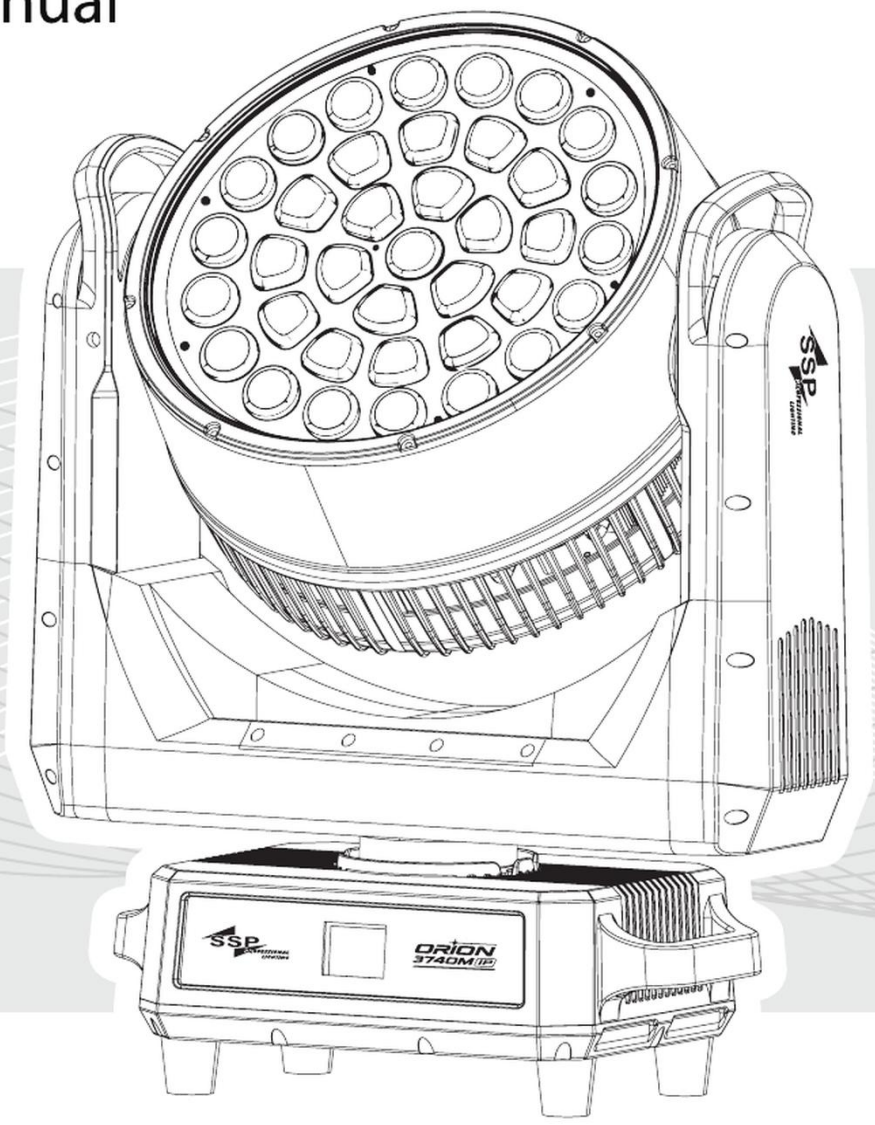
SSP PROFESSIONAL LIGHTING

ORION 3740M IP

User's Manual



LED MOVING HEAD

English

Please read the user manual carefully
before using the appliance.

ORION 3740 M IP USER MANUAL – INDEX

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ORION 3740 M IP USER MANUAL

1 Technical specifications

1 Technical specifications

The ORION 3740 M IP is an LED moving head with a zoom lens, a 37-LED RGBL array and a pixel-effect ring. It is controlled by DMX-512, RDM, Art-Net or Scan, and it has an OLED touch display.

Item	Specification
Power voltage	AC 100–240 V, 50/60 Hz
Power consumption	1600 W
Light source	37 × 40 W high-power TX 4-in-1 RGBL LEDs, and 408 × 0.3 W 3-in-1 RGB LEDs
Light source life	50,000 hours
Colour mixing	Uniform RGBL colour mixing, with a rainbow effect
Zoom angle	4° to 60°, linear zoom
Colour temperature	2700 K to 8000 K
Pixel effect	Each LED and each colour can be controlled individually
Dimmer	0–100% linear dimmer
Strobe	1–30 times per second, electronic and random strobe
Pan / tilt	Pan 540°, tilt 360° infinite movement
DMX channels	26, 50A, 50B, 199 or A199
Control modes	DMX-512, auto, master-slave
Protocols	DMX-512, RDM (bidirectional), Art-Net, Scan
Cooling	Temperature-controlled fan, with overheating protection
Display	OLED touch display
Connections	Seetronic 3-pin XLR waterproof DMX in/out, Powercon waterproof power in/out, Seetronic Art-Net waterproof in/out
Housing	Die-cast aluminium
Dimensions	490 × 365 × 650 mm
Net weight	28 kg
Ambient temperature	Maximum Ta 40 °C. Surface temperature can reach 85 °C.

2 Safety instructions and installation

2 Safety instructions and installation

2.1 Safety

- Keep this user guide. If you sell the unit, make sure the new owner receives it.
- Check the unit for transport damage before use. Make sure the voltage and frequency match the unit.
- Earth the yellow/green conductor to avoid electric shock.
- Install the unit in a well-ventilated place, with at least 50 cm from adjacent surfaces. Do not block the ventilation slots.
- Disconnect the mains before replacement or servicing.
- Keep flammable materials away from the unit while it operates.
- Use a safety cable. Do not carry the unit by its head only; always hold the base.
- Do not touch the housing with bare hands during operation. Turn off the power and let the unit cool for about 15 minutes before replacement or servicing.
- Do not touch any wire during operation, as high voltage may cause electric shock.
- Do not open the unit within five minutes of switching it off.
- Replace the housing, lenses or UV filter if they are visibly damaged.
- There are no user-serviceable parts inside. Do not open the housing or attempt repairs. Contact your dealer or an authorised service centre, and use the same type of spare parts.

2.2 Installation

Mount the unit through its screw holes on the bracket, and make sure it is firmly fixed to avoid vibration and slipping. The structure must be able to support 10 times the weight of the unit. Always use a safety cable that can hold 12 times the weight of the unit. Installation must be carried out by professionals, in a place out of reach of people.

3 Control and menu

3 Control and menu

3.1 Display buttons

Button	Function
MENU	Select the programming functions.
UP	Move forward through the selected functions.
DOWN	Move backward through the selected functions.
ENTER	Confirm the selected function.

3.2 Set the DMX address

Press MENU to reach Set DMX Address, and press ENTER. Use UP and DOWN to change the address (the default is 001), press ENTER to save and exit, or MENU to exit without saving.

3.3 Main menu

Menu	Options and function
Address	Set the DMX address code.
Settings	System settings, as listed below.
Manual	Manual control of channel values, from 000 to 255. Press OK to edit, UP and DOWN to change, OK to save, and Exit to leave without saving.
Calibration	Password-protected system calibration: initial position calibration (0–255, 127 means no adjustment), white balance CAL for the lamp and LEDs 1–37 (0–255, 255 means no adjustment), power calibration, voice sensitivity and password change.
Reset	Lamp reset, XY reset, and complete reset. Press UP and DOWN to choose, and OK to reset.
Information	Sensor information, DMX data monitoring, hardware version and software version.

3.4 System settings

Option	Choices
Running mode	Art-Net, DMX, Art-Net + DMX, Trailer 1, Trailer 2, Voice-controlled
Channel pattern	26, 50A, 50B, 199A or 199CH
Network settings	IP network address code of the data packet
Horizontal inversion, vertical reversal	On or off
Hall error correction, optocoupler error correction	On or off
Signal holding, screen protector, flip screen, sync updates	On or off
Language	Chinese or English
Light dimming speed	Fast or standard
Dimming curve	Curves 1 to 4

Option	Choices
Screen lock	On or off
Factory data reset	Confirm or cancel

The screen rotates automatically based on gravity, and this can be turned off. To unlock the screen lock, use the password set in the calibration menu.

4 DMX channel modes

4 DMX channel modes

The fixture has five DMX channel modes, selected with the channel pattern setting: 26, 50A, 50B, 199 and A199. The table below summarises them. The detailed tables are in section 5, and they are taken from the DMX chart as printed.

Mode	Channels	Notes
26 Channel Mode	26	Basic mode: pan and tilt, background colour, strobe, dimmer, CTO, colour presets, zoom and reset functions.
50A Channel Mode	50	Adds the main light effect, main light dimming, and halo ring control. The manual calls it 50CH.
50B Channel Mode	50	Uses level and vertical control names for pan and tilt. Adds zoom, dimmer and strobe, main light effect colour dimmers for four groups, and six halo ring area dimming groups.
199 Channel Mode	199	Adds LED dimming channels for each R, G, B and W group. Channels 60 to 195 are not in use.
A199 Channel Mode	199	Uses the B bank labels for the LED channels. Channels B9 to B144 are not in use.

In every mode the DMX value ranges are inclusive, from 0 to 255 unless the table states otherwise. Connect the DMX cable in order, with pin 1 as ground, pin 2 as negative signal (–) and pin 3 as positive signal (+).

5 DMX channel tables

5 DMX channel tables

The DMX chart lists five modes. The tables below are taken from the DMX chart as printed. Unused channel ranges are shown as one row.

5.1 26 Channel Mode

CH	Function	DMX value	Description
1	Pan	0–255	Pan
2	Pan Fine	0–255	Pan fine
3	Tilt	0–255	Tilt
4	Tilt Fine	0–255	Tilt fine
5	Pan/Tilt Speed	0–255	Pan/tilt speed
6	Reserve	0–255	Reserve
		0–127	No function
		128–189	Forward rotation: fast → slow
7	Tilt Infinite Rotation	190–193	Stop
		194–255	Reverse rotation: slow → fast
8	Background Color Red	0–255	Background color red (0–100%)
9	Background Color Red Fine	0–255	Red background fine adjustment (0–100%)
10	Background Color Green	0–255	Background color green (0–100%)
11	Background Color Green Fine	0–255	Background green fine adjustment (0–100%)
12	Background Color Blue	0–255	Background color blue (0–100%)
13	Background Color Blue Fine	0–255	Background blue fine adjustment (0–100%)
14	Background Color White	0–255	Background color white (0–100%)
15	Background Color White Fine	0–255	Background white fine adjustment (0–100%)
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
16	Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on
		192–223	Random strobe
		224–255	Light on
17	Dimmer	0–255	Dimming 0–100%
18	Dimming Fine	0–255	Dimming fine adjustment (0–100%)
19	CTO	0–21	No function
		22–42	No function

CH	Function	DMX value	Description
		43–63	7500K
		64–84	7500K
		85–105	6500K
		106–126	6500K
		127–147	5500K
		148–168	5500K
		169–189	4500K
		190–210	4500K
		211–231	3500K
		232–255	3500K
20	Color Presets	0–255	Color presets
		0	Output controlled by RGBW values
21	Color Presets RGBW Cross Fade	1–254	RGBW settings and color preset channels for cross fade-in and fade-out
		255	Control color with color presets
		0–4	No function
22	Color Preset Cross Fade	4–255	Two-color preset cross-gradient from 100 milliseconds to 5 seconds
23	Zoom	0–255	Zoom
24	Zoom Fine	0–255	Zoom fine
25	Reserve	—	Reserve
		0–4	No function
		5–9	Screen saver
		10–14	Reset / Internal Function
		15–19	Display reverse close
		20–44	Reset / Internal Function
		45–49	Linear dimming curve
		50–54	Reset / Internal Function
26	Reset / Internal Function	55–57	1K
		58–60	Reset / Internal Function
		61–63	6K
		64–79	Reset / Internal Function
		80–84	All motors reset
		85–87	Reset / Internal Function
		88–90	Zoom motor reset
		91–255	Reset / Internal Function

5.2 50A Channel Mode

CH	Function	DMX value	Description
1	Pan	0–255	Pan
2	Pan Fine	0–255	Pan fine
3	Tilt	0–255	Tilt
4	Tilt Fine	0–255	Tilt fine
5	Pan/Tilt Speed	0–255	Pan/tilt speed
6	Reserve	0–255	Reserve
		0–127	No function
		128–189	Forward rotation: fast → slow
7	Tilt Infinite Rotation	190–193	Stop
		194–255	Reverse rotation: slow → fast
8	Background Color Red	0–255	Background color red (0–100%)
9	Background Color Red Fine	0–255	Red background fine adjustment (0–100%)
10	Background Color Green	0–255	Background color green (0–100%)
11	Background Color Green Fine	0–255	Background green fine adjustment (0–100%)
12	Background Color Blue	0–255	Background color blue (0–100%)
13	Background Color Blue Fine	0–255	Background blue fine adjustment (0–100%)
14	Background Color White	0–255	Background color white (0–100%)
15	Background Color White Fine	0–255	Background white fine adjustment (0–100%)
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
16	Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on
		192–223	Random strobe
		224–255	Light on
17	Dimmer	0–255	Dimming 0–100%
18	Dimming Fine	0–255	Dimming fine adjustment (0–100%)
19	CTO	0–21	No function
		22–42	No function
		43–63	7500K
		64–84	7500K
		85–105	6500K
		106–126	6500K
		127–147	5500K
		148–168	5500K

CH	Function	DMX value	Description
		169–189	4500K
		190–210	4500K
		211–231	3500K
		232–255	3500K
20	Color Presets	0–255	Color presets
		0	Output controlled by RGBW values
21	Color Presets RGBW Cross Fade	1–254	RGBW settings and color preset channels for cross fade-in and fade-out
		255	Control color with color presets
		0–4	No function
22	Color Preset Cross Fade	4–255	Two-color preset cross-gradient from 100 milliseconds to 5 seconds
23	Zoom	0–255	Zoom
24	Zoom Fine	0–255	Zoom fine
25	Reserve	—	Reserve
		0–4	No function
		5–9	Screen saver
		10–14	Reset / Internal Function
		15–19	Display reverse close
		20–44	Reset / Internal Function
		45–49	Linear dimming curve
		50–54	Reset / Internal Function
26	Reset / Internal Function	55–57	1K
		58–60	Reset / Internal Function
		61–63	6K
		64–79	Reset / Internal Function
		80–84	All motors reset
		85–87	Reset / Internal Function
		88–90	Zoom motor reset
		91–255	Reset / Internal Function
27	Main Light Effect	0–9	No function
		10–14	Effect 1
		15–19	Effect 2
		20–24	Effect 3
		25–29	Effect 4
		30–34	Effect 5
		35–39	Effect 6
		40–44	Effect 7

CH	Function	DMX value	Description
		45–49	Effect 8
		50–54	Effect 9
		55–59	Effect 10
		60–64	Effect 11
		65–69	Effect 12
		70–74	Effect 13
		75–79	Effect 14
		80–84	Effect 15
		85–89	Effect 16
		90–94	Effect 17
		95–99	Effect 18
		100–104	Effect 19
		105–109	Effect 20
		110–255	The main light effect
		0–125	Main light effect speed forward, from fast to slow
28	Main Light Effect Speed	126–130	Stop
		131–255	Main light effect speed backward, from fast to slow
29	Main Light Effect Length	0–255	Main light effect length function
30	Main Light Effect Length Level	0–255	Main light length effect (0–100%)
31	Main Light Effect Red	0–255	Main light red effect (0–100%)
32	Main Light Effect Green	0–255	Main light green effect (0–100%)
33	Main Light Effect Blue	0–255	Main light blue effect (0–100%)
34	Main Light Effect White	0–255	Main light white effect (0–100%)
35	Main Light Dimming	0–255	Main light dimming (0–100%)
36	Main Light Background Dimming	0–255	Main light background dimming (0–100%)
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
37	Main Light Effect Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on
		192–223	Random strobe
		224–255	Light on
38	Halo Ring Control	0–255	Halo ring control
39	Halo Ring Dimmer	0–255	Halo ring dimmer
40	Halo Ring Dimmer Fine	0–255	Halo ring dimmer fine
41	Halo Ring Effect Red	0–255	Halo ring effect red

CH	Function	DMX value	Description
42	Halo Ring Effect Green	0–255	Halo ring effect green
43	Halo Ring Effect Blue	0–255	Halo ring effect blue
		0–9	No function
44	Halo Ring Effect	10–255	Effect 1–62 (every 4 values for 1 effect)
45	Reserve	0–255	No function
		0–130	Halo ring effect speed forward, from fast to slow
46	Halo Ring Effect Speed	131–255	Halo ring effect speed backward, from fast to slow
47	Halo Ring Effect Background Dimming	0–255	Halo ring effect background dimming (0–100%)
48	Halo Ring Effect Background Red	0–255	Halo ring effect background red (0–100%)
49	Halo Ring Effect Background Green	0–255	Halo ring effect background green (0–100%)
50	Halo Ring Effect Background Blue	0–255	Halo ring effect background blue (0–100%)

5.3 50B Channel Mode

CH	Function	DMX value	Description
1	Pan	0–255	Level control
2	Pan Fine	0–255	Fine level control
3	Tilt	0–255	Vertical control
4	Tilt Fine	0–255	Fine vertical control
5	Pan/Tilt Speed	0–255	Pan/tilt speed: fast to slow
		0–127	No function
		128–189	Forward rotation: fast → slow
6	Tilt Infinite Rotation	190–193	Stop
		194–255	Reverse rotation: slow → fast
7	Zoom	0–255	Zoom
8	Dimmer	0–255	Dimmer 0–100%
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
9	Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on
		192–223	Random strobe
		224–255	Light on
10	Main Light Effect Red 1	0–255	Main light effect red 1 dimmer (0–100%)
11	Main Light Effect Green 1	0–255	Main light effect green 1 dimmer (0–100%)

CH	Function	DMX value	Description
12	Main Light Effect Blue 1	0–255	Main light effect blue 1 dimmer (0–100%)
13	Main Light Effect White 1	0–255	Main light effect white 1 dimmer (0–100%)
14	Main Light Effect Red 2	0–255	Main light effect red 2 dimmer (0–100%)
15	Main Light Effect Green 2	0–255	Main light effect green 2 dimmer (0–100%)
16	Main Light Effect Blue 2	0–255	Main light effect blue 2 dimmer (0–100%)
17	Main Light Effect White 2	0–255	Main light effect white 2 dimmer (0–100%)
18	Main Light Effect Red 3	0–255	Main light effect red 3 dimmer (0–100%)
19	Main Light Effect Green 3	0–255	Main light effect green 3 dimmer (0–100%)
20	Main Light Effect Blue 3	0–255	Main light effect blue 3 dimmer (0–100%)
21	Main Light Effect White 3	0–255	Main light effect white 3 dimmer (0–100%)
22	Main Light Effect Red 4	0–255	Main light effect red 4 dimmer (0–100%)
23	Main Light Effect Green 4	0–255	Main light effect green 4 dimmer (0–100%)
24	Main Light Effect Blue 4	0–255	Main light effect blue 4 dimmer (0–100%)
25	Main Light Effect White 4	0–255	Main light effect white 4 dimmer (0–100%)
		0–21	No function
		22–42	No function
		43–63	7500K
		64–84	7500K
		85–105	6500K
		106–126	6500K
26	CTO	127–147	5500K
		148–168	5500K
		169–189	4500K
		190–210	4500K
		211–231	3500K
		232–255	3500K
		0–9	No function
		10–14	Effect 1
		15–19	Effect 2
		20–24	Effect 3
		25–29	Effect 4
		30–34	Effect 5
		35–39	Effect 6
		40–44	Effect 7
		45–49	Effect 8
		50–54	Effect 9
		55–59	Effect 10

CH	Function	DMX value	Description
27	Main Light Effect	60–64	Effect 11
		65–69	Effect 12
		70–74	Effect 13
		75–79	Effect 14
		80–84	Effect 15
		85–89	Effect 16
		90–94	Effect 17
		95–99	Effect 18
		100–104	Effect 19
		105–109	Effect 20
		110–255	The main light effect
		0–125	Main light effect speed forward, from fast to slow
28	Main Light Effect Speed	126–130	Stop
		131–255	Main light effect speed backward, from fast to slow
29	Halo Ring Dimmer	0–255	Halo ring dimmer (0–100%)
30	Red Ring Area 1 Dimming	0–255	Red ring area 1 dimming (0–100%) / Red ring effect (0–100%)
31	Green Ring Area 1 Dimming	0–255	Green ring area 1 dimming (0–100%) / Green ring effect (0–100%)
32	Blue Ring Area 1 Dimming	0–255	Blue ring area 1 dimming (0–100%) / Blue ring effect (0–100%)
33	Red Ring Area 2 Dimming	0–255	Red ring area 2 dimming (0–100%)
34	Green Ring Area 2 Dimming	0–255	Green ring area 2 dimming (0–100%)
35	Blue Ring Area 2 Dimming	0–255	Blue ring area 2 dimming (0–100%)
36	Red Ring Area 3 Dimming	0–255	Red ring area 3 dimming (0–100%)
37	Green Ring Area 3 Dimming	0–255	Green ring area 3 dimming (0–100%)
38	Blue Ring Area 3 Dimming	0–255	Blue ring area 3 dimming (0–100%)
39	Red Ring Area 4 Dimming	0–255	Red ring area 4 dimming (0–100%)
40	Green Ring Area 4 Dimming	0–255	Green ring area 4 dimming (0–100%)
41	Blue Ring Area 4 Dimming	0–255	Blue ring area 4 dimming (0–100%)
42	Red Ring Area 5 Dimming	0–255	Red ring area 5 dimming (0–100%)
43	Green Ring Area 5 Dimming	0–255	Green ring area 5 dimming (0–100%)
44	Blue Ring Area 5 Dimming	0–255	Blue ring area 5 dimming (0–100%)
45	Red Ring Area 6 Dimming	0–255	Red ring area 6 dimming (0–100%)
46	Green Ring Area 6 Dimming	0–255	Green ring area 6 dimming (0–100%)
47	Blue Ring Area 6 Dimming	0–255	Blue ring area 6 dimming (0–100%)
		0–9	No function
48	Halo Ring Effect	10–255	Effect 1–62 (every 4 values for 1 effect)
		0–130	Halo ring effect speed forward from fast to slow

CH	Function	DMX value	Description
49	Halo Ring Effect Speed	131–255	Halo ring effect speed backward from slow to fast
		0–4	No function
		5–9	Screen power off
		10–14	Reset / Internal Function
		15–24	Display inversion disabled
50	Reset / Internal Functions	45–54	Linear dimming curve
		55–60	1K
		61–69	6K
		80–87	Reset all motors
		88–90	Reset zoom motor

5.4 199 Channel Mode

CH	Function	DMX value	Description
1	Pan	0–255	Pan
2	Pan Fine	0–255	Pan fine
3	Tilt	0–255	Tilt
4	Tilt Fine	0–255	Tilt fine
5	Pan/Tilt Speed	0–255	Pan/tilt speed
6	Reserve	0–255	Reserve
		0–127	No function
		128–189	Forward rotation: fast → slow
7	Tilt Infinite Rotation	190–193	Stop
		194–255	Reverse rotation: slow → fast
8	Background Color Red	0–255	Background color red (0–100%)
9	Background Color Red Fine	0–255	Red background fine adjustment (0–100%)
10	Background Color Green	0–255	Background color green (0–100%)
11	Background Color Green Fine	0–255	Background green fine adjustment (0–100%)
12	Background Color Blue	0–255	Background color blue (0–100%)
13	Background Color Blue Fine	0–255	Background blue fine adjustment (0–100%)
14	Background Color White	0–255	Background color white (0–100%)
15	Background Color White Fine	0–255	Background white fine adjustment (0–100%)
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
16	Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on

CH	Function	DMX value	Description
		192–223	Random strobe
		224–255	Light on
17	Dimmer	0–255	Dimming 0–100%
18	Dimming Fine	0–255	Dimming fine adjustment (0–100%)
19	CTO	0–21	No function
		22–42	No function
		43–63	7500K
		64–84	7500K
		85–105	6500K
		106–126	6500K
		127–147	5500K
		148–168	5500K
		169–189	4500K
		190–210	4500K
		211–231	3500K
		232–255	3500K
20	Color Presets	0–255	Color presets
		0	Output controlled by RGBW values
21	Color Presets RGBW Cross Fade	1–254	RGBW settings and color preset channels for cross fade-in and fade-out
		255	Control color with color presets
		0–4	No function
22	Color Preset Cross Fade	4–255	Two-color preset cross-gradient from 100 milliseconds to 5 seconds
23	Zoom	0–255	Zoom
24	Zoom Fine	0–255	Zoom fine
25	Reserve	—	Reserve
		0–4	No function
		5–9	Screen saver
		10–14	Reset / Internal Function
		15–19	Display reverse close
		20–44	Reset / Internal Function
		45–49	Linear dimming curve
		50–54	Reset / Internal Function
26	Reset / Internal Function	55–57	1K
		58–60	Reset / Internal Function
		61–63	6K
		64–79	Reset / Internal Function

CH	Function	DMX value	Description
		80–84	All motors reset
		85–87	Reset / Internal Function
		88–90	Zoom motor reset
		91–255	Reset / Internal Function
27	Main Light Effect	0–9	No function
		10–14	Effect 1
		15–19	Effect 2
		20–24	Effect 3
		25–29	Effect 4
		30–34	Effect 5
		35–39	Effect 6
		40–44	Effect 7
		45–49	Effect 8
		50–54	Effect 9
		55–59	Effect 10
		60–64	Effect 11
		65–69	Effect 12
		70–74	Effect 13
		75–79	Effect 14
		80–84	Effect 15
		85–89	Effect 16
		90–94	Effect 17
		95–99	Effect 18
		100–104	Effect 19
		105–109	Effect 20
		110–255	The main light effect
		0–125	Main light effect speed forward, from fast to slow
28	Main Light Effect Speed	126–130	Stop
		131–255	Main light effect speed backward, from fast to slow
29	Main Light Effect Length	0–255	Main light effect length function
30	Main Light Effect Length Level	0–255	Main light length effect (0–100%)
31	Main Light Effect Red	0–255	Main light red effect (0–100%)
32	Main Light Effect Green	0–255	Main light green effect (0–100%)
33	Main Light Effect Blue	0–255	Main light blue effect (0–100%)
34	Main Light Effect White	0–255	Main light white effect (0–100%)
35	Main Light Dimming	0–255	Main light dimming (0–100%)
36	Main Light Background Dimming	0–255	Main light background dimming (0–100%)

CH	Function	DMX value	Description
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
37	Main Light Effect Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on
		192–223	Random strobe
		224–255	Light on
38	Halo Ring Control	0–255	Halo ring control
39	Halo Ring Dimmer	0–255	Halo ring dimmer
40	Halo Ring Dimmer Fine	0–255	Halo ring dimmer fine
41	Halo Ring Effect Red	0–255	Halo ring effect red
42	Halo Ring Effect Green	0–255	Halo ring effect green
43	Halo Ring Effect Blue	0–255	Halo ring effect blue
		0–9	No function
44	Halo Ring Effect	10–255	Effect 1–62 (every 4 values for 1 effect)
45	Reserve	0–255	No function
		0–130	Halo ring effect speed forward, from fast to slow
46	Halo Ring Effect Speed	131–255	Halo ring effect speed backward, from fast to slow
47	Halo Ring Effect Background Dimming	0–255	Halo ring effect background dimming (0–100%)
48	Halo Ring Effect Background Red	0–255	Halo ring effect background red (0–100%)
49	Halo Ring Effect Background Green	0–255	Halo ring effect background green (0–100%)
50	Halo Ring Effect Background Blue	0–255	Halo ring effect background blue (0–100%)
51	Main Light Control	0–255	RGBW settings for cross fade between color single-point channels
52	R1 LED Dimming	0–255	R1 LED dimming (0–100%)
53	G1 LED Dimming	0–255	G1 LED dimming (0–100%)
54	B1 LED Dimming	0–255	B1 LED dimming (0–100%)
55	W1 LED Dimming	0–255	W1 LED dimming (0–100%)
56	R2 LED Dimming	0–255	R2 LED dimming (0–100%)
57	G2 LED Dimming	0–255	G2 LED dimming (0–100%)
58	B2 LED Dimming	0–255	B2 LED dimming (0–100%)
59	W2 LED Dimming	0–255	W2 LED dimming (0–100%)
60–195	Not in source (unused)	—	Not in source
196	R37 LED Dimming	0–255	R37 LED dimming (0–100%)

CH	Function	DMX value	Description
197	G37 LED Dimming	0–255	G37 LED dimming (0–100%)
198	B37 LED Dimming	0–255	B37 LED dimming (0–100%)
199	W37 LED Dimming	0–255	W37 LED dimming (0–100%)

5.5 A199 Channel Mode

CH	Function	DMX value	Description
1	Pan	0–255	Pan
2	Pan Fine	0–255	Pan fine
3	Tilt	0–255	Tilt
4	Tilt Fine	0–255	Tilt fine
5	Pan/Tilt Speed	0–255	Pan/tilt speed
6	Reserve	0–255	Reserve
		0–127	No function
		128–189	Forward rotation: fast → slow
7	Tilt Infinite Rotation	190–193	Stop
		194–255	Reverse rotation: slow → fast
8	Background Color Red	0–255	Background color red (0–100%)
9	Background Color Red Fine	0–255	Red background fine adjustment (0–100%)
10	Background Color Green	0–255	Background color green (0–100%)
11	Background Color Green Fine	0–255	Background green fine adjustment (0–100%)
12	Background Color Blue	0–255	Background color blue (0–100%)
13	Background Color Blue Fine	0–255	Background blue fine adjustment (0–100%)
14	Background Color White	0–255	Background color white (0–100%)
15	Background Color White Fine	0–255	Background white fine adjustment (0–100%)
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
16	Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on
		192–223	Random strobe
		224–255	Light on
17	Dimmer	0–255	Dimming 0–100%
18	Dimming Fine	0–255	Dimming fine adjustment (0–100%)
19	CTO	0–21	No function
		22–42	No function
		43–63	7500K

CH	Function	DMX value	Description
		64–84	7500K
		85–105	6500K
		106–126	6500K
		127–147	5500K
		148–168	5500K
		169–189	4500K
		190–210	4500K
		211–231	3500K
		232–255	3500K
20	Color Presets	0–255	Color presets
		0	Output controlled by RGBW values
21	Color Presets RGBW Cross Fade	1–254	RGBW settings and color preset channels for cross fade-in and fade-out
		255	Control color with color presets
		0–4	No function
22	Color Preset Cross Fade	4–255	Two-color preset cross-gradient from 100 milliseconds to 5 seconds
23	Zoom	0–255	Zoom
24	Zoom Fine	0–255	Zoom fine
25	Reserve	—	Reserve
		0–4	No function
		5–9	Screen saver
		10–14	Reset / Internal Function
		15–19	Display reverse close
		20–44	Reset / Internal Function
		45–49	Linear dimming curve
		50–54	Reset / Internal Function
26	Reset / Internal Function	55–57	1K
		58–60	Reset / Internal Function
		61–63	6K
		64–79	Reset / Internal Function
		80–84	All motors reset
		85–87	Reset / Internal Function
		88–90	Zoom motor reset
		91–255	Reset / Internal Function
27	Main Light Effect	0–9	No function
		10–14	Effect 1
		15–19	Effect 2

CH	Function	DMX value	Description
		20–24	Effect 3
		25–29	Effect 4
		30–34	Effect 5
		35–39	Effect 6
		40–44	Effect 7
		45–49	Effect 8
		50–54	Effect 9
		55–59	Effect 10
		60–64	Effect 11
		65–69	Effect 12
		70–74	Effect 13
		75–79	Effect 14
		80–84	Effect 15
		85–89	Effect 16
		90–94	Effect 17
		95–99	Effect 18
		100–104	Effect 19
		105–109	Effect 20
		110–255	The main light effect
		0–125	Main light effect speed forward, from fast to slow
28	Main Light Effect Speed	126–130	Stop
		131–255	Main light effect speed backward, from fast to slow
29	Main Light Effect Length	0–255	Main light effect length function
30	Main Light Effect Length Level	0–255	Main light length effect (0–100%)
31	Main Light Effect Red	0–255	Main light red effect (0–100%)
32	Main Light Effect Green	0–255	Main light green effect (0–100%)
33	Main Light Effect Blue	0–255	Main light blue effect (0–100%)
34	Main Light Effect White	0–255	Main light white effect (0–100%)
35	Main Light Dimming	0–255	Main light dimming (0–100%)
36	Main Light Background Dimming	0–255	Main light background dimming (0–100%)
		0–31	Lighting off
		32–63	Light on
		64–95	Stroboscopic speed increases from slow to fast
		96–127	Light on
37	Main Light Effect Strobe	128–159	Pulsed strobe from slow to fast
		160–191	Light on
		192–223	Random strobe

CH	Function	DMX value	Description
		224–255	Light on
38	Halo Ring Control	0–255	Halo ring control
39	Halo Ring Dimmer	0–255	Halo ring dimmer
40	Halo Ring Dimmer Fine	0–255	Halo ring dimmer fine
41	Halo Ring Effect Red	0–255	Halo ring effect red
42	Halo Ring Effect Green	0–255	Halo ring effect green
43	Halo Ring Effect Blue	0–255	Halo ring effect blue
		0–9	No function
44	Halo Ring Effect	10–255	Effect 1–62 (every 4 values for 1 effect)
45	Reserve	0–255	No function
		0–130	Halo ring effect speed forward, from fast to slow
46	Halo Ring Effect Speed	131–255	Halo ring effect speed backward, from fast to slow
47	Halo Ring Effect Background Dimming	0–255	Halo ring effect background dimming (0–100%)
48	Halo Ring Effect Background Red	0–255	Halo ring effect background red (0–100%)
49	Halo Ring Effect Background Green	0–255	Halo ring effect background green (0–100%)
50	Halo Ring Effect Background Blue	0–255	Halo ring effect background blue (0–100%)
51	Main Light Control	0–255	RGBW settings for cross fade between color single-point channels
B1	R1 LED Dimming	0–255	R1 LED dimming (0–100%)
B2	G1 LED Dimming	0–255	G1 LED dimming (0–100%)
B3	B1 LED Dimming	0–255	B1 LED dimming (0–100%)
B4	W1 LED Dimming	0–255	W1 LED dimming (0–100%)
B5	R2 LED Dimming	0–255	R2 LED dimming (0–100%)
B6	G2 LED Dimming	0–255	G2 LED dimming (0–100%)
B7	B2 LED Dimming	0–255	B2 LED dimming (0–100%)
B8	W2 LED Dimming	0–255	W2 LED dimming (0–100%)
B9–B144	Not in source (unused)	—	Not in source
B145	R37 LED Dimming	0–255	R37 LED dimming (0–100%)
B146	G37 LED Dimming	0–255	G37 LED dimming (0–100%)
B147	B37 LED Dimming	0–255	B37 LED dimming (0–100%)
B148	W37 LED Dimming	0–255	W37 LED dimming (0–100%)

6 Troubleshooting and cleaning

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6.1 Troubleshooting

Problem	Action
The unit does not work: no light and no fan	Check the power connection and the main fuse. Measure the mains voltage at the main connector. Check the power LED.
No response to the DMX controller	Check that the DMX LED is on. If it is not, check the DMX connectors and cables. If the DMX LED is on but the channels do not respond, check the address settings and DMX polarity.
Intermittent DMX signal	Check the pins on the connectors or the circuit board of this unit or the previous one. Try another DMX controller. Keep DMX cables away from high-voltage cables.

6.2 Cleaning

Clean the internal and external optics periodically to keep the light output up. Cleaning frequency depends on the environment: damp, smoky or dusty conditions need more frequent cleaning. Use a soft cloth with normal glass cleaning fluid, and dry the parts carefully. Clean the external optics at least every 20 days, and the internal optics at least every 30 to 60 days.