

A19 3W RGB APP LASER LIGHT



Thank you for choosing the A19 full-color laser projector.

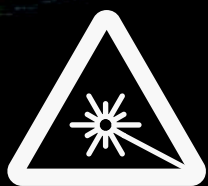
Read this manual before installation or operation. The document contains product specifications, menu descriptions, DMX channel data, installation guidance and laser safety information. Keep it for future reference.

Package Contents

Item	Quantit
A19 laser projector	1
3-pin power cable	1
User manual	1

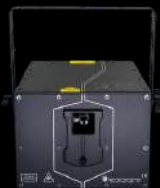
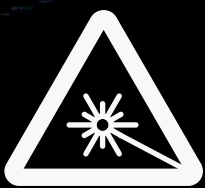
Technical Specifications

Parameter	Specification
Model	A19
Laser configuration	DPSS RGB: Red 638 nm / 1 W; Green 520 nm / 0.5 W; Blue 445 nm / 1.5 W
Declared total laser	3,000 mW
output Power input	AC 100-240 V, 50/60 Hz
Total power consumption	30 W
Scanning system	15 kpps high-speed galvanometer; maximum scan range +/-50 deg
Laser modulation	TTL
Control modes	Sound-Active / Automatic / DMX-512 / Master-Slave / ILDA / compatible mobile
Control interfaces	App 3-pin DMX-512; ILDA DB25; RJ45 ILDA/network input and output
DMX channel modes	21CH Standard / 38CH Professional (according to the supplied firmware table)
Built-in programs	1,000+ effects with color LCD menu
Operating temperature	-10 C to 50 C
Fixture size	300 x 280 x 180 mm
Net / gross weight	5.25 kg / 6.3 kg



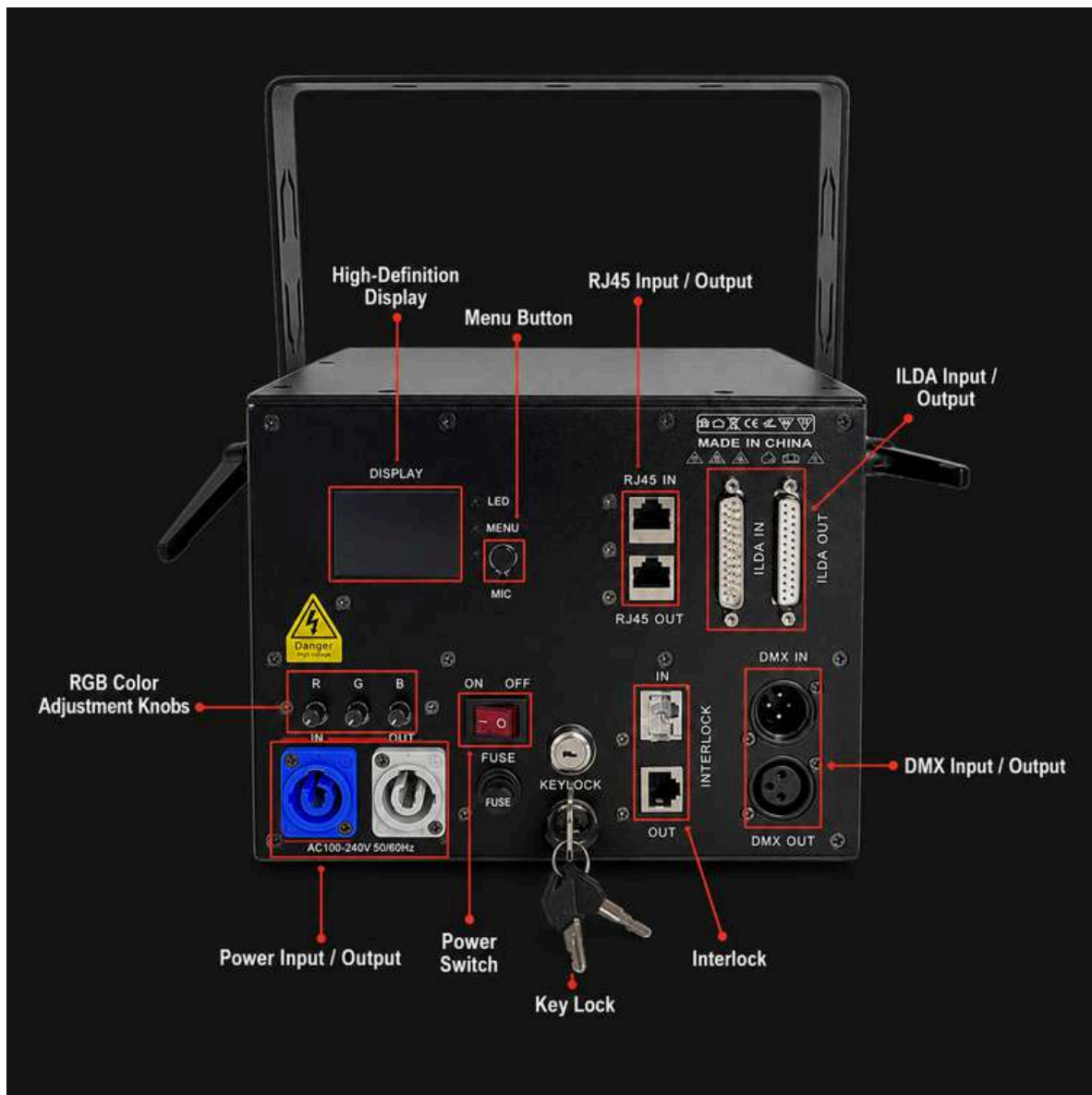
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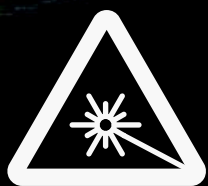
1. Product Overview

The A19 is a 3 W RGB full-color stage laser designed for weddings, bars, KTV rooms, banquet halls, lounges and installation projects. It supports built-in program playback, sound activation, DMX programming, ILDA input, master-slave synchronization and compatible App control.

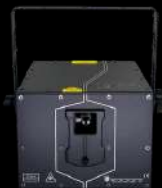


Rear Panel Reference

No.	Panel item	Function
1	Color LCD display	Shows operating mode, menu settings and status information.
2	Menu control / status LED / microphone	Rotate and press the menu control to select and confirm settings; microphone is used for Sound-Active mode.
3	RJ45 IN / OUT	ILDA-network or linked signal input/output, according to the selected menu mode.
4	ILDA IN / OUT (DB25)	Standard ILDA signal input and loop output.
5	R / G / B output controls	Adjust the output strength of red, green and blue. Turn left to reduce; turn right to increase.
6	Power IN / OUT	AC power input and linked power output.
7	Power switch / fuse	Main power switch and fuse protection.
8	Key lock	Mechanical laser-output enable key.
9	Remote interlock IN / OUT	External safety interlock connection.
10	DMX IN / OUT	3-pin DMX-512 input and output.



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2. Safety, Installation and Maintenance

Laser Safety Warning

DANGER - CLASS 3B LASERPRODUCT. Avoid direct eye exposure to the beam. Never aim the laser at people, vehicles, aircraft or reflective surfaces. Operate only in accordance with local laser-safety regulations and venue requirements. Installation and servicing must be performed by qualified personnel.
The supplied source document lists a minimum irradiation distance of 13 cm and a maximum exposure time below 10 seconds. These figures

do not replace a professional laser-safety assessment, audience-scanning restrictions or applicable local regulations.

Installation

1. Confirm that the available power voltage matches the rating shown on the fixture.
2. Use qualified personnel to install the fixture securely and set an appropriate projection angle.
3. Keep explosive or highly flammable items at least 0.5 m away. Keep at least 15 cm clearance from walls.
4. Do not obstruct the cooling fan or ventilation openings.
5. Use a secondary safety cable rated for at least 10 times the fixture weight.
6. Install the product on a stable fixed support.
7. Protective earth grounding is essential for safe operation.

Before Power-On

- Inspect the housing, optical window, connectors and mounting hardware for transport damage.
- Make sure the key switch and remote interlock are correctly set before enabling laser output.
- Keep DMX, ILDA and power cables away from strong electromagnetic interference.
- Disconnect power before installation, cleaning, fuse replacement or service.

Dust on the output window reduces laser output. Clean the optical window with lens tissue or a cotton swab lightly.

Maintenance

moistened with alcohol. Do not use a wet cloth or aggressive chemical solvents. Cleaning frequency depends on use and environment; the supplied maintenance guidance recommends approximately every 20 days. Wipe the housing with a clean dry towel and inspect the fan openings regularly.

Storage and Operating Environment

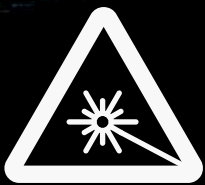
Operate within -10°C to 50°C. Keep the fixture dry, well ventilated and protected from condensation, excessive dust and

3. LCD Display and Menu Navigation

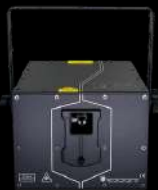
The color LCD menu is controlled by the rotary Select/Menu control. Rotate left or right to highlight a function. Press the control to confirm the selected item or return as indicated by the menu.

Status LED Indications

Operating state	LED indication	Meaning
Laser key status	Red/green slow flash	Laser key state indication
Safety protected	Red ON / Green OFF	Laser output is closed by
DMX and slave	Red OFF / Green fast flash	protection DMX or slave operation
mode Automatic	Red OFF / Green slow	Automatic playback
mode Music mode	flash Red OFF / Green ON	Sound-Active playback
ILDA mode	Red OFF / Green fast flash	ILDA input mode



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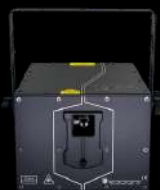


Main Menu - DMX, Quick Play and ILDA

Run Function	Menu Function	Setting	Description
DMX Control	DMX Setup	DMX + Slave	DMX-512 and slave mode. Slave fixtures must use this setting for master/slave linking.
		DMX-512	Selects standard DMX-512 control mode.
	Channel	21CH	Selects the standard 21-channel mode.
		38CH	Selects the professional 38-channel mode.
	Address	1-512	Sets the DMX starting address.
	DMX Signal	Disconnect	Indicates that no DMX signal is detected.
		Connect	Indicates that the DMX signal is being received normally.
	State Info	Laser ON / Laser OFF	Displays the current laser-output status.
Quick Play	Trigger	1 Loop Auto / 2 Rand Auto	Selects sequential or random automatic playback.
		3 Loop Music / 4 Rand Music	Selects sequential or random sound-active playback.
	Playing	All Programs	Selects the program to play. "All" plays the complete program set.
	Play List	1: List	Selects a playlist. "All" selects all available playlists.
		X Size 100	Sets the horizontal size of the automatic-playback pattern.
		Y Size 100	Sets the vertical size of the automatic-playback pattern.
		Brightness 255	Sets the overall brightness of the built-in programs.
	Play Speed	Auto Speed 50	Sets the automatic playback speed from 0 to 100.
		Sensitivity 80	Sets the microphone sensitivity from 0 to 100.
	State Info	Laser ON / Laser OFF	Displays the current laser-output status.
ILDA Mode	ILDA Setup	DB25	Selects the DB25 ILDA signal input. The fixture automatically detects the connected ILDA cable.
		ILDA-NET	Selects the RJ45/network ILDA signal input.
	Invert X	OFF / ON	Selects the normal or inverted X-axis direction.
	Invert Y	OFF / ON	Selects the normal or inverted Y-axis direction.
	Signal	Disconnect / Connect	Displays whether the ILDA signal is disconnected or connected.
	State Info	Laser ON / Laser OFF	Displays the current laser-output status.

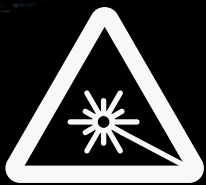


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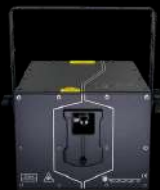


4. Laser, General and System Settings

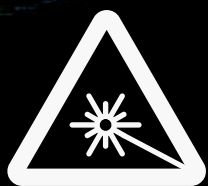
Run Function	Menu Function	Setting	Description
Laser Setup	Scan Rate	30 KPPS Menu Value	Sets the scanner speed. The A19 rated scanner speed is 15 kpps; do not exceed the rated scanner speed.
		Test Pattern 1	Selects the scanner test pattern.
		Frame Rate 60	Sets the pattern frame rate.
	Color	RGB	Selects full-color RGB output.
		Rmax 255	Sets the maximum red laser output level.
		Gmax 255	Sets the maximum green laser output level.
		Bmax 255	Sets the maximum blue laser output level.
	XY Invert	Invert-X: Yes / No	Reverses the built-in pattern horizontally.
		Invert-Y: Yes / No	Reverses the built-in pattern vertically.
		Swap XY: Yes / No	Exchanges the X and Y axes.
		<<<	Returns to the previous menu.
	XY Size	X: 100	Sets the horizontal scan size.
		Y: 100	Sets the vertical scan size.
	XY Offset	X: 128	Sets the horizontal position. The laser output closes if the pattern moves outside the permitted range.
		Y: 128	Sets the vertical position. The laser output closes if the pattern moves outside the permitted range.
General Settings	Safety	OFF	Disables stationary-point protection. The laser may remain on when displaying a single point.
		ON	Enables stationary-point protection. The laser closes when displaying a single point. Recommended for normal operation.
	Master	OFF	Disables master output and prevents linked slave fixtures from being controlled.
		ON	Enables master output for master/slave operation.
	Laser Type	Analog	Selects an analog-modulated laser source.
		TTL	Selects a TTL-modulated laser source.
	DMX Trigger	Trigger Run	Automatically enters DMX mode when a DMX signal is received.
		Manual Run	Requires DMX mode to be selected manually. The master fixture must use Manual Run during master/slave operation.



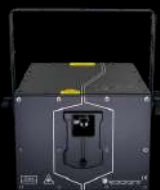
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Operating Temperature	OFF	Disables laser temperature detection.	
	ON	Enables laser temperature detection.	
Language	Chinese	Sets the menu language to Chinese.	
	English	Sets the menu language to English.	
Backlight	LCD ON	Keeps the display backlight continuously illuminated.	System Settings
	15S LCD OFF	Turns off the display backlight after 15 seconds of inactivity.	System Settings
	15S LCD Lock	Turns off the display backlight and locks the menu after 15 seconds of inactivity.	System Settings
Display	Normal	Displays the menu in the normal orientation.	System Settings
	180°	Rotates the menu display by 180 degrees.	System Settings
App Skin	1-4	Selects one of four menu-interface styles.	System Settings
Factory Reset	111 → 222	Change the value from 111 to 222, then confirm to restore the factory settings.	System Settings
Version	Thread3.13	Displays the system software version.	System Information
Hardware	C290MV1.0	Displays the hardware version.	System Information
App Name	BLEAPP21B	Displays the application or firmware program name.	System Information
Firmware	2025092301	Displays the system firmware version.	System Information
Update App	Check Version	Checks for an available firmware update. The upgrade function is reserved.	System Information

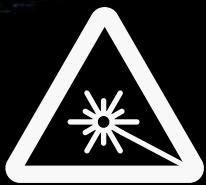


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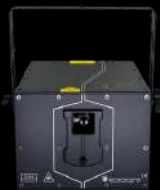


5. DMX-512 Channel Description - 21CH Standard Mode

Channel	Function	DMX Value	Description
CH1	Laser Output	0	Laser output off.
		1-255	Laser output on; overall brightness from 1% to 100%.
CH2	Automatic Effect Speed	0-26	Uses the default automatic playback speed.
		27-127	Adjusts the overall automatic-effect speed from slow to fast. Static patterns require a movement effect before the speed change becomes visible.
CH3	Sound Sensitivity	128-255	Adjusts the microphone sensitivity for Sound-Active mode.
	Pattern Group	0-127	Selects a static-pattern group; one group per 16 DMX values.
CH4	Dynamic Effect Group	128-255	Selects a dynamic-effect group; one group per 16 DMX values.
	Pattern Selection	0-255	Selects a pattern; one pattern per 5 DMX values.
CH5	Dynamic Effect Selection	0-1	Plays all programs in the selected dynamic-effect group.
		2-255	Selects an individual effect program; one program per 2 DMX values.
CH6	Horizontal Position MSB	0-255	Coarse horizontal-position adjustment; 128 is the center position.
CH7	Horizontal Position LSB	0-255	Fine horizontal-position adjustment; 128 is the center position.
CH8	Vertical Position MSB	0-255	Coarse vertical-position adjustment; 128 is the center position.
CH9	Vertical Position LSB	0-255	Fine vertical-position adjustment; 128 is the center position.
CH10	Pattern Size	0-255	Adjusts the pattern size from large to small.
CH11	Strobe	1-255	Adjusts the strobe speed.
CH11	Color	0	White.
CH11	Color	1-3	Original pattern color.
		4-31	Selects one of seven fixed colors; one color per 4 DMX values.
		32-35	Seven-color changing effect.
		36-39	Red, green and blue color-changing effect.
		40-43	Original-color changing effect.
		44-239	Selects combined flowing-color effects; one effect per 4 DMX values.
		240-255	Progressive color-drawing effect.
CH12	Color Speed	0-3	Color movement off.
CH12	Color Speed	4-127	Forward color movement from slow to fast.



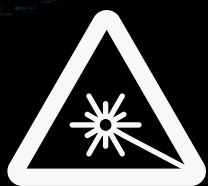
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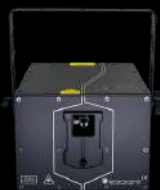
CH12	Color Speed	128–255	Reverse color movement from slow to fast.
CH13	Pattern Frame Rate	0–6	Uses the pattern frame-rate setting selected in the fixture menu.
		7–131	Selects a pattern frame rate from 30 Hz to 120 Hz.
		132–255	Selects the fast pattern frame-rate range from 30 Hz to 120 Hz.
CH14	Z Rotation	1–127	Selects the Z-axis rotation angle.
		128–255	Adjusts the Z-axis rotation speed.
CH15	X Rotation	1–127	Selects the X-axis rotation angle.
		128–255	Adjusts the X-axis rotation speed.
CH16	Y Rotation	1–127	Selects the Y-axis rotation angle.
		128–255	Adjusts the Y-axis rotation speed.
CH17	Horizontal Movement	1–127	Selects the horizontal movement position.
		128–255	Adjusts the horizontal movement speed.
CH18	Vertical Movement	1–127	Selects the vertical movement position.
		128–255	Adjusts the vertical movement speed.
CH19	Zoom	1–127	Selects the zoom size.
		128–255	Adjusts the zoom speed.
CH20	Progressive Drawing	1–255	Adjusts the progressive pattern-drawing speed.
CH21	X Wave	1–127	Adjusts the X-axis wave speed.
	Y Wave	128–255	Adjusts the Y-axis wave speed.

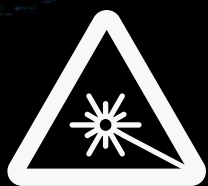
6. DMX-512 Channel Description - 38CH Professional Mode

Channel	Function	DMX Value	Description
CH1	Pattern Page	0–127	Selects a pattern group; one group per 8 DMX values.
	Dynamic Effect Page	128–255	Selects a dynamic-effect group; one group per 8 DMX values.
CH2	Pattern Selection	0–255	Selects an individual pattern; one pattern per 2 DMX values.
	Dynamic Effect Selection	0–1	Plays all programs in the selected dynamic-effect group.
		2–255	Selects an individual effect program; one program per 2 DMX values.
CH3	Animation Speed	0–128	Adjusts the animation speed from 0% to 100%.
		129–255	Adjusts the animation speed from 100% to 500%.
CH4	Pattern Frame Rate	0–6	Uses the pattern frame-rate setting selected in the fixture menu.
		7–131	Selects a pattern frame rate from 30 Hz to 120 Hz.
		132–255	Selects the fast pattern frame-rate range from 30 Hz to 120 Hz.
CH5	Highlighted Line Scan	0–63	Adjusts the highlighted-line scanning speed.
	Pattern Line Scan	64–127	Adjusts the line scanning speed.
	Pattern Point Scan	128–255	Adjusts the point scanning speed.
CH6	Manual Progressive Drawing	0–255	Manually adjusts progressive drawing from 100% to 0%.
CH7	X Rotation MSB	0–255	Coarse 16-bit X-axis rotation-angle adjustment.
CH8	X Rotation LSB	0–255	Fine 16-bit X-axis rotation-angle adjustment.
CH9	Y Rotation MSB	0–255	Coarse 16-bit Y-axis rotation-angle adjustment.
CH10	Y Rotation LSB	0–255	Fine 16-bit Y-axis rotation-angle adjustment.
CH11	Z Rotation MSB	0–255	Coarse 16-bit Z-axis rotation-angle adjustment.
CH12	Z Rotation LSB	0–255	Fine 16-bit Z-axis rotation-angle adjustment.
CH13	Horizontal Position MSB	0–255	Coarse horizontal-position adjustment; 128 is the center position. Laser output closes if the pattern moves outside the permitted range.
CH14	Horizontal Position LSB	0–255	Fine horizontal-position adjustment; 128 is the center position.
CH15	Vertical Position MSB	0–255	Coarse vertical-position adjustment; 128 is the center position. Laser output closes if the pattern moves outside the permitted range.

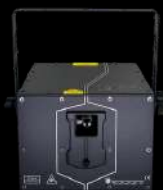


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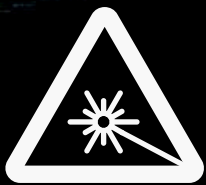




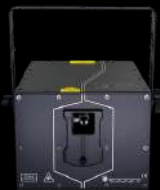
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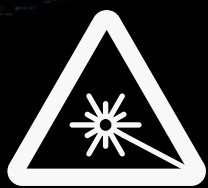
CH16	Vertical Position LSB	0-255	Fine vertical-position adjustment; 128 is the center position.
CH17	Pattern Size MSB	0-255	Coarse 16-bit pattern-size adjustment from large to small.
CH18	Pattern Size LSB	0-255	Fine 16-bit pattern-size adjustment.
CH19	Color	0	White.
		1-3	Original pattern color.
		4-31	Selects one of seven fixed colors; one color per 4 DMX values.
		32-35	Seven-color changing effect.
		36-39	Red, green and blue color-changing effect.
		40-43	Original-color changing effect.
		44-239	Selects combined flowing-color effects; one effect per 4 DMX values.
CH20	Master Brightness	240-255	Progressive color-drawing effect.
CH21	Color Speed	0	Laser output off; overall brightness 0%.
		1-255	Laser output on; overall brightness from 1% to 100%.
CH22	Strobe	0-3	Color movement off.
		4-127	Forward color movement from slow to fast.
		128-255	Reverse color movement from slow to fast.
CH23	Red Brightness	1-255	Adjusts the strobe speed.
CH24	Green Brightness	0-255	Adjusts red brightness from 0% to 100%.
CH25	Blue Brightness	0-255	Adjusts green brightness from 0% to 100%.
CH26	Z Rotation	0-255	Adjusts blue brightness from 0% to 100%.
CH27	X Rotation	1-127	Selects the Z-axis rotation angle.
		128-255	Adjusts the Z-axis rotation speed.
CH28	Y Rotation	1-127	Selects the X-axis rotation angle.
		128-255	Adjusts the X-axis rotation speed.
CH29	Horizontal Movement	1-127	Selects the Y-axis rotation angle.
		128-255	Adjusts the Y-axis rotation speed.
CH30	Vertical Movement	1-127	Selects the horizontal movement position.
		128-255	Adjusts the horizontal movement speed.



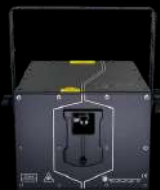
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CH31	Zoom	1-127	Selects the zoom size.
		128-255	Adjusts the zoom speed.
CH32	Progressive Drawing	1-255	Adjusts the progressive pattern-drawing speed.
CH33	X Wave	1-127	Adjusts the X-axis wave speed.
	Y Wave	128-255	Adjusts the Y-axis wave speed.
CH34	Copy Mode	0-255	Controls the copy mode. Detailed value mapping is not specified in the source document.
CH35	Copy Effect	0-255	Controls the copy effect. Detailed value mapping is not specified in the source document.
CH36	Copy Speed	0-255	Adjusts the copy-effect speed. Detailed value mapping is not specified in the source document.
CH37	Copy Size	0-255	Adjusts the copied pattern size. Detailed value mapping is not specified in the source document.
CH38	Copy Color	0-255	Selects the copied pattern color. Detailed value mapping is not specified in the source document.



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7. Operating Reference and Packing Data

DMX Effects Available

Single-pattern programmingsupports line blanking, strobe, rotation, movement, tumbling, pattern splitting, progressive drawing, color change, pattern-size adjustment and related effect parameters.

Recommended Applications

Weddings,bars,KTVrooms,banquet halls, lounges, entertainment venues and permanent project installations.

APP / Firmware Reference

The supplied system information identifies the App program as BLEAPP21B. Enable the compatible mobile App function only after the fixture is installed safely. Bluetooth and location permissions may be required by the mobile operating system. Keep direct manual control available through the fixture menu and key switch.

Packing Information

Item	Dimensions / Weight
Fixture Dimensions	300 × 280 × 180 mm
Inner Carton Dimensions	380 × 370 × 285 mm
Master Carton Dimensions (2 Fixtures)	400 × 390 × 610 mm
Net Weight per Fixture	5.25 kg
Gross Weight per Fixture	6.3 kg
Gross Weight per Master Carton	13.6 kg

Basic Troubleshooting

Problem	Check / Solution
No Power	Check the AC power supply, power cable, power switch and fuse. Disconnect the fixture from power before replacing the fuse.
No Laser Output	Check the key switch, remote interlock, safety protection, master brightness and current operating mode.
No DMX Response	Check the DMX address, channel mode, cable polarity and signal status. Use a DMX terminator at the end of long signal lines.
No ILDA Response	Check whether the DB25 or RJ45 ILDA input is selected. Confirm that the Signal menu displays Connect.
Uneven RGB Color	Adjust the R, G and B output controls. Turn left to decrease the output and turn right to increase it.
Pattern Distortion	Reduce the scanning size or scanning speed. Check the scanner settings, projection distance and projection surface.

Important: This manual is prepared for the A19 configuration. Firmware menus may vary slightly between production batches. Confirm the installed firmware version and DMX channel mode before programming a show.