DMX REFERENCE

MONARCH

MONARCH(CL-2400 BSWF)

CINDY



Manufacturer	CINDY
GDTF file	CINDY_MONARCH_169528.gdtf
GDTF revision	Build No 1 · 2026-11-16
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Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 5
6 Connections 5
7 Operation 6
8 Functions at a glance 7
9 DMX channels 9
Mode 53CH 10
Mode 37CH 18
10 Technical specifications 21
11 Maintenance and cleaning 21
12 Troubleshooting 22
13 Disposal 22

1 About this manual

This document describes the MONARCH(CL-2400 BSWF) by CINDY. It was compiled from the GDTF file CINDY_MONARCH_169528.gdtf from the GDTF-Share library.

File revision: “Build No 1”.

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 CINDY; 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	5.6 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
53CH	53	9	1, 54, 107, 160, ...
37CH	37	13	1, 38, 75, 112, ...

No light? Check these channels

- 53CH: CH 8 Shutter at 4–7 or 216–255 “ON”
- 37CH: CH 7 Shutter at 4–7 or 216–255 “ON”


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

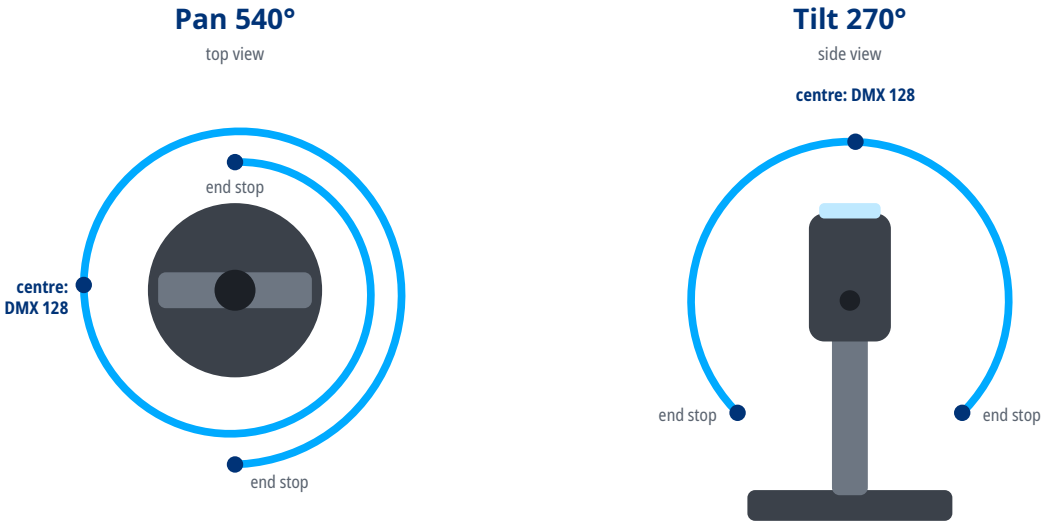
- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them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

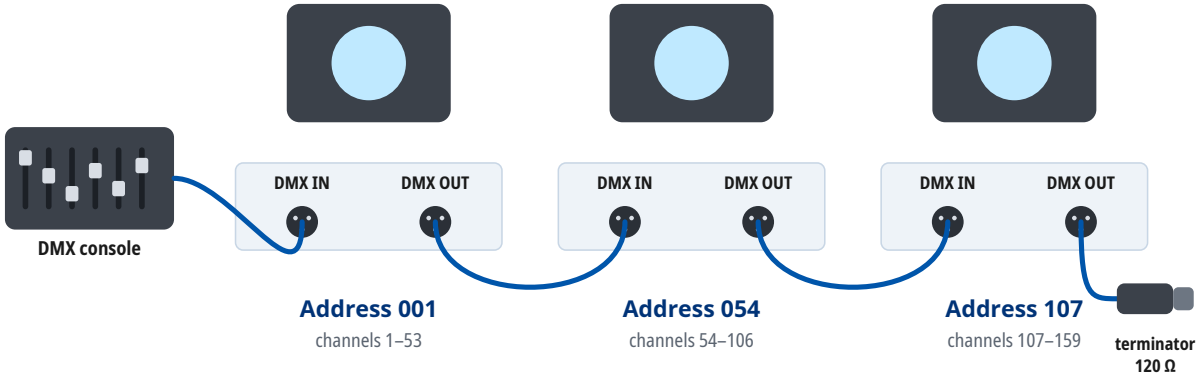
- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 5.6 kg.
- 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 53CH: every unit occupies 53 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

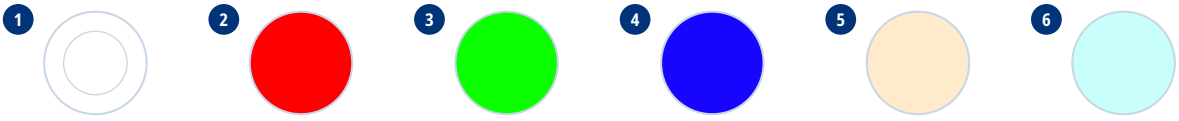
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “53CH”: 53.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “53CH”, you can use, for example, the start addresses 1, 54, 107, 160.
- 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

	53CH 53 channels	37CH 37 channels
Pan / Tilt	1, 3	1, 3
Dimmer	6	6
Dimmer resolution	16 bit	8 bit
Shutter / strobe	8	7
Color mixing	10–12	9–11
Color temperature	13	12
Color wheel	14	13
Gobo wheel	15, 18	14, 16
Gobo rotation	16	15
Prism	44–47	30–33
Frost	49, 50	35, 36
Zoom	42	29
Focus	39, 41	28
Iris	48	34
Animation wheel	19, 20	17, 18
Effects / macros	9, 51, 52	8

Color wheel



1 Color 1: Open
DMX 0–9

2 Color 1
DMX 10–19

3 Color 2
DMX 20–29

4 Color 3
DMX 30–39

5 Color 4
DMX 40–49

6 Color 5
DMX 50–60

Gobo wheel 1



1 GOBO: Open
DMX 0–7

2 Gobo 1
DMX 8–15

3 Gobo 2
DMX 16–23

4 Gobo 3
DMX 24–31

5 Gobo 4
DMX 32–39

6 Gobo 5
DMX 40–47



7 Gobo 6
DMX 48–55

8 Gobo 7
DMX 56–64

Gobo wheel 2

1
STATIC GOBO: Open
DMX 0–5

2 
Gobo 1
DMX 6–11

3 
Gobo 2
DMX 12–17

4 
Gobo 3
DMX 18–23

5 
Gobo 4
DMX 24–29

6 
Gobo 5
DMX 30–35

7 
Gobo 6
DMX 36–41

8 
Gobo 7
DMX 42–47

9 
Gobo 8
DMX 48–53

10 
Gobo 9
DMX 54–64

Animation wheel

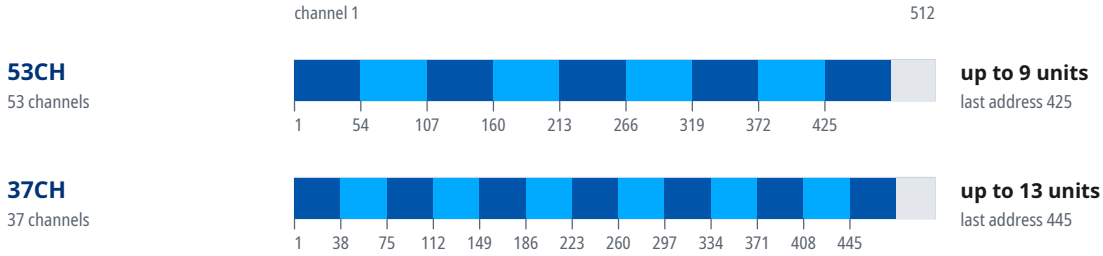
1 Animation

Prism

1 
1 facet
Open
DMX 0–4

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “53CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	266	11	U2 · 54	16	U2 · 319
2	54	7	319	12	U2 · 107	17	U2 · 372
3	107	8	372	13	U2 · 160	18	U2 · 425
4	160	9	425	14	U2 · 213	19	U3 · 1
5	213	10	U2 · 1	15	U2 · 266	20	U3 · 54

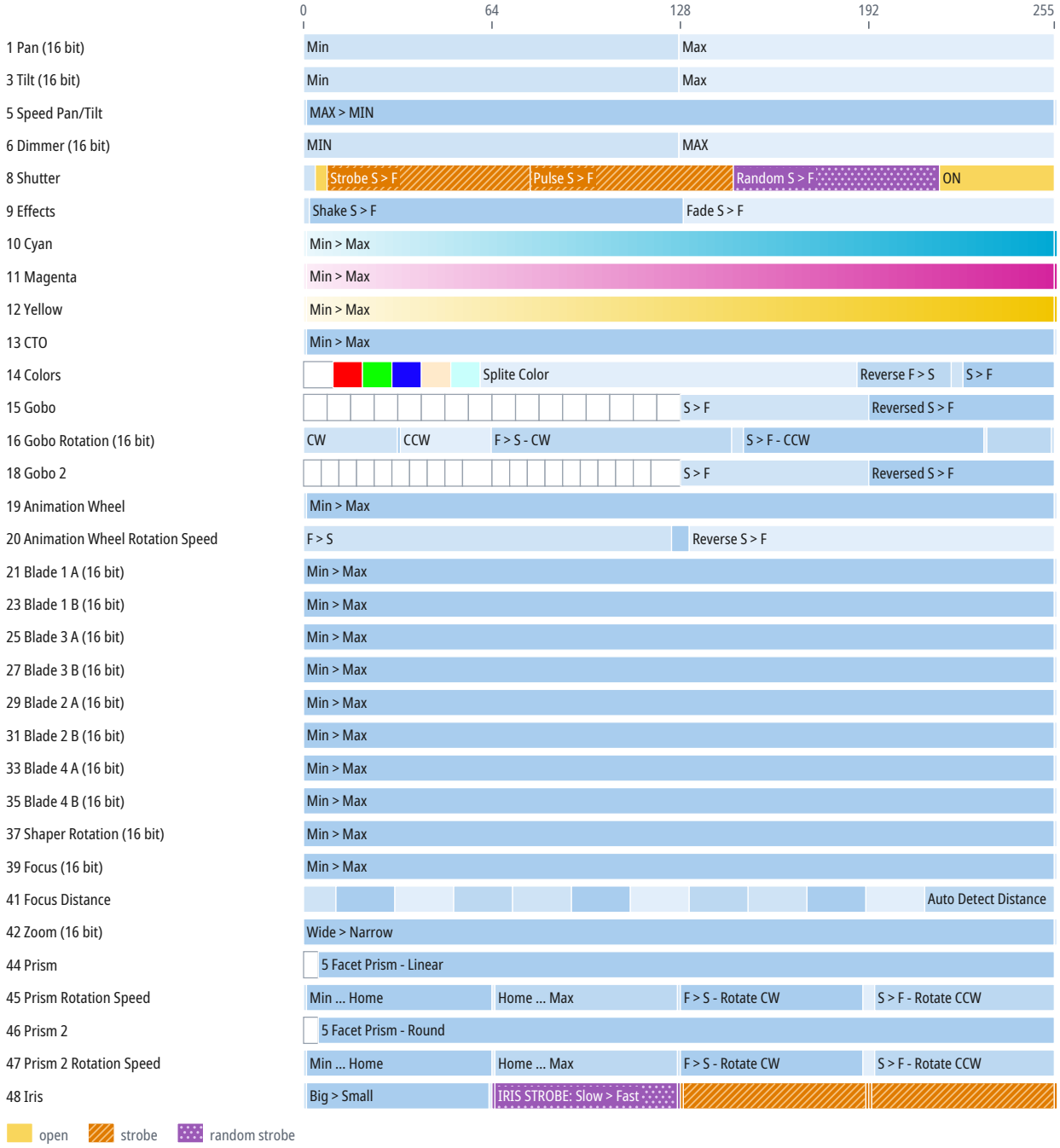
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 53CH

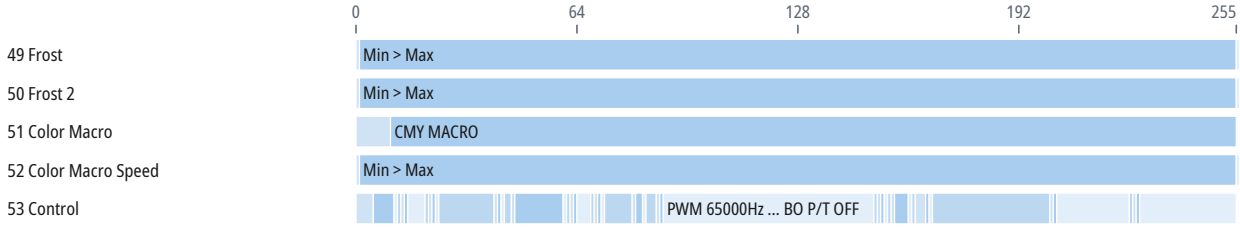
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 8 Shutter at 4–7 or 216–255 “ON”. The GDTF file gives these values for a console's Highlight function: CH 6 Dimmer 255, CH 10 Cyan 0, CH 11 Magenta 0, CH 12 Yellow 0, CH 13 CTO 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min
		128	Home
		128–255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min
		128	Home
		128–255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0	MAX
		1–254	MAX > MIN
		255	MIN
6	Dimmer	0–127	MIN
		128	MIN > MAX
		128–255	MAX
7	Dimmer Fine	0–255	Fine adjustment of CH 6
8	Shutter	0–3	OFF
		4–7	ON
		8–76	Strobe S > F
		77–145	Pulse S > F
		146–215	Random S > F
		216–255	ON
9	Effects		VIRTUAL SHAKE
		0–1	No Func
		2–128	Shake S > F
		129–255	Fade S > F
10	Cyan	0	Min
		1–254	Min > Max
		255	Max
11	Magenta	0	Min
		1–254	Min > Max
		255	Max
12	Yellow	0	Min
		1–254	Min > Max
		255	Max

CH	Function	DMX	Description
13	CTO	0	Min
		1–254	Min > Max
		255	Max
14	Colors	0–9	Color 1: Open
		10–19	Color 1
		20–29	Color 2
		30–39	Color 3
		40–49	Color 4
		50–59	Color 5
		60–187	Splite Color
		188–219	Reverse F > S
		220–223	Color Scroll: Stop
		224–255	S > F
15	Gobo	0–7	GOBO: Open
		8–15	Gobo 1
		16–23	Gobo 2
		24–31	Gobo 3
		32–39	Gobo 4
		40–47	Gobo 5
		48–55	Gobo 6
		56–63	Gobo 7
		64–71	Gobo 7 Shake (0.1–1.2 Hz)
		72–79	Gobo 6 Shake (0.1–10 Hz)
		80–87	Gobo 5 Shake (0.1–10 Hz)
		88–95	Gobo 4 Shake (0.1–10 Hz)
		96–103	Gobo 3 Shake (0.1–10 Hz)
		104–111	Gobo 2 Shake (0.1–10 Hz)
		112–119	Gobo 1 Shake (0.1–10 Hz)
		120–127	GOBO SHAKE: Open (0.1–10 Hz)
		128–191	S > F (78.7–1.89 °/s)
		192–255	Reversed S > F (1.89–78.7 °/s)
16	Gobo Rotation	0–31	CW
		32	Home
		33–63	CCW
		64–145	F > S - CW (655–0.1 °/s)
		146–149	GOBO 1 ROTATE: Stop
		150–231	S > F - CCW (0.1–655 °/s)
		232	Short
		233–254	Short > Long
		255	Long
17	Gobo Rotation Fine	0–255	Fine adjustment of CH 16
18	Gobo 2	0–5	STATIC GOBO: Open

CH	Function	DMX	Description
18	Gobo 2 (continued)	6–11	Gobo 1
		12–17	Gobo 2
		18–23	Gobo 3
		24–29	Gobo 4
		30–35	Gobo 5
		36–41	Gobo 6
		42–47	Gobo 7
		48–53	Gobo 8
		54–63	Gobo 9
		64–69	Gobo 9 Shake (0.1–0.89 Hz)
		70–75	Gobo 8 Shake (1.04–1.83 Hz)
		76–81	Gobo 7 Shake (1.99–2.77 Hz)
		82–87	Gobo 6 Shake (0.1–10 Hz)
		88–93	Gobo 5 Shake (0.1–10 Hz)
		94–99	Gobo 4 Shake (0.1–10 Hz)
		100–105	Gobo 3 Shake (0.1–10 Hz)
		106–111	Gobo 2 Shake (0.1–10 Hz)
		112–117	Gobo 1 Shake (0.1–10 Hz)
		118–127	GOBO SHAKE: Open (0.1–10 Hz)
		128–191	S > F
		192–255	Reversed S > F
19	Animation Wheel	0	Min
		1–254	Min > Max
		255	Max
20	Animation Wheel Rotation Speed		ANIMATION WHEEL ROTATION
		0–124	F > S (655–0.01 °/s)
		125–130	Stop
		131–255	Reverse S > F (0.01–655 °/s)
21	Blade 1 A		FRAME 1 A
		0	Min
		0–255	Min > Max
		255	Max
22	Blade 1 A Fine	0–255	Fine adjustment of CH 21
23	Blade 1 B		FRAME 1 B
		0	Min
		0–255	Min > Max
		255	Max
24	Blade 1 B Fine	0–255	Fine adjustment of CH 23
25	Blade 3 A		FRAME 3 A
		0	Min
		0–255	Min > Max
		255	Max

CH	Function	DMX	Description
26	Blade 3 A Fine	0–255	Fine adjustment of CH 25
27	Blade 3 B		FRAME 3 B
		0	Min
		0–255	Min > Max
		255	Max
28	Blade 3 B Fine	0–255	Fine adjustment of CH 27
29	Blade 2 A		FRAME 2 A
		0	Min
		0–255	Min > Max
		255	Max
30	Blade 2 A Fine	0–255	Fine adjustment of CH 29
31	Blade 2 B		FRAME 2 B
		0	Min
		0–255	Min > Max
		255	Max
32	Blade 2 B Fine	0–255	Fine adjustment of CH 31
33	Blade 4 A		FRAME 4 A
		0	Min
		0–255	Min > Max
		255	Max
34	Blade 4 A Fine	0–255	Fine adjustment of CH 33
35	Blade 4 B		FRAME 4 B
		0	Min
		0–255	Min > Max
		255	Max
36	Blade 4 B Fine	0–255	Fine adjustment of CH 35
37	Shaper Rotation		FRAME ROT
		0	Min
		0–255	Min > Max
		255	Max
38	Shaper Rotation Fine	0–255	Fine adjustment of CH 37
39	Focus	0	Min
		0–255	Min > Max
		255	Max
40	Focus Fine	0–255	Fine adjustment of CH 39
41	Focus Distance	0–10	Auto Focus Off
		11–30	0-5m - Focus
		31–50	6m - Focus
		51–70	7m - Focus
		71–90	8m - Focus
		91–110	9m - Focus
		111–130	10m - Focus

CH	Function	DMX	Description
41	Focus Distance (continued)	131–150	12 5m - Focus
		151–170	15m - Focus
		171–190	17 5m - Focus
		191–210	20-60m - Focus
		211–255	Auto Detect Distance
42	Zoom	0	Wide
		0–255	Wide > Narrow
		255	Narrow
43	Zoom Fine	0–255	Fine adjustment of CH 42
44	Prism	0–4	Open
		5–255	5 Facet Prism - Linear
45	Prism Rotation Speed	0	PRISM 1 INDEX: Min
		1–63	Min ... Home
		64	Home
		65–126	Home ... Max
		127	PRISM 1 INDEX: Max
		128–189	F > S - Rotate CW (655–0.1 °/s)
		190–193	PRISM 1 ROTATE: Stop
		194–255	S > F - Rotate CCW (0.1–655 °/s)
46	Prism 2	0–4	Open
		5–255	5 Facet Prism - Round
47	Prism 2 Rotation Speed	0	PRISM 2 INDEX: Min
		1–63	Min ... Home
		64	Home
		65–126	Home ... Max
		127	PRISM 2 INDEX: Max
		128–189	F > S - Rotate CW (655–0.1 °/s)
		190–193	PRISM 2 ROTATE: Stop
		194–255	S > F - Rotate CCW (0.1–655 °/s)
48	Iris	0	Big
		1–62	Big > Small
		63	Small
		64	IRIS STROBE: Slow (0.1–10 Hz)
		65–126	IRIS STROBE: Slow > Fast
		127	IRIS STROBE: Fast
		128	IRIS PULSE OPEN: Slow Open Fast Close - Slow (0.1–10 Hz)
		129–190	IRIS PULSE OPEN: Slow Open Fast Close (S > F)
		191	IRIS PULSE OPEN: Slow Open Fast Close - Fast
		192	IRIS PULSE CLOSE: Fast Open Slow Close - Slow (0.1–10 Hz)
		193–254	IRIS PULSE CLOSE: Fast Open Slow Close (S > F)
		255	IRIS PULSE CLOSE: Fast Open Slow Close - Fast
49	Frost		FROST 1

CH	Function	DMX	Description
49	Frost (continued)	0	Min
		1–254	Min > Max
		255	Max
50	Frost 2	0	Min
		1–254	Min > Max
		255	Max
51	Color Macro		CMY MACRO OPEN
		0–9	OPEN
		10–255	CMY MACRO
52	Color Macro Speed		CMY MACRO SPEED
		0	Min
		1–254	Min > Max
		255	Max
53	Control	0–4	Control 1 1
		5–10	Reset All
		11	Reset Color/CMY
		12	Reset Beam
		13	Reset P/T
		14	Reset Framing
		15–19	Reset Framing ... Dimmer Curve Linear
		20	Dimmer Curve Linear
		21	Dimmer Curve square
		22	Dimmer Curve I-Square
		23	Dimmer Curve Scurve
		24–39	Dimmer Curve Scurve ... Fan Mode Auto
		40	Fan Mode Auto
		41	Fan Mode Full
		42	Fan Mode Silent/ECO
		43–44	Fan Mode Silent/ECO ... Fan Mode Studio/TV35
		45	Fan Mode Studio/TV35
		46–59	Fan Mode Studio/TV35 ... Pan Reverse OFF
		60	Pan Reverse OFF
		61	Pan Reverse ON
		62	Tilt Reverse OFF
		63	Tilt Reverse ON
		64–67	Tilt Reverse ON ... P/T Swap OFF
		68	P/T Swap OFF
		69	P/T Swap ON
		70	P/T Reset Mode Normal
		71	P/T Reset Mode Absolute
		72–79	P/T Reset Mode Absolute ... PWM 600Hz
		80	PWM 600Hz

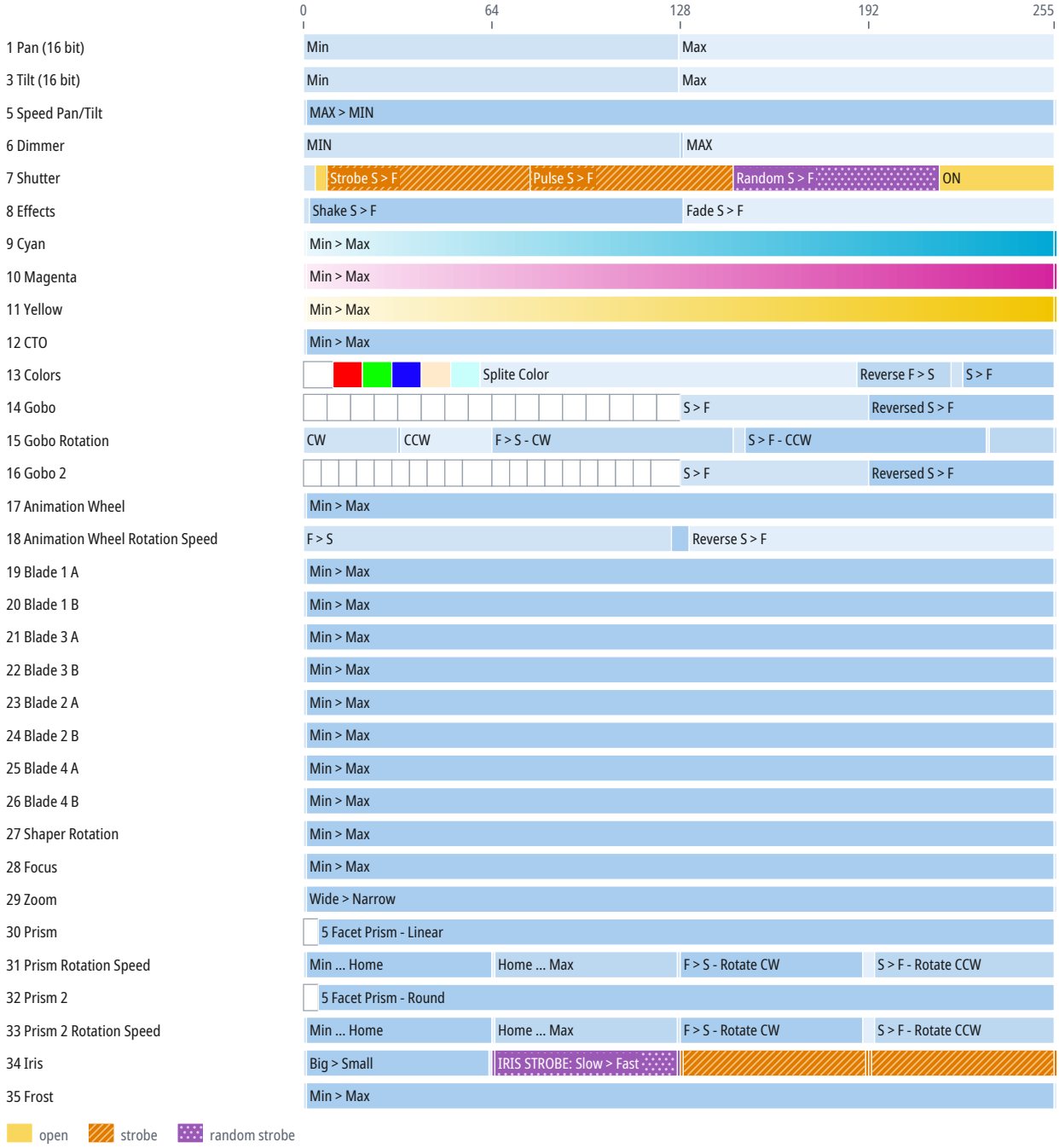
CH	Function	DMX	Description
53	Control (continued)	81–82	PWM 600Hz ... PWM 2000Hz
		83	PWM 2000Hz
		84–86	PWM 2000Hz ... PWM 15000Hz
		87	PWM 15000Hz
		88	PWM 65000Hz
		89–149	PWM 65000Hz ... BO P/T OFF
		150	BO P/T OFF
		151	BO P/T ON
		152	BO Color OFF
		153	BO Color ON
		154	BO Gobo OFF
		155	BO Gobo ON
		156–159	BO Gobo ON ... DMX Loss Hold
		160	DMX Loss Hold
		161	DMX Loss OFF
		162–164	DMX Loss OFF ... MinZoomFocus OFF
		165	MinZoomFocus OFF
		166	MinZoomFocus ON
		167–200	MinZoomFocus ON ... Screen Lock OFF
		201	Screen Lock OFF
		202	Screen Lock ON
		203–223	Screen Lock ON ... Sunshield ON
		224	Sunshield ON
		225	Auto CTB Gobo OFF
		226	Auto CTB Gobo ON
		227–255	Control 1 1

Mode 37CH

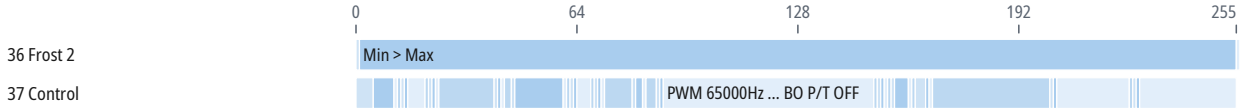
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 7 Shutter at 4–7 or 216–255 “ON”. The GDTF file gives these values for a console's Highlight function: CH 6 Dimmer 255, CH 9 Cyan 0, CH 10 Magenta 0, CH 11 Yellow 0, CH 12 CTO 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “53CH” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “53CH” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “53CH” (p. 11)
6	Dimmer	0–127	MIN
		128	MIN > MAX
		129–255	MAX
7	Shutter		Same as CH 8 in the mode “53CH” (p. 11)
8	Effects		Same as CH 9 in the mode “53CH” (p. 11)
9	Cyan		Same as CH 10 in the mode “53CH” (p. 11)
10	Magenta		Same as CH 11 in the mode “53CH” (p. 11)
11	Yellow		Same as CH 12 in the mode “53CH” (p. 11)
12	CTO		Same as CH 13 in the mode “53CH” (p. 12)
13	Colors		Same as CH 14 in the mode “53CH” (p. 12)
14	Gobo		Same as CH 15 in the mode “53CH” (p. 12)
15	Gobo Rotation		Same as CH 16 in the mode “53CH” (p. 12)
16	Gobo 2		Same as CH 18 in the mode “53CH” (p. 12)
17	Animation Wheel		Same as CH 19 in the mode “53CH” (p. 13)
18	Animation Wheel Rotation Speed		Same as CH 20 in the mode “53CH” (p. 13)
19	Blade 1 A		FRAME 1 A
		0	Min
		1–254	Min > Max
		255	Max
20	Blade 1 B		FRAME 1 B
		0	Min
		1–254	Min > Max
		255	Max
21	Blade 3 A		FRAME 3 A
		0	Min
		1–254	Min > Max
		255	Max
22	Blade 3 B		FRAME 3 B
		0	Min
		1–254	Min > Max
		255	Max
23	Blade 2 A		FRAME 2 A

CH	Function	DMX	Description
23	Blade 2 A (continued)	0	Min
		1–254	Min > Max
		255	Max
24	Blade 2 B		FRAME 2 B
		0	Min
		1–254	Min > Max
		255	Max
25	Blade 4 A		FRAME 4 A
		0	Min
		1–254	Min > Max
		255	Max
26	Blade 4 B		FRAME 4 B
		0	Min
		1–254	Min > Max
		255	Max
27	Shaper Rotation		FRAME ROT
		0	Min
		1–254	Min > Max
		255	Max
28	Focus	0	Min
		1–254	Min > Max
		255	Max
29	Zoom	0	Wide
		1–254	Wide > Narrow
		255	Narrow
30	Prism		Same as CH 44 in the mode “53CH” (p. 15)
31	Prism Rotation Speed		Same as CH 45 in the mode “53CH” (p. 15)
32	Prism 2		Same as CH 46 in the mode “53CH” (p. 15)
33	Prism 2 Rotation Speed		Same as CH 47 in the mode “53CH” (p. 15)
34	Iris		Same as CH 48 in the mode “53CH” (p. 15)
35	Frost		Same as CH 49 in the mode “53CH” (p. 15)
36	Frost 2		Same as CH 50 in the mode “53CH” (p. 16)
37	Control		Same as CH 53 in the mode “53CH” (p. 16)

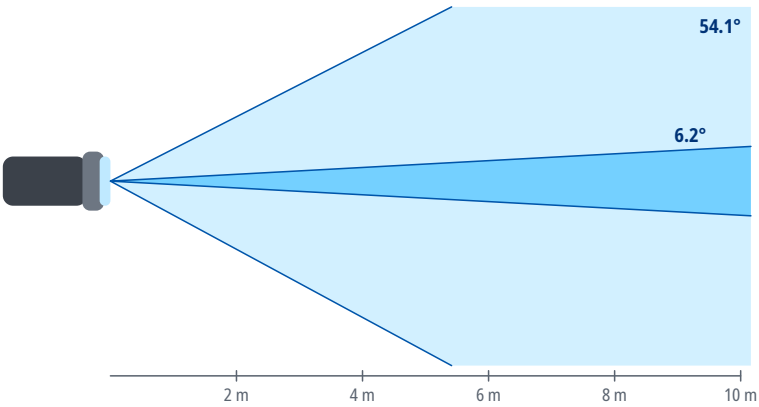
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	700 W
Luminous flux	1,000 lm
Color temperature	6,000 K
Color rendering index (CRI)	85
Optics	
Zoom	6.2–54.1°
Movement	
Pan	540°
Tilt	270°
Dimensions and construction	
Weight	5.6 kg
Operating environment	
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Gobo wheel 1 rotation	up to 80 °/s (13 rpm)
Gobo wheel 2 rotation	up to 80 °/s (13 rpm)
Gobo 1 rotation	up to 655 °/s (109 rpm)
Prism rotation	up to 655 °/s (109 rpm)
Prism 2 rotation	up to 655 °/s (109 rpm)
Animation wheel rotation	up to 655 °/s (109 rpm)

Spot diameter



Distance	Ø 6.2°	Ø 54.1°
2 m	0.22 m	2 m
4 m	0.43 m	4.1 m
6 m	0.65 m	6.1 m
8 m	0.87 m	8.2 m
10 m	1.1 m	10.2 m
15 m	1.6 m	15.3 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.