

ALP1080WV 10-HEAD WATERPROOF EFFECT LIGHT

10 x 80 W RGBW IP67 Motorized LED Bar

INDIVIDUAL TILT HEADS - DUAL-WHITE AUXILIARY ARRAYS - USER MANUAL

Professional beam, wash and synchronized 'Thousand Hands' effect fixture



READ BEFORE USE Keep this manual with the fixture. Installation, operation and service must be performed by qualified personnel.

English Edition - Specifications subject to change without notice

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MODEL IDENTIFICATION No model code is shown in the supplied source. This edition therefore uses the descriptive designation '10 x 80 W RGBW IP67 Motorized LED Bar'. Confirm the product label, voltage rating and firmware before installation or programming.

1 Safety Information

DANGER Disconnect power and allow the fixture to cool before cleaning, inspection, fuse replacement or service.

- This professional fixture must be installed, operated and serviced by qualified personnel.
- Connect the fixture only to a protected, properly grounded circuit that matches its product-label rating.
- If an external flexible cable is damaged, have it replaced by the manufacturer, its service agent or similarly qualified personnel.
- Do not operate the fixture with a damaged housing, lens, seal, connector or cable.
- After a large temperature change, leave the fixture disconnected until it reaches ambient temperature and all condensation has evaporated.
- Keep flammable materials at least 0.2 m from the fixture and provide adequate ventilation.
- Do not look directly into the LEDs at close range. Flashing light may trigger seizures in susceptible people; follow local restrictions.
- For overhead installation, use rated mounting hardware and an independently rated safety cable.
- Carry the fixture only by its handles or mounting structure. Do not lift it by a moving head.

IP67 PROTECTION IP67 protection depends on intact seals, secured protective caps and correctly mated waterproof connectors. Replace every cap after use and never open the housing while wet.

2 Product Overview

This ten-head outdoor effect bar combines individually motorized RGBW beam/wash heads with warm-white and cool-white auxiliary LED arrays. Independent tilt, color, pattern and pixel control create synchronized fan, wave and 'Thousand Hands' effects for stages, events and architectural entertainment applications.

2.1 Technical Specifications

Parameter	Specification
Source power-supply notation	36 V / 18 A + 24 V / 15 A (verify against the product label before connection)
Power consumption	880 W
Main light source	10 x 80 W RGBW 4-in-1 LEDs
Auxiliary light source	360 x 2016 warm-white LEDs + 360 x 2016 cool-white LEDs
Control	DMX512 / Sound-active / Auto / Master-Slave
DMX personalities	29CH / 56CH / 144CH / 216CH / 262CH / 282CH
Dimming	32-bit, 0-100% linear dimming
Primary effects	Individual head tilt, wash, beam, patterns and synchronized movement
Operating temperature	-30 °C to 50 °C (source specification)
Strobe	1-30 Hz
Connections	DMX512 input/output; power input/output
Ingress protection	IP67
Construction / finish	Metal, black
Dimensions	1009 x 153 x 331 mm
Net weight	28.46 kg

2.2 Main Functions

- Ten independently controlled tilt heads with 16-bit positioning in the extended personalities.
- RGBW color mixing plus warm-white and cool-white auxiliary output.
- Built-in main-light, white-light and background patterns with speed and fade/trailing controls.
- Multiple dimming, strobe, color-macro and synchronized movement options.
- Six DMX personalities from compact whole-fixture control to detailed per-head and pixel control.

3 Control Panel and Menu

Press MENU to enter or return to the main menu, use UP/DOWN to select an item or change a value, and press ENTER to open an item or save the edited value. The main menu closes after approximately 30 seconds without input. Saved settings are retained after power-off.

PROTECTED SETTINGS Factory calibration is password-protected (source password: 138). Record every original value and restrict changes to qualified service personnel; incorrect calibration can damage movement, optics or output.

Menu	Item	Operation
1. System settings	1. DMX address	Set the DMX start address from 1-512 with UP/DOWN; press ENTER to save. Default: 002.
1. System settings	2. Encoder	Select On/Off with UP/DOWN; press ENTER to save. Default: On.
1. System settings	3. Tilt Reverse	Select On/Off with UP/DOWN; press ENTER to save. Default: Off.
1. System settings	4. Zoom Reverse	Select On/Off with UP/DOWN; press ENTER to save. Default: Off.
1. System settings	5. No signal	Select Blackout or Hold with UP/DOWN; press ENTER to save. Default: Blackout.
1. System settings	6. Sound-active sensitivity	Set sound sensitivity from 0-99 with UP/DOWN; press ENTER to save. Default: 009.
1. System settings	7. Reset	Select Yes/No with UP/DOWN; press ENTER to execute. Default: No.
1. System settings	8. Restore factory settings	Select Yes/No with UP/DOWN; press ENTER to execute. Default: No.
1. System settings	9. Advanced settings	
2. Operation mode	1. Operation mode	Select DMX, Sound-active or Auto with UP/DOWN; press ENTER to save. Default: DMX.
2. Operation mode	2. Channel selection	Select CH29, CH56, CH144, CH216, CH262 or CH282 with UP/DOWN; press ENTER to save. Default: CH29.
2. Operation mode	3. tilt effect amplitude	Set the tilt-effect amplitude from 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	1 Y	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	2. Y Fine	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	3. Tilt Speed	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	4. Tilt Effect	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	5 CTO	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	6. White CTC	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	7. Color macro	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	8. Pattern	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	9. White light pattern	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	10. LED mode	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	11. LED speed	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	12. LED tailing	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	13. White light mode	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	14. White light speed	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	15. White light trailing	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	16. Background color	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	17. Background color light	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	18. Dimming	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	19. White Master Dimmer	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	20. Strobe	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	21. White light strobe	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	22. Zoom	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	23. Functions	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	24. Red	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	25. Green	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	26. Blue	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	27. White	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	28. Cool white dimming	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.
3. Manual control	29. Warm white dimming	Set 0-255 with UP/DOWN; press ENTER to save. Default: 0.

Menu	Item	Operation
4. Display settings	1. Language selection	Select Chinese or English with UP/DOWN; press ENTER to save. Default: Chinese.
4. Display settings	2. Inverted display settings	Select On/Off with UP/DOWN; press ENTER to save. Default: On.
4. Display settings	3. Screen protection	Select On/Off with UP/DOWN; press ENTER to save. Default: On.
4. Display settings	4. Software version	Displays the installed firmware identifier; read-only.
5. Information settings	sensor	Used to view Hall status and temperature communication status
5. Information settings	error message	Used to display error messages
5. Information settings	Channel information	Used to display DMX channel data
5. Information settings	Time information	Lights on time Fixture time
6. Factory setting	1. Head 1 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	2. Head 1 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	3. Head 2 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	4. Head 2 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	5. Head 3 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	6. Head 3 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	7. Head 4 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	8. Head 4 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	9. Head 5 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	10. Head 5 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	11. Head 6 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	12. Head 6 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	13. Head 7 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	14. Head 7 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	15. Head 8 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	16. Head 8 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	17. Head 9 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	18. Head 9 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	19. Head 10 Tilt Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	20. Head 10 Zoom Calibration	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	21. Y stroke	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	22. Focusing stroke	Service calibration, 0-255. Press ENTER to save. Default: 128.
6. Factory setting	23, red 1	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	24, green 1	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	25, blue 1	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	26, white 1	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	27, red 2	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	28, green 2	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	29, blue 2	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	30, white 2	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	31, red 3	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	32, green 3	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	33, blue 3	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	34, white 3	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	35, red 4	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	36, green 4	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	37, blue 4	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	38, white 4	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	39, red 5	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	40, green 5	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	41, blue 5	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	42, white 5	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	43, red 6	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	44, green 6	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	45, blue 6	Service color calibration, 0-255. Press ENTER to save. Default: 252.

Menu	Item	Operation
6. Factory setting	46, white 6	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	47, red 7	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	48, green 7	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	49, blue 7	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	50, white 7	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	51, red 8	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	52, green 8	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	53, blue 8	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	54, white 8	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	55, red 9	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	56, green 9	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	57, blue 9	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	58, white 9	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	59, red 10	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	60, green 10	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	61, blue 10	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	62, white 10	Service color calibration, 0-255. Press ENTER to save. Default: 252.
6. Factory setting	63. LED Y/F Direction	Select 000/001 with UP/DOWN; press ENTER to save. Default: 000.
6. Factory setting	64. LED Current	Service output-current setting, 32-255. Press ENTER to save. Default: 225.
6. Factory setting	65 Logo	Select 000 /001 with UP/DOWN, press ENTER to save, and 000 is the default.
6. Factory setting	66. Temperature	Set the temperature parameter from 40-70 with UP/DOWN; press ENTER to save. Default: 55.
6. Factory setting	67. Fan Temperature Mode	Select Off, Standard or Quiet with UP/DOWN; press ENTER to save. Default: Off.
6. Factory setting	68 LED	Modify LEDA/LEDB with UP/DOWN, confirm that the key is saved, and LEDA is the default.
6. Factory setting	69. Color mixing mode	Select RGBW or CMY with UP/DOWN; press ENTER to save. Default: RGBW.
6. Factory setting	70. PWM frequency	Select 600, 1200, 2000, 4000, 6000 or 15 000 Hz; press ENTER to save. Default: 1200 Hz.
6. Factory setting	71. Dimmer Curve	Select Linear, Square, Inverse Square or S-curve; press ENTER to save. Default: Linear.
6. Factory setting	72. Dimming mode	Select Fast or Smooth with UP/DOWN; press ENTER to save. Default: Fast.
6. Factory setting	73. Movement Blackout	Select On/Off with UP/DOWN; press ENTER to save. Default: Off.
6. Factory setting	74. Clear Operating Time	Select Yes/No with UP/DOWN; press ENTER to execute. Default: No.

4 Master/Slave Operation

Connect two or more identical fixtures with shielded DMX cable. Set every fixture to any valid DMX address from 1 to 512, designate only one fixture as the master and set all others as slaves. When the master runs fade, pulse, jump, sound-active or automatic programs, the slaves follow synchronously.

ONE MASTER ONLY A linked group must contain only one master. Multiple masters will cause unsynchronized flashing. Master/slave operation is available only when the DMX512 controller is disconnected or switched off.

5 DMX512 Channel Reference

Set the fixture address and select the same personality on the fixture and controller. Link DMX OUT to DMX IN using shielded RS-485 cable. When a valid controller signal is received, the address display stops flashing. Channel wording can vary slightly with firmware; keep channel numbers and DMX ranges matched to the installed fixture.

SOURCE NOTATION Ellipsis rows in the extended personalities reproduce repeated channel blocks that are abbreviated in the supplied source. Use the shown start/end channels and verify the complete controller profile against the installed firmware.

Personality	Coverage
29CH	Compact whole-fixture tilt, color, effects, dimming, strobe and auxiliary-white control
56CH	Individual tilt/fine control for all ten heads plus shared light functions
144CH	Shared movement with detailed RGBW control for each head and auxiliary LED groups
216CH	Individual movement plus expanded main and auxiliary pixel control
262CH	Extended individual-head and auxiliary control
282CH	Maximum channel personality with the most detailed independent control

5.1 29-Channel Personality

Channel	DMX Value	Function
1	0-255	Tilt (tilt direction)
2	0-255	Tilt Fine (tilt effect amplitude)
3	0-255	Tilt Speed
4	0-255	Tilt Effect (4 values and 1 effect for motors). 0-3 no function 4-255 (63 effects total)
5	0-255	CTC
6	0-255	White light CTC
7	0-255	Color Macro
8	0-255	Pattern
9	0-255	White light pattern
10	0-255	LED built-in effect (main light, 2 values, 1 effect) 0-1 no function 2-255 (127 effects total)
11	0-255	LED built-in effect speed
12	0-255	LED built-in effect trailing time
13	0-255	Built-in white light effect (8 values and 1 effect for fill light) 0-7 no function 8-255 (31 effects total)
14	0-255	White light built-in effect speed
15	0-255	White light built-in effect trailing time
16	0-255	LED background color
17	0-255	LED background tint light
18	0-255	Master Dimmer
19	0-255	White Master Dimmer
20	0-255	Strobe
21	0-255	White Strobe
22	0-255	Master Zoom
23	0-255	Function
24	0-255	Red (color selection for the effect)
25	0-255	Green (effect color selection)
26	0-255	Blue (effect color selection)

Channel	DMX Value	Function
27	0-255	White (color selection for effect)
28	0-255	Cool white master dimmer
29	0-255	Warm White LED Group master dimmer

5.2 56-Channel Personality

Channel	DMX Value	Function
1	0-255	Head 1 Tilt (tilt direction)
2	0-255	Head 1 Tilt Fine
3	0-255	Head 2 Tilt (tilt effect amplitude)
4	0-255	Head 2 Tilt Fine
5	0-255	Head 3 Tilt
6	0-255	Head 3 Tilt Fine
7	0-255	Head 4 Tilt
8	0-255	Head 4 Tilt Fine
9	0-255	Head 5 Tilt
10	0-255	Head 5 Tilt Fine
11	0-255	Head 6 Tilt
12	0-255	Head 6 Tilt Fine
13	0-255	Head 7 Tilt
14	0-255	Head 7 Tilt Fine
15	0-255	Head 8 Tilt
16	0-255	Head 8 Tilt Fine
17	0-255	Head 9 Tilt
18	0-255	Head 9 Tilt Fine
19	0-255	Head 10 Tilt
20	0-255	Head 10 Tilt Fine
21	0-255	Tilt Speed
22	0-255	Tilt Effect (4 values and 1 effect for motors). 0-3 no function 4-255 (63 effects total)
23	0-255	CTC
24	0-255	White light CTC
25	0-255	Color Macro
26	0-255	Pattern
27	0-255	White light pattern
28	0-255	LED built-in effects (2 values for the main light, 1 effect). 0-1 no function 2-255 (127 effects total)
29	0-255	LED built-in effect speed
30	0-255	LED built-in effect trailing time
31	0-255	Built-in white light effect (8 values and 1 effect for fill light). 0-7 no function 8-255 (31 effects total)
32	0-255	White light built-in effect speed
33	0-255	White light built-in effect trailing time
34	0-255	LED background color
35	0-255	LED background color light coarse adjustment
36	0-255	Master Dimmer
37	0-255	White Master Dimmer
38	0-255	Strobe
39	0-255	White Strobe
40	0-255	Head 1 Zoom
41	0-255	Head 2 Zoom
42	0-255	Head 3 Zoom
43	0-255	Head 4 Zoom
44	0-255	Head 5 Zoom

Channel	DMX Value	Function
45	0-255	Head 6 Zoom
46	0-255	Head 7 Zoom
47	0-255	Head 8 Zoom
48	0-255	Head 9 Zoom
49	0-255	Head 10 Zoom
50	0-255	Function
51	0-255	Red (color selection for the effect)
52	0-255	Green (effect color selection)
53	0-255	Blue (effect color selection)
54	0-255	White (color selection for effect)
55	0-255	Cool white master dimmer
56	0-255	Warm White LED Group master dimmer

5.3 144-Channel Personality

Channel	DMX Value	Function
1	0-255	Master Dimmer
2	0-255	Master Dimmer Fine
3	0-255	Strobe
4	0-255	White Strobe
5	0-255	CTC
6	0-255	Pattern
7	0-255	White light pattern
8	0-255	Color Macro
9	0-255	Built-in white light effect (8 values and 1 effect for fill light), 0-7 no function 8-255 (31 effects total)
10	0-255	White light built-in effect speed
11	0-255	White light built-in effect trailing time
12	0-255	Function
13	0-255	Head 1 Tilt (tilt direction)
14	0-255	Head 1 Tilt Fine
15	0-255	Head 1 Zoom
16	0-255	Head 1 Red coarse
17	0-255	Head 1 Red Fine
18	0-255	Head 1 Green coarse
19	0-255	Head 1 Green Fine
20	0-255	Head 1 Blue coarse
21	0-255	Head 1 Blue Fine
22	0-255	Head 1 White coarse
23	0-255	Head 1 White Fine
24	0-255	Cool white 1-2-3-58-59-60
25	0-255	Warm White LED Group 1-2-3-58-59-60
26	0-255	Head 2 Tilt (tilt effect amplitude)
27	0-255	Head 2 Tilt Fine
28	0-255	Head 2 Zoom
29	0-255	Head 2 Red coarse
30	0-255	Head 2 Red Fine
31	0-255	Head 2 Green coarse
32	0-255	Head 2 Green Fine
33	0-255	Head 2 Blue coarse
34	0-255	Head 2 Blue Fine
35	0-255	Head 2 White coarse

Channel	DMX Value	Function
36	0-255	Head 2 White Fine
37	0-255	Cool white 4-5-6-55-56-57
38	0-255	Warm White LED Group 4-5-6-55-56-57
39	0-255	Head 3 Tilt
40	0-255	Head 3 Tilt Fine
41	0-255	Head 3 Zoom
42	0-255	Head 3 Red coarse
43	0-255	Head 3 Red Fine
44	0-255	Head 3 Green coarse
45	0-255	Head 3 Green Fine
46	0-255	Head 3 Blue coarse
47	0-255	Head 3 Blue Fine
48	0-255	Head 3 White coarse
49	0-255	Head 3 White Fine
50	0-255	Cool white 7-8-9-52-53-54
51	0-255	Warm White LED Group 7-8-9-52-53-54
52	0-255	Head 4 Tilt
53	0-255	Head 4 Tilt Fine
54	0-255	Head 4 Zoom
55	0-255	Head 4 Red coarse
56	0-255	Head 4 Red Fine
57	0-255	Head 4 Green coarse
58	0-255	Head 4 Green Fine
59	0-255	Head 4 Blue Coarse
60	0-255	Head 4 Blue Fine
61	0-255	Head 4 White coarse
62	0-255	Head 4 White Fine
63	0-255	Cool White LED Group 10-11-12-49-50-51
64	0-255	Warm White LED Group 10-11-12-49-50-51
65	0-255	Head 5 Tilt
66	0-255	Head 5 Tilt Fine
67	0-255	Head 5 Zoom
68	0-255	Head 5 Red coarse
69	0-255	Head 5 Red Fine
70	0-255	Head 5 Green coarse
71	0-255	Head 5 Green Fine
72	0-255	Head 5 Blue coarse
73	0-255	Head 5 Blue Fine
74	0-255	Head 5 White coarse
75	0-255	Head 5 White Fine
76	0-255	Cool White LED Group 13-14-15-46-47-48
77	0-255	Warm White LED Group 13-14-15-46-47-48
78	0-255	Head 6 Tilt
79	0-255	Head 6 Tilt Fine
80	0-255	Head 6 Zoom
81	0-255	Head 6 Red coarse
82	0-255	Head 6 Red Fine
83	0-255	Head 6 Green coarse
84	0-255	Head 6 Green Fine
85	0-255	Head 6 Blue Coarse
86	0-255	Head 6 Blue Fine
87	0-255	Head 6 White coarse
88	0-255	Head 6 White Fine

Channel	DMX Value	Function
89	0-255	Cool White LED Group 16-17-18-43-44-45
90	0-255	Warm White LED Group 16-17-18-43-44-45
91	0-255	Head 7 Tilt
92	0-255	Head 7 Tilt Fine
93	0-255	Head 7 Zoom
94	0-255	Head 7 Red coarse
95	0-255	Head 7 Red Fine
96	0-255	Head 7 Green coarse
97	0-255	Head 7 Green Fine
98	0-255	Head 7 Blue coarse
99	0-255	Head 7 Blue Fine
100	0-255	Head 7 White coarse
101	0-255	Head 7 White Fine
102	0-255	Cool white 19-20-21-40-41-42
103	0-255	Warm White LED Group 19-20-21-40-41-42
104	0-255	Head 8 Tilt
105	0-255	Head 8 Tilt Fine
106	0-255	Head 8 Zoom
107	0-255	Head 8 Red coarse
108	0-255	Head 8 Red Fine
109	0-255	Head 8 Green coarse
110	0-255	Head 8 Green Fine
111	0-255	Head 8 Blue coarse
112	0-255	Head 8 Blue Fine
113	0-255	Head 8 White coarse
114	0-255	Head 8 White Fine
115	0-255	Cool White LED Group 22-23-24-37-38-39
116	0-255	Warm White LED Group 22-23-24-37-38-39
117	0-255	Head 9 Tilt
118	0-255	Head 9 Tilt Fine
119	0-255	Head 9 Zoom
120	0-255	Head 9 Red coarse
121	0-255	Head 9 Red Fine
122	0-255	Head 9 Green coarse
123	0-255	Head 9 Green Fine
124	0-255	Head 9 Blue coarse
125	0-255	Head 9 Blue Fine
126	0-255	Head 9 White coarse
127	0-255	Head 9 White Fine
128	0-255	Cool white 25-26-27-34-35-36
129	0-255	Warm White LED Group 25-26-27-34-35-36
130	0-255	Head 10 Tilt
131	0-255	Head 10 Tilt Fine
132	0-255	Head 10 Zoom
133	0-255	Head 10 Red coarse
134	0-255	Head 10 Red Fine
135	0-255	Head 10 Green coarse
136	0-255	Head 10 Green Fine
137	0-255	Head 10 Blue coarse
138	0-255	Head 10 Blue Fine
139	0-255	Head 10 White coarse
140	0-255	Head 10 White Fine
141	0-255	Cool white 28-29-30-31-32-33

Channel	DMX Value	Function
142	0-255	Warm White LED Group 28-29-30-31-32-33
143	0-255	Cool white master dimmer
144	0-255	Warm White LED Group master dimmer

5.4 216-Channel Personality

Channel	DMX Value	Function
1	0-255	Head 1 Tilt (tilt direction)
2	0-255	Head 1 Tilt Fine
3	0-255	Head 2 Tilt (tilt effect amplitude)
4	0-255	Head 2 Tilt Fine
5	0-255	Head 3 Tilt
6	0-255	Head 3 Tilt Fine
7	0-255	Head 4 Tilt
8	0-255	Head 4 Tilt Fine
9	0-255	Head 5 Tilt
10	0-255	Head 5 Tilt Fine
11	0-255	Head 6 Tilt
12	0-255	Head 6 Tilt Fine
13	0-255	Head 7 Tilt
14	0-255	Head 7 Tilt Fine
15	0-255	Head 8 Tilt
16	0-255	Head 8 Tilt Fine
17	0-255	Head 9 Tilt
18	0-255	Head 9 Tilt Fine
19	0-255	Head 10 Tilt
20	0-255	Head 10 Tilt Fine
21	0-255	Tilt Speed
22	0-255	Tilt Effect (4 values and 1 effect for motors). 0-3 no function 4-255 (63 effects total)
23	0-255	CTC
24	0-255	White light CTC
25	0-255	Color Macro
26	0-255	Pattern
27	0-255	White light pattern
28	0-255	LED built-in effects (2 values for the main light, 1 effect). 0-1 no function 2-255 (127 effects total)
29	0-255	LED built-in effect speed
30	0-255	LED built-in effect trailing time
31	0-255	Built-in white light effect (8 values and 1 effect for fill light). 0-7 no function 8-255 (31 effects total)
32	0-255	White light built-in effect speed
33	0-255	White light built-in effect trailing time
34	0-255	LED background color
35	0-255	LED background color light coarse adjustment
36	0-255	Master Dimmer
37	0-255	White Master Dimmer
38	0-255	Strobe
39	0-255	White Strobe
40	0-255	Head 1 Zoom
41	0-255	Head 2 Zoom
42	0-255	Head 3 Zoom
43	0-255	Head 4 Zoom
44	0-255	Head 5 Zoom

Channel	DMX Value	Function
45	0-255	Head 6 Zoom
46	0-255	Head 7 Zoom
47	0-255	Head 8 Zoom
48	0-255	Head 9 Zoom
49	0-255	Head 10 Zoom
50	0-255	Function
51	0-255	red
52	0-255	green
53	0-255	blue
54	0-255	white
55	0-255	Cool white master dimmer
56	0-255	Warm White LED Group master dimmer
57	0-255	Head 1 Red (Effect Selection)
58	0-255	Head 1 Green (Effect color selection)
59	0-255	Head 1 Blue (effect color selection)
60	0-255	Head 1 White (effect color selection)
...	...	...
93	0-255	Head 10 Red
94	0-255	Head 10 Green
95	0-255	Head 10 Blue
96	0-255	Head 10 White
97	0-255	Cool White LED Group 1
98	0-255	Warm White LED Group 1
...	...	...
215	0-255	Cool white 60
216	0-255	Warm White LED Group 60

5.5 262-Channel Personality

Channel	DMX Value	Function
1	0-255	Head 1 Tilt (tilt direction)
2	0-255	Head 1 Tilt Fine
3	0-255	Head 2 Tilt (tilt effect amplitude)
4	0-255	Head 2 Tilt Fine
5	0-255	Head 3 Tilt
6	0-255	Head 3 Tilt Fine
7	0-255	Head 4 Tilt
8	0-255	Head 4 Tilt Fine
9	0-255	Head 5 Tilt
10	0-255	Head 5 Tilt Fine
11	0-255	Head 6 Tilt
12	0-255	Head 6 Tilt Fine
13	0-255	Head 7 Tilt
14	0-255	Head 7 Tilt Fine
15	0-255	Head 8 Tilt
16	0-255	Head 8 Tilt Fine
17	0-255	Head 9 Tilt
18	0-255	Head 9 Tilt Fine
19	0-255	Head 10 Tilt
20	0-255	Head 10 Tilt Fine
21	0-255	Tilt Speed

Channel	DMX Value	Function
22	0-255	Tilt Effect (4 values and 1 effect for motors) 0-3 no function 4-255 (63 effects total)
23	0-255	CTC
24	0-255	White light CTC
25	0-255	Color Macro
26	0-255	Pattern
27	0-255	White light pattern
28	0-255	LED built-in effect (main light, 2 values, 1 effect) 0-1 no function 2-255 (127 effects total)
29	0-255	LED built-in effect speed
30	0-255	LED built-in effect trailing time
31	0-255	Built-in white light effect (8 values and 1 effect for fill light) 0-7 no function 8-255 (31 effects total)
32	0-255	White light built-in effect speed
33	0-255	White light built-in effect trailing time
34	0-255	LED background color
35	0-255	LED background color light coarse adjustment
36	0-255	LED background tint light adjustment
37	0-255	Master Dimmer
38	0-255	Master Dimmer Fine
39	0-255	White Master Dimmer
40	0-255	Strobe
41	0-255	White Strobe
42	0-255	Head 1 Zoom
43	0-255	Head 2 Zoom
44	0-255	Head 3 Zoom
45	0-255	Head 4 Zoom
46	0-255	Head 5 Zoom
47	0-255	Head 6 Zoom
48	0-255	Head 7 Zoom
49	0-255	Head 8 Zoom
50	0-255	Head 9 Zoom
51	0-255	Head 10 Zoom
52	0-255	Function
53	0-255	red
54	0-255	Red Fine
55	0-255	green
56	0-255	Green Fine
57	0-255	blue
58	0-255	Blue Fine
59	0-255	white
60	0-255	White Fine
61	0-255	Cool white master dimmer
62	0-255	Warm White LED Group master dimmer
63	0-255	Head 1 Red coarse (effect color selection)
64	0-255	Head 1 Red Fine
65	0-255	Head 1 Green coarse (effect color selection)
66	0-255	Head 1 Green Fine
67	0-255	Head 1 Blue coarse adjustment (effect color selection)
68	0-255	Head 1 Blue Fine
69	0-255	Head 1 White coarse (color selection for effect)
70	0-255	Head 1 White Fine
...	...	...
135	0-255	Head 10 Red coarse
136	0-255	Head 10 Red Fine
137	0-255	Head 10 Green coarse

Channel	DMX Value	Function
138	0-255	Head 10 Green Fine
139	0-255	Head 10 Blue coarse
140	0-255	Head 10 Blue Fine
141	0-255	Head 10 White coarse
142	0-255	Head 10 White Fine
143	0-255	Cool White LED Group 1
144	0-255	Warm White LED Group 1
...	...	...
261	0-255	Cool white 60
262	0-255	Warm White LED Group 60

5.6 282-Channel Personality

Channel	DMX Value	Function
1	0-255	Head 1 Tilt (tilt direction)
2	0-255	Head 1 Tilt Fine
3	0-255	Head 2 Tilt (tilt effect amplitude)
4	0-255	Head 2 Tilt Fine
5	0-255	Head 3 Tilt
6	0-255	Head 3 Tilt Fine
7	0-255	Head 4 Tilt
8	0-255	Head 4 Tilt Fine
9	0-255	Head 5 Tilt
10	0-255	Head 5 Tilt Fine
11	0-255	Head 6 Tilt
12	0-255	Head 6 Tilt Fine
13	0-255	Head 7 Tilt
14	0-255	Head 7 Tilt Fine
15	0-255	Head 8 Tilt
16	0-255	Head 8 Tilt Fine
17	0-255	Head 9 Tilt
18	0-255	Head 9 Tilt Fine
19	0-255	Head 10 Tilt
20	0-255	Head 10 Tilt Fine
21	0-255	Tilt Speed
22	0-255	Tilt Effect (4 values and 1 effect for motors). 0-3 no function 4-255 (63 effects total)
23	0-255	CTC
24	0-255	White light CTC
25	0-255	Color Macro
26	0-255	Pattern
27	0-255	White light pattern
28	0-255	LED built-in effects (2 values for the main light, 1 effect). 0-1 no function 2-255 (127 effects total)
29	0-255	LED built-in effect speed
30	0-255	LED built-in effect trailing time
31	0-255	Built-in white light effect (8 values and 1 effect for fill light). 0-7 no function 8-255 (31 effects total)
32	0-255	White light built-in effect speed
33	0-255	White light built-in effect trailing time
34	0-255	LED background color
35	0-255	LED background color light coarse adjustment
36	0-255	LED background tint light adjustment
37	0-255	Master Dimmer

Channel	DMX Value	Function
38	0-255	Master Dimmer Fine
39	0-255	White Master Dimmer
40	0-255	Strobe
41	0-255	White Strobe
42	0-255	Head 1 Zoom
43	0-255	Head 2 Zoom
44	0-255	Head 3 Zoom
45	0-255	Head 4 Zoom
46	0-255	Head 5 Zoom
47	0-255	Head 6 Zoom
48	0-255	Head 7 Zoom
49	0-255	Head 8 Zoom
50	0-255	Head 9 Zoom
51	0-255	Head 10 Zoom
52	0-255	Function
53	0-255	red
54	0-255	Red Fine
55	0-255	green
56	0-255	Green Fine
57	0-255	blue
58	0-255	Blue Fine
59	0-255	white
60	0-255	White Fine
61	0-255	Cool white master dimmer
62	0-255	Warm White LED Group master dimmer
63	0-255	Dimming 1 coarse adjustment
64	0-255	Dimming 1 Fine
65	0-255	Head 1 Red coarse (effect color selection)
66	0-255	Head 1 Red Fine
67	0-255	Head 1 Green coarse (effect color selection)
68	0-255	Head 1 Green Fine
69	0-255	Head 1 Blue coarse adjustment (effect color selection)
70	0-255	Head 1 Blue Fine
71	0-255	Head 1 White coarse (color selection for effect)
72	0-255	Head 1 White Fine
...	...	...
153	0-255	Dimming 10 coarse adjustments
154	0-255	Dimming 10 Fine
155	0-255	Head 10 Red coarse
156	0-255	Head 10 Red Fine
157	0-255	Head 10 Green coarse
158	0-255	Head 10 Green Fine
159	0-255	Head 10 Blue coarse
160	0-255	Head 10 Blue Fine
161	0-255	Head 10 White coarse
162	0-255	Head 10 White Fine
163	0-255	Cool White LED Group 1
164	0-255	Warm White LED Group 1
...	...	...
281	0-255	Cool white 60
282	0-255	Warm White LED Group 60

6 Function-Channel Reference

The function channel changes global operating behavior, reset functions, color-mixing mode, dimmer response, PWM frequency, movement limits and other fixture options. Hold reset-related ranges only as long as required by the installed firmware.

No.	DMX Value	Function
1	000-009	No function
2	010-014	Blackout on tilt on
3	015-019	Blackout on tilt off
4	020-024	RGBW (additive) color-mixing mode
5	025-029	CMY (subtractive) color-mixing mode
6	030-034	Combine heads
7	035-039	Disable combine heads
8	040-044	Reserved for future use
9	045-049	Reserved for future use
10	050-054	Reserved for future use
11	055-059	Tilt reset
12	060-064	Zoom reset
13	065-069	Quiet zoom reset
14	070-074	All reset
15	075-079	Cell order 1-10
16	080-084	Cell order 10-1
17	085-089	Reserved for future use
18	090-094	Tilt reverse
19	095-099	Reserved for future use
20	100-104	Disable tilt reverse
21	105-109	Reserved for future use
22	110-114	Reserved for future use
23	115-119	Reserved for future use
24	120-134	Reserved for future use
25	135-139	Dimmer fast
26	140-144	Dimmer smooth
27	145-149	Linear
28	150-154	Square
29	155-159	I Squa
30	160-164	S-Curve
31	165-169	Reserved for future use
32	170-174	Reserved for future use
33	175-179	PWM 600HZ
34	180-184	PWM 1200HZ
35	185-189	PWM 2000 HZ
36	190-194	PWM 4000 HZ
37	195-199	PWM 6000 HZ
38	200-204	PWM 15 000 HZ
39	205-255	Reserved for future use

TILT-EFFECT AMPLITUDE If the menu Tilt Effect Amplitude is 0, use the whole-tilt fine control or Head 2 Tilt control to set the amplitude. If the menu value is 1-255, function-channel values 205-255 control amplitude; at 0-204, the saved menu amplitude is used.

6.1 Strobe Ranges

Channel	DMX Value	Function
1	000-019	Blackout
2	020-024	Open
3	025-064	Strobe, fast to slow
4	065-069	Open
5	070-084	100-0% strobe, from fast to slow
6	085-089	Open
7	090-104	0-100% strobe, from fast to slow
8	105-109	Open
9	110-124	Random strobe, from fast to slow
10	125-129	Open
11	130-144	Random 100-0% strobe, from fast to slow
12	145-149	Open
13	150-164	Random 0-100% strobe, from fast to slow
14	165-169	Open
15	170-184	Pulse strobe 1, from fast to slow
16	185-189	Open
17	190-204	Random pulse strobe, from fast to slow
18	205-209	Open
19	210-224	0-100-0% strobe, from fast to slow
20	225-229	Open
21	230-244	Pulse Strobe 2, from fast to slow
22	245-255	Open

6.2 Color-Temperature and Color-Macro Ranges

Channel	DMX Value	Function
1	0	No function
2	001-002	2700 K
3	003-004	3200 K
4	005-006	4200 K
5	007-008	5600 K
6	009-010	8000 K
7	011	blue
8	012-048	Blue to cyan
9	049	cyan
10	050-086	Cyan to green
11	087	green
12	088-124	Green to yellow
13	125	Yellow
14	126-162	Yellow to red
15	163	red
16	164-200	Red to magenta
17	201	magenta
18	202-238	Magenta to blue
19	239	blue
20	240-247	Gradient effect, from fast to slow
21	248-255	Pulse effect, from fast to slow

7 Routine Maintenance

ATTENTION Disconnect power, allow the fixture to cool and ensure all connector interfaces are dry before inspection or cleaning.

- Inspect the housing, lenses, seals, mounting points, safety cable, power cable and waterproof connectors before every use.
- Replace damaged lenses, seals, cables and structural parts before returning the fixture to service.
- Clean external optical surfaces with a soft, lint-free cloth and a suitable glass-cleaning fluid; dry every part carefully.
- Keep ventilation paths clear. The housing may become hot during operation, so maintain free airflow around the fixture.
- Switch the fixture off completely at the circuit breaker or plug when it is not in use to reduce wear and extend service life.
- Do not open the sealed housing unless qualified and equipped to restore its IP67 protection correctly.

8 Troubleshooting and Service

Symptom	Check
No light output	Verify the product-label voltage, power connection, circuit protection, control switch, available supply capacity and controller output.
No DMX response after reset	Confirm DMX mode, start address, selected 29/56/144/216/262/282CH personality, controller patch, cable polarity and connectors.
Intermittent or unstable DMX	Shorten the data run, separate signal and high-voltage cables, use shielded twisted-pair cable, add an amplifier if needed and terminate the final fixture with 120 ohms.
Fixture does not start	Check the supply rating and inspect for transport damage, moisture, loose internal connectors or damaged electronics. Refer internal inspection to qualified service.
Unexpected head movement	Remove obstructions, verify tilt direction and effect-amplitude settings, run the appropriate reset and confirm the selected personality.
Reduced or unstable output	Check temperature, cooling, optical cleanliness, supply quality and error messages.
Water or condensation suspected	Disconnect power, move the fixture to a dry service area and have seals and connectors inspected before reuse.

SERVICE There are no user-serviceable high-voltage or sealed parts inside. Refer internal repair, light-source replacement, seal replacement and calibration to the manufacturer, its service agent or similarly qualified personnel.

8.1 Warranty and Support

Damage caused by misuse, ignored warnings, unauthorized repair, incorrect installation or operation outside the specified conditions may be excluded from warranty coverage. Include the product-label model, serial number, firmware version, active personality and a clear fault description when requesting support.

End of manual