DMX REFERENCE

Superfast Wet

STARWAY



Manufacturer	STARWAY
GDTF file	Starway_Superfast_Wet_105629.gdtf
GDTF revision	V101 · 2025-07-28
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1 About this manual

This document describes the Superfast Wet by STARWAY. It was compiled from the GDTF file Starway_Superfast_Wet_105629.gdtf from the GDTF-Share library.

File revision: “V101”.

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 STARWAY; 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	220 W
Weight	18.8 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
CK Extend 16Bit	34	15	1, 35, 69, 103, ...
CK Extend 8Bit	28	18	1, 29, 57, 85, ...
Standard 16Bit	30	17	1, 31, 61, 91, ...
Standard 8Bit	23	22	1, 24, 47, 70, ...


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: 90–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

⚠ WARNING

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

⚠ CAUTION

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

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

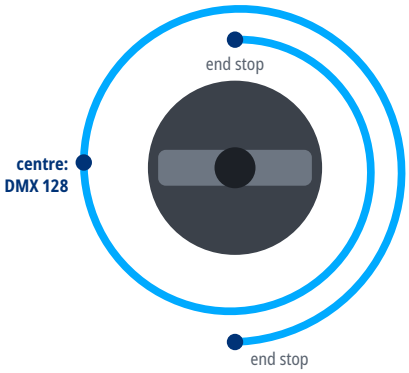
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

4 Product description

Range of movement

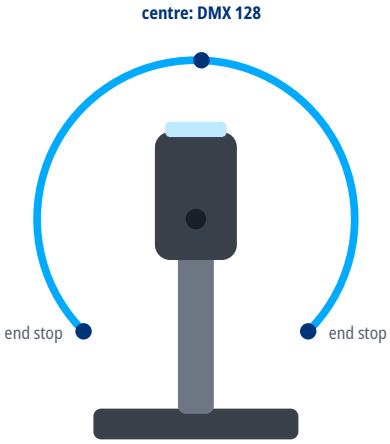
Pan 540°

top view



Tilt 270°

side view



5 Installation

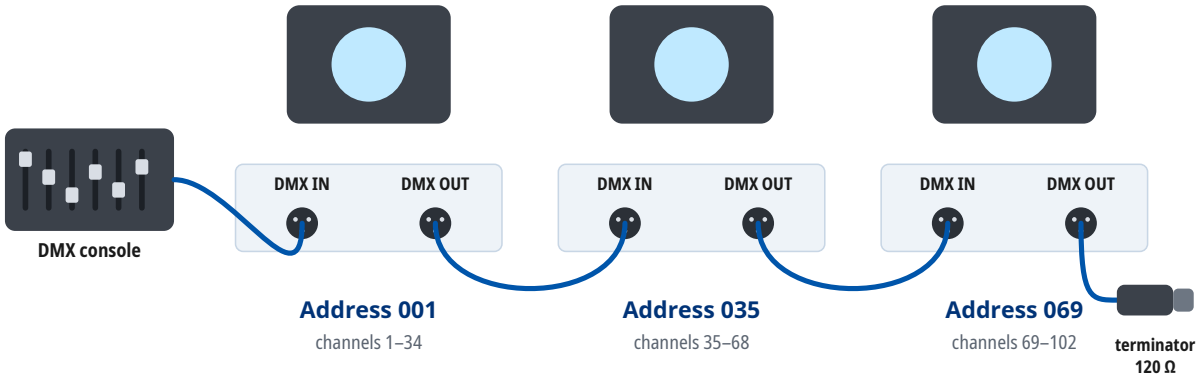
⚠ WARNING

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 18.8 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 CK Extend 16Bit: every unit occupies 34 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

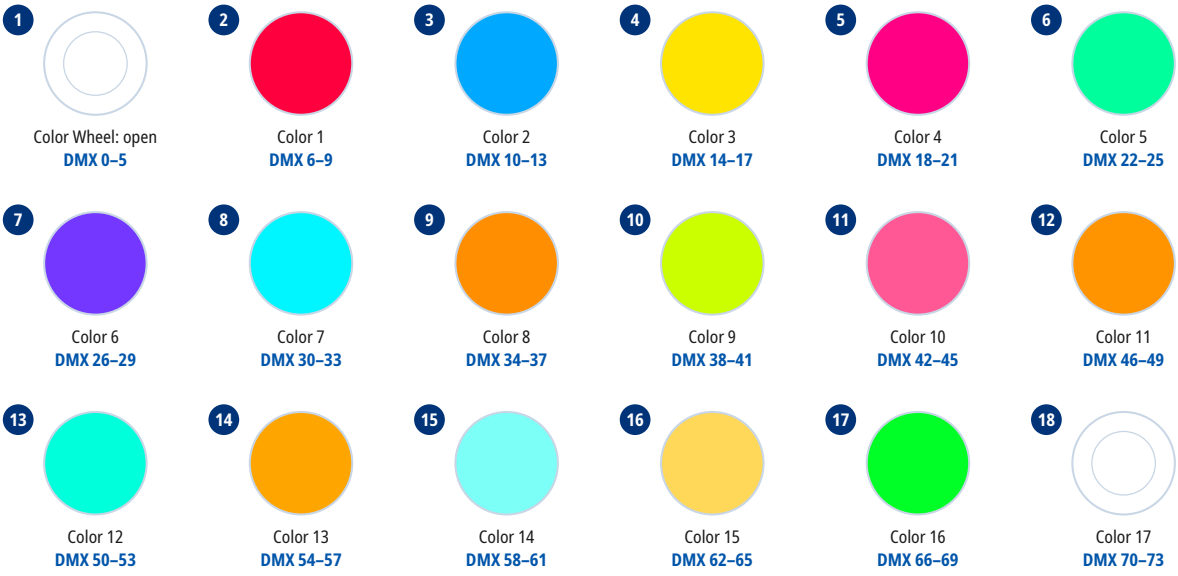
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “CK Extend 16Bit”: 34.
- Choose start addresses so that the channels of individual devices do not overlap and the last 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 “CK Extend 16Bit”, you can use, for example, the start addresses 1, 35, 69, 103.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

8 Functions at a glance

Functions in each DMX mode

	CK Extend 16Bit 34 channels	CK Extend 8Bit 28 channels	Standard 16Bit 30 channels	Standard 8Bit 23 channels
Pan / Tilt	1, 3	1, 3	1, 3, 5, 6	1, 3, 5, 6
Dimmer	8	8	7	7
Shutter / strobe	10	10	9	9
Color mixing	15, 17, 19	15–17	10, 12, 14	10–12
Color wheel	21	18	16	13
Gobo wheel	23	20	18	15
Gobo rotation	23	20	18	15
Prism	24, 25, 27, 28	21–24	19, 20, 22, 23	16–19
Frost	32	26	27	21
Focus	30	25	25	20

Color wheel



1 Color Wheel: open — DMX 0–5
2 Color 1 — DMX 6–9
3 Color 2 — DMX 10–13
4 Color 3 — DMX 14–17
5 Color 4 — DMX 18–21
6 Color 5 — DMX 22–25
7 Color 6 — DMX 26–29
8 Color 7 — DMX 30–33
9 Color 8 — DMX 34–37
10 Color 9 — DMX 38–41
11 Color 10 — DMX 42–45
12 Color 11 — DMX 46–49
13 Color 12 — DMX 50–53
14 Color 13 — DMX 54–57
15 Color 14 — DMX 58–61
16 Color 15 — DMX 62–65
17 Color 16 — DMX 66–69
18 Color 17 — DMX 70–73

Gobo wheel

1

Gobo: open
DMX 0–5

2

FixedGobo 1
DMX 6–9

3

FixedGobo 2
DMX 10–13

4

FixedGobo 3
DMX 14–17

5

FixedGobo 4
DMX 18–21

6

FixedGobo 5
DMX 22–25

7

FixedGobo 6
DMX 26–29

8

FixedGobo 7
DMX 30–33

9

FixedGobo 8
DMX 34–37

10

FixedGobo 9
DMX 38–41

11

FixedGobo 10
DMX 42–45

12

FixedGobo 11
DMX 46–49

13

FixedGobo 12
DMX 50–53

14

FixedGobo 13
DMX 54–57

15

FixedGobo 14
DMX 58–61

16

FixedGobo 15
DMX 62–65

17

FixedGobo 16
DMX 66–69

18

FixedGobo 17
DMX 70–73

19

FixedGobo 18
DMX 74–77

20

FixedGobo 19
DMX 78–81

21

FixedGobo 20
DMX 82–85

22

FixedGobo 21
DMX 86–89

23

FixedGobo 22
DMX 90–93

24

FixedGobo 23
DMX 94–98

Prism 1

1

Open
DMX 0–5

2

16 facets
16 facet prism
DMX 6–255

Prism 2

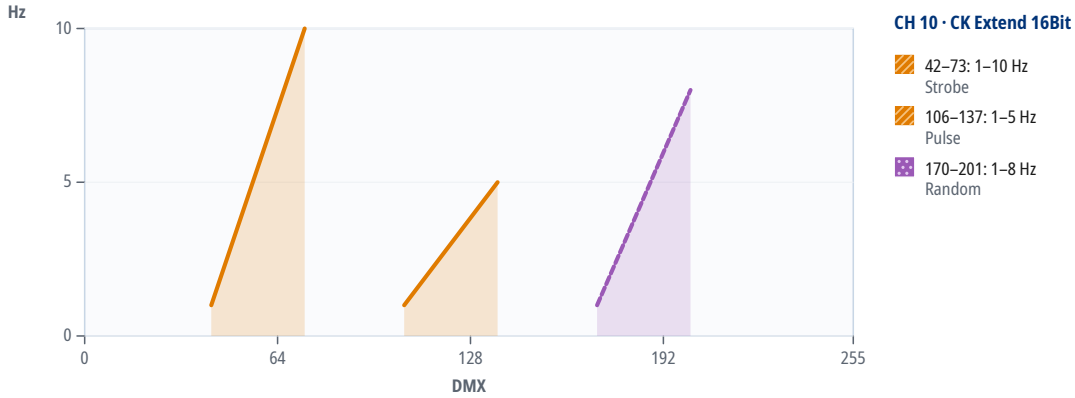
1

Open
DMX 0–5

2

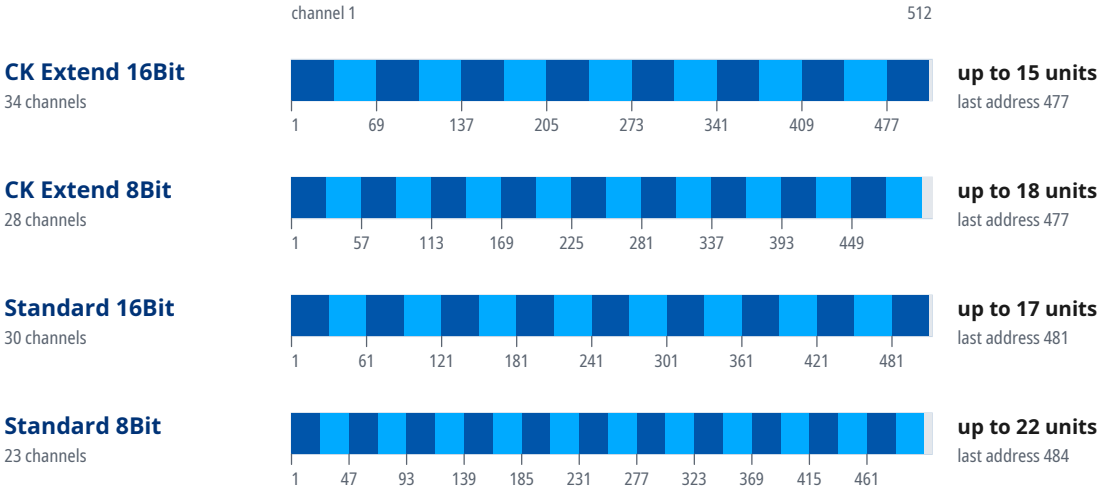
6 facets
6 Liner prism
DMX 6–255

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “CK Extend 16Bit”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	171	11	341	16	U2 · 1
2	35	7	205	12	375	17	U2 · 35
3	69	8	239	13	409	18	U2 · 69
4	103	9	273	14	443	19	U2 · 103
5	137	10	307	15	477	20	U2 · 137

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 CK Extend 16Bit

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

The GDTF file gives these values for a console's Highlight function: CH 8 Dimmer 255, CH 10 Shutter 255, CH 15 Cyan 0, CH 17 Magenta 0, CH 19 Yellow 0, CH 21 Colors 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... center
		128–255	Center ... max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... center
		128–255	Center ... max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Mode	0	Fast
		1–254	Fast ... Slow
		255	Slow
6	Tilt Mode	0	Fast

CH	Function	DMX	Description
6	Tilt Mode (continued)	1–254	Fast ... Slow
		255	Slow
7	Position Effect	0–9	No function
		10–15	CK effect of Pan/Tilt
		16–31	Blackout During Movements
		32–47	Pan Rotation Clockwise
		48–63	Pan Rotation Counter-Clockwise
		64–79	Tilt Rotation Clockwise
		80–95	Tilt Rotation Counter-Clockwise
		96–111	Pan and Tilt Rotation Clockwise
		112–127	Pan and Tilt Rotation Counter-Clockwise
		128–143	Pan Clockwise and Tilt Counter-Clockwise
		144–159	Pan Counter-Clockwise and Tilt Clockwise
		160–255	No function
8	Dimmer	0–255	0% ... 100%
		255	100%
9	Dimmer Fine	0–255	Fine adjustment of CH 8
10	Shutter	0–9	Shutter closed
		10–41	Shutter open1
		42	Min Strobe
		43–72	Min Strobe ... Max Strobe
		73	Max Strobe
		74–105	Shutter open2
		106	Min Pulse
		107–136	Min Pulse ... Max Pulse
		137	Max Pulse
		138–169	Shutter open3
		170	Min Random
		171–200	Min Random ... Max Random
		201	Max Random
		202–233	CK Fade(Only CK mode)
		234–255	Shutter open4
11	Pan Angle	0–14	No function
		15–255	Angle 360 > 0
12	Pan Position	0–14	No function
		15–255	Position 0 > 360
13	Tilt Angle	0–14	No function
		15–255	Angle 360 > 0
14	Tilt Position	0–14	No function
		15–255	Position 0 > 360
15	Cyan	0–255	
16	Cyan Fine	0–255	Fine adjustment of CH 15

CH	Function	DMX	Description
17	Magenta	0–255	
18	Magenta Fine	0–255	Fine adjustment of CH 17
19	Yellow	0–255	
20	Yellow Fine	0–255	Fine adjustment of CH 19
21	Colors	0–5	Color Wheel: open
		6–9	Color 1
		10–13	Color 2
		14–17	Color 3
		18–21	Color 4
		22–25	Color 5
		26–29	Color 6
		30–33	Color 7
		34–37	Color 8
		38–41	Color 9
		42–45	Color 10
		46–49	Color 11
		50–53	Color 12
		54–57	Color 13
		58–61	Color 14
		62–65	Color 15
		66–69	Color 16
		70–73	Color 17
		73–181	Open-Color1-Color17-Open
		181–213	CW Fast ... CW Slow
		213	CW Slow
		214–223	Color 1 Wheel Spin: Stop
		224–255	CCW Slow ... CCW Fast
		255	CCW Fast
22	Colors Fine	0–255	Fine adjustment of CH 21
23	Gobo	0–5	Gobo: open
		6–9	FixedGobo 1
		10–13	FixedGobo 2
		14–17	FixedGobo 3
		18–21	FixedGobo 4
		22–25	FixedGobo 5
		26–29	FixedGobo 6
		30–33	FixedGobo 7
		34–37	FixedGobo 8
		38–41	FixedGobo 9
		42–45	FixedGobo 10
		46–49	FixedGobo 11
		50–53	FixedGobo 12

CH	Function	DMX	Description
23	Gobo (continued)	54–57	FixedGobo 13
		58–61	FixedGobo 14
		62–65	FixedGobo 15
		66–69	FixedGobo 16
		70–73	FixedGobo 17
		74–77	FixedGobo 18
		78–81	FixedGobo 19
		82–85	FixedGobo 20
		86–89	FixedGobo 21
		90–93	FixedGobo 22
		94–97	FixedGobo 23
		98–101	Shake: open
		102–105	FixedGobo 1 shake (0.5–10 Hz)
		106–109	FixedGobo 2 shake (0.5–10 Hz)
		110–113	FixedGobo 3 shake (0.5–10 Hz)
		114–117	FixedGobo 4 shake (0.5–10 Hz)
		118–121	FixedGobo 5 shake (0.5–10 Hz)
		122–125	FixedGobo 6 shake (0.5–10 Hz)
		126–129	FixedGobo 7 shake (0.5–10 Hz)
		130–133	FixedGobo 8 shake (0.5–10 Hz)
		134–137	FixedGobo 9 shake (0.5–10 Hz)
		138–141	FixedGobo 10 shake (0.5–10 Hz)
		142–145	FixedGobo 11 shake (0.5–10 Hz)
		146–149	FixedGobo 12 shake (0.5–10 Hz)
		150–153	FixedGobo 13 shake (0.5–10 Hz)
		154–157	FixedGobo 14shake (0.5–10 Hz)
		158–161	FixedGobo 15 shake (0.5–10 Hz)
		162–165	FixedGobo 16 shake (0.5–10 Hz)
		166–169	FixedGobo 17 shake (0.5–10 Hz)
		170–173	FixedGobo 18 shake (0.5–10 Hz)
		174–177	FixedGobo 19 shake (0.5–10 Hz)
		178–181	FixedGobo 20 shake (0.5–10 Hz)
		182–185	FixedGobo 21 shake (0.5–10 Hz)
		186–189	FixedGobo 22 shake (0.5–10 Hz)
		190–193	FixedGobo 23 shake (0.5–10 Hz)
		194	CW Fast
		195–222	CW Fast ... CW Slow
		223	CW Slow
		224	Spin: Stop
		225	CCW Slow
		226–254	CCW Slow ... CCW Fast
		255	CCW Fast

CH	Function	DMX	Description
24	Prism	0–5	Open
		6–255	6 Liner prism
25	Prism Rotation	0–5	Prism 1 Pos: open
		6–128	Indexing
		129–191	CW Fast ... CW Slow
		191	CW Slow
		192	Prism 1 Pos Rotate: Stop
		193–255	CCW Slow ... CCW Fast
		255	CCW Fast
26	Prism Rotation Fine	0–255	Fine adjustment of CH 25
27	Prism 2	0–5	Open
		6–255	16 facet prism
28	Prism 2 Rotation	0–5	Prism 2 Pos: open
		6–128	Indexing
		129–191	CW Fast ... CW Slow
		191	CW Slow
		192	Prism 2 Pos Rotate: Stop
		193–255	CCW Slow ... CCW Fast
		255	CCW Fast
29	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 28
30	Focus	0–255	
31	Focus Fine	0–255	Fine adjustment of CH 30
32	Frost	0	0%
		1–254	0% ... 100%
		255	100%
33	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–255	Default to Unit Setting
34	Control	0–5	No function
		6–17	Invert Pan off
		18–29	Invert Pan on
		30–41	Invert Tilt off
		42–53	Invert Tilt on
		54–61	Fan Auto
		62–69	Fan Silent
		70–77	Fan High
		78–89	Linear
		90–101	SQUARE
		102–113	INV-SQUARE

CH	Function	DMX	Description
34	Control (continued)	114–125	S-Curve
		126–131	900hz
		132–137	1000hz
		138–143	1100hz
		144–149	1200hz
		150–155	1300hz
		156–161	1400hz
		162–167	1500hz
		168–173	2500hz
		174–179	4000hz
		180–185	5000hz
		186–191	10khz
		192–197	15khz
		198–203	20khz
		204–209	25khz
		210–215	Quick path P/T Off
		216–221	Quick path P/T On
		222–232	P/T Reset
		233–243	Head Reset
		244–255	All Reset

Mode CK Extend 8Bit

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

The GDTF file gives these values for a console's Highlight function: CH 8 Dimmer 255, CH 10 Shutter 255, CH 15 Cyan 0, CH 16 Magenta 0, CH 17 Yellow 0, CH 18 Colors 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “CK Extend 16Bit” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “CK Extend 16Bit” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Mode		Same as CH 5 in the mode “CK Extend 16Bit” (p. 11)
6	Tilt Mode		Same as CH 6 in the mode “CK Extend 16Bit” (p. 11)
7	Position Effect		Same as CH 7 in the mode “CK Extend 16Bit” (p. 12)
8	Dimmer		Same as CH 8 in the mode “CK Extend 16Bit” (p. 12)
9	Dimmer Fine	0–255	Fine adjustment of CH 8
10	Shutter		Same as CH 10 in the mode “CK Extend 16Bit” (p. 12)
11	Pan Angle		Same as CH 11 in the mode “CK Extend 16Bit” (p. 12)
12	Pan Position		Same as CH 12 in the mode “CK Extend 16Bit” (p. 12)

CH	Function	DMX	Description
13	Tilt Angle		Same as CH 13 in the mode “CK Extend 16Bit” (p. 12)
14	Tilt Position		Same as CH 14 in the mode “CK Extend 16Bit” (p. 12)
15	Cyan	0–255	
16	Magenta	0–255	
17	Yellow	0–255	
18	Colors		Same as CH 21 in the mode “CK Extend 16Bit” (p. 13)
19	Colors Fine	0–255	Fine adjustment of CH 18
20	Gobo	0–5	Gobo: open
		6–9	FixedGobo 1
		10–13	FixedGobo 2
		14–17	FixedGobo 3
		18–21	FixedGobo 4
		22–25	FixedGobo 5
		26–29	FixedGobo 6
		30–33	FixedGobo 7
		34–37	FixedGobo 8
		38–41	FixedGobo 9
		42–45	FixedGobo 10
		46–49	FixedGobo 11
		50–53	FixedGobo 12
		54–57	FixedGobo 13
		58–61	FixedGobo 14
		62–65	FixedGobo 15
		66–69	FixedGobo 16
		70–73	FixedGobo 17
		74–77	FixedGobo 18
		78–81	FixedGobo 19
		82–85	FixedGobo 20
		86–89	FixedGobo 21
		90–93	FixedGobo 22
		94–97	FixedGobo 23
		98–101	Shake: open
		102–105	FixedGobo 1 shake (0.5–10 Hz)
		106–109	FixedGobo 2 shake (0.5–10 Hz)
		110–113	FixedGobo 3 shake (0.5–10 Hz)
		114–117	FixedGobo 4 shake (0.5–10 Hz)
		118–121	FixedGobo 5 shake (0.5–10 Hz)
		122–125	FixedGobo 6 shake (0.5–10 Hz)
		126–129	FixedGobo 7 shake (0.5–10 Hz)
		130–133	FixedGobo 8 shake (0.5–10 Hz)
		134–137	FixedGobo 9 shake (0.5–10 Hz)
		138–141	FixedGobo 10 shake (0.5–10 Hz)

CH	Function	DMX	Description
20	Gobo (continued)	142–145	FixedGobo 11 shake (0.5–10 Hz)
		146–149	FixedGobo 12 shake (0.5–10 Hz)
		150–153	FixedGobo 13 shake (0.5–10 Hz)
		154–157	FixedGobo 14shake (0.5–10 Hz)
		158–161	FixedGobo 15 shake (0.5–10 Hz)
		162–165	FixedGobo 16 shake (0.5–10 Hz)
		166–169	FixedGobo 17 shake (0.5–10 Hz)
		170–173	FixedGobo 18 shake (0.5–10 Hz)
		174–177	FixedGobo 19 shake (0.5–10 Hz)
		178–181	FixedGobo 20 shake (0.5–10 Hz)
		182–185	FixedGobo 21 shake (0.5–10 Hz)
		186–189	FixedGobo 22 shake (0.5–10 Hz)
		190–193	FixedGobo 23 shake (0.5–10 Hz)
		194	CW Fast
		195–222	CW Fast ... CW Slow
		223	CW Slow
		224–225	Spin: Stop
		226	CCW Slow
		227–254	CCW Slow ... CCW Fast
		255	CCW Fast
21	Prism		Same as CH 24 in the mode “CK Extend 16Bit” (p. 15)
22	Prism Rotation	0–5	Prism 1 Pos: open
		6–128	Indexing
		129	CW Fast
		130–190	CW Fast ... CW Slow
		191	CW Slow
		192	Prism 1 Pos Rotate: Stop
		193	CCW Slow
		194–254	CCW Slow ... CCW Fast
		255	CCW Fast
23	Prism 2		Same as CH 27 in the mode “CK Extend 16Bit” (p. 15)
24	Prism 2 Rotation	0–5	Prism 2 Pos: open
		6–128	Indexing
		129	Fast to slow CW
		130–190	Fast to slow CW ... Stop
		191–192	Prism 2 Pos Rotate: Stop (2.86–0 °/s)
		193	Empty Channel Set
		194–254	Empty Channel Set ... CCW Fast
		255	CCW Fast
25	Focus	0–255	

CH	Function	DMX	Description
26	Frost		Same as CH 32 in the mode “CK Extend 16Bit” (p. 15)
27	Dimmer Mode		Same as CH 33 in the mode “CK Extend 16Bit” (p. 15)
28	Control		Same as CH 34 in the mode “CK Extend 16Bit” (p. 15)

Mode Standard 16Bit

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

The GDTF file gives these values for a console's Highlight function: CH 7 Dimmer 255, CH 9 Shutter 255, CH 10 Cyan 0, CH 12 Magenta 0, CH 14 Yellow 0, CH 16 Colors 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “CK Extend 16Bit” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “CK Extend 16Bit” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Rotation	0–127	No function
		128–189	Fast to slow CW (180–6 °/s)
		190–193	No rotation
		194–255	Slow to fast CCW (6–180 °/s)
6	Tilt Rotation	0–127	No function

CH	Function	DMX	Description
6	Tilt Rotation (continued)	128–189	Fast to slow CW (180–6 °/s)
		190–193	No rotation
		194–255	Slow to fast CCW (6–180 °/s)
7	Dimmer		Same as CH 8 in the mode “CK Extend 16Bit” (p. 12)
8	Dimmer Fine	0–255	Fine adjustment of CH 7
9	Shutter		Same as CH 10 in the mode “CK Extend 16Bit” (p. 12)
10	Cyan	0–255	
11	Cyan Fine	0–255	Fine adjustment of CH 10
12	Magenta	0–255	
13	Magenta Fine	0–255	Fine adjustment of CH 12
14	Yellow	0–255	
15	Yellow Fine	0–255	Fine adjustment of CH 14
16	Colors	0–5	Color Wheel: open
		6–9	Color 1
		10–13	Color 2
		14–17	Color 3
		18–21	Color 4
		22–25	Color 5
		26–29	Color 6
		30–33	Color 7
		34–37	Color 8
		38–41	Color 9
		42–45	Color 10
		46–49	Color 11
		50–53	Color 12
		54–57	Color 13
		58–61	Color 14
		62–65	Color 15
		66–69	Color 16
		70–73	Color 17
		73–181	Open-Color1-Color17-Open
		181–213	Clockwise from fast to slow (180–23.5 °/s)
		214–223	Color 1 Wheel Spin: Stop
		224–255	Counter-clockwise from slow to fast (24.9–180 °/s)
17	Colors Fine	0–255	Fine adjustment of CH 16
18	Gobo	0–5	Gobo: open
		6–9	FixedGobo 1
		10–13	FixedGobo 2
		14–17	FixedGobo 3
		18–21	FixedGobo 4
		22–25	FixedGobo 5

CH	Function	DMX	Description
18	Gobo (continued)	26–29	FixedGobo 6
		30–33	FixedGobo 7
		34–37	FixedGobo 8
		38–41	FixedGobo 9
		42–45	FixedGobo 10
		46–49	FixedGobo 11
		50–53	FixedGobo 12
		54–57	FixedGobo 13
		58–61	FixedGobo 14
		62–65	FixedGobo 15
		66–69	FixedGobo 16
		70–73	FixedGobo 17
		74–77	FixedGobo 18
		78–81	FixedGobo 19
		82–85	FixedGobo 20
		86–89	FixedGobo 21
		90–93	FixedGobo 22
		94–97	FixedGobo 23
		98–101	Shake: open
		102–105	FixedGobo 1 shake (0.1–1 Hz)
		106–109	FixedGobo 2 shake (0.1–1 Hz)
		110–113	FixedGobo 3 shake (0.1–1 Hz)
		114–117	FixedGobo 4 shake (0.1–1 Hz)
		118–121	FixedGobo 5 shake (0.1–1 Hz)
		122–125	FixedGobo 6 shake (0.1–1 Hz)
		126–129	FixedGobo 7 shake (0.1–1 Hz)
		130–133	FixedGobo 8 shake (0.1–1 Hz)
		134–137	FixedGobo 9 shake (0.1–1 Hz)
		138–141	FixedGobo 10 shake (0.1–1 Hz)
		142–145	FixedGobo 11 shake (0.1–1 Hz)
		146–149	FixedGobo 12 shake (0.1–1 Hz)
		150–153	FixedGobo 13 shake (0.1–1 Hz)
		154–157	FixedGobo 14shake (0.1–1 Hz)
		158–161	FixedGobo 15 shake (0.1–1 Hz)
		162–165	FixedGobo 16 shake (0.1–1 Hz)
		166–169	FixedGobo 17 shake (0.1–1 Hz)
		170–173	FixedGobo 18 shake (0.1–1 Hz)
		174–177	FixedGobo 19 shake (0.1–1 Hz)
		178–181	FixedGobo 20 shake (0.1–1 Hz)
		182–185	FixedGobo 21 shake (0.1–1 Hz)
		186–189	FixedGobo 22 shake (0.1–1 Hz)
		190–193	FixedGobo 23 shake (0.1–1 Hz)

CH	Function	DMX	Description
18	Gobo (continued)	194–223	Fast to Slow CW (180–8.85 °/s)
		224–225	Spin: Stop
		226–255	Slow to Fast CCW (8.85–180 °/s)
19	Prism		Same as CH 24 in the mode “CK Extend 16Bit” (p. 15)
20	Prism Rotation		Same as CH 25 in the mode “CK Extend 16Bit” (p. 15)
21	Prism Rotation Fine	0–255	Fine adjustment of CH 20
22	Prism 2		Same as CH 27 in the mode “CK Extend 16Bit” (p. 15)
23	Prism 2 Rotation		Same as CH 28 in the mode “CK Extend 16Bit” (p. 15)
24	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 23
25	Focus	0–255	
26	Focus Fine	0–255	Fine adjustment of CH 25
27	Frost		Same as CH 32 in the mode “CK Extend 16Bit” (p. 15)
28	Dimmer Mode		Same as CH 33 in the mode “CK Extend 16Bit” (p. 15)
29	Speed Pan/Tilt	0	Max speed
		1–254	Max speed ... Min speed
		255	Min speed
30	Control		Same as CH 34 in the mode “CK Extend 16Bit” (p. 15)

Mode Standard 8Bit

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

The GDTF file gives these values for a console's Highlight function: CH 7 Dimmer 255, CH 9 Shutter 255, CH 10 Cyan 0, CH 11 Magenta 0, CH 12 Yellow 0, CH 13 Colors 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “CK Extend 16Bit” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “CK Extend 16Bit” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Rotation		Same as CH 5 in the mode “Standard 16Bit” (p. 20)
6	Tilt Rotation		Same as CH 6 in the mode “Standard 16Bit” (p. 20)
7	Dimmer		Same as CH 8 in the mode “CK Extend 16Bit” (p. 12)
8	Dimmer Fine	0–255	Fine adjustment of CH 7
9	Shutter		Same as CH 10 in the mode “CK Extend 16Bit” (p. 12)
10	Cyan	0–255	
11	Magenta	0–255	
12	Yellow	0–255	
13	Colors		Same as CH 16 in the mode “Standard 16Bit” (p. 21)
14	Colors Fine	0–255	Fine adjustment of CH 13
15	Gobo		Same as CH 18 in the mode “Standard 16Bit” (p. 21)
16	Prism		Same as CH 24 in the mode “CK Extend 16Bit” (p. 15)

CH	Function	DMX	Description
17	Prism Rotation		Same as CH 22 in the mode “CK Extend 8Bit” (p. 19)
18	Prism 2		Same as CH 27 in the mode “CK Extend 16Bit” (p. 15)
19	Prism 2 Rotation	0–5	Prism 2 Pos: open
		6–128	Indexing
		129	CW Fast
		130–190	CW Fast ... CW Slow
		191	CW Slow
		192	Prism 2 Pos Rotate: Stop
		193	CCW Slow
		194–254	CCW Slow ... CCW Fast
		255	CCW Fast
20	Focus	0–255	
21	Frost		Same as CH 32 in the mode “CK Extend 16Bit” (p. 15)
22	Dimmer Mode		Same as CH 33 in the mode “CK Extend 16Bit” (p. 15)
23	Control		Same as CH 34 in the mode “CK Extend 16Bit” (p. 15)

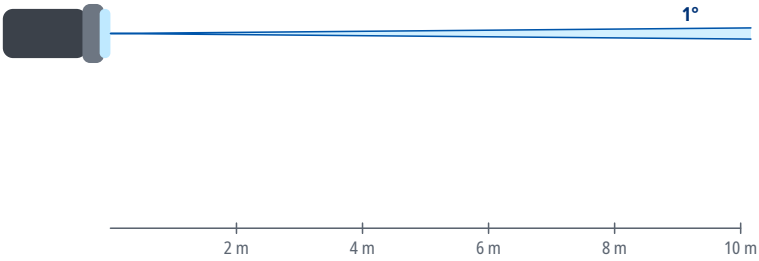
10 Technical specifications

Parameter	Value
Light	
Light source	discharge lamp
Lamp power	100 W
Luminous flux	3,400 lm
Color temperature	8,500 K
Color rendering index (CRI)	73
Optics	
Beam angle	1°
Movement	
Pan	540°
Tilt	270°
Control	
DMX connection	5-pin XLR IN/OUT
RJ45 connectors	RJ45 IN/OUT
RDM	yes (manufacturer ID 0x09E9, device model ID 0x001A)
Electrical	
Power supply	90–240 V, 50/60 Hz
Power consumption	220 W
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	18.8 kg
Operating environment	
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Strobe frequency	1–10 Hz
Color wheel rotation	up to 180 °/s (30 rpm)
Gobo wheel rotation	up to 180 °/s (30 rpm)
Prism 1 rotation	up to 180 °/s (30 rpm)
Prism 2 rotation	up to 180 °/s (30 rpm)

Spot diameter



Distance	Ø 1°
2 m	0.03 m
4 m	0.07 m
6 m	0.1 m
8 m	0.14 m
10 m	0.17 m
15 m	0.26 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.