PROFESSIONAL LED PIXEL MOVING BAR

AL1240WB

12 x 40 W LED MOVING BAR

USER MANUAL

English Edition | Professionally translated and edited

12 x 40 W RGBW main LEDs | Dual motorized zoom | Independent pixel control

Application	Input Voltage	Tilt	DMX Modes
Indoor	AC 90-240 V	270 degrees + fine	29 / 68 CH

IMPORTANT Read this manual completely before installing, powering, operating, or servicing the fixture. Retain it for future reference.

Contents

> **EDITORIAL NOTE** The supplied Chinese legacy manual has been translated and professionally standardized. Confirmed source values are retained; specifications that are not present in the source have not been invented.

1 Product Information & Safety

1.1 Intended Use

The AL1240WB is a professional indoor moving LED pixel bar with twelve 40 W RGBW main emitters, dual motorized zoom control, integrated cool-white/warm-white and RGB effect strips, and two DMX personalities. It supports DMX512/RDM, automatic programs, sound-active operation, and independent RGBW control of all twelve main pixels in 68 CH mode. Typical applications include concerts, theatres, studios, clubs, bars, and entertainment venues.

Inspect the fixture and accessories immediately after unpacking. Do not operate a product that appears damaged in transit.

1.2 Package Contents

Item	Quantity
AL1240WB fixture	1
Power cable	1
DMX signal cable	1
User manual	1

1.3 Safety Instructions

- Installation, operation, and service must be performed by trained, qualified personnel.
- This is an indoor fixture. Keep it away from rain, moisture, excessive dust, and corrosive environments.
- Connect only to the rated AC supply and a properly grounded Protection Class I circuit.
- Disconnect mains power before cleaning, servicing, connecting, or when the fixture is not in use. Pull the plug, never the cable.

- After a severe temperature change, allow the fixture to reach room temperature before applying power so condensation can evaporate.
- Do not operate the fixture if the power cable, housing, lens, bracket, or safety attachment is damaged.
- Do not lift or carry the fixture by the moving light bar. Protect the mechanism from impact and excessive vibration.
- Strobe lighting may trigger photosensitive seizures. Follow venue and local warning requirements.

WARNING Damage caused by installation or operation that does not follow this manual may not be covered by warranty. Never stand below the fixture during installation, removal, or service.

1.4 Confirmed Technical Specifications

Parameter	Specification
Input voltage	AC 90-240 V
Main light source	12 x 40 W RGBW LEDs
Effect-strip sources	Cool-white / warm-white strip and RGB strip; individual emitter quantities not specified
Tilt	0-270 degrees with 16-bit fine control
Zoom	Dual motorized Zoom 1 / Zoom 2 control
Dimming	0-100% continuous linear dimming
Color functions	RGBW mixing; main CTO 8000-2500 K; white-strip CTO 6500-2600 K
Control modes	DMX512/RDM, Auto 1, Auto 2, sound-active
DMX personalities	29 CH / 68 CH
Pixel control	12 independent RGBW main pixels in 68 CH mode
Application	Indoor use

SOURCE LIMITATION The supplied manual does not specify input frequency, rated fixture power, dimensions, weight, beam angle, LED lifetime, or effect-strip emitter quantities. These fields are intentionally omitted rather than estimated.

2 Installation & DMX Connections

2.1 Rigging

The fixture may be placed on a stable level surface or installed in an approved suspended orientation. Before mounting, verify that the supporting structure and every rigging component are suitable for the full fixture load. Complete all rigging before connecting mains power.

- Install outside normal walking and seating areas and beyond unauthorized reach.
- Use correctly rated clamps and fully tighten all mounting fasteners.
- Attach a correctly rated secondary safety cable to the designated fixture safety point.
- Never attach the safety cable to the moving light bar or use a moving section as a carrying handle.

- Inspect clamps, fasteners, the safety cable, and the supporting structure before every use.

2.2 DMX512 Data Connection

Connect the controller DMX output to the fixture DMX input with a shielded twisted-pair DMX cable. Connect the fixture output to the next fixture input. Assign a unique start address to every independently controlled fixture.

3-pin XLR	Signal
Pin 1	Ground / shield
Pin 2	Data -
Pin 3	Data +

> **TERMINATION** For long cable runs or electrically noisy environments, connect a 120 ohm, 1 W resistor between pins 2 and 3 in a male XLR plug and install it at the DMX output of the final fixture.

2.3 DMX Addressing

For consecutive fixtures using the same personality, the next start address equals the previous start address plus the selected channel count. Examples: 29 CH fixtures may start at 001, 030, 059; 68 CH fixtures may start at 001, 069, 137. Verify that the controller provides enough channels for the complete installation.

3 Display Menu & Operation

3.1 Menu Map

Menu	Option	Range / Function
DMX Address	Address	001-512
System	Run Mode	DMX / Auto 1 / Auto 2 / Sound Active
System	Channel Mode	29 CH / 68 CH
System	Pixel Reverse	Off / On
System	Tilt Invert	Off / On
System	Reserved Function	Off / On; no current function
System	Optical-Sensor Correction	Off / On
System	Hold on DMX Loss	Off / On
Display	Screen Saver	Off / On
Display	Display Orientation	Auto / Normal / Inverted
System	Synchronize Settings	Off / On
Display	Language	Chinese / English
System	Factory Reset	Confirm / Cancel
Manual	Manual Channel Control	000-255 per channel

Menu	Option	Range / Function
Calibration	Password	Default source password: 6688
Calibration	Initial Position	Tilt / Zoom 1 / Zoom 2; 000-255, 127 = no offset
Calibration	Maximum Output Limit	000-255, 255 = no adjustment
Calibration	White Balance	LED 1-12 RGBW; 000-255, 255 = no adjustment
Calibration	Microphone Sensitivity	Adjust sound-active sensitivity
Reset	Effect Motors	Reset zoom/effect motors
Reset	Tilt Motor	Reset tilt only
Reset	All Motors	Reset fixture
Information	Error / DMX / Sensors	View diagnostic data
Information	Hardware / Software Version	View version information

SYNCHRONIZATION NOTE When synchronizing settings or calibration between fixtures, link the fixtures with DMX cable and disconnect the controller signal as instructed by the source manual.

3.2 Operating Notes

- Select the 29 CH or 68 CH personality before programming the controller; changing personality changes the complete DMX footprint.
- Use DMX Address to assign a valid start address from 001 to 512. RDM is available for compatible controller workflows.
- Auto 1, Auto 2, and Sound Active are stand-alone run selections; DMX is the external-control selection.
- Calibration is password protected. The source default is 6688; 127 is the neutral initial-position offset and 255 means no output reduction.

4 DMX512 Control

Select the required personality and set a valid start address. The 29 CH mode provides global main and strip control with built-in effects; the 68 CH mode provides independent RGBW control of all twelve main pixels.

OUTPUT NOTE Set the Master Dimmer above zero and place the applicable strobe channel in an Open range to obtain steady output.

4.1 29 CH Mode

Channel	DMX Value	Function
1	000-255	Tilt, 0-270 degrees
2	000-255	Tilt Fine (16-bit)
3	000-255	Zoom 1 Position
4	000-255	Zoom 2 Position
5	000-255	Tilt Speed, fast to slow
6	000-255	Master Dimmer, 0-100%
7	000-255	Main LED Strobe; see 4.4
8	000-255	White-Strip Strobe; see 4.4
9	000-255	RGB-Strip Strobe; see 4.4
10	000-255	Main Red, 0-100%
11	000-255	Main Green, 0-100%
12	000-255	Main Blue, 0-100%
13	000-255	Main White, 0-100%
14	000-255	Main CTO; see 4.5
15	000-255	Main Color Macro; see 4.5
16	000-255	Main Effect Macro; see 4.5
17	000-255	Main Effect Direction / Speed; see 4.5
18	000-255	White Strip: Cool White, 0-100%
19	000-255	White Strip: Warm White, 0-100%
20	000-255	White-Strip CTO; see 4.5
21	000-255	White-Strip Effect Macro; see 4.5
22	000-255	White-Strip Effect Speed / Fade; see 4.5
23	000-255	RGB Strip: Red, 0-100%
24	000-255	RGB Strip: Green, 0-100%
25	000-255	RGB Strip: Blue, 0-100%
26	000-255	RGB-Strip Color Macro; see 4.5
27	000-255	RGB-Strip Effect Macro; see 4.5
28	000-255	RGB-Strip Effect Speed / Fade; see 4.5
29	000-255	Reset; see 4.5

4.2 68 CH Pixel Mode

Channel	DMX Value	Function
1	000-255	Tilt, 0-270 degrees
2	000-255	Tilt Fine (16-bit)
3	000-255	Tilt Speed, fast to slow
4	000-255	Zoom 1 Position
5	000-255	Zoom 2 Position
6	000-255	Master Dimmer, 0-100%
7	000-255	Main LED Strobe; see 4.4
8	000-255	White-Strip Strobe; see 4.4
9	000-255	RGB-Strip Strobe; see 4.4

Main RGBW Pixel Mapping

Channels 10-57 provide individual RGBW intensity for pixels 1-12. Every channel uses 000-255 for 0-100% output.

Pixel n	Red	Green	Blue	White
n = 1-12	10 + 4(n-1)	11 + 4(n-1)	12 + 4(n-1)	13 + 4(n-1)
Pixel 1	10	11	12	13
Pixel 12	54	55	56	57

68 CH Tail Channels

Channel	DMX Value	Function
58	000-255	White Strip: Cool White, 0-100%
59	000-255	White Strip: Warm White, 0-100%
60	000-255	White-Strip CTO; see 4.5
61	000-255	White-Strip Effect Macro; see 4.5
62	000-255	White-Strip Effect Speed / Fade; see 4.5
63	000-255	RGB Strip: Red, 0-100%
64	000-255	RGB Strip: Green, 0-100%
65	000-255	RGB Strip: Blue, 0-100%
66	000-255	RGB-Strip Color Macro; see 4.5
67	000-255	RGB-Strip Effect Macro; see 4.5
68	000-255	RGB-Strip Effect Speed / Fade; see 4.5

MODE DIFFERENCE The 68 CH source chart ends with RGB-Strip Effect Speed at channel 68 and does not include the reset channel used by 29 CH mode.

4.3 Personality Summary

Mode	Control Resolution
29 CH	Global main RGBW with CTO/color/effect macros, dual zoom, white-strip effects, RGB-strip effects, and reset.
68 CH	Independent RGBW for twelve main pixels, dual zoom, shared white-strip and RGB-strip macro systems.

4.4 Shared Strobe Behavior

Channels 7, 8, and 9 use the same strobe ranges for the main LEDs, white strip, and RGB strip respectively.

DMX Value	Function
000-007	Closed / Blackout
008-015	Open
016-131	Standard Strobe, slow to fast
132-139	Open
140-181	Pulse: slow open / fast close, slow to fast
182-189	Open
190-231	Pulse: fast open / slow close, slow to fast
232-239	Open
240-247	Random Strobe, slow to fast
248-255	Open

4.5 Shared CTO, Macro & Reset Behavior

Parameter	DMX Value	Function
Main CTO	000	No CTO correction
Main CTO	001-255	Linear color temperature adjustment, 8000-2500 K
Main / RGB-Strip Color Macro	000-007	No color macro
Main / RGB-Strip Color Macro	008-255	Built-in color selection; individual colors not named in source
Main Effect Macro	000-004	No effect
Main Effect Macro	005-249	Effects 1-49 in consecutive 5-value bands
Main Effect Macro	250-255	Effect 50
Main Effect Direction / Speed	000-127	Forward, slow to fast
Main Effect Direction / Speed	128-255	Reverse, slow to fast
White-Strip CTO	000-067	No CTO
White-Strip CTO	068-247	Linear color temperature adjustment, 6500-2600 K
White-Strip CTO	248-255	No CTO
White / RGB-Strip Effect Macro	000-007	No effect
White / RGB-Strip Effect Macro	008-191	Effects 1-23 in consecutive 8-value bands
White / RGB-Strip Effect Macro	192-255	No effect
White / RGB-Strip Effect Speed	000-127	Slow to fast, without fade
White / RGB-Strip Effect Speed	128-255	Slow to fast, with fade
Reset (29 CH only)	000-239	No Function
Reset (29 CH only)	240-255	Reset All

MACRO NOTE The source defines macro numbers and ranges but does not identify their colors or visual patterns. No unsupported macro names are introduced here.

5 Inspection, Maintenance & Cleaning

Disconnect mains power and allow the fixture to cool before inspection or cleaning. There are no user-serviceable parts inside. Internal service must be performed by qualified personnel using genuine replacement parts.

5.1 Inspection

- Confirm that installation screws, clamps, and safety attachments are tight and free from corrosion.
- Inspect the housing, lenses, mounting points, and rigging hardware for damage or deformation.
- Check moving parts for excessive wear, imbalance, abnormal noise, or restricted tilt travel.
- Inspect the power and data cables for cuts, crushing, heat damage, fatigue, or contamination.
- Correct every safety issue before returning the fixture to service.

5.2 Cleaning

- Clean external and internal lens surfaces regularly to prevent output loss caused by dust accumulation.
- Remove dust from fans and ventilation paths regularly; cleaning frequency depends on the environment.
- Use a dry, soft, lint-free cloth. Do not use alcohol, solvents, abrasives, or a wet cloth.
- Arrange a detailed electrical inspection by a qualified technician at least every three months.

> **END OF MANUAL** Retain this manual with the fixture. Before operation, verify the product label, local electrical code, rigging requirements, and venue safety procedures.