DMX REFERENCE

SnowStorm Q19X Wash

Snow Lighting



Manufacturer	Snow Lighting
GDTF file	Snow_Lighting_SnowStorm_Q19X_Wash_137545.gdtf
GDTF revision	SnowStorm Q19X Wash · 2026-04-07
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1 About this manual

This document describes the SnowStorm Q19X Wash by Snow Lighting. It was compiled from the GDTF file Snow_Lighting_SnowStorm_Q19X_Wash_137545.gdtf from the GDTF-Share library.

File revision: “SnowStorm Q19X Wash”.

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 Snow Lighting; 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	21.6 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
SSP	26	19	1, 27, 53, 79, ...
Tour	33	15	1, 34, 67, 100, ...
TR16	38	13	1, 39, 77, 115, ...
HSIC	28	18	1, 29, 57, 85, ...
CMY	32	16	1, 33, 65, 97, ...
Pixel	102	5	1, 103, 205, 307, ...

No light? Check these channels

- SSP: CH 9 Dimmer 1 above 0; CH 10 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 18 Dimmer 2 above 0; CH 25 Dimmer 3 above 0
- Tour: CH 11 Dimmer 1 above 0; CH 12 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 25 Dimmer 2 above 0; CH 32 Dimmer 3 above 0
- TR16: CH 15 Dimmer 1 above 0; CH 17 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 30 Dimmer 2 above 0; CH 37 Dimmer 3 above 0
- HSIC: CH 7 Dimmer 1 above 0; CH 12 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 20 Dimmer 2 above 0; CH 27 Dimmer 3 above 0
- CMY: CH 10 Dimmer 1 above 0; CH 11 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 24 Dimmer 2 above 0; CH 31 Dimmer 3 above 0
- Pixel: CH 14 Dimmer 1 above 0; CH 21 Dimmer 2 above 0; CH 23 Dimmer 3 above 0; CH 24 Shutter at 0–9, 100–109 or 180–189 “Open”


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



5 Installation

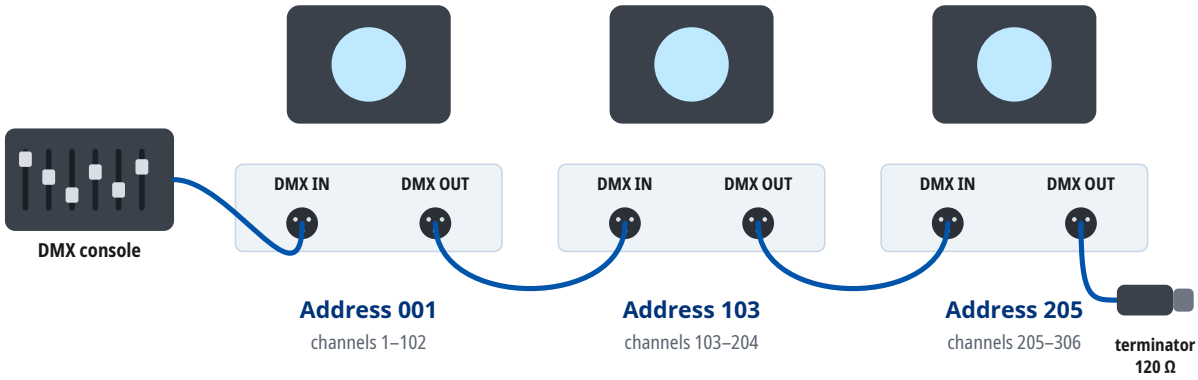
⚠ **WARNING**

- 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: 21.6 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 Pixel: every unit occupies 102 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

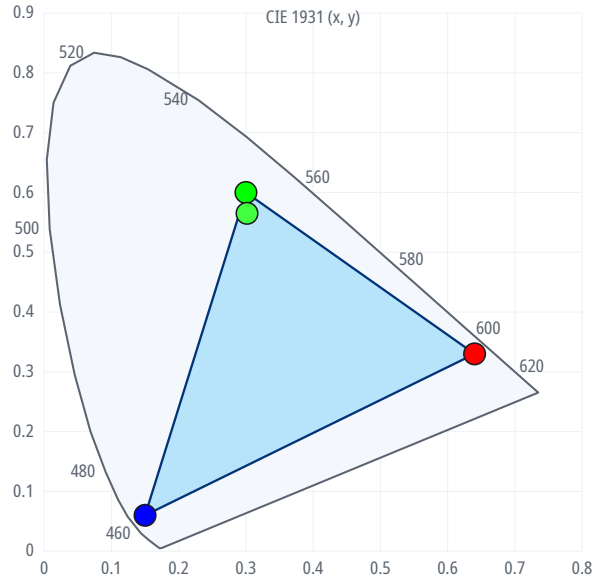
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Pixel”: 102.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “Pixel”, you can use, for example, the start addresses 1, 103, 205, 307.
- 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

	SSP 26 channels	Tour 33 channels	TR16 38 channels	HSIC 28 channels	CMY 32 channels	Pixel 102 channels
Pan / Tilt	**1, 2**	**1, 3**	**1, 3**	**1, 3**	**1, 3**	**1, 3**
Pan / Tilt resolution	8 bit	16 bit	16 bit	16 bit	16 bit	16 bit
Dimmer	**9, 18, 25**	**11, 25, 32**	**15, 30, 37**	**7, 20, 27**	**10, 24, 31**	**14, 21, 23**
Dimmer resolution	8 bit	8 bit	16 bit	8 bit	8 bit	8 bit
Shutter / strobe	**10**	**12**	**17**	**12**	**11**	**24**
Color mixing	**5–8, 12–14, 19–21**	7–10, 19–21, 26–28	**10 channels (7–33)**	**14–16, 21–23**	**7–9, 18–20, 25–27**	8–10, 15–17, 27–102
Color temperature		**14**	**19**	**11**	**13**	**26**
Zoom	**11**	**18**	**23**	**13**	**17**	**7**
Effects / macros	**15–17, 22–24**	10 channels (13–31)	10 channels (18–36)	**17–19, 24–26**	10 channels (12–30)	**11–13, 18–20, 25**
Pixel control						**19 cells**

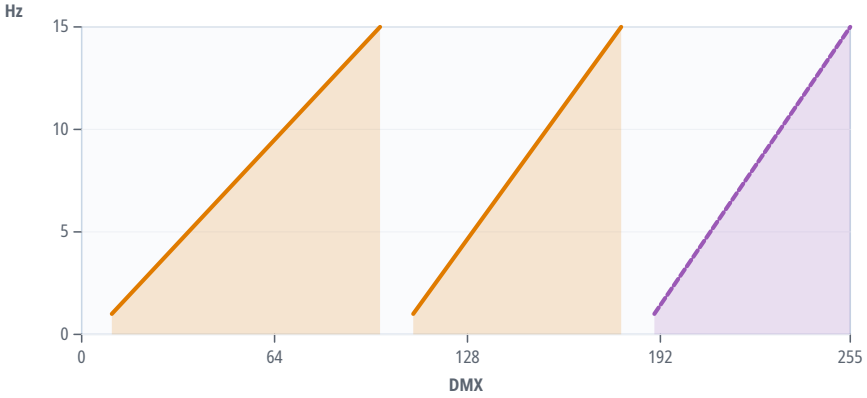
LED colors and the colors they mix



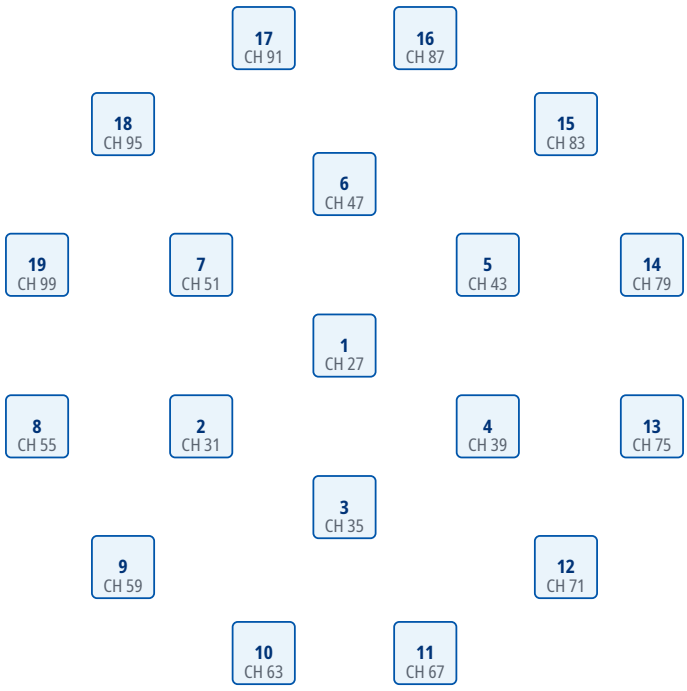
LED	x	y
Red	0.640	0.330
Green	0.300	0.600
Blue	0.150	0.060
Lime	0.302	0.565

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

Strobe rate



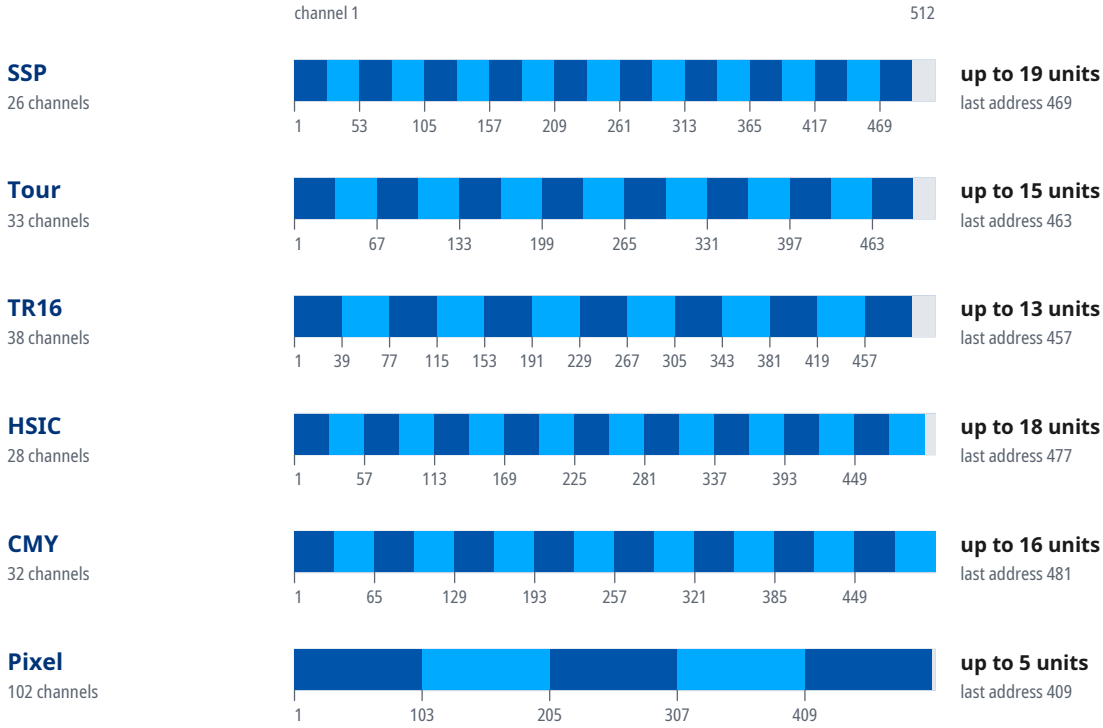
Cells (pixels)



19 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Tour”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Pixel”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 1	11	U3 · 1	16	U4 · 1
2	103	7	U2 · 103	12	U3 · 103	17	U4 · 103
3	205	8	U2 · 205	13	U3 · 205	18	U4 · 205
4	307	9	U2 · 307	14	U3 · 307	19	U4 · 307
5	409	10	U2 · 409	15	U3 · 409	20	U4 · 409

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 SSP

If the device receives DMX in this mode but gives no light, check these channels: CH 9 Dimmer 1 above 0; CH 10 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 18 Dimmer 2 above 0; CH 25 Dimmer 3 above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Red 1 255, CH 6 Green 1 255, CH 7 Blue 1 255, CH 9 Dimmer 1 255, CH 12 Red 2 0, CH 13 Green 2 0, CH 14 Blue 2 0, CH 18 Dimmer 2 255, CH 19 Red 3 0, CH 20 Green 3 0, CH 21 Blue 3 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Pan 1
		128	Home
		129–255	Pan 1
2	Tilt	0–127	Tilt 1
		128	Home
		129–255	Tilt 1
3	Speed Pan/Tilt	0–255	
4	Pan/Tilt Mode		Continuous Rotation

CH	Function	DMX	Description
4	Pan/Tilt Mode (continued)	0–63	Stop rotation by spinout
		64–127	Stop rotation by shortcut
		128–189	Fwd
		190–193	Stop
		194–255	Bwd
5	Red 1	0	Min
		1–254	Min ... Max
		255	Max
6	Green 1	0	Min
		1–254	Min ... Max
		255	Max
7	Blue 1	0	Min
		1–254	Min ... Max
		255	Max
8	Lime	0	Min
		1–254	Min ... Mac
		255	Mac
9	Dimmer 1	0	Closed
		1–254	Closed ... Open
		255	Open
10	Shutter	0–9	Open
		10	Strobe: Slow
		11–44	Strobe: Slow ... Medium
		45	Strobe: Medium
		46–98	Strobe: Medium ... Fast
		99	Strobe: Fast
		100–109	Open
		110	Lightning: Slow
		111–144	Lightning: Slow ... Medium
		145	Lightning: Medium
		146–178	Lightning: Medium ... Fast
		179	Lightning: Fast
		180–189	Open
		190	Random: Slow
		191–224	Random: Slow ... Medium
		225	Random: Medium
		226–254	Random: Medium ... Fast
		255	Random: Fast
11	Zoom	0	Narrow
		1–127	Narrow ... Mid
		128	Mid
		129–254	Mid ... Wide

CH	Function	DMX	Description
11	Zoom (continued)	255	Wide
12	Red 2	0	Min
		1–254	Min ... Max
		255	Max
13	Green 2	0	Min
		1–254	Min ... Max
		255	Max
14	Blue 2	0	Min
		1–254	Min ... Max
		255	Max
15	Color Macro 1	0–9	Open
		10–14	Red
		15–19	Green
		20–24	Blue
		25–29	Yellow
		30–34	Magenta
		35–39	Cyan
		40–44	White
		45–49	Violet Blue
		50–54	Light Blue
		55–59	Wine Red
		60–64	May Green
		65–69	Reseda Green
		70–74	Blue Lilac
		75–79	Moss Green
		80–84	Signal Violet
		85–89	Red Lilac
		90–94	Purple Red
		95–99	Green Brown
		100–104	Pale Green
		105–109	Ruby Red
		110–114	Flame Red
		115–119	Red Orange
		120–124	Rose
		125–129	Honey Yellow
		130–134	Light Pin
		135–139	Deep Orange
		140–144	Lemon
		145–149	Golden Yellow
		150–154	Pastel Orange
		155–159	Cream
		160–164	Melon Yellow

CH	Function	DMX	Description
15	Color Macro 1 (continued)	165–169	Luminous Orange
		170–174	Luminous Yellow
		175–179	Open
		180–248	Stop
		249–255	Open
16	Color Macro 2 1	0–10	Open
		11–20	FX1
		21–30	FX2
		31–40	FX3
		41–50	FX4
		51–60	FX5
		61–70	FX6
		71–80	FX7
		81–90	FX8
		91–100	FX9
		101–110	FX10
		111–120	FX11
		121–130	FX12
		131–140	FX13
		141–150	FX14
		151–160	FX15
		161–170	FX16
		171–180	FX17
		181–190	FX18
		191–200	FX19
		201–210	FX20
		211–255	Open
17	Color Macro 2 Speed 1	0	Slow
		1–254	Slow ... Fast
		255	Fast
18	Dimmer 2	0	Closed
		1–254	Closed ... Open
		255	Open
19	Red 3	0	Min
		1–254	Min ... Max
		255	Max
20	Green 3	0	Min
		1–254	Min ... Max
		255	Max
21	Blue 3	0	Min
		1–254	Min ... Max
		255	Max

CH	Function	DMX	Description
22	Color Macro 2	0–9	Open
		10–14	Red
		15–19	Green
		20–24	Blue
		25–29	Yellow
		30–34	Magenta
		35–39	Cyan
		40–44	White
		45–49	Violet Blue
		50–54	Light Blue
		55–59	Wine Red
		60–64	May Green
		65–69	Reseda Green
		70–74	Blue Lilac
		75–79	Moss Green
		80–84	Signal Violet
		85–89	Red Lilac
		90–94	Purple Red
		95–99	Green Brown
		100–104	Pale Green
		105–109	Ruby Red
		110–114	Flame Red
		115–119	Red Orange
		120–124	Rose
		125–129	Honey Yellow
		130–134	Light Pin
		135–139	Deep Orange
		140–144	Lemon
		145–149	Golden Yellow
		150–154	Pastel Orange
		155–159	Cream
		160–164	Melon Yellow
		165–169	Luminous Orange
		170–174	Luminous Yellow
		175–179	Open
		180–248	Stop
		249–255	Open
23	Color Macro 2 2	0–10	Open
		11–20	FX1
		21–30	FX2
		31–40	FX3
		41–50	FX4

CH	Function	DMX	Description
23	Color Macro 2 2 (continued)	51–60	FX5
		61–70	FX6
		71–80	FX7
		81–90	FX8
		91–100	FX9
		101–110	FX10
		111–120	FX11
		121–130	FX12
		131–140	FX13
		141–150	FX14
		151–160	FX15
		161–170	FX16
		171–180	FX17
		181–190	FX18
		191–200	FX19
		201–210	FX20
		211–255	Open
24	Color Macro 2 Speed 2	0	Slow
		1–254	Slow ... Fast
		255	Fast
25	Dimmer 3	0	Closed
		1–254	Closed ... Open
		255	Open
26	Control	0–10	No Function
		11–20	P/T Black On
		21–30	P/T Black Off
		31–40	Pan Invert On
		41–50	Tilt Invert On
		51–60	P/T Invert Off
		61–70	Studio
		71–80	Live
		81–90	Power
		91–100	Dim4
		101–110	Dim0
		111–120	Linear
		121–130	Square Law
		131–140	Inv Square Law
		141–150	S-Curve
		151–160	1200Hz
		161–170	2400Hz
		171–180	4000Hz
		181–190	6000Hz

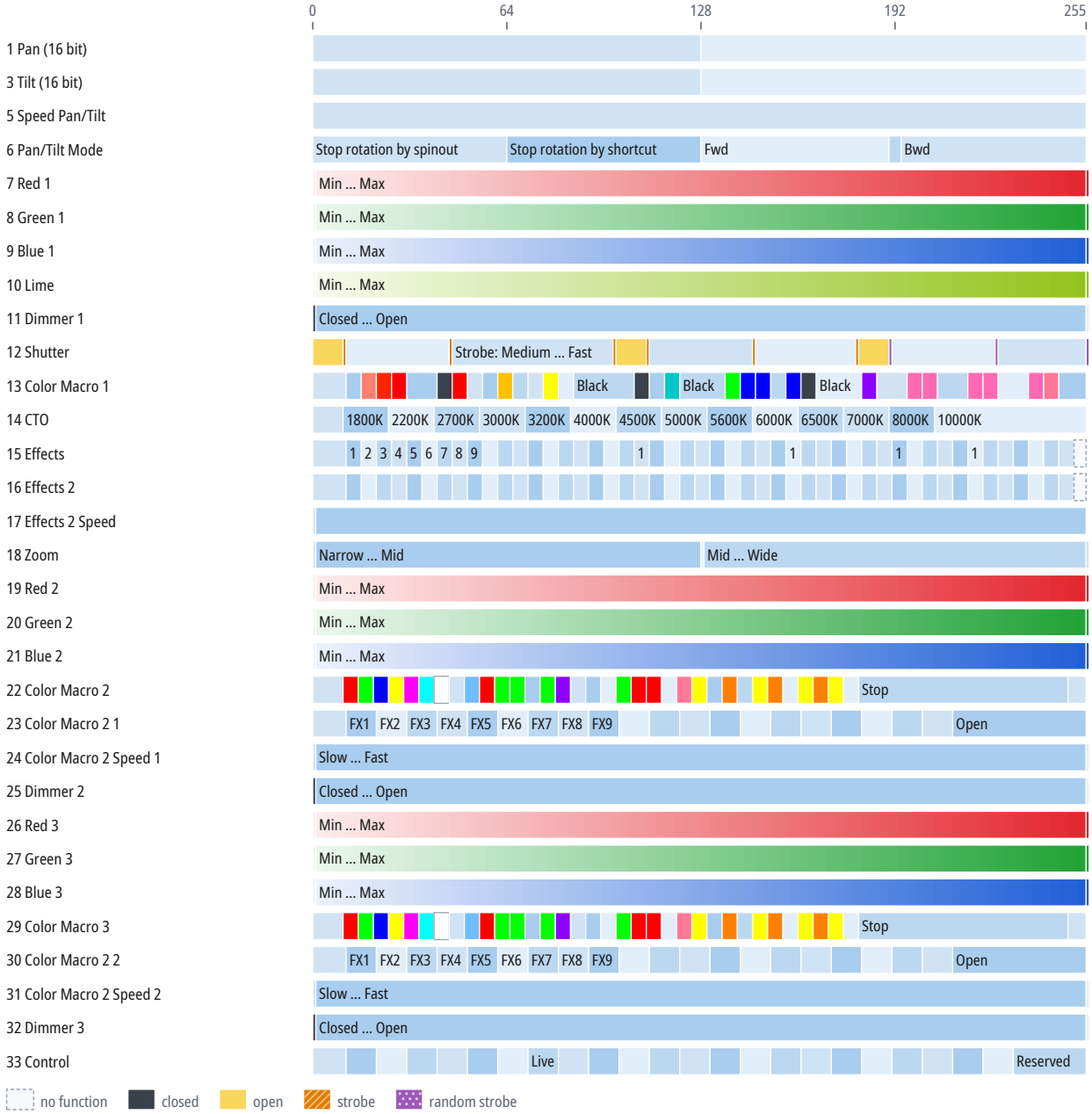
CH	Function	DMX	Description
26	Control (continued)	191–200	25000Hz
		201–210	All Reset
		211–220	XY Reset
		221–230	Zoom Reset
		231–255	Reserved

Mode Tour

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 11 Dimmer 1 above 0; CH 12 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 25 Dimmer 2 above 0; CH 32 Dimmer 3 above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Red 1 255, CH 8 Green 1 255, CH 9 Blue 1 255, CH 11 Dimmer 1 255, CH 19 Red 2 0, CH 20 Green 2 0, CH 21 Blue 2 0, CH 26 Red 3 0, CH 27 Green 3 0, CH 28 Blue 3 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–128	Pan 1
		128	Home
		128–255	Pan 1

CH	Function	DMX	Description
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–128	Tilt 1
		128	Home
		128–255	Tilt 1
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Pan/Tilt Mode		Same as CH 4 in the mode “SSP” (p. 11)
7	Red 1		Same as CH 5 in the mode “SSP” (p. 12)
8	Green 1		Same as CH 6 in the mode “SSP” (p. 12)
9	Blue 1		Same as CH 7 in the mode “SSP” (p. 12)
10	Lime	0	Min
		1–254	Min ... Max
		255	Max
11	Dimmer 1		Same as CH 9 in the mode “SSP” (p. 12)
12	Shutter		Same as CH 10 in the mode “SSP” (p. 12)
13	Color Macro 1	0–10	Open
		11–15	Black
		16–20	R40 Light Salmon
		21–25	L24 Scarlet
		26–30	L164 Flame Red
		31–40	Black
		41–45	L08 Dark Salmon
		46–50	L25 Sunset Red
		51–55	Black
		56–60	L237 CID (To Tungsten)
		61–65	R321 Soft Golden Amber
		66–70	L652 Urban Sodium
		71–75	Black
		76–80	L765 LEE Yellow
		81–85	L513 Ice and a Slice
		86–105	Black
		106–110	L90 Dark Yellow Green
		111–115	Black
		116–120	R92 Turquoise
		121–135	Black
		136–140	L728 Steel Green
		141–145	L117 Steel Blue
		146–150	L354 Special Steel Blue
		151–155	Black
		156–160	L501 New Colour Blue
		161–165	L174 Dark Steel Blue
		166–180	Black

CH	Function	DMX	Description
13	Color Macro 1 (continued)	181–185	L142 Pale Violet
		186–195	Black
		196–200	L794 Pretty'n Pink
		201–205	L328 Follies Pink
		206–215	Black
		216–220	L127 Smokey Pink
		221–225	L192 Flesh Pink
		226–235	Black
		236–240	L157 Pink
		241–245	R332 Cherry Rose
		246–255	Black
14	CTO	0–9	Open
		10–24	1800K
		25–39	2200K
		40–54	2700K
		55–69	3000K
		70–84	3200K
		85–99	4000K
		100–114	4500K
		115–129	5000K
		130–144	5600K
		145–159	6000K
		160–174	6500K
		175–189	7000K
		190–204	8000K
		205–255	10000K
15	Effects		Pixel Effects 1 1
		0–10	Open
		11–15	1
		16–20	2
		21–25	3
		26–30	4
		31–35	5
		36–40	6
		41–45	7
		46–50	8
		51–55	9
		56–60	10
		61–65	11
		66–70	12
		71–75	13
		76–80	14

CH	Function	DMX	Description
15	Effects (continued)	81–85	15
		86–90	16
		91–95	17
		96–100	18
		101–105	19
		106–110	1
		111–115	2-3
		116–120	4-5
		121–125	6-7
		126–130	8-9
		131–135	10-11
		136–140	12-13
		141–145	14-15
		146–150	16-17
		151–155	18-19
		156–160	1
		161–165	2-3-4
		166–170	5-6-7
		171–175	8-9-10
		176–180	11-12-13
		181–185	14-15-16
		186–190	17-18-19
		191–195	1
		196–200	2-3-4-5-6-7
		201–205	8-9-10-11
		206–210	12-13-14-15
		211–215	16-17-18-19
		216–220	1
		221–225	2-8-9
		226–230	3-10-11
		231–235	4-12-13
		236–240	5-14-15
		241–245	6-16-17
		246–250	7-18-19
		251–255	No Function
16	Effects 2	0–10	Open
		11–15	1-19 Run
		16–20	19-1 Run
		21–25	1-19-1 Run
		26–30	1-10 and 19-10 Run
		31–35	Triples Dimmer
		36–40	Reverse Triples Dimmer

CH	Function	DMX	Description
16	Effects 2 (continued)	41–45	1-19 2700K Run
		46–50	19-1 2700K Run
		51–55	1-19-1 2700K Run
		56–60	1-10 and 19-10 2700K Run
		61–65	1-19 6000K Run
		66–70	19-1 6000K Run
		71–75	1-19-1 6000K Run
		76–80	1-10 and 19-10 6000K Run
		81–85	Red Background Green 1-19 Run
		86–90	Red Background Green 19-1 Run
		91–95	Red Background Green 1-19-1 Run
		96–100	Red Background Green 1-10 and 19-10 Run
		101–105	Green Background Blue 1-19 Run
		106–110	Green Background Blue 19-1 Run
		111–115	Green Background Blue 1-19-1 Run
		116–120	Green Background Blue 1-10 and 19-10 Run
		121–125	Blue Background Green 1-19 Run
		126–130	Blue Background Green 19-1 Run
		131–135	Blue Background Green 1-19-1 Run
		136–140	Blue Background Green 1-10 and 19-10 Run
		141–145	Red Background Lime 1-19 Run
		146–150	Red Background Lime 19-1 Run
		151–155	Red Background Lime 1-19-1 Run
		156–160	Red Background Lime 1-10 and 19-10 Run
		161–165	Green Background Lime 1-19 Run
		166–170	Green Background Lime 19-1 Run
		171–175	Green Background Lime 1-19-1 Run
		176–180	Green Background Lime 1-10 and 19-10 Run
		181–185	Blue Background Lime 1-19 Run
		186–190	Blue Background Lime 19-1 Run
		191–195	Blue Background Lime 1-19-1 Run
		196–200	Blue Background Lime 1-10 and 19-10 Run
		201–205	Green Background Red 1-19 Run
		206–210	Green Background Red 19-1 Run
		211–215	Green Background Red 1-19-1 Run
		216–220	Green Background Red 1-10 and 19-10 Run
		221–225	Blue Background Red 1-19 Run
		226–230	Blue Background Red 19-1 Run
		231–235	Blue Background Red 1-19-1 Run
		236–240	Blue Background Red 1-10 and 19-10 Run
		241–245	Ring FX
		246–250	Cycle Operation

CH	Function	DMX	Description
16	Effects 2 (continued)	251–255	No Function
17	Effects 2 Speed	0	Slow
		1–255	Effects 2 Rate 1
18	Zoom		Same as CH 11 in the mode “SSP” (p. 12)
19	Red 2		Same as CH 12 in the mode “SSP” (p. 13)
20	Green 2		Same as CH 13 in the mode “SSP” (p. 13)
21	Blue 2		Same as CH 14 in the mode “SSP” (p. 13)
22	Color Macro 2		Same as CH 22 in the mode “SSP” (p. 15)
23	Color Macro 2 1		Same as CH 16 in the mode “SSP” (p. 14)
24	Color Macro 2 Speed 1		Same as CH 17 in the mode “SSP” (p. 14)
25	Dimmer 2		Same as CH 18 in the mode “SSP” (p. 14)
26	Red 3		Same as CH 19 in the mode “SSP” (p. 14)
27	Green 3		Same as CH 20 in the mode “SSP” (p. 14)
28	Blue 3		Same as CH 21 in the mode “SSP” (p. 14)
29	Color Macro 3	0–9	Open
		10–14	Red
		15–19	Green
		20–24	Blue
		25–29	Yellow
		30–34	Magenta
		35–39	Cyan
		40–44	White
		45–49	Violet Blue
		50–54	Light Blue
		55–59	Wine Red
		60–64	May Green
		65–69	Reseda Green
		70–74	Blue Lilac
		75–79	Moss Green
		80–84	Signal Violet
		85–89	Red Lilac
		90–94	Purple Red
		95–99	Green Brown
		100–104	Pale Green
		105–109	Ruby Red
		110–114	Flame Red
		115–119	Red Orange
		120–124	Rose
		125–129	Honey Yellow
		130–134	Light Pin
		135–139	Deep Orange
		140–144	Lemon

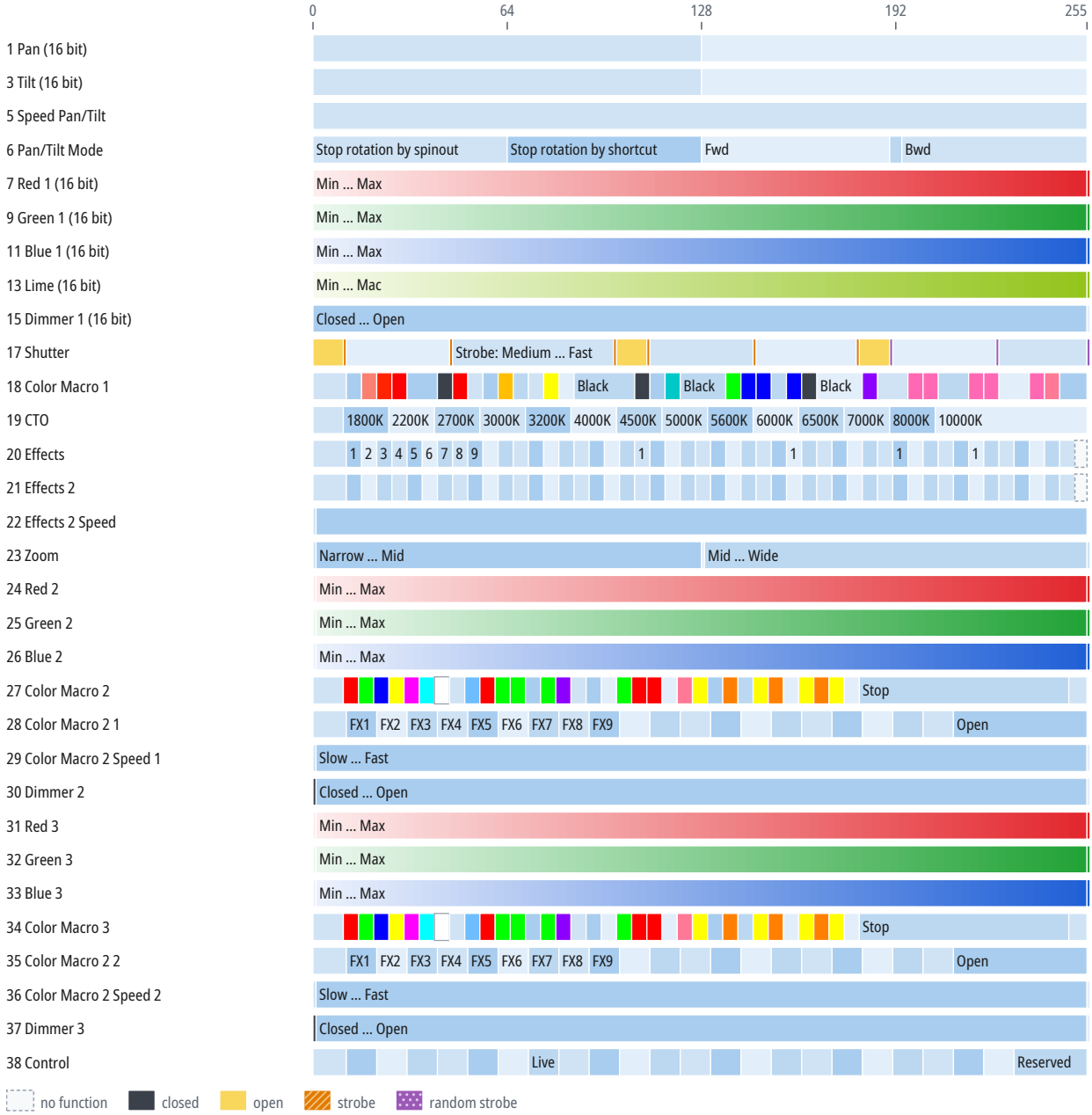
CH	Function	DMX	Description
29	Color Macro 3 (continued)	145–149	Golden Yellow
		150–154	Pastel Orange
		155–159	Cream
		160–164	Melon Yellow
		165–169	Luminous Orange
		170–174	Luminous Yellow
		175–179	Open
		180–248	Stop
		249–255	Open
30	Color Macro 2 2		Same as CH 23 in the mode “SSP” (p. 15)
31	Color Macro 2 Speed 2		Same as CH 24 in the mode “SSP” (p. 16)
32	Dimmer 3		Same as CH 25 in the mode “SSP” (p. 16)
33	Control	0–10	Open
		11–20	P/T Black On
		21–30	P/T Black Off
		31–40	Pan Invert On
		41–50	Tilt Invert On
		51–60	P/T Invert Off
		61–70	Studio
		71–80	Live
		81–90	Power
		91–100	Dim4
		101–110	Dim0
		111–120	Linear
		121–130	Square Law
		131–140	Inv Square Law
		141–150	S-Curve
		151–160	1200Hz
		161–170	2400Hz
		171–180	4000Hz
		181–190	6000Hz
		191–200	25000Hz
		201–210	All Reset
		211–220	XY Reset
		221–230	Zoom Reset
		231–255	Reserved

Mode TR16

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 15 Dimmer 1 above 0; CH 17 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 30 Dimmer 2 above 0; CH 37 Dimmer 3 above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Red 1 255, CH 9 Green 1 255, CH 11 Blue 1 255, CH 15 Dimmer 1 255, CH 24 Red 2 0, CH 25 Green 2 0, CH 26 Blue 2 0, CH 31 Red 3 0, CH 32 Green 3 0, CH 33 Blue 3 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Tour” (p. 18)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Tour” (p. 19)

CH	Function	DMX	Description
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Pan/Tilt Mode		Same as CH 4 in the mode “SSP” (p. 11)
7	Red 1	0–255	Min ... Max
		255	Max
8	Red 1 Fine	0–255	Fine adjustment of CH 7
9	Green 1	0–255	Min ... Max
		255	Max
10	Green 1 Fine	0–255	Fine adjustment of CH 9
11	Blue 1	0–255	Min ... Max
		255	Max
12	Blue 1 Fine	0–255	Fine adjustment of CH 11
13	Lime	0–255	Min ... Mac
		255	Mac
14	Lime Fine	0–255	Fine adjustment of CH 13
15	Dimmer 1	0–255	Closed ... Open
		255	Open
16	Dimmer 1 Fine	0–255	Fine adjustment of CH 15
17	Shutter		Same as CH 10 in the mode “SSP” (p. 12)
18	Color Macro 1		Same as CH 13 in the mode “Tour” (p. 19)
19	CTO		Same as CH 14 in the mode “Tour” (p. 20)
20	Effects		Same as CH 15 in the mode “Tour” (p. 20)
21	Effects 2		Same as CH 16 in the mode “Tour” (p. 21)
22	Effects 2 Speed		Same as CH 17 in the mode “Tour” (p. 23)
23	Zoom		Same as CH 11 in the mode “SSP” (p. 12)
24	Red 2		Same as CH 12 in the mode “SSP” (p. 13)
25	Green 2		Same as CH 13 in the mode “SSP” (p. 13)
26	Blue 2		Same as CH 14 in the mode “SSP” (p. 13)
27	Color Macro 2		Same as CH 22 in the mode “SSP” (p. 15)
28	Color Macro 2 1		Same as CH 16 in the mode “SSP” (p. 14)
29	Color Macro 2 Speed 1		Same as CH 17 in the mode “SSP” (p. 14)
30	Dimmer 2		Same as CH 18 in the mode “SSP” (p. 14)
31	Red 3		Same as CH 19 in the mode “SSP” (p. 14)
32	Green 3		Same as CH 20 in the mode “SSP” (p. 14)
33	Blue 3		Same as CH 21 in the mode “SSP” (p. 14)
34	Color Macro 3		Same as CH 29 in the mode “Tour” (p. 23)
35	Color Macro 2 2		Same as CH 23 in the mode “SSP” (p. 15)
36	Color Macro 2 Speed 2		Same as CH 24 in the mode “SSP” (p. 16)
37	Dimmer 3		Same as CH 25 in the mode “SSP” (p. 16)
38	Control		Same as CH 33 in the mode “Tour” (p. 24)

Mode HSIC

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 7 Dimmer 1 above 0; CH 12 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 20 Dimmer 2 above 0; CH 27 Dimmer 3 above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Dimmer 1 255, CH 14 Red 1 0, CH 15 Green 1 0, CH 16 Blue 1 0, CH 21 Red 2 0, CH 22 Green 2 0, CH 23 Blue 2 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Tour” (p. 18)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Tour” (p. 19)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Pan/Tilt Mode		Same as CH 4 in the mode “SSP” (p. 11)
7	Dimmer 1		Same as CH 9 in the mode “SSP” (p. 12)
8	Hue	0–255	
9	Hue Fine	0–255	Fine adjustment of CH 8

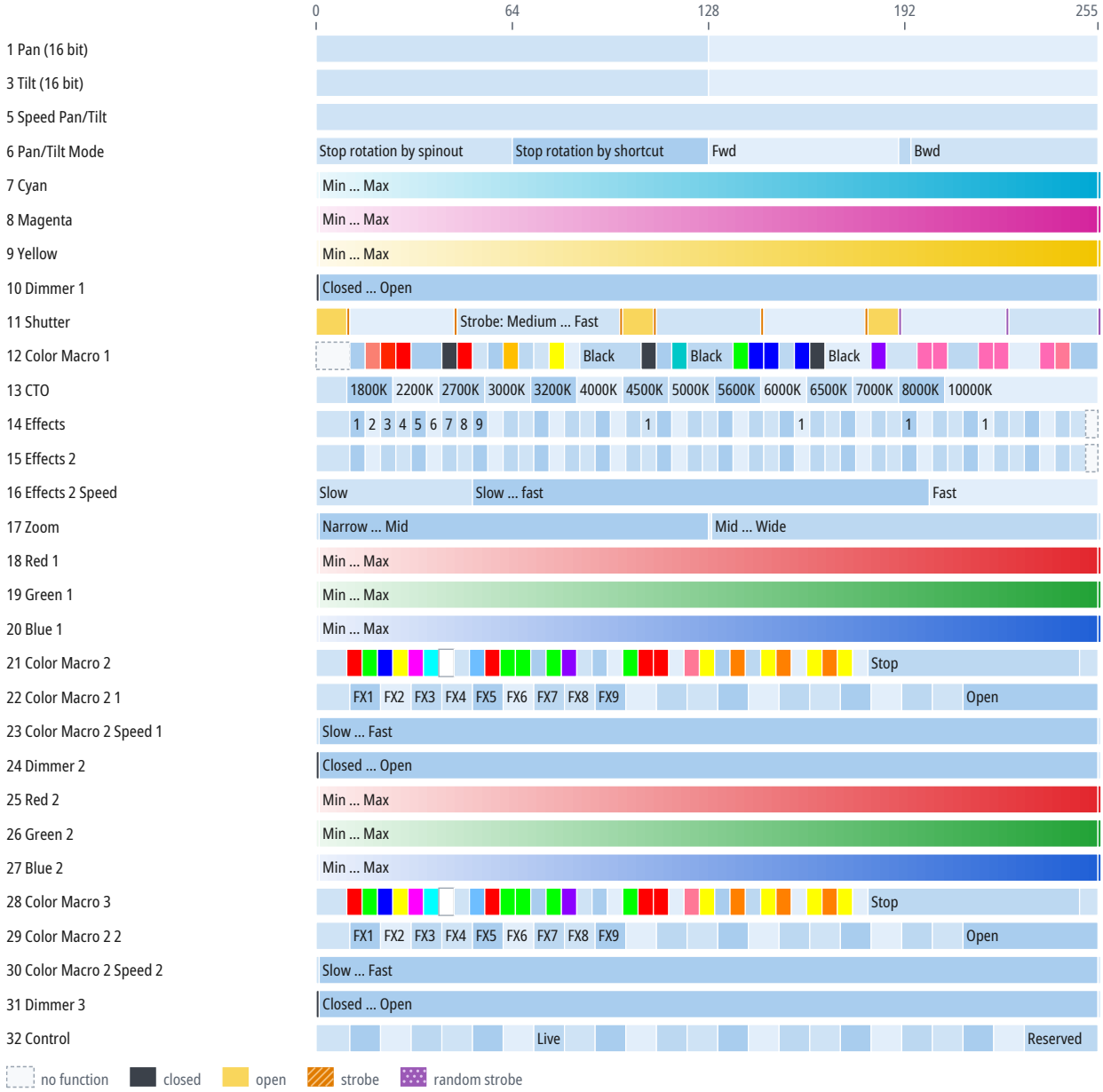
CH	Function	DMX	Description
10	Saturation	0–255	
11	CTO		Same as CH 14 in the mode “Tour” (p. 20)
12	Shutter		Same as CH 10 in the mode “SSP” (p. 12)
13	Zoom		Same as CH 11 in the mode “SSP” (p. 12)
14	Red 1		Same as CH 5 in the mode “SSP” (p. 12)
15	Green 1		Same as CH 6 in the mode “SSP” (p. 12)
16	Blue 1		Same as CH 7 in the mode “SSP” (p. 12)
17	Color Macro 1		Same as CH 15 in the mode “SSP” (p. 13)
18	Color Macro 2 1		Same as CH 16 in the mode “SSP” (p. 14)
19	Color Macro 2 Speed 1		Same as CH 17 in the mode “SSP” (p. 14)
20	Dimmer 2		Same as CH 18 in the mode “SSP” (p. 14)
21	Red 2		Same as CH 12 in the mode “SSP” (p. 13)
22	Green 2		Same as CH 13 in the mode “SSP” (p. 13)
23	Blue 2		Same as CH 14 in the mode “SSP” (p. 13)
24	Color Macro 2		Same as CH 22 in the mode “SSP” (p. 15)
25	Color Macro 2 2		Same as CH 23 in the mode “SSP” (p. 15)
26	Color Macro 2 Speed 2		Same as CH 24 in the mode “SSP” (p. 16)
27	Dimmer 3		Same as CH 25 in the mode “SSP” (p. 16)
28	Control		Same as CH 33 in the mode “Tour” (p. 24)

Mode 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 10 Dimmer 1 above 0; CH 11 Shutter at 0–9, 100–109 or 180–189 “Open”; CH 24 Dimmer 2 above 0; CH 31 Dimmer 3 above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Cyan 0, CH 8 Magenta 0, CH 10 Dimmer 1 255, CH 18 Red 1 0, CH 19 Green 1 0, CH 20 Blue 1 0, CH 25 Red 2 0, CH 26 Green 2 0, CH 27 Blue 2 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Tour” (p. 18)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Tour” (p. 19)
4	Tilt Fine	0–255	Fine adjustment of CH 3

CH	Function	DMX	Description
5	Speed Pan/Tilt	0–255	
6	Pan/Tilt Mode		Same as CH 4 in the mode “SSP” (p. 11)
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	Dimmer 1		Same as CH 9 in the mode “SSP” (p. 12)
11	Shutter		Same as CH 10 in the mode “SSP” (p. 12)
12	Color Macro 1	0–10	No Function
		11–15	Black
		16–20	R40 Light Salmon
		21–25	L24 Scarlet
		26–30	L164 Flame Red
		31–40	Black
		41–45	L08 Dark Salmon
		46–50	L25 Sunset Red
		51–55	Black
		56–60	L237 CID (To Tungsten)
		61–65	R321 Soft Golden Amber
		66–70	L652 Urban Sodium
		71–75	Black
		76–80	L765 LEE Yellow
		81–85	L513 Ice and a Slice
		86–105	Black
		106–110	L90 Dark Yellow Green
		111–115	Black
		116–120	R92 Turquoise
		121–135	Black
		136–140	L728 Steel Green
		141–145	L117 Steel Blue
		146–150	L354 Special Steel Blue
		151–155	Black
		156–160	L501 New Colour Blue
		161–165	L174 Dark Steel Blue
		166–180	Black
		181–185	L142 Pale Violet
		186–195	Black

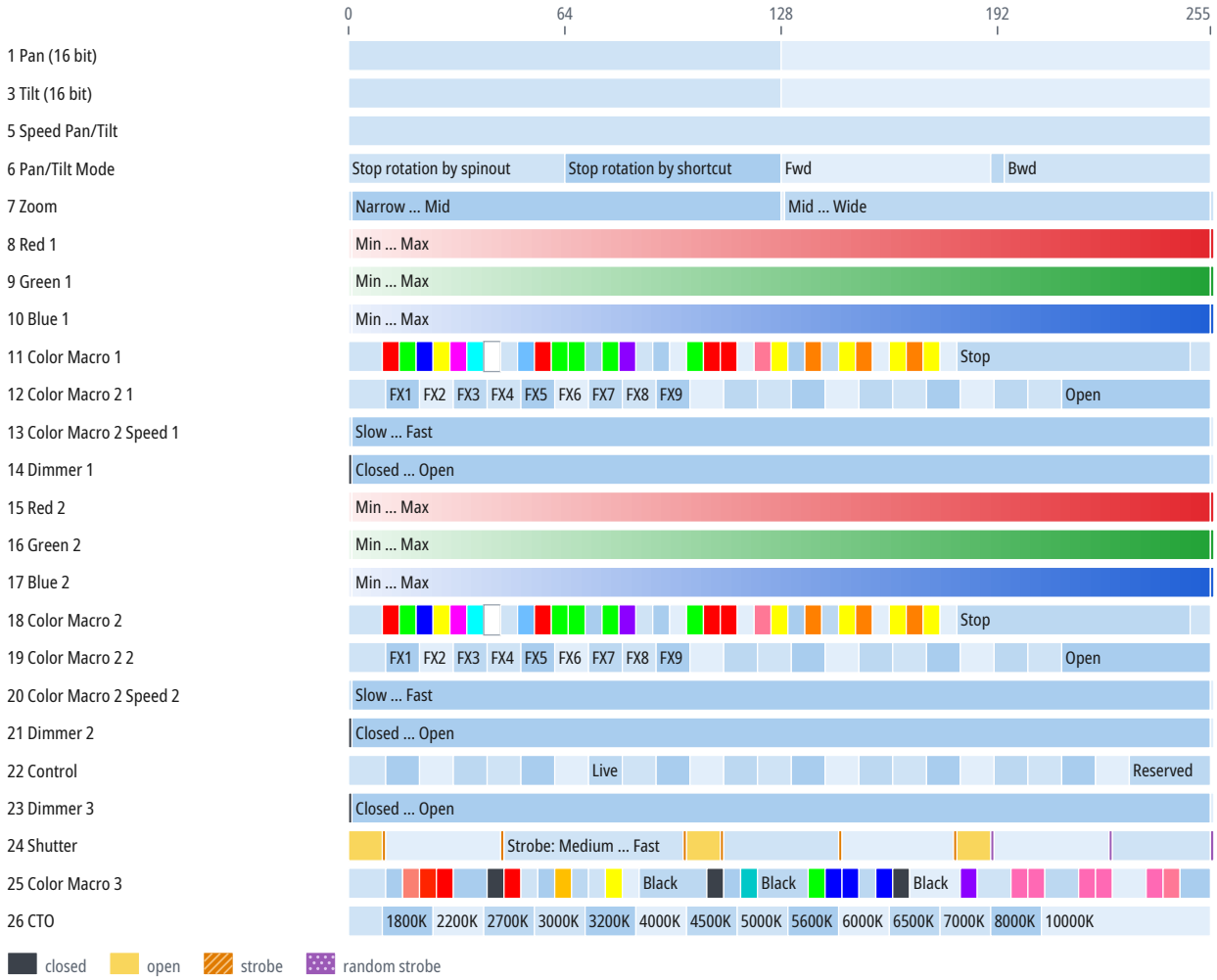
CH	Function	DMX	Description
12	Color Macro 1 (continued)	196–200	L794 Pretty'n Pink
		201–205	L328 Follies Pink
		206–215	Black
		216–220	L127 Smokey Pink
		221–225	L192 Flesh Pink
		226–235	Black
		236–240	L157 Pink
		241–245	R332 Cherry Rose
		246–255	Black
13	CTO		Same as CH 14 in the mode “Tour” (p. 20)
14	Effects		Same as CH 15 in the mode “Tour” (p. 20)
15	Effects 2		Same as CH 16 in the mode “Tour” (p. 21)
16	Effects 2 Speed	0–50	Slow
		51–199	Slow ... fast
		200–255	Fast
17	Zoom		Same as CH 11 in the mode “SSP” (p. 12)
18	Red 1		Same as CH 5 in the mode “SSP” (p. 12)
19	Green 1		Same as CH 6 in the mode “SSP” (p. 12)
20	Blue 1		Same as CH 7 in the mode “SSP” (p. 12)
21	Color Macro 2		Same as CH 22 in the mode “SSP” (p. 15)
22	Color Macro 2 1		Same as CH 16 in the mode “SSP” (p. 14)
23	Color Macro 2 Speed 1		Same as CH 17 in the mode “SSP” (p. 14)
24	Dimmer 2		Same as CH 18 in the mode “SSP” (p. 14)
25	Red 2		Same as CH 12 in the mode “SSP” (p. 13)
26	Green 2		Same as CH 13 in the mode “SSP” (p. 13)
27	Blue 2		Same as CH 14 in the mode “SSP” (p. 13)
28	Color Macro 3		Same as CH 29 in the mode “Tour” (p. 23)
29	Color Macro 2 2		Same as CH 23 in the mode “SSP” (p. 15)
30	Color Macro 2 Speed 2		Same as CH 24 in the mode “SSP” (p. 16)
31	Dimmer 3		Same as CH 25 in the mode “SSP” (p. 16)
32	Control		Same as CH 33 in the mode “Tour” (p. 24)

Mode Pixel

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

If the device receives DMX in this mode but gives no light, check these channels: CH 14 Dimmer 1 above 0; CH 21 Dimmer 2 above 0; CH 23 Dimmer 3 above 0; CH 24 Shutter at 0–9, 100–109 or 180–189 “Open”. The GDTF file gives these values for a console's Highlight function: CH 8 Red 1 0, CH 9 Green 1 0, CH 10 Blue 1 0, CH 15 Red 2 0, CH 16 Green 2 0, CH 17 Blue 2 0, CH 23 Dimmer 3 255, CH 27 Red 255 (the same in each of the 19 cells), CH 28 Green 255 (the same in each of the 19 cells), CH 29 Blue 255 (the same in each of the 19 cells), CH 30 Lime 255 (the same in each of the 19 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Tour” (p. 18)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Tour” (p. 19)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	
6	Pan/Tilt Mode		Same as CH 4 in the mode “SSP” (p. 11)
7	Zoom		Same as CH 11 in the mode “SSP” (p. 12)
8	Red 1		Same as CH 5 in the mode “SSP” (p. 12)

CH	Function	DMX	Description
9	Green 1		Same as CH 6 in the mode “SSP” (p. 12)
10	Blue 1		Same as CH 7 in the mode “SSP” (p. 12)
11	Color Macro 1		Same as CH 15 in the mode “SSP” (p. 13)
12	Color Macro 2 1		Same as CH 16 in the mode “SSP” (p. 14)
13	Color Macro 2 Speed 1		Same as CH 17 in the mode “SSP” (p. 14)
14	Dimmer 1		Same as CH 9 in the mode “SSP” (p. 12)
15	Red 2		Same as CH 12 in the mode “SSP” (p. 13)
16	Green 2		Same as CH 13 in the mode “SSP” (p. 13)
17	Blue 2		Same as CH 14 in the mode “SSP” (p. 13)
18	Color Macro 2		Same as CH 22 in the mode “SSP” (p. 15)
19	Color Macro 2 2		Same as CH 23 in the mode “SSP” (p. 15)
20	Color Macro 2 Speed 2		Same as CH 24 in the mode “SSP” (p. 16)
21	Dimmer 2		Same as CH 18 in the mode “SSP” (p. 14)
22	Control		Same as CH 33 in the mode “Tour” (p. 24)
23	Dimmer 3		Same as CH 25 in the mode “SSP” (p. 16)
24	Shutter		Same as CH 10 in the mode “SSP” (p. 12)
25	Color Macro 3	0–10	Open
		11–15	Black
		16–20	R40 Light Salmon
		21–25	L24 Scarlet
		26–30	L164 Flame Red
		31–40	Black
		41–45	L08 Dark Salmon
		46–50	L25 Sunset Red
		51–55	Black
		56–60	L237 CID (To Tungsten)
		61–65	R321 Soft Golden Amber
		66–70	L652 Urban Sodium
		71–75	Black
		76–80	L765 LEE Yellow
		81–85	L513 Ice and a Slice
		86–105	Black
		106–110	L90 Dark Yellow Green
		111–115	Black
		116–120	R92 Turquoise
		121–135	Black
		136–140	L728 Steel Green
		141–145	L117 Steel Blue
		146–150	L354 Special Steel Blue
		151–155	Black
		156–160	L501 New Colour Blue
		161–165	L174 Dark Steel Blue

CH	Function	DMX	Description
25	Color Macro 3 (continued)	166–180	Black
		181–185	L142 Pale Violet
		186–195	Black
		196–200	L794 Pretty'n Pink
		201–205	L328 Follies Pink
		206–215	Black
		216–220	L127 Smokey Pink
		221–225	L192 Flesh Pink
		226–235	Black
		236–240	L157 Pink
		241–245	R332 Cherry Rose
		246–255	Black
26	CTO		Same as CH 14 in the mode “Tour” (p. 20)
27	Red 3	0	Min
		1–254	Min ... Max
		255	Max
28	Green 3	0	Min
		1–254	Min ... Max
		255	Max
29	Blue 3	0	Min
		1–254	Min ... Max
		255	Max
30	Lime 1	0	Min
		1–254	Min ... Max
		255	Max

CH 27–102: 19 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 27–30); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Lime	Cell	Red	Green	Blue	Lime
1	27	28	29	30	2	31	32	33	34
3	35	36	37	38	4	39	40	41	42
5	43	44	45	46	6	47	48	49	50
7	51	52	53	54	8	55	56	57	58
9	59	60	61	62	10	63	64	65	66
11	67	68	69	70	12	71	72	73	74
13	75	76	77	78	14	79	80	81	82
15	83	84	85	86	16	87	88	89	90
17	91	92	93	94	18	95	96	97	98
19	99	100	101	102					

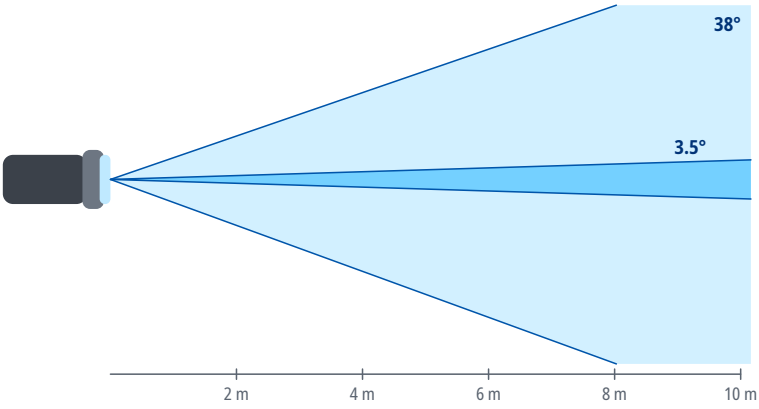
10 Technical specifications

Parameter	Value
Light	
Light source	LED
Optics	
Zoom	3.5–38°
Movement	
Pan	540°
Tilt	220°
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	21.6 kg
Operating environment	
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	1800–10000 K
Strobe frequency	1–15 Hz

Spot diameter



Distance	Ø 3.5°	Ø 38°
2 m	0.12 m	1.4 m
4 m	0.24 m	2.8 m
6 m	0.37 m	4.1 m
8 m	0.49 m	5.5 m
10 m	0.61 m	6.9 m
15 m	0.92 m	10.3 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.