

ALP1260WV

12 x 60 W LED Moving Head Waver IP65

*12 INDEPENDENT TILT + ZOOM HEADS - RGBW + AUXILIARY LIGHT - USER
MANUAL*

Professional IP65 beam, wash and synchronized wave-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 This manual is for ALP1260WV. Confirm the model, voltage rating and firmware shown on the actual fixture before installation or programming.

1 Safety Information

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

- This professional fixture must be installed, operated and serviced by qualified personnel.
- Use only AC 100-240 V, 50/60 Hz as specified by the technical data and product label. Connect to a protected, properly grounded Class I supply.
- Do not operate the fixture with a damaged housing, lens, waterproof connector, mounting point, cable or seal.
- After a large temperature change, leave the fixture disconnected until it reaches ambient temperature and all condensation has evaporated.
- 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 clamps and an independently rated safety cable attached to the designated point.
- Carry the fixture only by its handles or fixed structure. Do not lift it by the moving heads.
- Keep ventilation openings clear. Never cover the fixture or operate it near flammable or explosive materials.

IP65 CONDITIONS IP65 protection applies only when all connector caps, cable glands, covers and seals are correctly fitted and undamaged. IP65 is not an immersion rating. Do not aim high-pressure water jets at the fixture.

2 Product Overview

The ALP1260WV combines twelve independently moving 60 W RGBW heads with motorized zoom and a 432-pixel white/golden-amber auxiliary-light system. It is designed for synchronized wave, beam and wash effects in touring, stage, theatre, studio, club and outdoor-event applications where IP65 protection is required.

2.1 Technical Specifications

Parameter	Specification
Input voltage	AC 100-240 V, 50/60 Hz
Rated power	850 W (source specification)
Main light source	12 x 60 W RGBW 4-in-1 LEDs
Auxiliary light source	432 x 1 W bi-color LEDs: white + golden amber
Control	DMX512 / Auto 1 / Auto 2 / Master-Slave / Sound-active / RDM
DMX personalities	26CH / 59CH / 128CH / 152CH / 182CH / 314CH / 329CH
Dimming	32-bit, 0-100% linear dimming; selectable response and curves
Movement / optics	12 independent tilt and motorized zoom heads
Primary effects	Independent wave movement, beam, wash, patterns, color macros and auxiliary-light effects
Operating temperature	-30 °C to 50 °C (source specification)
Strobe	1-30 Hz
Firmware update	Via DMX connection
Connections	DMX512 input/output and waterproof power input/output
Ingress protection	IP65
Construction / finish	Metal, black

2.2 Main Functions

- Twelve independently controllable tilt and zoom heads with RGBW color mixing.
- White and golden-amber auxiliary LEDs with independent dimming, CTO, strobe and built-in effects.
- Built-in tilt macros, color macros, patterns, LED effects and background colors.
- Compact shared personalities and expanded per-head personalities up to 329 channels.
- RDM support, DMX firmware updating, sound-active operation and synchronized parameter update.
- Built-in alignment pins for rapid mechanical joining of compatible fixtures.

3 Setup and Installation

3.1 AC Power

Before connecting power, verify that the product-label voltage and frequency match the local supply. Complete all mounting and data connections before applying power. Keep waterproof connector caps fitted whenever a connector is unused.

3.2 Rigging

STRUCTURAL RATING The mounting point and every attachment must be rated for at least ten times the fixture load or the higher factor required by local regulations. Keep people clear of the area below during installation and service.

1. Inspect the fixture, clamps, fasteners, mounting points, safety cable, seals and support structure.
2. Attach correctly rated clamps to the designated mounting points and tighten all fasteners.
3. Attach an independently rated safety cable to the designated safety point; never attach it to a moving head or handle.
4. Confirm clearance for the complete movement and zoom range of all twelve heads.
5. Recheck every attachment and waterproof connection before applying power.

3.3 DMX512 / RDM Connection

Use shielded, twisted-pair cable intended for RS-485/DMX512. Connect the controller to DMX IN, then link DMX OUT to the next fixture. Assign a unique start address to every independently controlled fixture. RDM requires a compatible controller and bidirectional data equipment.

TERMINATION At the last fixture in a long or electrically noisy DMX chain, install a 120 ohm resistor between pins 2 and 3 of a male XLR plug and insert it into DMX OUT.

4 Control Panel and Menu

Use MENU to return, UP/DOWN to select or change a value, and ENTER to open an item or confirm a setting. The display also shows the DMX indicator, error indicator, fixture temperature, address and active personality. Menu labels may vary slightly with firmware revision.

Menu	Item	Option / Range	Operation
Address	DMX Start Address	001-512	Set the fixture start address.
System Settings	Operating Mode	DMX / Auto 1 / Auto 2 / Sound	Select controller, automatic or sound-active operation.
System Settings	Channel Mode	26 / 59 / 128 / 152 / 182 / 314 / 329CH	Select the DMX personality.
System Settings	Pixel Order Reverse	Off / On	Reverse the head and pixel sequence.
System Settings	Tilt Reverse	Off / On	Reverse the tilt direction.
System Settings	DMX Hold	Off / On	Return to reset state or hold the last DMX frame after signal loss.
System Settings	Screen Saver	Off / On	Keep the display on or turn it off after inactivity.
System Settings	Display Orientation	Normal / Inverted / Auto	Set or automatically orient the display.
System Settings	Synchronized Update	Off / On	Copy settings/calibration to linked fixtures; disconnect the controller first.
System Settings	Language	Chinese / English	Select the menu language.
System Settings	Dimmer Curve	Linear / Square / Inverse Square / S-Curve	Select the dimming curve.
System Settings	Dimmer Response	Fast / Smooth	Select fast or smoothed dimming.
System Settings	Head ID	Off / 1-12	Service head identification and assignment.
System Settings	Factory Reset	Cancel / Confirm	Restore factory settings.
Manual	Current Personality Channels	000-255	Manually test each channel in the selected personality.
Calibration	Password	6688	Open protected calibration settings.
Calibration	Home Position	Tilt 1-12 / Zoom 1-12, ±127	Correct mechanical home offsets; record original values first.
Calibration	White Balance	Head 1-12 RGBW, 000-255	Service-only per-head white-balance calibration; 255 = unchanged.
Calibration	Maximum Power	000-255	Set the maximum fixture power; 255 = maximum.
Reset	Effect / Movement / All	Confirm	Reset effect motors, movement motors or the complete fixture.
Information	Reset Errors	Read-only	View board communication, tilt sensor and zoom reset faults.
Information	DMX Monitor	Read-only	View received channel values.
Information	Sensors	Read-only	View zoom Hall, tilt Hall and temperature sensor status.
Information	Hardware / Software Version	Read-only	View installed hardware and firmware versions.

PROTECTED SETTINGS Home-position, white-balance, power and head-ID functions are service settings. Record original values before editing; incorrect values can cause positioning faults or abnormal output.

5 DMX512 Channel Reference

Select the same personality on the fixture and controller. Repeated per-head blocks below are written as formulas so every channel remains unambiguous without repeating hundreds of identical rows.

Personality	Coverage
26CH	Compact shared tilt, zoom, RGBW, effects and auxiliary-light control
59CH	Independent tilt/fine and zoom for 12 heads with shared color and auxiliary light
128CH	Independent tilt/zoom plus per-head RGBW and two auxiliary colors
152CH	Independent tilt/zoom plus per-head RGBW and four auxiliary zones
182CH	16-bit RGBW per head plus two auxiliary colors
314CH	Maximum per-head tilt, zoom, dimmer, 16-bit RGBW and six auxiliary zones
329CH	16-bit shared/per-head color, dimmer, zoom and six auxiliary zones with global auxiliary effects

5.1 26-Channel Personality

Compact shared control of all twelve heads and the auxiliary-light system.

Channel	Function	DMX Value	Description
1	Heads 1-12 Tilt	000-255	0-100%
2	Heads 1-12 Tilt Fine	000-255	Fine adjustment
3	Tilt Speed	000-255	Fast to slow
4	Tilt Macro	000-004 / 005-255	No function / See Tilt Macro reference
5	Color Temperature	000 / 001-255	No function / 19,000 K to 2,700 K
6	Color Macro	000 / 001-255	No function / See Color Macro reference
7	Pattern	000 / 001-255	No function / Pattern 1-255
8	Built-in LED Effect	000-015 / 016-255	No function / One effect per 8 values
9	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow / Stop / Slow to fast
10	LED Effect Delay	000-255	Fast to slow
11	Background Color	000 / 001-255	No function / See Color Macro reference
12	Background Dimmer	000-255	0-100%
13	Master Dimmer	000-255	0-100%
14	Main Strobe	000-019 / 020-255	Off / See Main Strobe reference
15	Heads 1-12 Zoom	000-255	0-100%
16	Control	000-009 / 010-255	No function / See Control reference
17	Red	000-255	0-100%
18	Green	000-255	0-100%
19	Blue	000-255	0-100%
20	White	000-255	0-100%
21	Auxiliary Strobe	000-255	See Auxiliary Strobe reference
22	Auxiliary White	000-255	0-100%
23	Auxiliary Golden Amber	000-255	0-100%
24	Auxiliary CTO	000-067 / 068-247 / 248-255	None / CTO / None
25	Auxiliary Effect	000-007 / 008-191 / 192-255	None / Effect 1-23 / None; 8 values per effect
26	Auxiliary Effect Speed	000-127 / 128-255	Snap-change slow to fast / Fade slow to fast

5.2 59-Channel Personality

Independent 16-bit tilt and zoom for all heads, with shared main and auxiliary color control.

Channel	Function	DMX Value	Description
1-2	Head 1 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
3-4	Head 2 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
5-6	Head 3 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
7-8	Head 4 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
9-10	Head 5 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
11-12	Head 6 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
13-14	Head 7 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
15-16	Head 8 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
17-18	Head 9 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
19-20	Head 10 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
21-22	Head 11 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
23-24	Head 12 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
25	Tilt Speed	000-255	Fast to slow
26	Tilt Macro	000-004 / 005-255	No function / See Tilt Macro reference
27	Color Temperature	000 / 001-255	No function / 19,000 K to 2,700 K
28	Color Macro	000 / 001-255	No function / See Color Macro reference
29	Pattern	000 / 001-255	No function / Pattern 1-255
30	Built-in LED Effect	000-015 / 016-255	No function / One effect per 8 values
31	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow / Stop / Slow to fast
32	LED Effect Delay	000-255	Fast to slow
33	Background Color	000 / 001-255	No function / See Color Macro reference
34	Background Dimmer	000-255	0-100%
35	Master Dimmer	000-255	0-100%
36	Main Strobe	000-019 / 020-255	Off / See Main Strobe reference
37-48	Head 1-12 Zoom	000-255	Channel = 36 + head number; 0-100%
49	Control	000-009 / 010-255	No function / See Control reference
50	Red / Cyan	000-255	RGBW 0-100% / CMY 100-0%
51	Green / Magenta	000-255	RGBW 0-100% / CMY 100-0%
52	Blue / Yellow	000-255	RGBW 0-100% / CMY 100-0%
53	White	000-255	0-100%
54	Auxiliary Strobe	000-255	See Auxiliary Strobe reference
55	Auxiliary White	000-255	0-100%
56	Auxiliary Golden Amber	000-255	0-100%
57	Auxiliary CTO	000-067 / 068-247 / 248-255	None / CTO / None
58	Auxiliary Effect	000-007 / 008-191 / 192-255	None / Effect 1-23 / None
59	Auxiliary Effect Speed	000-127 / 128-255	Snap-change slow to fast / Fade slow to fast

5.3 128-Channel Personality

Per-head RGBW and two auxiliary colors, with independent tilt and zoom.

Channel	Function	DMX Value	Description
1-2	Head 1 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
3-4	Head 2 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
5-6	Head 3 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
7-8	Head 4 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
9-10	Head 5 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
11-12	Head 6 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
13-14	Head 7 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
15-16	Head 8 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
17-18	Head 9 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
19-20	Head 10 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
21-22	Head 11 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
23-24	Head 12 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
25	Tilt Speed	000-255	Fast to slow
26	Tilt Macro	000-004 / 005-255	No function / See Tilt Macro reference
27	Color Temperature	000 / 001-255	No function / 19,000 K to 2,700 K
28	Color Macro	000 / 001-255	No function / See Color Macro reference
29	Pattern	000 / 001-255	No function / Pattern 1-255
30	Built-in LED Effect	000-015 / 016-255	No function / One effect per 8 values
31	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow / Stop / Slow to fast
32	LED Effect Delay	000-255	Fast to slow
33	Background Color	000 / 001-255	No function / See Color Macro reference
34	Background Dimmer	000-255	0-100%
35	Master Dimmer	000-255	0-100%
36	Main Strobe	000-019 / 020-255	Off / See Main Strobe reference
37	Auxiliary Strobe	000-255	See Auxiliary Strobe reference
38-49	Head 1-12 Zoom	000-255	Channel = 37 + head number; 0-100%
50	Control	000-009 / 010-255	No function / See Control reference
51-56	Shared RGBW + Auxiliary White/Amber	000-255	Red, Green, Blue, White, Auxiliary White, Auxiliary Golden Amber
57-128	Per-head 6-channel color block	000-255	Base = 57 + (head-1) x 6; offsets: R, G, B, W, Aux White, Aux Golden Amber
57-62	Head 1 color block	000-255	R, G, B, W, Aux White, Aux Golden Amber
123-128	Head 12 color block	000-255	R, G, B, W, Aux White, Aux Golden Amber

5.4 152-Channel Personality

Per-head RGBW and four auxiliary-light zones, with independent tilt and zoom.

Channel	Function	DMX Value	Description
1-2	Head 1 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
3-4	Head 2 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
5-6	Head 3 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
7-8	Head 4 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
9-10	Head 5 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
11-12	Head 6 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
13-14	Head 7 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
15-16	Head 8 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
17-18	Head 9 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
19-20	Head 10 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
21-22	Head 11 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
23-24	Head 12 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
25	Tilt Speed	000-255	Fast to slow
26	Tilt Macro	000-004 / 005-255	No function / See Tilt Macro reference
27	Color Temperature	000 / 001-255	No function / 19,000 K to 2,700 K
28	Color Macro	000 / 001-255	No function / See Color Macro reference
29	Pattern	000 / 001-255	No function / Pattern 1-255
30	Built-in LED Effect	000-015 / 016-255	No function / One effect per 8 values
31	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow / Stop / Slow to fast
32	LED Effect Delay	000-255	Fast to slow
33	Background Color	000 / 001-255	No function / See Color Macro reference
34	Background Dimmer	000-255	0-100%
35	Master Dimmer	000-255	0-100%
36	Main Strobe	000-019 / 020-255	Off / See Main Strobe reference
37	Auxiliary Strobe	000-255	See Auxiliary Strobe reference
38-49	Head 1-12 Zoom	000-255	Channel = 37 + head number; 0-100%
50	Control	000-009 / 010-255	No function / See Control reference
51-56	Shared RGBW + Auxiliary White/Amber	000-255	Shared color control
57-152	Per-head 8-channel color block	000-255	Base = 57 + (head-1) x 8; R, G, B, W, Aux White Up, Aux Amber Up, Aux White Down, Aux Amber Down
57-64	Head 1 color block	000-255	R, G, B, W, four auxiliary zones
145-152	Head 12 color block	000-255	R, G, B, W, four auxiliary zones

5.5 182-Channel Personality

16-bit per-head RGBW, two auxiliary colors, independent 16-bit tilt and independent zoom.

Channel	Function	DMX Value	Description
1-2	Head 1 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
3-4	Head 2 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
5-6	Head 3 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
7-8	Head 4 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
9-10	Head 5 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
11-12	Head 6 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
13-14	Head 7 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
15-16	Head 8 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
17-18	Head 9 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
19-20	Head 10 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
21-22	Head 11 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
23-24	Head 12 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
25	Tilt Speed	000-255	Fast to slow
26	Tilt Macro	000-004 / 005-255	No function / See Tilt Macro reference
27	Color Temperature	000 / 001-255	No function / 19,000 K to 2,700 K
28	Color Macro	000 / 001-255	No function / See Color Macro reference
29	Pattern	000 / 001-255	No function / Pattern 1-255
30	Built-in LED Effect	000-015 / 016-255	No function / One effect per 8 values
31	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow / Stop / Slow to fast
32	LED Effect Delay	000-255	Fast to slow
33	Background Color	000 / 001-255	No function / See Color Macro reference
34	Background Dimmer	000-255	0-100%
35	Background Dimmer Fine	000-255	Fine adjustment
36	Master Dimmer	000-255	0-100%
37	Master Dimmer Fine	000-255	Fine adjustment
38	Main Strobe	000-019 / 020-255	Off / See Main Strobe reference
39	Auxiliary Strobe	000-255	See Auxiliary Strobe reference
40-51	Head 1-12 Zoom	000-255	Channel = 39 + head number; 0-100%
52	Control	000-009 / 010-255	No function / See Control reference
53-60	Shared RGBW / Fine	000-255	R, R Fine, G, G Fine, B, B Fine, W, W Fine
61-62	Shared Auxiliary White / Amber	000-255	0-100%
63-182	Per-head 10-channel color block	000-255	Base = 63 + (head-1) x 10; R/R Fine, G/G Fine, B/B Fine, W/W Fine, Aux White, Aux Amber
63-72	Head 1 color block	000-255	16-bit RGBW plus two auxiliary colors
173-182	Head 12 color block	000-255	16-bit RGBW plus two auxiliary colors

5.6 314-Channel Personality

Maximum independent control: a 25-channel block for each of the twelve heads.

Channel	Function	DMX Value	Description
1	Control	000-009 / 010-255	No function / See Control reference
2	Tilt Speed	000-255	Fast to slow
3	Tilt Macro	000-004 / 005-255	No function / See Tilt Macro reference
4	Color Temperature	000 / 001-255	No function / 19,000 K to 2,700 K
5	Color Macro	000 / 001-255	No function / See Color Macro reference
6	Pattern	000 / 001-255	No function / Pattern 1-255
7	Built-in LED Effect	000-015 / 016-255	No function / One effect per 8 values
8	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow / Stop / Slow to fast
9	LED Effect Delay	000-255	Fast to slow
10	Background Color	000 / 001-255	No function / See Color Macro reference
11	Background Dimmer	000-255	0-100%
12	Background Dimmer Fine	000-255	Fine adjustment
13	Main Strobe	000-019 / 020-255	Off / See Main Strobe reference
14	Auxiliary Strobe	000-255	See Auxiliary Strobe reference
15-314	Per-head 25-channel block	000-255	Base = 15 + (head-1) x 25; Tilt/Fine, Zoom, Dimmer/Fine, RGBW/Fine, six Aux White/Amber zone pairs
15-39	Head 1 block	000-255	Tilt/Fine, Zoom, Dimmer/Fine, 16-bit RGBW, auxiliary zones 1-6
290-314	Head 12 block	000-255	Tilt/Fine, Zoom, Dimmer/Fine, 16-bit RGBW, auxiliary zones 1-6

5.7 329-Channel Personality

Expanded shared and per-head 16-bit control with global auxiliary-light effects.

Channel	Function	DMX Value	Description
1-2	Head 1 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
3-4	Head 2 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
5-6	Head 3 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
7-8	Head 4 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
9-10	Head 5 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
11-12	Head 6 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
13-14	Head 7 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
15-16	Head 8 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
17-18	Head 9 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
19-20	Head 10 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
21-22	Head 11 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
23-24	Head 12 Tilt / Fine	000-255	Coarse 0-100% / fine adjustment
25	Tilt Speed	000-255	Fast to slow
26	Tilt Macro	000-004 / 005-255	No function / See Tilt Macro reference
27	Color Temperature	000 / 001-255	No function / 19,000 K to 2,700 K
28	Color Macro	000 / 001-255	No function / See Color Macro reference
29	Pattern	000 / 001-255	No function / Pattern 1-255
30	Built-in LED Effect	000-015 / 016-255	No function / One effect per 8 values
31	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow / Stop / Slow to fast
32	LED Effect Delay	000-255	Fast to slow
33	Background Color	000 / 001-255	No function / See Color Macro reference
34	Background Dimmer	000-255	0-100%
35	Background Dimmer Fine	000-255	Fine adjustment
36	Master Dimmer	000-255	0-100%
37	Master Dimmer Fine	000-255	Fine adjustment
38	Main Strobe	000-019 / 020-255	Off / See Main Strobe reference
39	Auxiliary Strobe	000-255	See Auxiliary Strobe reference
40-51	Head 1-12 Zoom	000-255	Channel = 39 + head number; 0-100%
52	Control	000-009 / 010-255	No function / See Control reference
53-60	Shared RGBW / Fine	000-255	R/R Fine, G/G Fine, B/B Fine, W/W Fine
61-324	Per-head 22-channel block	000-255	Base = 61 + (head-1) x 22; Dimmer/Fine, RGBW/Fine, six Aux White/Amber zone pairs
61-82	Head 1 block	000-255	Dimmer/Fine, 16-bit RGBW and auxiliary zones 1-6
303-324	Head 12 block	000-255	Dimmer/Fine, 16-bit RGBW and auxiliary zones 1-6
325	Global Auxiliary White	000-255	0-100%
326	Global Auxiliary Golden Amber	000-255	0-100%
327	Auxiliary CTO	000-067 / 068-247 / 248-255	None / CTO / None
328	Auxiliary Effect	000-007 / 008-191 / 192-255	None / Effect 1-23 / None
329	Auxiliary Effect Speed	000-127 / 128-255	Snap-change slow to fast / Fade slow to fast

6 Function-Channel Reference

Use these tables whenever a personality row points to a shared macro, strobe or control reference.

6.1 Tilt Macro Ranges

DMX Value	Function
000-004	No function
005-009	Tilt Macro 1
010-014	Tilt Macro 2
015-249	Tilt Macros 3-49 in consecutive 5-value steps
250-254	Tilt Macro 50
255	Tilt Macro 51

MACRO OPERATION When a tilt macro is active, Head 1 Tilt sets the macro start position, Head 1 Tilt Fine sets the swing amplitude, and Tilt Speed sets macro speed. Valid amplitude values are 001-255.

6.2 Color Macro Ranges

DMX Value	Function
000	No function
001-002	White 2700 K
003-004	White 3200 K
005-006	White 4200 K
007-008	White 5600 K
009-010	White 8000 K
011	Blue
012-048	Add Green
049	Cyan
050-086	Reduce Blue
087	Green
088-124	Add Red
125	Yellow
126-162	Reduce Green
163	Red
164-200	Add Blue
201	Magenta
202-238	Reduce Red
239	Blue
240-247	Color fade, fast to slow
248-255	Color snap, fast to slow

6.3 Main Strobe Ranges

DMX Value	Function
000-019	Off
020-024	On
025-064	Strobe, fast to slow
065-069	On
070-084	100%-to-0% strobe, fast to slow
085-089	On
090-104	0%-to-100% strobe, fast to slow
105-109	On
110-124	Random strobe, fast to slow
125-129	On
130-144	Random 100%-to-0% strobe, fast to slow
145-149	On
150-164	Random 0%-to-100% strobe, fast to slow
165-169	On
170-184	Pulse strobe, fast to slow
185-189	On
190-204	Random pulse strobe, fast to slow
205-209	On
210-224	0%-100%-0% strobe, fast to slow
225-229	On
230-244	Random pulse strobe, fast to slow
245-255	On

6.4 Auxiliary Strobe Ranges

DMX Value	Function
000-019	Blackout
020-024	Open
025-064	Even strobe, fast to slow
065-070	Open
071-084	Fast-on / slow-off strobe, slow to fast
085-089	Open
090-104	Slow-on / fast-off strobe, slow to fast
105-109	Open
110-124	Random strobe
125-129	Open
130-144	Random fast-on / slow-off
145-150	Open
151-164	Random slow-on / fast-off
165-169	Open
170-184	Strobe program 1
185-189	Open
190-204	Strobe program 2
205-209	Open
210-224	Strobe program 3
225-229	Open
230-244	Strobe program 4
245-255	Open

6.5 Control Ranges

DMX Value	Function
000-055	No function
056-060	Tilt motor reset; hold for 5 seconds
061-065	Zoom motor reset; hold for 5 seconds
066-075	Full fixture reset; hold for 5 seconds
076-255	Reserved

7 Routine Maintenance

ATTENTION Disconnect AC power and allow the fixture to cool completely before inspection or cleaning.

- Inspect the housing, lenses, seals, mounting points, clamps, safety cable, power cable and data connectors before every use.
- Replace damaged lenses, cables, covers, connector caps and structural parts before returning the fixture to service.
- Clean optical surfaces with a soft, lint-free cloth and suitable optical cleaner; dry every part carefully.
- Keep fans and ventilation openings free of dust, fog-fluid residue and obstructions. The source recommends monthly cleaning in dusty environments.
- Inspect every tilt and zoom mechanism for unusual noise, resistance, imbalance or positioning errors.
- After cleaning or service, confirm that every waterproof seal and connector is correctly refitted before outdoor use.

8 Troubleshooting, RDM and Service

Symptom	Check
No light output	Verify supply voltage, power connection, circuit protection, dimmer/strobe values and controller output.
No DMX response after reset	Confirm DMX mode, start address, selected personality, controller patch, cable polarity and connectors.
Intermittent or unstable DMX	Use shielded twisted-pair cable, inspect bidirectional amplifiers, separate signal and high-voltage cables, and terminate the final fixture with 120 ohms.
Fixture does not start	Check supply rating, circuit protection, moisture, transport damage and loose connections. Refer internal inspection to qualified service.
Abnormal tilt or zoom	Remove obstructions, run the appropriate reset, inspect reversal/ID settings, and refer Hall sensors or mechanisms to qualified service.
Reduced or unstable output	Check temperature, ventilation, fan operation, optical cleanliness, supply quality, power calibration and error records.
DMX works but RDM does not	Confirm an RDM-compatible controller, bidirectional amplifier and continuity on data pins 2 and 3; all fixtures must remain in DMX mode.

SERVICE There are no user-serviceable high-voltage parts inside. Refer internal repair, LED-board replacement, motor service, 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, compromised waterproof seals or operation outside the specified conditions may be excluded from warranty coverage. Include the model, serial number, firmware version, active personality and a clear fault description when requesting support.

End of manual