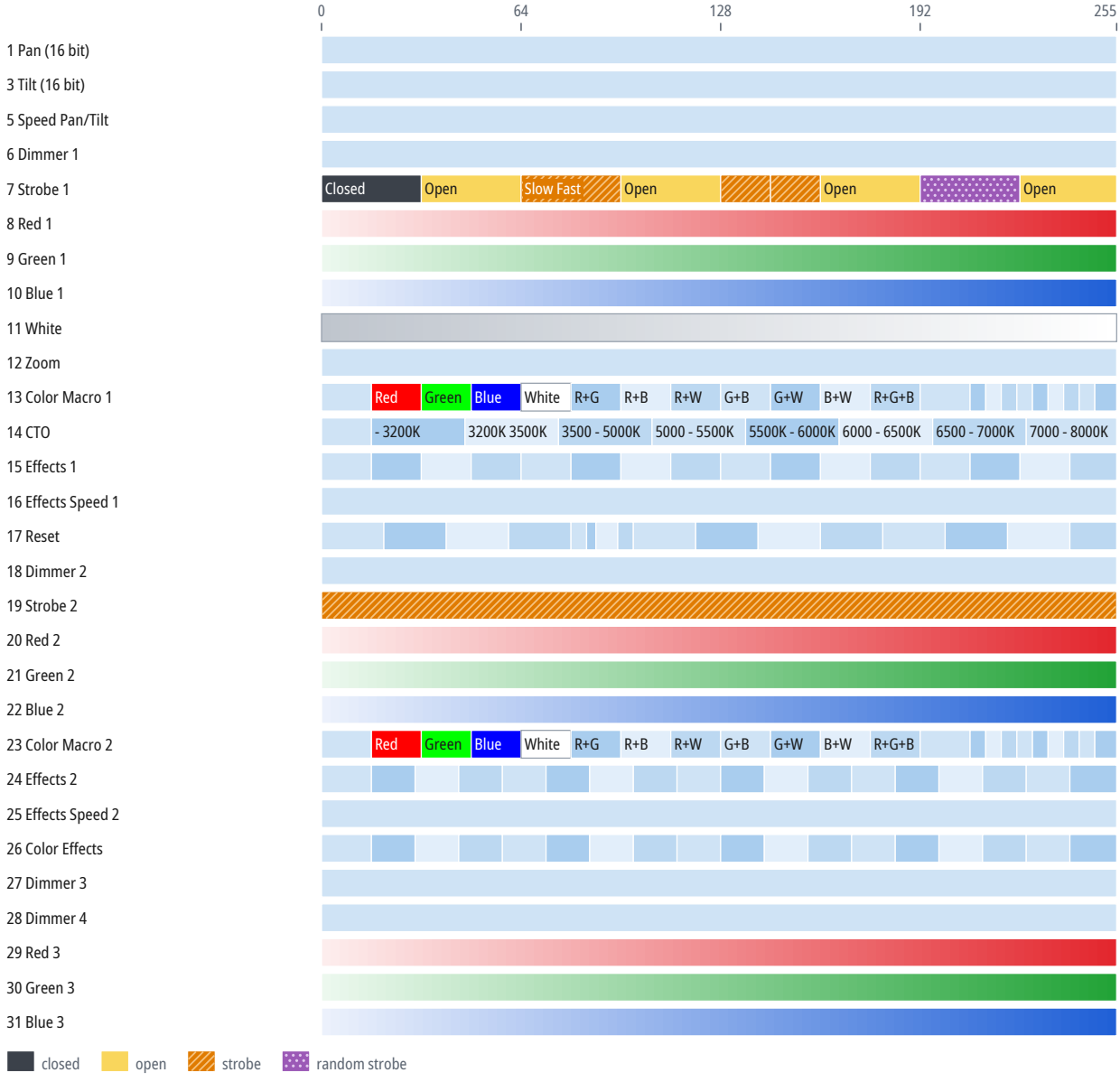
CH	Function	DMX	Description
40	Dimmer 4	0–255	
41	Red 6	0–255	
42	Green 6	0–255	
43	Blue 6	0–255	

Mode 31 Ch

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 6 Dimmer 1 above 0; CH 7 Strobe 1 at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 18 Dimmer 2 above 0; CH 27 Dimmer 3 above 0; CH 28 Dimmer 4 above 0.

Channel functions at a glance



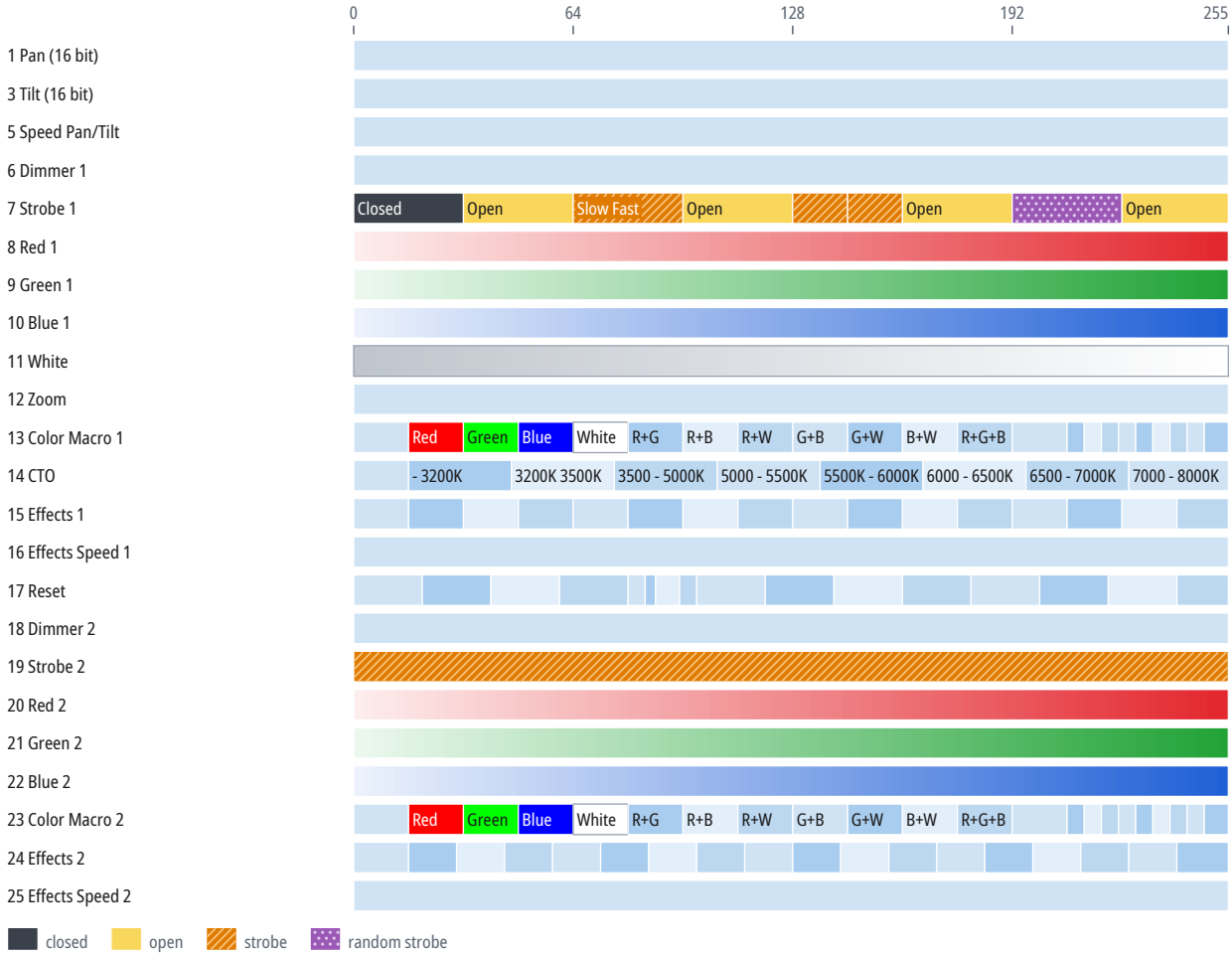
CH	Function	DMX	Description
1	Pan	0–255	254°
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	254°
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Dimmer 1	0–255	
7	Strobe 1		Same as CH 7 in the mode “43 Ch” (p. 11)
8	Red 1	0–255	
9	Green 1	0–255	
10	Blue 1	0–255	
11	White	0–255	
12	Zoom	0–255	
13	Color Macro 1		Same as CH 13 in the mode “43 Ch” (p. 11)
14	CTO		Same as CH 14 in the mode “43 Ch” (p. 12)
15	Effects 1		Same as CH 15 in the mode “43 Ch” (p. 12)
16	Effects Speed 1	0–255	
17	Reset		Same as CH 29 in the mode “43 Ch” (p. 13)
18	Dimmer 2	0–255	
19	Strobe 2	0–255	
20	Red 2	0–255	
21	Green 2	0–255	
22	Blue 2	0–255	
23	Color Macro 2		Same as CH 35 in the mode “43 Ch” (p. 13)
24	Effects 2		Same as CH 36 in the mode “43 Ch” (p. 14)
25	Effects Speed 2	0–255	
26	Color Effects		Same as CH 38 in the mode “43 Ch” (p. 14)
27	Dimmer 3	0–255	
28	Dimmer 4	0–255	
29	Red 3	0–255	
30	Green 3	0–255	
31	Blue 3	0–255	

Mode 25 Ch

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 6 Dimmer 1 above 0; CH 7 Strobe 1 at 32–63, 96–127, 160–191 or 224–255 “Open”; CH 18 Dimmer 2 above 0.

Channel functions at a glance



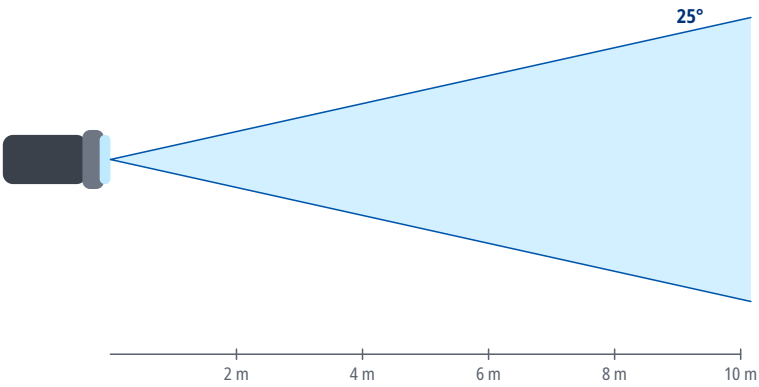
CH	Function	DMX	Description
1	Pan	0–255	254°
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	254°
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Dimmer 1	0–255	
7	Strobe 1		Same as CH 7 in the mode “43 Ch” (p. 11)
8	Red 1	0–255	
9	Green 1	0–255	
10	Blue 1	0–255	
11	White	0–255	
12	Zoom	0–255	

CH	Function	DMX	Description
13	Color Macro 1		Same as CH 13 in the mode “43 Ch” (p. 11)
14	CTO		Same as CH 14 in the mode “43 Ch” (p. 12)
15	Effects 1		Same as CH 15 in the mode “43 Ch” (p. 12)
16	Effects Speed 1	0–255	
17	Reset		Same as CH 29 in the mode “43 Ch” (p. 13)
18	Dimmer 2	0–255	
19	Strobe 2	0–255	
20	Red 2	0–255	
21	Green 2	0–255	
22	Blue 2	0–255	
23	Color Macro 2		Same as CH 35 in the mode “43 Ch” (p. 13)
24	Effects 2		Same as CH 36 in the mode “43 Ch” (p. 14)
25	Effects Speed 2	0–255	

10 Technical specifications

Parameter	Value
Light	
Light source	LED
Movement	
Pan	254°
Tilt	254°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RJ45 connectors	RJ45 IN
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	850 W
Power connectors	powerCON TRUE1 IN/OUT
Dimensions and construction	
Weight	12 kg
Operating environment	
Operating temperature	5 to 40 °C

Spot diameter



Distance	Ø 25°
2 m	0.89 m
4 m	1.8 m
6 m	2.7 m
8 m	3.5 m
10 m	4.4 m
15 m	6.7 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.