DMX REFERENCE

TAIPAN

HG1200

HARBINGER



Manufacturer	HARBINGER
GDTF file	Harbinger_TAIPAN_168850.gdtf
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1 About this manual

This document describes the HG1200 by HARBINGER. It was compiled from the GDTF file Harbinger_TAIPAN_168850.gdtf from the GDTF-Share library.

File revision: “2026 11 11”.

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 HARBINGER; 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	54.5 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
58 CH	58	8	1, 59, 117, 175, ...
59CH	59	8	1, 60, 119, 178, ...
51CH	51	10	1, 52, 103, 154, ...
39CH	39	13	1, 40, 79, 118, ...

No light? Check these channels

- 58 CH: CH 26 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 27 Dimmer above 0
- 59CH: CH 27 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 28 Dimmer above 0
- 51CH: CH 19 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 20 Dimmer above 0
- 39CH: CH 7 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 8 Dimmer above 0


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

Range of movement



5 Installation

⚠ WARNING

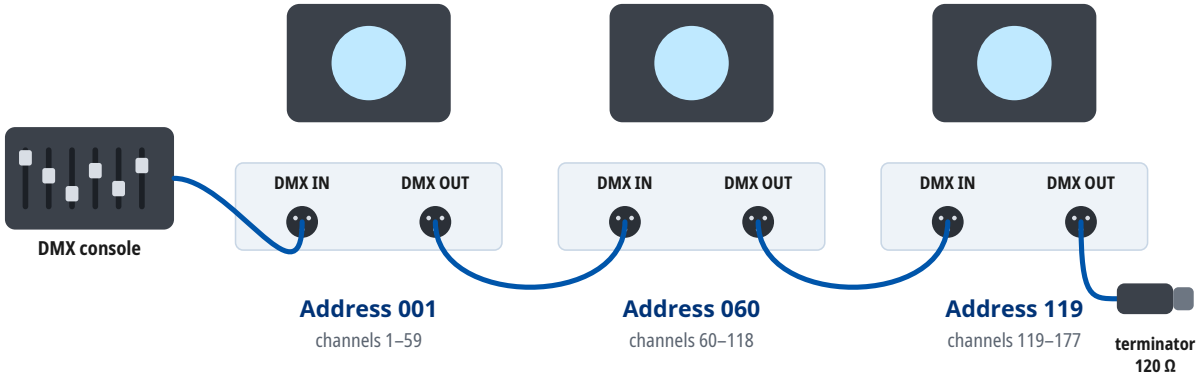
- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 54.5 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 59CH: every unit occupies 59 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 “59CH”: 59.
- 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 “59CH”, you can use, for example, the start addresses 1, 60, 119, 178.
- 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

	58 CH 58 channels	59CH 59 channels	51CH 51 channels	39CH 39 channels
Pan / Tilt	51, 53, 56	52, 54, 57	44, 46, 49	32, 34, 37
Dimmer	27	28	20	8
Shutter / strobe	26	27	19	7
Color mixing	6× (1–11)	6× (1–11)	6× (1–11)	
Color temperature	13	15	15	1
Gobo wheel	32	33	25	13
Gobo rotation	33	32, 34	24, 26	12, 14
Prism	35, 36	36, 37	28, 29	16, 17
Frost	37, 38	38, 39	30, 31	18, 19
Zoom	50	51	43	31
Focus	48	49	41	29
Iris	29	30	22	10
Animation wheel	30, 31	31	23	11

Gobo wheel 1

1	Wheel Slot 1 DMX 0–2	4	3 DMX 13–17	7	6 DMX 28–33
2	1 DMX 3–7	5	4 DMX 18–22	8	Wheel Slot 2
3	2 DMX 8–12	6	5 DMX 23–27		

Gobo wheel 2

1	Gobo NO: OPEN DMX 128–130	4	9 DMX 141–145	7	12 DMX 156–161
2	7 DMX 131–135	5	10 DMX 146–150		
3	8 DMX 136–140	6	11 DMX 151–155		

Gobo wheel 3

1	Wheel Slot 1	6	5	11	9
2	1	7	6	12	10
3	2	8	Wheel Slot 2	13	11
4	3	9	7	14	12
5	4	10	8		

Animation wheel

1	NO DMX 0–62	2	RAIN DMX 63–127	3	Cloud DMX 128–255

Prism

1

OUT
DMX 0–7

2

4 facets
IN
DMX 8–255

Color wheel 1

1

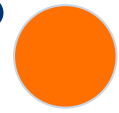
Blue
DMX 0–1

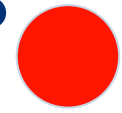
2

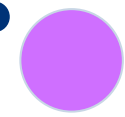
Med Bastard Amber
DMX 2–3

3

Medium Yellow
DMX 4–5

4

Fire
DMX 6–7

5

Bright Red
DMX 8–9

6

Lavender
DMX 10–11

7

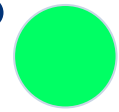
Sky Blue
DMX 12–13

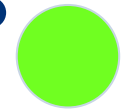
8

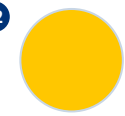
Tokyo Blue
DMX 14–15

9

Just Blue
DMX 16–17

10

Lime Green
DMX 18–19

11

Dark Yellow Green
DMX 20–21

12

Spring Yellow
DMX 22–23

13

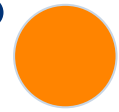
Yellow
DMX 24–25

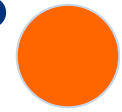
14

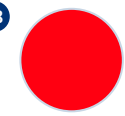
Light Ambe
DMX 26–27

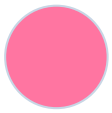
15

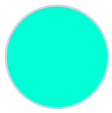
Straw
DMX 28–29

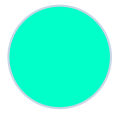
16

Deep Amber
DMX 30–31

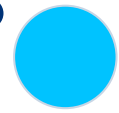
17

Orange
DMX 32–33

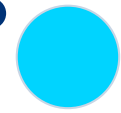
18

Primary Red
DMX 34–35

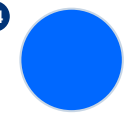
19

Dark Pink
DMX 36–37

20

Peacock Blue
DMX 38–39

21

Med Blue-Green
DMX 40–41

22

Steel Blue
DMX 42–43

23

Light Blue
DMX 44–45

24

Dark Blue
DMX 46–47

25 Deep Blue
DMX 48–49

26 Filter Green
DMX 50–51

27 Bright Pink
DMX 52–53

28 Marine Blue
DMX 54–55

29 Medium Blue
DMX 56–57

30 Golden Amber
DMX 58–59

31 Deep Golden Amber
DMX 60–61

32 Pale Lavender
DMX 62–63

33 Special Lavender
DMX 64–65

34 Pale Green
DMX 66–67

35 Primary Green
DMX 68–69

36 Bright Blue
DMX 70–71

37 Apricot
DMX 72–73

38 Bright Rose
DMX 74–75

39 Pale Gold
DMX 76–77

40 Pale Rose
DMX 78–79

41 Pink
DMX 80–81

42 Deep Orange
DMX 82–83

43 Bastard Amber
DMX 84–85

44 Flame Red
DMX 86–87

45 Daylight Blue
DMX 88–89

46 Lilac Tint
DMX 90–91

47 Deep Lavender
DMX 92–93

48 Lagoon Blue
DMX 94–95

49 Chrome Orange
DMX 96–97

50 Dark Lavender
DMX 98–99

51 Congo Blue
DMX 100–101

52 Alice Blue
DMX 102–103

53 Full CT Blue
DMX 104–105

54 Half CT Blue
DMX 106–107

55 Quarter CT Blue
DMX 108–109

56 Full CT Orange
DMX 110–111

57 Half CT Orange
DMX 112–113

58 Quarter CT Orange
DMX 114–115

59 Full Minus Green
DMX 116–117

60 Half Minus Green
DMX 118–119

61 3/4 CT Blue
DMX 120–121

62 3/4 CT Orange
DMX 122–123

63 Glacier Blue
DMX 124–125

64 Lighter Blue
DMX 126–127

65 Cabana Blue
DMX 128–129

66 Millennium Gold
DMX 130–131

67 Vanity Fair
DMX 132–133

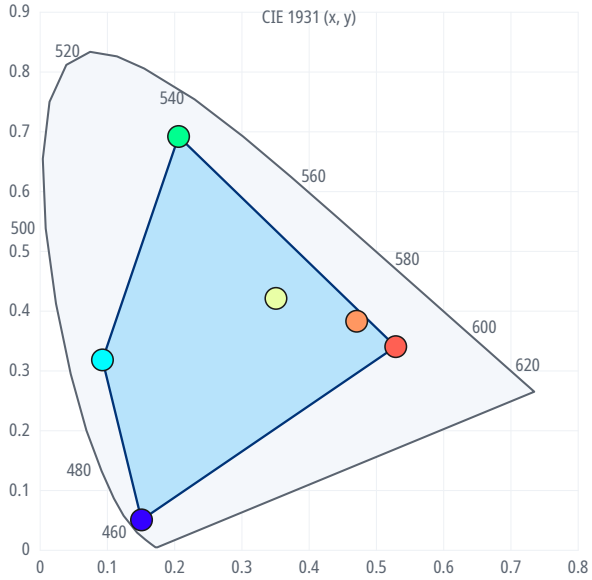
68 NO
DMX 134–255

Color wheel 2



49 Chrome Orange
50 Dark Lavender
51 Congo Blue
52 Alice Blue
53 Full CT Blue
54 Half CT Blue
55 Quarter CT Blue
56 Full CT Orange
57 Half CT Orange
58 Quarter CT Orange
59 Full Minus Green
60 Half Minus Green
61 3/4 CT Blue
62 3/4 CT Orange
63 Glacier Blue
64 Lighter Blue
65 Cabana Blue
66 Millennium Gold
67 Vanity Fair
68 NO

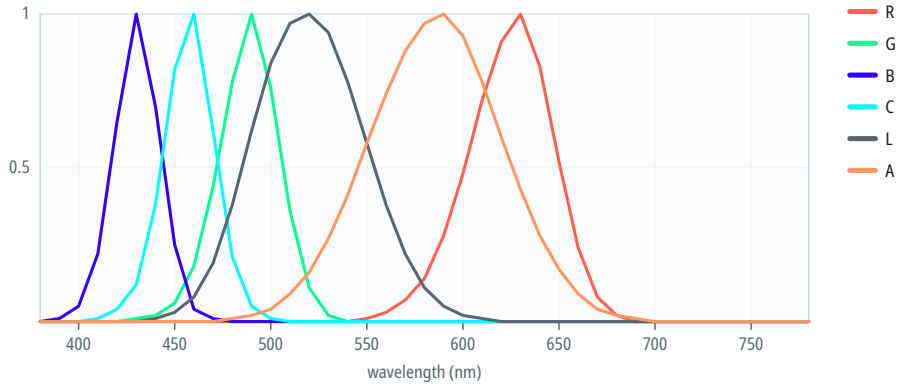
LED colors and the colors they mix



LED	x	y
R	0.529	0.341
G	0.206	0.692
B	0.151	0.051
C	0.093	0.319
L	0.351	0.421
A	0.471	0.383

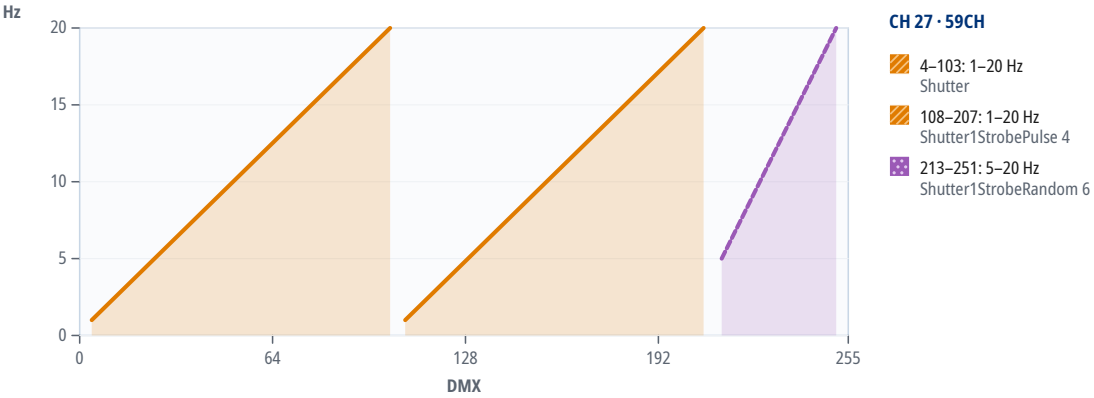
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

Spectra of the light sources



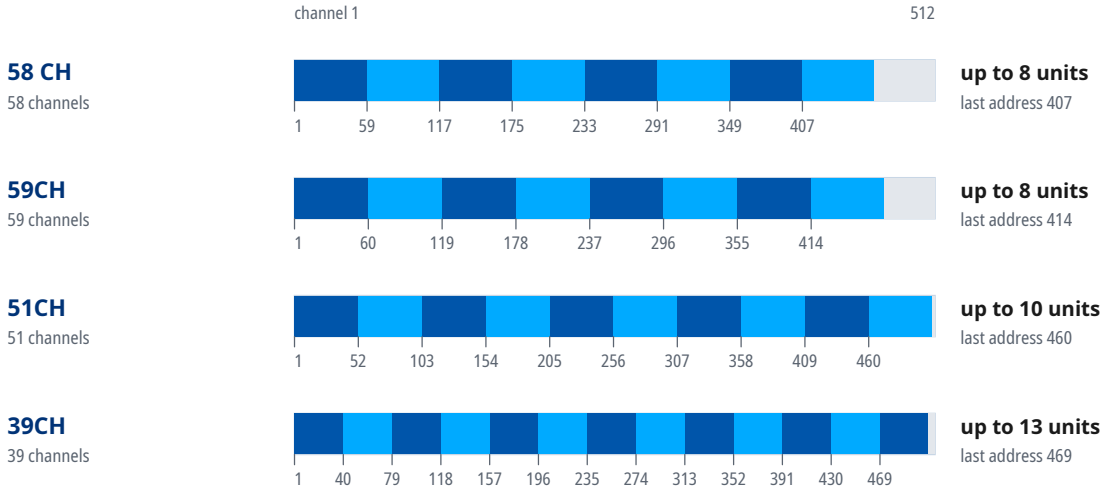
Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “59CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	296	11	U2 · 119	16	U2 · 414
2	60	7	355	12	U2 · 178	17	U3 · 1
3	119	8	414	13	U2 · 237	18	U3 · 60
4	178	9	U2 · 1	14	U2 · 296	19	U3 · 119
5	237	10	U2 · 60	15	U2 · 355	20	U3 · 178

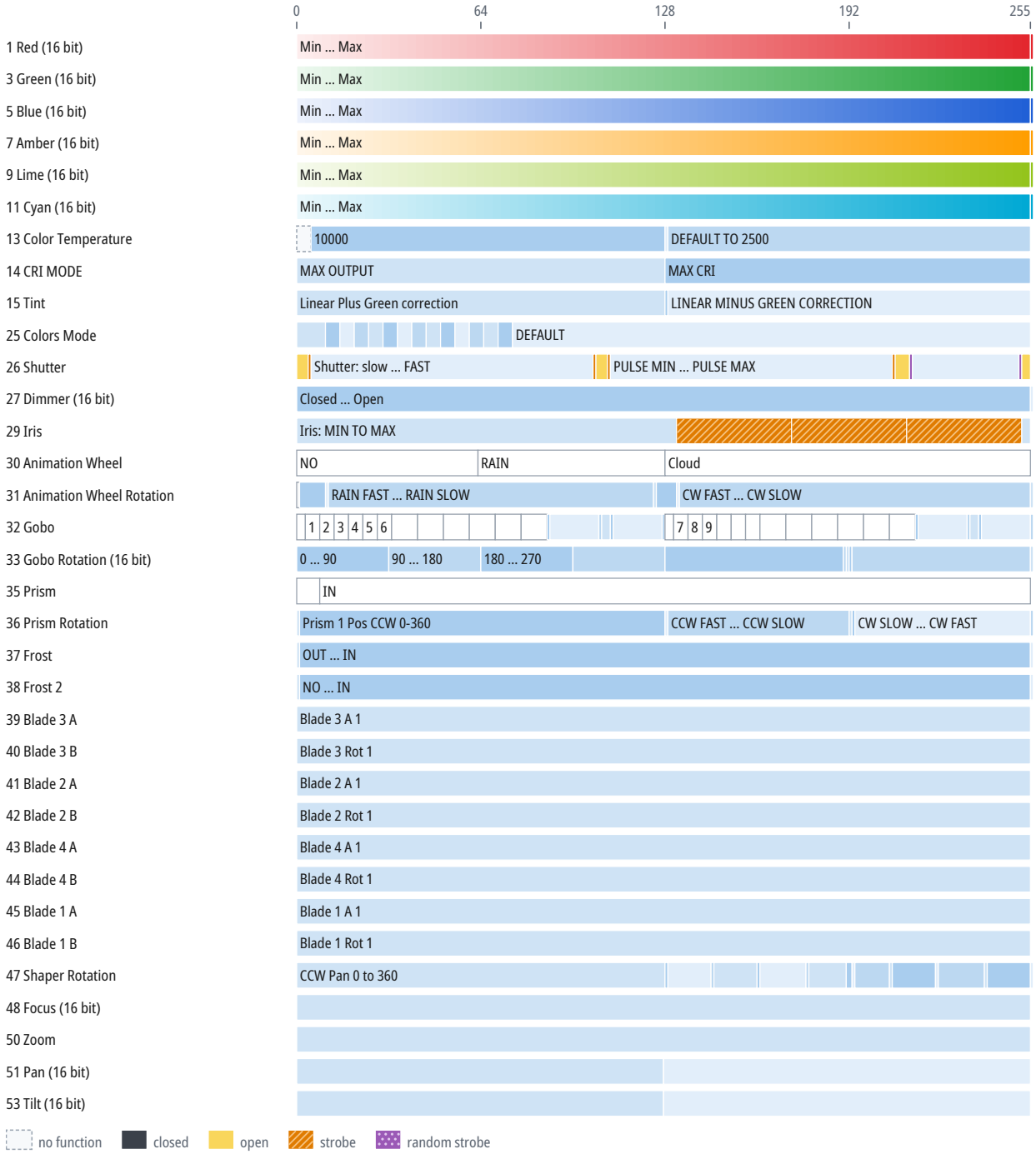
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 58 CH

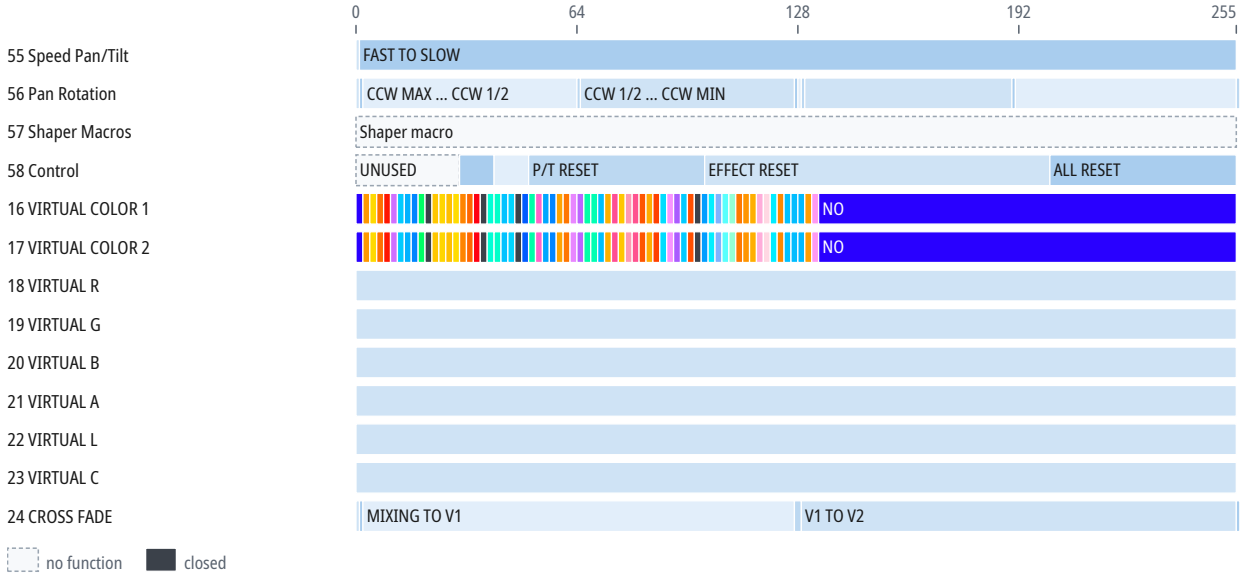
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 26 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 27 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Red 0, CH 3 Green 0, CH 5 Blue 0, CH 7 Amber 0, CH 9 Lime 0, CH 11 Cyan 0, CH 13 Color Temperature 128, CH 27 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Red	0–255	Min ... Max
		255	Max
2	Red Fine	0–255	Fine adjustment of CH 1
3	Green	0–255	Min ... Max
		255	Max
4	Green Fine	0–255	Fine adjustment of CH 3
5	Blue	0–255	Min ... Max
		255	Max
6	Blue Fine	0–255	Fine adjustment of CH 5
7	Amber	0–255	Min ... Max
		255	Max
8	Amber Fine	0–255	Fine adjustment of CH 7
9	Lime	0–255	Min ... Max
		255	Max
10	Lime Fine	0–255	Fine adjustment of CH 9
11	Cyan	0–255	Min ... Max
		255	Max
12	Cyan Fine	0–255	Fine adjustment of CH 11
13	Color Temperature	0–4	Off
		5–127	10000 (10000–6500 K)
		128	DEFAULT
		129–255	DEFAULT TO 2500 (6500–2500 K)
14	CRI MODE		CRIMode 1
		0–127	MAX OUTPUT
		128–255	MAX CRI
15	Tint	0–127	Linear Plus Green correction

CH	Function	DMX	Description
15	Tint (continued)	128	No
		129–255	LINEAR MINUS GREEN CORRECTION
16	VIRTUAL COLOR 1	0–1	Blue
		2–3	Med Bastard Amber
		4–5	Medium Yellow
		6–7	Fire
		8–9	Bright Red
		10–11	Lavender
		12–13	Sky Blue
		14–15	Tokyo Blue
		16–17	Just Blue
		18–19	Lime Green
		20–21	Dark Yellow Green
		22–23	Spring Yellow
		24–25	Yellow
		26–27	Light Ambe
		28–29	Straw
		30–31	Deep Amber
		32–33	Orange
		34–35	Primary Red
		36–37	Dark Pink
		38–39	Peacock Blue
		40–41	Med Blue-Green
		42–43	Steel Blue
		44–45	Light Blue
		46–47	Dark Blue
		48–49	Deep Blue
		50–51	Filter Green
		52–53	Bright Pink
		54–55	Marine Blue
		56–57	Medium Blue
		58–59	Golden Amber
		60–61	Deep Golden Amber
		62–63	Pale Lavender
		64–65	Special Lavender
		66–67	Pale Green
		68–69	Primary Green
		70–71	Bright Blue
		72–73	Apricot
		74–75	Bright Rose
		76–77	Pale Gold
		78–79	Pale Rose

CH	Function	DMX	Description
16	VIRTUAL COLOR 1 (continued)	80–81	Pink
		82–83	Deep Orange
		84–85	Bastard Amber
		86–87	Flame Red
		88–89	Daylight Blue
		90–91	Lilac Tint
		92–93	Deep Lavender
		94–95	Lagoon Blue
		96–97	Chrome Orange
		98–99	Dark Lavender
		100–101	Congo Blue
		102–103	Alice Blue
		104–105	Full CT Blue
		106–107	Half CT Blue
		108–109	Quarter CT Blue
		110–111	Full CT Orange
		112–113	Half CT Orange
		114–115	Quarter CT Orange
		116–117	Full Minus Green
		118–119	Half Minus Green
		120–121	3/4 CT Blue
		122–123	3/4 CT Orange
		124–125	Glacier Blue
		126–127	Lighter Blue
		128–129	Cabana Blue
		130–131	Millennium Gold
		132–133	Vanity Fair
		134–255	NO
17	VIRTUAL COLOR 2		VIRTUAL COLOR1 1
		0–1	Blue
		2–3	Med Bastard Amber
		4–5	Medium Yellow
		6–7	Fire
		8–9	Bright Red
		10–11	Lavender
		12–13	Sky Blue
		14–15	Tokyo Blue
		16–17	Just Blue
		18–19	Lime Green
		20–21	Dark Yellow Green
		22–23	Spring Yellow
		24–25	Yellow

CH	Function	DMX	Description
17	VIRTUAL COLOR 2 (continued)	26–27	Light Ambe
		28–29	Straw
		30–31	Deep Amber
		32–33	Orange
		34–35	Primary Red
		36–37	Dark Pink
		38–39	Peacock Blue
		40–41	Med Blue-Green
		42–43	Steel Blue
		44–45	Light Blue
		46–47	Dark Blue
		48–49	Deep Blue
		50–51	Filter Green
		52–53	Bright Pink
		54–55	Marine Blue
		56–57	Medium Blue
		58–59	Golden Amber
		60–61	Deep Golden Amber
		62–63	Pale Lavender
		64–65	Special Lavender
		66–67	Pale Green
		68–69	Primary Green
		70–71	Bright Blue
		72–73	Apricot
		74–75	Bright Rose
		76–77	Pale Gold
		78–79	Pale Rose
		80–81	Pink
		82–83	Deep Orange
		84–85	Bastard Amber
		86–87	Flame Red
		88–89	Daylight Blue
		90–91	Lilac Tint
		92–93	Deep Lavender
		94–95	Lagoon Blue
		96–97	Chrome Orange
		98–99	Dark Lavender
		100–101	Congo Blue
		102–103	Alice Blue
		104–105	Full CT Blue
		106–107	Half CT Blue
		108–109	Quarter CT Blue

CH	Function	DMX	Description
17	VIRTUAL COLOR 2 (continued)	110–111	Full CT Orange
		112–113	Half CT Orange
		114–115	Quarter CT Orange
		116–117	Full Minus Green
		118–119	Half Minus Green
		120–121	3/4 CT Blue
		122–123	3/4 CT Orange
		124–125	Glacier Blue
		126–127	Lighter Blue
		128–129	Cabana Blue
		130–131	Millennium Gold
		132–133	Vanity Fair
		134–255	NO
18	VIRTUAL R	0–255	
19	VIRTUAL G	0–255	
20	VIRTUAL B	0–255	
21	VIRTUAL A	0–255	
22	VIRTUAL L	0–255	
23	VIRTUAL C	0–255	
24	CROSS FADE	0	NO
		1	COLOR MIXING ONLY
		2–126	MIXING TO V1
		127–128	V1 ONLY
		129–254	V1 TO V2
		255	V2 ONLY
25	Colors Mode		COLOR MODE
		0–9	DEFAULT
		10–14	3200
		15–19	4000
		20–24	4400
		25–29	5000
		30–34	5600
		35–39	6000
		40–44	6500
		45–49	7000
		50–54	7500
		55–59	8000
		60–64	8500
		65–69	9000
		70–74	9500
		75–255	DEFAULT
26	Shutter	0–3	ON

CH	Function	DMX	Description
26	Shutter (continued)	4	Shutter: slow
		5–102	Shutter: slow ... FAST
		103	Shutter: FAST
		104–107	ON
		108	PULSE MIN
		109–206	PULSE MIN ... PULSE MAX
		207	PULSE MAX
		208–212	ON
		213	Shutter 1 Strobe Random: MIN
		214–250	Shutter 1 Strobe Random: MIN ... MAX
		251	Shutter 1 Strobe Random: MAX
		252–255	ON
27	Dimmer	0–255	Closed ... Open
		255	Open
28	Dimmer Fine	0–255	Fine adjustment of CH 27
29	Iris	0–131	Iris: MIN TO MAX
		132–171	PULSE SLOW TO FAST (1–15 Hz)
		172–211	Pulse from slow to fast speed with fast opening (1–15 Hz)
		212–251	Pulse from slow to fast speed with fast closing (1–15 Hz)
		252–255	OPEN
30	Animation Wheel	0–62	NO
		63–127	RAIN
		128–255	Cloud
31	Animation Wheel Rotation	0	Stop
		1–9	CCW SPIN
		10	RAIN FAST
		11–123	RAIN FAST ... RAIN SLOW
		124	RAIN SLOW
		125–131	STOP
		132	CW FAST
		133–254	CW FAST ... CW SLOW
		255	CW SLOW
32	Gobo	0–2	Wheel Slot 1
		3–7	1
		8–12	2
		13–17	3
		18–22	4
		23–27	5
		28–32	6
		33–41	1shake
		42–50	2shake
		51–59	3shake

CH	Function	DMX	Description
32	Gobo (continued)	60–68	4shake
		69–77	5shake
		78–86	6shake
		87	NO 1 CCWQ FAST
		88–104	NO 1 CCWQ FAST ... NO1 CCW SLOW
		105	NO1 CCW SLOW
		106–108	NO 1 STOP
		109	NO 1 CW SLOW
		110–126	NO 1 CW SLOW ... NO 1 CW FAST
		127	NO 1 CW FAST
		128–130	Gobo NO: OPEN
		131–135	7
		136–140	8
		141–145	9
		146–150	10
		151–155	11
		156–160	12
		161–169	7shake
		170–178	8shake
		179–187	9shake
		188–196	10shake
		197–205	11shake
		206–214	12shake
		215	NO 2 CCW FAST
		216–232	NO 2 CCW FAST ... NO 2 CCW SLOW
		233	NO 2 CCW SLOW
		234–236	NO 2 STOP
		237	NO 2 CW SLOW
		238–254	NO 2 CW SLOW ... NO 2 CW FAST
		255	NO 2 CW FAST
33	Gobo Rotation	0–32	0 ... 90
		32–64	90 ... 180
		64–96	180 ... 270
		96	270
		96–128	Gobo CCW 0-360
		128–190	Gobo 1 Pos Rotate CCW FAST TO SLOW: FAST ... SLOW
		190	Gobo 1 Pos Rotate CCW FAST TO SLOW: SLOW
		190–191	Gobo 1 Pos Rotate CCW FAST TO SLOW
		191–192	Gobo 1 Pos Rotate: STOP
		192–193	Gobo 1 Pos Rotate 3
		193–255	Gobo 1 Pos Rotate CW: SLOW ... FAST
		255	Gobo 1 Pos Rotate CW: FAST

CH	Function	DMX	Description
34	Gobo Rotation Fine	0–255	Fine adjustment of CH 33
35	Prism	0–7	OUT
		8–255	IN
36	Prism Rotation	0	0
		1–127	Prism 1 Pos CCW 0-360
		128	CCW FAST
		129–191	CCW FAST ... CCW SLOW
		192	CCW SLOW
		193	CW SLOW
		194–254	CW SLOW ... CW FAST
		255	CW FAST
37	Frost	0	OUT
		1–254	OUT ... IN
		255	IN
38	Frost 2	0	NO
		1–254	NO ... IN
		255	IN
39	Blade 3 A		Blade 3 A 1
		0–255	Blade 3 A 1
40	Blade 3 B		Blade 3 Rot 1
		0–255	Blade 3 Rot 1
41	Blade 2 A		Blade 2 A 1
		0–255	Blade 2 A 1
42	Blade 2 B		Blade 2 Rot 1
		0–255	Blade 2 Rot 1
43	Blade 4 A		Blade 4 A 1
		0–255	Blade 4 A 1
44	Blade 4 B		Blade 4 Rot 1
		0–255	Blade 4 Rot 1
45	Blade 1 A		Blade 1 A 1
		0–255	Blade 1 A 1
46	Blade 1 B		Blade 1 Rot 1
		0–255	Blade 1 Rot 1
47	Shaper Rotation	0–127	CCW Pan 0 to 360
		128	Beam Shaper Pos Rotate CCW FAST TO SLOW: MAX
		129–143	Beam Shaper Pos Rotate CCW FAST TO SLOW: MAX ... 2/3
		144	Beam Shaper Pos Rotate CCW FAST TO SLOW: 2/3
		145–159	2/3 ... 1/2
		160	Beam Shaper Pos Rotate CCW FAST TO SLOW: 1/2
		161–176	Beam Shaper Pos Rotate CCW FAST TO SLOW: 1/2 ... MIN
		177	Beam Shaper Pos Rotate CCW FAST TO SLOW: MIN
		178–190	Beam Shaper Pos Rotate CCW FAST TO SLOW

CH	Function	DMX	Description
47	Shaper Rotation (continued)	191–192	STOP
		193	Beam Shaper Pos Rotate CW SLOW TO FAST: MIN
		194–205	Beam Shaper Pos Rotate CW SLOW TO FAST: MIN ... 1/4
		206	1/4
		207–221	1/4 ... 1/2
		222	Beam Shaper Pos Rotate CW SLOW TO FAST: 1/2
		223–238	1/2 ... 2/3
		239	Beam Shaper Pos Rotate CW SLOW TO FAST: 2/3
		240–254	Beam Shaper Pos Rotate CW SLOW TO FAST: 2/3 ... MAX
		255	Beam Shaper Pos Rotate CW SLOW TO FAST: MAX
48	Focus	0–255	
49	Focus Fine	0–255	Fine adjustment of CH 48
50	Zoom	0–255	5–35°
51	Pan	0–127	Pan 1
		128	Center
		128–255	Pan 1
52	Pan Fine	0–255	Fine adjustment of CH 51
53	Tilt	0–127	Tilt 1
		128	Center
		128–255	Tilt 1
54	Tilt Fine	0–255	Fine adjustment of CH 53
55	Speed Pan/Tilt	0	FAST
		1–255	FAST TO SLOW
56	Pan Rotation	0	OFF: STOP
		1	CCW MAX
		2–63	CCW MAX ... CCW 1/2
		64	CCW 1/2
		65–126	CCW 1/2 ... CCW MIN
		127	CCW MIN
		128	PANROTATION STOP: STOP
		129	Pan Rotate CW SLOW TO FAST: MIN
		130–189	Pan Rotate CW SLOW TO FAST: MIN ... 1/2
		190	1/2
		191–254	Pan Rotate CW SLOW TO FAST: 1/2 ... MAX
		255	Pan Rotate CW SLOW TO FAST: MAX
57	Shaper Macros		shaper macro
		0–255	Shaper macro

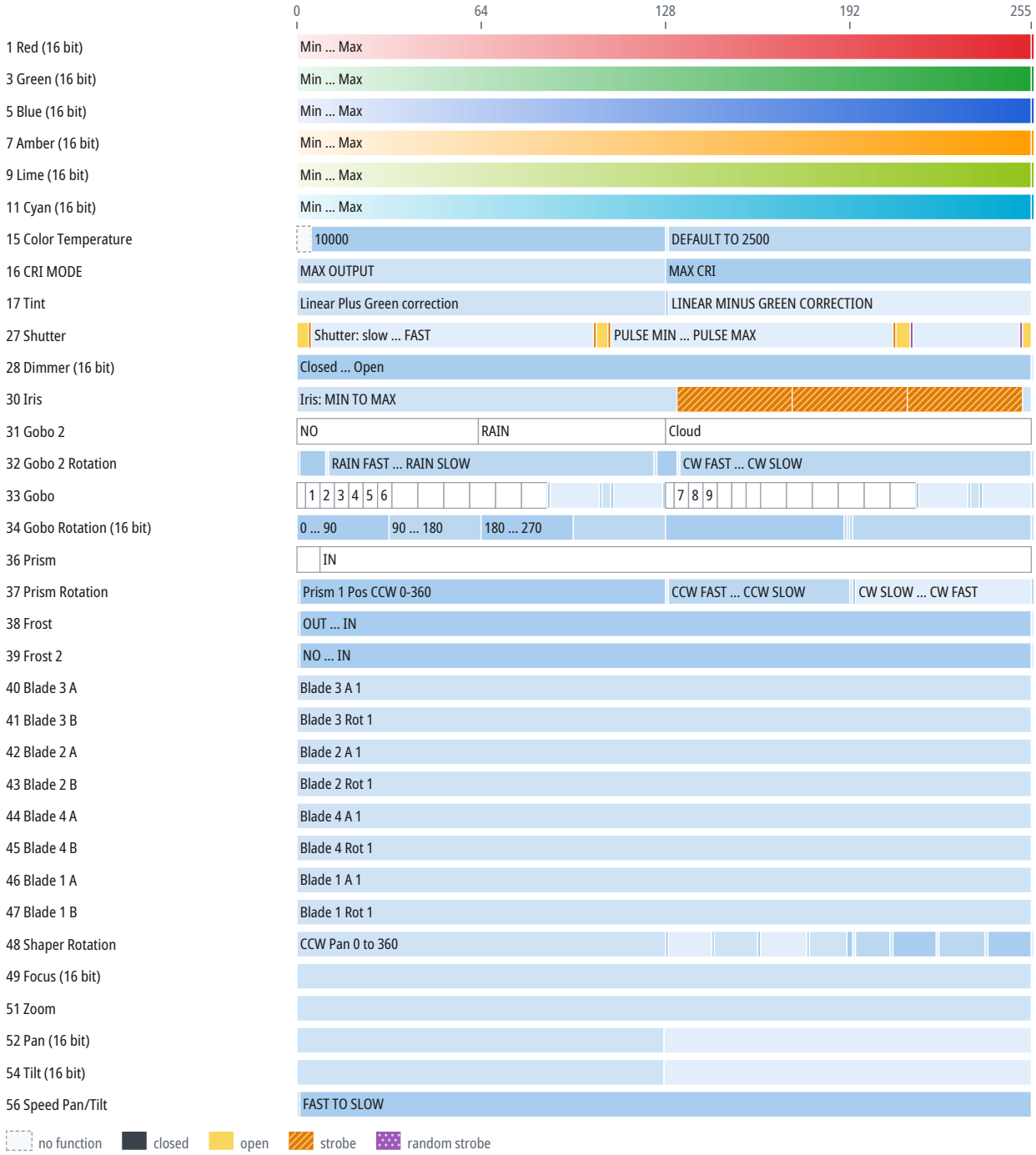
CH	Function	DMX	Description
58	Control	0–29	UNUSED
		30–39	Turn off the lights when switching GOBO No1 and gobo No2
		40–49	Do not turn off the lights when switching GOBO No1 and gobo No2
		50–100	P/T RESET
		101–200	EFFECT RESET
		201–255	ALL RESET

Mode 59CH

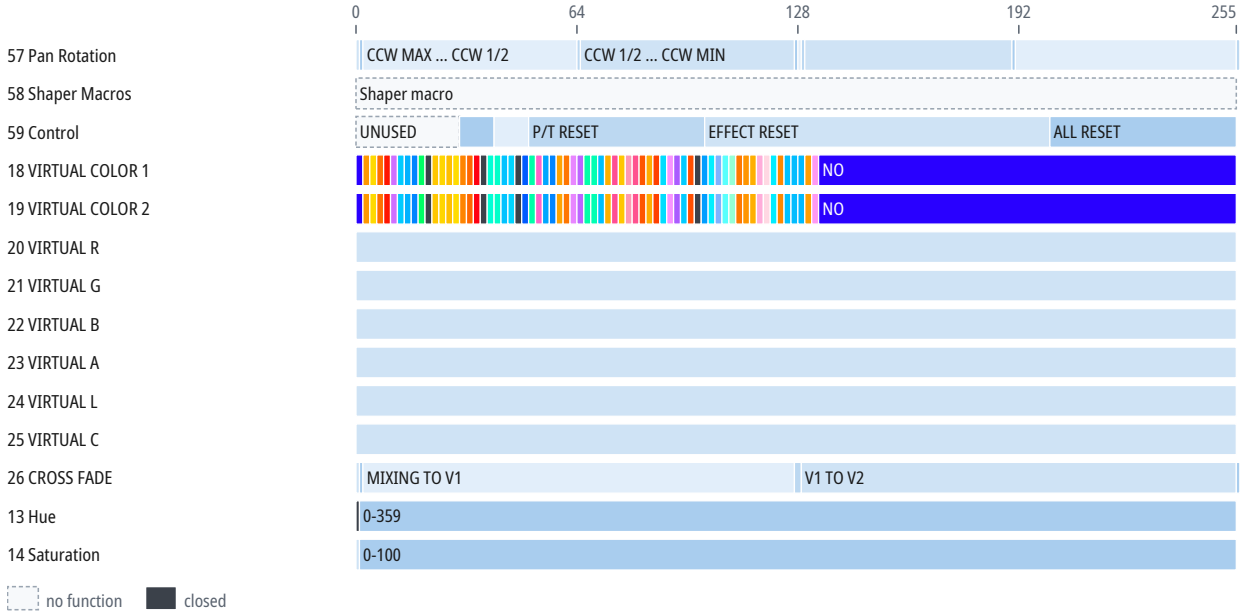
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 27 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 28 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Red 0, CH 3 Green 0, CH 5 Blue 0, CH 7 Amber 0, CH 9 Lime 0, CH 11 Cyan 0, CH 15 Color Temperature 128, CH 28 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “58 CH” (p. 15)
2	Red Fine	0–255	Fine adjustment of CH 1
3	Green		Same as CH 3 in the mode “58 CH” (p. 15)
4	Green Fine	0–255	Fine adjustment of CH 3
5	Blue		Same as CH 5 in the mode “58 CH” (p. 15)
6	Blue Fine	0–255	Fine adjustment of CH 5
7	Amber		Same as CH 7 in the mode “58 CH” (p. 15)
8	Amber Fine	0–255	Fine adjustment of CH 7
9	Lime		Same as CH 9 in the mode “58 CH” (p. 15)
10	Lime Fine	0–255	Fine adjustment of CH 9
11	Cyan		Same as CH 11 in the mode “58 CH” (p. 15)
12	Cyan Fine	0–255	Fine adjustment of CH 11
13	Hue	0	CLOSED
		1–255	0-359
14	Saturation	0	100
		1–255	0-100
15	Color Temperature		Same as CH 13 in the mode “58 CH” (p. 15)
16	CRI MODE		Same as CH 14 in the mode “58 CH” (p. 15)
17	Tint		Same as CH 15 in the mode “58 CH” (p. 15)
18	VIRTUAL COLOR 1		Same as CH 16 in the mode “58 CH” (p. 16)
19	VIRTUAL COLOR 2		Same as CH 17 in the mode “58 CH” (p. 17)
20	VIRTUAL R	0–255	
21	VIRTUAL G	0–255	
22	VIRTUAL B	0–255	
23	VIRTUAL A	0–255	

CH	Function	DMX	Description
24	VIRTUAL L	0–255	
25	VIRTUAL C	0–255	
26	CROSS FADE		Same as CH 24 in the mode “58 CH” (p. 19)
27	Shutter		Same as CH 26 in the mode “58 CH” (p. 19)
28	Dimmer		Same as CH 27 in the mode “58 CH” (p. 20)
29	Dimmer Fine	0–255	Fine adjustment of CH 28
30	Iris		Same as CH 29 in the mode “58 CH” (p. 20)
31	Gobo 2	0–62	NO
		63–127	RAIN
		128–255	Cloud
32	Gobo 2 Rotation	0	STOP
		1–9	CCW SPIN
		10	RAIN FAST
		11–123	RAIN FAST ... RAIN SLOW
		124	RAIN SLOW
		125–131	STOP
		132	CW FAST
		133–254	CW FAST ... CW SLOW
		255	CW SLOW
33	Gobo		Same as CH 32 in the mode “58 CH” (p. 20)
34	Gobo Rotation		Same as CH 33 in the mode “58 CH” (p. 21)
35	Gobo Rotation Fine	0–255	Fine adjustment of CH 34
36	Prism		Same as CH 35 in the mode “58 CH” (p. 22)
37	Prism Rotation		Same as CH 36 in the mode “58 CH” (p. 22)
38	Frost		Same as CH 37 in the mode “58 CH” (p. 22)
39	Frost 2		Same as CH 38 in the mode “58 CH” (p. 22)
40	Blade 3 A		Same as CH 39 in the mode “58 CH” (p. 22)
41	Blade 3 B		Same as CH 40 in the mode “58 CH” (p. 22)
42	Blade 2 A		Same as CH 41 in the mode “58 CH” (p. 22)
43	Blade 2 B		Same as CH 42 in the mode “58 CH” (p. 22)
44	Blade 4 A		Same as CH 43 in the mode “58 CH” (p. 22)
45	Blade 4 B		Same as CH 44 in the mode “58 CH” (p. 22)
46	Blade 1 A		Same as CH 45 in the mode “58 CH” (p. 22)
47	Blade 1 B		Same as CH 46 in the mode “58 CH” (p. 22)
48	Shaper Rotation		Same as CH 47 in the mode “58 CH” (p. 22)
49	Focus	0–255	
50	Focus Fine	0–255	Fine adjustment of CH 49
51	Zoom	0–255	5–35°
52	Pan		Same as CH 51 in the mode “58 CH” (p. 23)
53	Pan Fine	0–255	Fine adjustment of CH 52
54	Tilt		Same as CH 53 in the mode “58 CH” (p. 23)
55	Tilt Fine	0–255	Fine adjustment of CH 54

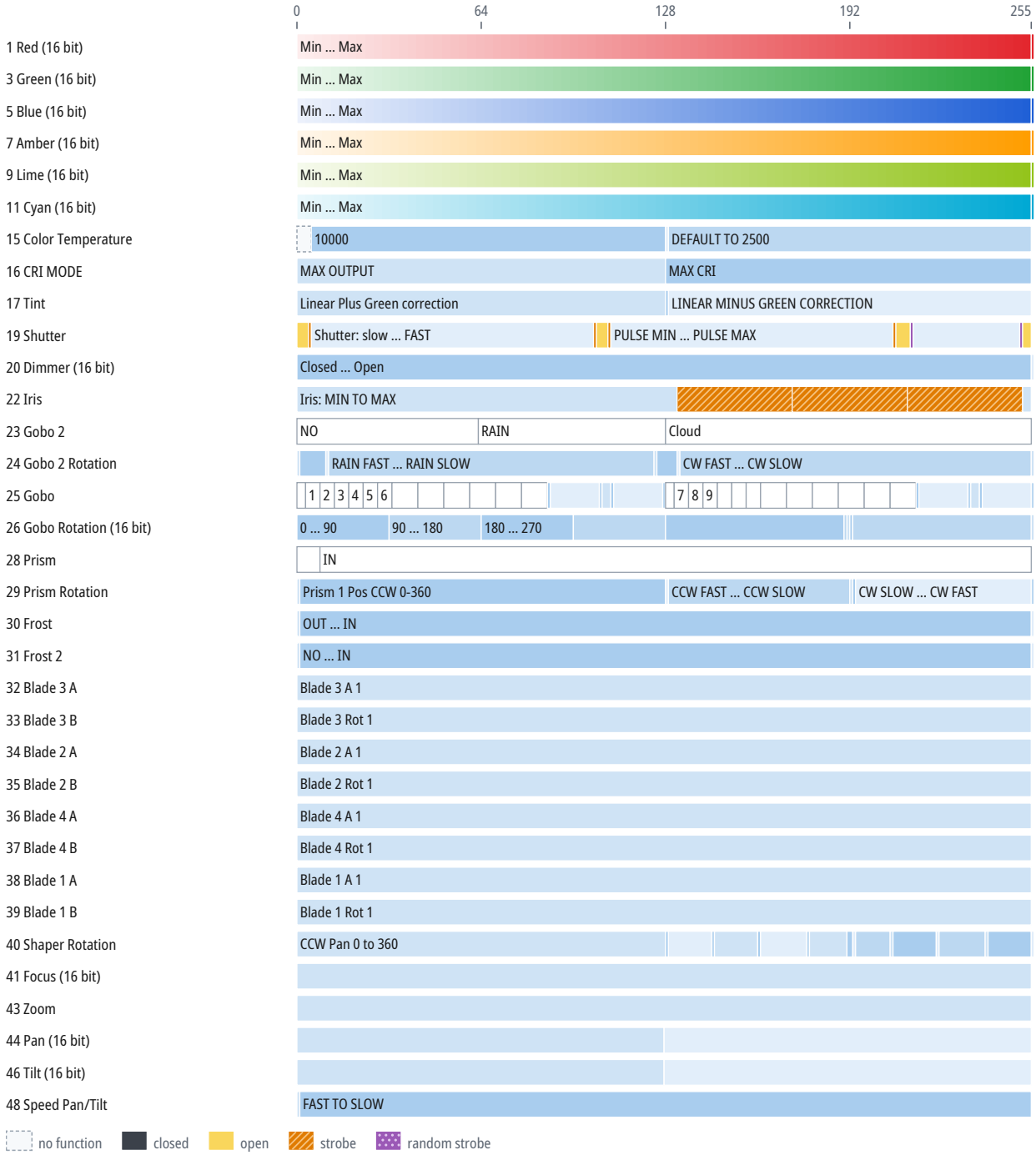
CH	Function	DMX	Description
56	Speed Pan/Tilt		Same as CH 55 in the mode “58 CH” (p. 23)
57	Pan Rotation		Same as CH 56 in the mode “58 CH” (p. 23)
58	Shaper Macros		Same as CH 57 in the mode “58 CH” (p. 23)
59	Control		Same as CH 58 in the mode “58 CH” (p. 24)

Mode 51CH

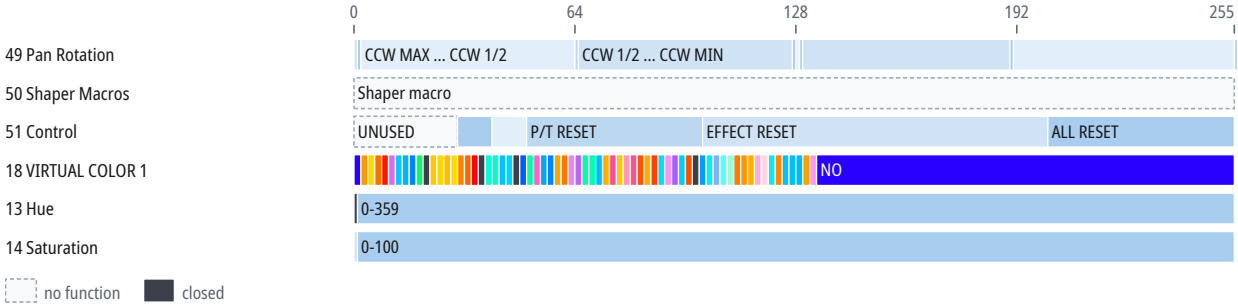
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 19 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 20 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Red 0, CH 3 Green 0, CH 5 Blue 0, CH 7 Amber 0, CH 9 Lime 0, CH 11 Cyan 0, CH 15 Color Temperature 128, CH 20 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “58 CH” (p. 15)
2	Red Fine	0–255	Fine adjustment of CH 1
3	Green		Same as CH 3 in the mode “58 CH” (p. 15)
4	Green Fine	0–255	Fine adjustment of CH 3
5	Blue		Same as CH 5 in the mode “58 CH” (p. 15)
6	Blue Fine	0–255	Fine adjustment of CH 5
7	Amber		Same as CH 7 in the mode “58 CH” (p. 15)
8	Amber Fine	0–255	Fine adjustment of CH 7
9	Lime		Same as CH 9 in the mode “58 CH” (p. 15)
10	Lime Fine	0–255	Fine adjustment of CH 9
11	Cyan		Same as CH 11 in the mode “58 CH” (p. 15)
12	Cyan Fine	0–255	Fine adjustment of CH 11
13	Hue		Same as CH 13 in the mode “59CH” (p. 26)
14	Saturation		Same as CH 14 in the mode “59CH” (p. 26)
15	Color Temperature		Same as CH 13 in the mode “58 CH” (p. 15)
16	CRI MODE		Same as CH 14 in the mode “58 CH” (p. 15)
17	Tint		Same as CH 15 in the mode “58 CH” (p. 15)
18	VIRTUAL COLOR 1		Same as CH 16 in the mode “58 CH” (p. 16)
19	Shutter		Same as CH 26 in the mode “58 CH” (p. 19)
20	Dimmer		Same as CH 27 in the mode “58 CH” (p. 20)
21	Dimmer Fine	0–255	Fine adjustment of CH 20
22	Iris		Same as CH 29 in the mode “58 CH” (p. 20)
23	Gobo 2		Same as CH 31 in the mode “59CH” (p. 27)
24	Gobo 2 Rotation		Same as CH 32 in the mode “59CH” (p. 27)
25	Gobo		Same as CH 32 in the mode “58 CH” (p. 20)
26	Gobo Rotation		Same as CH 33 in the mode “58 CH” (p. 21)
27	Gobo Rotation Fine	0–255	Fine adjustment of CH 26
28	Prism		Same as CH 35 in the mode “58 CH” (p. 22)
29	Prism Rotation		Same as CH 36 in the mode “58 CH” (p. 22)
30	Frost		Same as CH 37 in the mode “58 CH” (p. 22)
31	Frost 2		Same as CH 38 in the mode “58 CH” (p. 22)
32	Blade 3 A		Same as CH 39 in the mode “58 CH” (p. 22)

CH	Function	DMX	Description
33	Blade 3 B		Same as CH 40 in the mode “58 CH” (p. 22)
34	Blade 2 A		Same as CH 41 in the mode “58 CH” (p. 22)
35	Blade 2 B		Same as CH 42 in the mode “58 CH” (p. 22)
36	Blade 4 A		Same as CH 43 in the mode “58 CH” (p. 22)
37	Blade 4 B		Same as CH 44 in the mode “58 CH” (p. 22)
38	Blade 1 A		Same as CH 45 in the mode “58 CH” (p. 22)
39	Blade 1 B		Same as CH 46 in the mode “58 CH” (p. 22)
40	Shaper Rotation		Same as CH 47 in the mode “58 CH” (p. 22)
41	Focus	0–255	
42	Focus Fine	0–255	Fine adjustment of CH 41
43	Zoom	0–255	5–35°
44	Pan		Same as CH 51 in the mode “58 CH” (p. 23)
45	Pan Fine	0–255	Fine adjustment of CH 44
46	Tilt		Same as CH 53 in the mode “58 CH” (p. 23)
47	Tilt Fine	0–255	Fine adjustment of CH 46
48	Speed Pan/Tilt		Same as CH 55 in the mode “58 CH” (p. 23)
49	Pan Rotation		Same as CH 56 in the mode “58 CH” (p. 23)
50	Shaper Macros		Same as CH 57 in the mode “58 CH” (p. 23)
51	Control		Same as CH 58 in the mode “58 CH” (p. 24)

Mode 39CH

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 Shutter at 0–3, 104–107, 208–212 or 252–255 “ON”; CH 8 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Color Temperature 128, CH 8 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Color Temperature		Same as CH 13 in the mode “58 CH” (p. 15)
2	Undefined	0–255	
3	Undefined	0–255	
4	Undefined	0–255	
5	Undefined	0–255	
6	VIRTUAL COLOR 1		Same as CH 16 in the mode “58 CH” (p. 16)
7	Shutter		Same as CH 26 in the mode “58 CH” (p. 19)
8	Dimmer		Same as CH 27 in the mode “58 CH” (p. 20)
9	Dimmer Fine	0–255	Fine adjustment of CH 8
10	Iris		Same as CH 29 in the mode “58 CH” (p. 20)
11	Gobo 2		Same as CH 31 in the mode “59CH” (p. 27)
12	Gobo 2 Rotation		Same as CH 32 in the mode “59CH” (p. 27)
13	Gobo		Same as CH 32 in the mode “58 CH” (p. 20)
14	Gobo Rotation		Same as CH 33 in the mode “58 CH” (p. 21)
15	Gobo Rotation Fine	0–255	Fine adjustment of CH 14
16	Prism		Same as CH 35 in the mode “58 CH” (p. 22)
17	Prism Rotation		Same as CH 36 in the mode “58 CH” (p. 22)
18	Frost		Same as CH 37 in the mode “58 CH” (p. 22)
19	Frost 2		Same as CH 38 in the mode “58 CH” (p. 22)
20	Blade 3 A		Same as CH 39 in the mode “58 CH” (p. 22)
21	Blade 3 B		Same as CH 40 in the mode “58 CH” (p. 22)
22	Blade 2 A		Same as CH 41 in the mode “58 CH” (p. 22)
23	Blade 2 B		Same as CH 42 in the mode “58 CH” (p. 22)
24	Blade 4 A		Same as CH 43 in the mode “58 CH” (p. 22)
25	Blade 4 B		Same as CH 44 in the mode “58 CH” (p. 22)
26	Blade 1 A		Same as CH 45 in the mode “58 CH” (p. 22)
27	Blade 1 B		Same as CH 46 in the mode “58 CH” (p. 22)
28	Shaper Rotation		Same as CH 47 in the mode “58 CH” (p. 22)
29	Focus	0–255	
30	Focus Fine	0–255	Fine adjustment of CH 29
31	Zoom	0–255	5–35°
32	Pan		Same as CH 51 in the mode “58 CH” (p. 23)
33	Pan Fine	0–255	Fine adjustment of CH 32
34	Tilt		Same as CH 53 in the mode “58 CH” (p. 23)
35	Tilt Fine	0–255	Fine adjustment of CH 34
36	Speed Pan/Tilt		Same as CH 55 in the mode “58 CH” (p. 23)
37	Pan Rotation		Same as CH 56 in the mode “58 CH” (p. 23)
38	Shaper Macros		Same as CH 57 in the mode “58 CH” (p. 23)
39	Control		Same as CH 58 in the mode “58 CH” (p. 24)

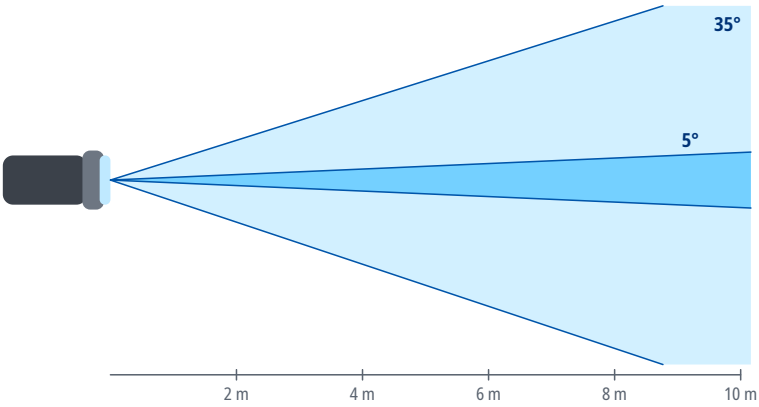
10 Technical specifications

Parameter	Value
Light source	discharge lamp
Zoom	5–35°
Pan	540°
Tilt	240°
Weight	54.5 kg
Operating temperature	-10 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2500–10000 K
Strobe frequency	1–20 Hz
Gobo wheel 1 rotation	up to 360 °/s (60 rpm)
Gobo 1 rotation	up to 360 °/s (60 rpm)
Gobo rotation	up to 120 °/s (20 rpm)
Prism rotation	up to 240 °/s (40 rpm)
Animation wheel rotation	up to 120 °/s (20 rpm)
Beam shaper rotation	up to 360 °/s (60 rpm)

Spot diameter



Distance	Ø 5°	Ø 35°
2 m	0.17 m	1.3 m
4 m	0.35 m	2.5 m
6 m	0.52 m	3.8 m
8 m	0.7 m	5 m
10 m	0.87 m	6.3 m
15 m	1.3 m	9.5 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.