



Macaio Blinder Array FC User Manual

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**BLINDER ARRAY FC
TWO-EYED AUDIENCE CUBE
USER MANUAL**

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Blinder Array FC

PLEASE READ THE INSTRUCTIONS CAREFULLY BEFORE USE

When this product leaves the factory, its performance is intact and its packaging is complete. All users should strictly abide by the warnings and operating instructions stated in this manual. Any damage caused by misuse is not covered by the company's warranty, and the dealer is not responsible for faults and problems caused by ignoring the operating manual. .

This manual is subject to technical changes without prior notice.

SAFETY INSTRUCTIONS

When unpacking and before disposing of the carton check there is no transportation damage before using the light. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus. The projector is for indoor and outdoor use, IP65.

Do not install the fixtures onto inflammable surfaces directly. 

The fixture is only intended for installation, operation and maintenance by qualified personnel.

Do not project the beam onto inflammable surfaces, minimum distance is 5meter. 5m

Avoid direct exposure to the light from the lamp. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the projector in any way.

Ensure that there are no obstructions in the light-emitting direction, to ensure that the light of the lamp beads will not be reflected back, to avoid the backlog of heat, and burn out the lamp beads and optical devices

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the fixture.

It is essential that each projector is correctly earthed and that electrical installation conforms to all relevant standards.

POWER

Do not connect this device to any other types of dimmer apparatus.

The projector should always be installed with a secondary safety fixing. A safety cord is supplied for this; it should be attached as shown in "installing the projector" section.

Shields and lens shall be changed if they have become visibly damaged to such an extent than their effectiveness is impaired, for example by cracks or deep scratches.

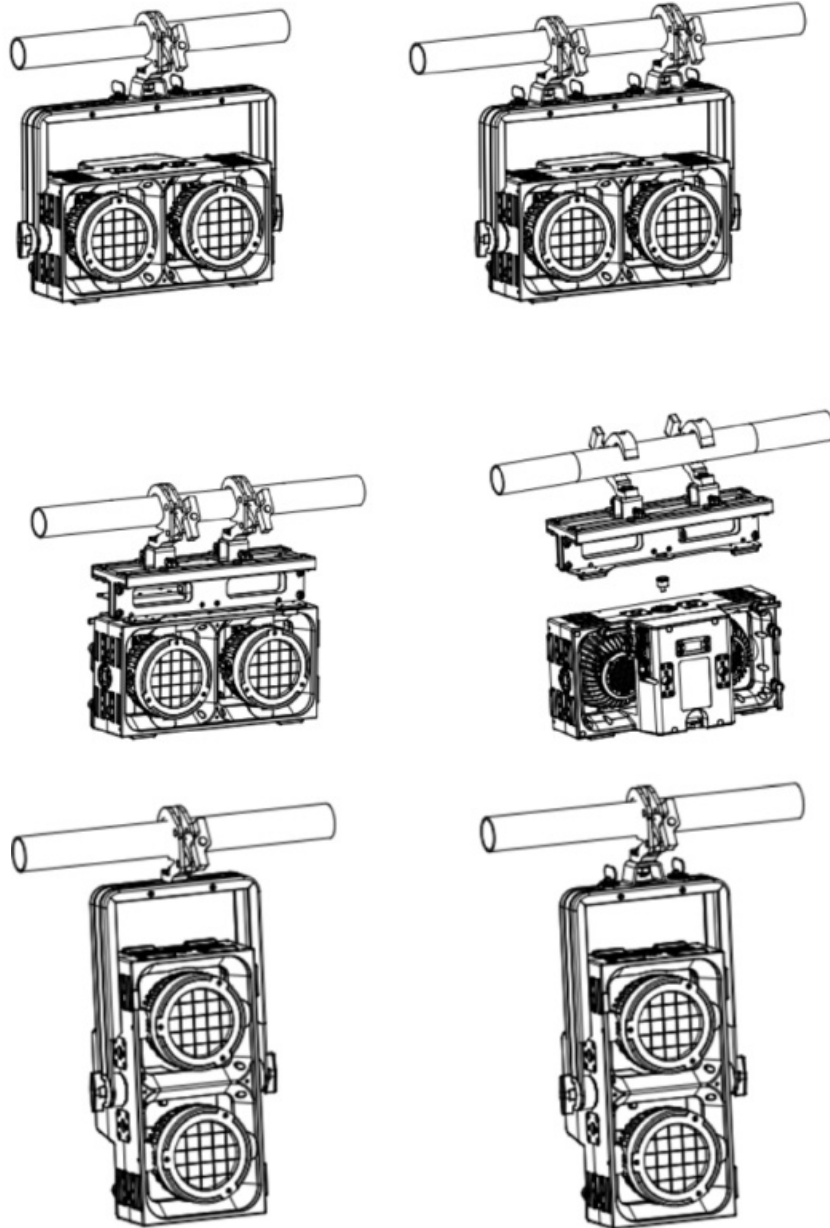
Exterior surface temperatures of the luminaire after 5 minutes operation is 45 °C, when steady state is achieved 70 °C.

There is no user serviceable parts inside the projector, do not open the housing and never operate the fixture with

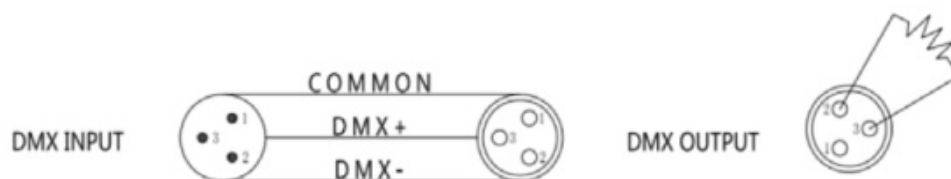
the covers removed.

If you have any questions, don't hesitate to consult your dealer or manufacturer.

LAMP STRUCTURE AND INSTALLATION



DMX



In order to reduce signal errors and avoid signal weakening and interference during transmission, You can add a 120 ohm 1/4W resistor between pins 2 and 3 of the DMX output of the last machine.

- Connect the lamp with an XLR signal cable, and connect one end to the output port of the lamp.

Connect the other end to the input port of the next light fixture. Signal lines can only be used for series connection, not parallel connection.

Because the DMX512 signal transmission speed is very fast, when the signal line is damaged, the welding joint is not strong, the contact is not good, etc.,

It will affect signal transmission and cause the system to shut down.

- When the machine power to a unit is disconnected, the DMX output and input connections are bypassed.

In order to maintain the connectivity of the DMX line.

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In order to maintain the connectivity of the DMX line.

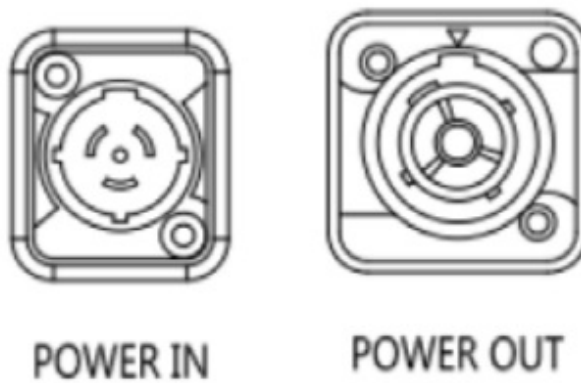
- The terminal of the DMX512 system needs to be equipped with a terminator to reduce signal transmission errors.

DMX ADDRESS CODE SETTINGS

CH	ADDRESS	First address	Second addresses	Third address	4th address
1CH	001-001	001	002	003	004
2CH	001-002	001	003	005	007
4CH	001-004	001	005	009	013
6CH	001-005	001	006	011	016
9CH	001-007	001	008	015	022
10CH	001-010	001	011	021	031
12CH	001-012	001	013	025	037
13CH	001-013	001	014	027	040
14CH	001-014	001	015	029	043
17CH	001-017	001	018	035	052
22CH	001-022	001	023	045	067
24CH	001-024	001	025	049	073
28CH	001-028	001	029	057	085
33CH	001-033	001	034	067	100

(Refer to the picture above) The number of lamps added after the fourth one; the address code is based on the channel, and so on.

CABLE CONNECTION



Power in/out

Connect the power cord hand in hand

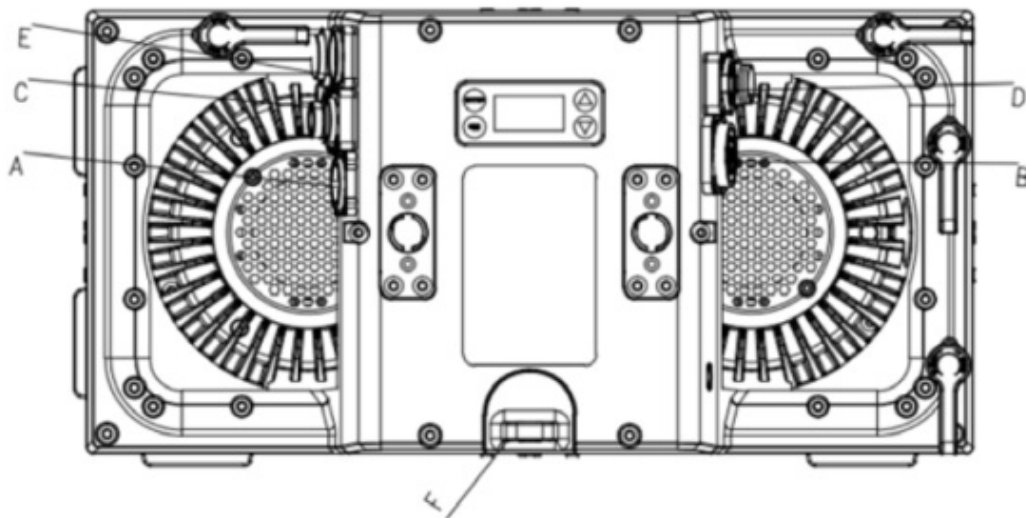
Note: Due to power reasons, a 1.5 square power cord
Can bring up to 6 units (230V)



WARNING

- Do not connect too many lamps to a single power cord or overload it.
- Do not use power cords with damaged insulation, and do not place power cords on other conductors.
- When the lamp is not in use or when cleaning, please unplug the power cord.
- Do not pull or pull the power cord vigorously.

CONTROL PANEL



- A. Power input: IP65 waterproof POWER IN power cord Input voltage: 100-240V 50/60HZ
 B. Power output: IP65 waterproof POWER OUT power cable output voltage 100-240V 50/60HZ
 C. DMX input: IP68 3-core DMX IN waterproof signal line input
 D. DMX output: IP65 3-core DMX OUT waterproof signal line output
 E. IP65 USB port for firmware updates
 F. Safety hook

G. The panel function operations are as follows:

DISPLAY PANEL FUNCTION DESCRIPTION

FUNCTION	DESCRIPTION	Function description	Effect
ESC (Function keys)	Menu selection	Enter menu selection function	Menu operation
↑ (Up key)	up	Go to previous option	Change parameters to increase
↓ (down)	down	Go to the next option	Changing parameters reduces
ENTER (confirm)	confirm	Confirm selected function	Save last parameter

Primer nivel del menú	Segundo nivel del menú	Tercer nivel del menú	
1 DMX ADDRESS	001-512		
	cancel		
	confirm		
2 DMX Channel mode	1 CH DWE		
	2 CH DWE		
	4 CH DWE		
	9CH DWE+		
	6CH STROBE		
	6CH RGB		
	10CH BASIC RGB		
	14CH BASIC RGB		
	13CH STANDARD RGB		
	22CH STANDARD RGB		
	24CH EXTENDED RGB		
	24CH EXTENDED RGB		
	10CH DIRECT		
	12CH DIRECT		
	17CH DIRECT		
	28CH DIRECT		
	41CH DIRECT		
3 Manual control	Stop manual		
	Self-propelled mode	Stop built-in program	

		built-in program1	
		built-in programs2	
		built-in programs3	
		built-in programs4	
		built-in programs5	
		built-in programs6	
		built-in programs7	
		built-in programs8	
		built-in programs9	
		built-in programs10	
	color macro	Turn off color macros	
		Dimming	
		color macro	
	Light up quickly	Dimming	
		STROBE	
		RED	
		GREEN	
		BLUE	
		AMBER	
		WHITER	
	Color Temperature	Dimming	
		strobe	
		Color temperature	
		Reddish green	
	Custom color	Color1	
		Color2	
		Color3	
		Color4	
		Color5	
	Color set up	calibration mode	
		solid color mode	
4 (Language)	Chinese		
	English		

5 slave mode	slave mode		
6 fixture settings	display setting	Display inverted	
		Display off setting	
		Automatically lock screen	
	startup mode	DMX	
		Self-propelled	
		Light up quickly	
	signal hold	Keep	
		black field	
		Zenryo	
	dimming curve	Linear	
		index	
		logarithm	
		S curve	
	Dimming delay	LED	
		Medium	
		Halogen	
	DTW Consecrate	off	
		on	
	white balance	white balance	
		user defined	
	Dimming frequency	800Hz	
		1200Hz	
		2000Hz	
		3600Hz	
		12000Hz	
		25000Hz	
	Fan mode	auto	
		quiet	
		off	
	Light order	off	

		on	
	Transfer settings	Carry DMX	
		Not carried DMX	
	Power settings	low power	
		High power	
	USB	off	
		on	
	Factory settings	reset	
		Restore user customiza- tion	
		User-defined list	

DMX CHANNEL TABLE

CH	1CH DWE	2CH DWE	4CH DWE	9CH DWE+	6CH STROBE
1	Dimmer	Dimmer1	Dimmer 1	Master Dimmer	Master Dimmer
2		Dimmer2	Dimmer Curve	Shutter	Shutter
3			Dimmer Response	Red	Duration
4			Redshift	Green	Dimmer 1
5				Blue	Dimmer 2
6				CTC	CTC
7				Dimmer Curve	
8				Dimmer Response	
9				Redshift	

CH	6CH RGB	10CH BASIC RGB	14CH BASIC RGB	13CH STANDARD RGB	6CH STROBE
1	Red 1	Master Dimmer	Master Dimmer	Master Dimmer	Master Dimmer
2	Green 1	Shutter	Master Dimmer Fine	Shutter	Shutter
3	Blue 1	Red	Shutter	Dimmer 1	Duration
4	Red 2	Green	Red	Red 1	Dimmer 1
5	Green 2	Blue	Red Fine	Green 1	Dimmer 2
6	Blue 2	CTC	Green	Blue 1	CTC
7		Tint	Green Fine	Dimmer 2	
8		Color Macro	Blue	Red 2	
9		Color Macro Crossfade	Blue Fine	Green 2	
10		Device Settings	CTC	Blue 2	
11			Tint	CTC (all)	
13			Color Marco	Tint (all)	
13			Color Macro Crossfade	Device Settings	
14			Device Settings		

CH	22CH STANDARD RGB	24CH EXTENDED RGB	33CH EXTENDED RGB
1	Master Dimmer	Master Dimmer	Master Dimmer
2	Master Dimmer Fine	Shutter	Master Dimmer Fine
3	Shutter	Duration	Shutter
4	Dimmer 1	Dimmer 1	Duration
5	Dimmer 1 Fine	Red 1	Dimmer 1
6	Red 1	Green 1	Dimmer 1 Fine
7	Red 1 Fine	Blue 1	Red 1
8	Green 1	CTC 1	Red 1 Fine
9	Green 1 Fine	Tint 1	Green 1
10	Blue 1	Color Macro 1	Green 1 Fine
11	Blue 1 Fine	Color Macro Crossfade 1	Blue 1
12	Dimmer 2	Dimmer 2	Blue 1 Fine
13	Dimmer 2 Fine	Red 2	CTC 1

14	Red 2	Green 2	Tint 1
15	Red 2 Fine	Blue 2	Color Macro 1
16	Green 2	CTC 2	Color Macro Crossfade 1
17	Green 2 Fine	Tint 2	Dimmer 2
18	Blue 2	Color Macro 2	Dimmer 2 Fine
19	Blue 2 Fine	Color Macro Crossfade 2	Red 2
20	CTC (all)	Effect	Red 2 Fine
21	Tint (all)	Dimmer Curve	Green 2
22	Device Settings	Dimmer Response	Green 2 Fine
23		Redshift	Blue 2
24		Device Settings	Blue 2 Fine
25			CTC 2
26			Tint 2
27			Color Macro 2
28			Color Macro Crossfade 2
29			Effect
30			Dimmer Curve
31			Dimmer Response
32			Redshift
33			Device Settings

CH	10CH DIRECT	12CH DIRECT	17CH DIRECT	28CH DIRECT	41CH DIRECT
1	Red 1	Master Dimmer	Master Dimmer	Master Dimmer	Master Dimmer
2	Green 1	Shutter	Shutter	Shutter	Master Dimmer Fine
3	Blue 1	Red	Dimmer 1	Duration	Shutter
4	Amber 1	Green	Red 1	Dimmer 1	Duration
5	White 1	Blue	Green 1	Red 1	Dimmer 1
6	Red 2	Amber	Blue 1	Green 1	Dimmer 1 Fine
7	Green 2	White	Amber 1	Blue 1	Red 1
8	Blue 2	CTC	White 1	Amber 1	Red 1 Fine
9	Amber 2	Tint	Dimmer 2	White 1	Green 1
10	White 2	Color Macro	Red 2	CTC 1	Green 1 Fine

11		Color Macro Crossfade	Green 2	Tint 1	Blue 1
12		Device Settings	Blue 2	Color Macro 1	Blue 1 Fine
13			Amber 2	Color Macro Crossfade 1	Amber 1
14			White 2	Dimmer 2	Amber 1 Fine
15			CTC (all)	Red 2	White 1
16			Tint (all)	Green 2	White 1 Fine
17			Device Settings	Blue 2	CTC 1
18				Amber 2	Tint 1
19				White 2	Color Macro 1
20				CTC 2	Color Macro Crossfade 1
21				Tint 2	Dimmer 2
22				Color Macro 2	Dimmer 2 Fine
23				Color Macro Crossfade 2	Red 2
24				Effect	Red 2 Fine
25				Dimmer Curve	Green 2
26				Dimmer Response	Green 2 Fine
27				Redshift	Blue 2
28				Device Settings	Blue 2 Fine
29					Amber 2
30					Amber 2 Fine
31					White 2
32					White 2 Fine
33					CTC 2
34					Tint 2
35					Color Macro 2
36					Color Macro Crossfade 2
37					Effect
38					Dimmer Curve
39					Dimmer Response

40					Redshift
41					Device Settings

1CH DWE

CH	Function	Value	Percent/Setting	Remark
1	Dimmer	000-255	0 – 100%	

2CH DWE

CH	Function	Value	Percent/Setting	Remark
1	Dimmer1	000-255	0 – 100%	
2	Dimmer2	000-255	0 – 100%	

2CH DWE

CH	Function	Value	Percent/Setting	Remark
1	Dimmer	000-255	0 – 100%	
2	Dimmer Curve	000-51	No Function – Current Preset from Menu Settings	
		052-101	Linear Dimmer Curve	
		102-152	Exponential Dimmer Curve	
		153-203	Logarithmic Dimmer Curve	
		204-255	S-Curve Dimmer Curve	
3	Dimmer Response	000-063	No Function – Current Preset from Menu Settings	
		064-127	LED / fast	
		128-191	Medium	
		192-255	Halogen / slow	
4	Redshift	000-084	No Function – Current Preset from Menu Settings	
		085-170	Redshift Off	
		171-255	Redshift On	

9CH DWE+

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Shutter	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
3	Red	000-255	0-100%
4	Green	000-255	0-100%
5	Blue	000-255	0-100%
6	CTC (affects RGB)	000 – 004	2900K
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)

7	Dimmer Curve	000-051	No Function – Current Preset from Menu Settings
		052-101	Linear Dimmer Curve
		102-152	Exponential Dimmer Curve
		153-203	Logarithmic Dimmer Curve
		204-255	S-Curve Dimmer Curve
8	Dimmer Response	000-063	No Function – Current Preset from Menu Settings
		064-127	LED / fast
		128-191	Medium
		192-255	Halogen / slow
9	Redshift	000-084	No Function – Current Preset from Menu Settings
		085-170	Redshift Off
		171-255	Redshift On

6CH STROBE MODE

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Shutter	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open

		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
3	Duration	000-255	only affects to channel 2 – Strobe 1 025-064
4	Dimmer1	000-255	0-100%
5	Dimmer2	000-255	0-100%
6	CTC	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)

10CH BASIC RGB

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Shutter	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)

		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
3	Red	000-255	0-100%
4	Green	000-255	0-100%
5	Blue	000-255	0-100%
6	CTC (affects RGB)	000 – 004	2900K
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
7	Dimmer Curve	000-051	No Function – Current Preset from Menu Settings
		052-101	Linear Dimmer Curve
		102-152	Exponential Dimmer Curve
		153-203	Logarithmic Dimmer Curve
		204-255	S-Curve Dimmer Curve
8	Dimmer Response	000-063	No Function – Current Preset from Menu Settings
		064-127	LED / fast
		128-191	Medium
		192-255	Halogen / slow
9		200-214	Invert Mapping Off (hold 3s)
		215-219	Invert Mapping On (hold 3s)
		220-224	No function
		225-229	LED Mode – Illumination (hold 1,5s)
		230-234	LED Mode – Boost (hold 1,5s)
		235-239	No function

240-244	Factory Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250
245-249	User Reset (hold 3s) / Reset only starts if Shutter channel is set to DMX 250 / no self test by DMX
250-255	No function
055-059	DMX Fail – Emergency Light (hold 3s)
060-064	No function
065-069	Linear Dimmer Curve (hold 1,5s)
070-074	Exponential Dimmer Curve (hold 1,5s)
075-079	Logarithmic Dimmer Curve (hold 1,5s)
080-084	S-Curve Dimmer Curve (hold 1,5s)
085-089	No function
090-094	LED (Fast) Dimmer Response (hold 1,5s)
095-099	Medium Dimmer Response (hold 1,5s)
100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
105-109	No function
110-114	Redshift On (hold 1,5s / affects only between 2700-3500K)
115-119	Redshift Off (hold 1,5s)
120-124	No function
125-129	Full Calibration (Colors & CCT / hold 3s)
130-134	CCT Calibration (RAW Colors / hold 3s)
135-139	No function
140-144	LED Frequency 800Hz (hold 3s)
145-149	LED Frequency 1200Hz (hold 3s)
150-154	LED Frequency 2000Hz (hold 3s)
155-159	LED Frequency 3600Hz (hold 3s)
160-164	LED Frequency 12KHz (hold 3s)
165-169	LED Frequency 25KHz (hold 3s)
170-174	No function
175-179	Fan Auto (hold 3s)
180-184	Fan Silent (hold 3s)
185-189	Fan Off (hold 3s)

		190-194	Fan High Power (hold 3s)
		195-199	No function

10CH BASIC RGB

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Master Dimmer Fine	000-255	0-100%
3	Shutter	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
4	Red	000-255	0-100%
5	Red Fine	000-255	0-100%
6	Green	000-255	0-100%
6	CTC (affects RGB)	000 – 004	2900K

7	Green Fine	000-255	0-100%
8	Blue	000-255	0-100%
9	Blue Fine	000-255	0-100%
10	CTC (affects RGB)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
11	Tint (affects CTC and RGB)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
12	Color Macro (override RGB/CTC)	000-255	Please see Pomelo color macro chart
13	Color Macro Cross fade (Transition Time between Color Macros)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
		000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)
		040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function

14	Device Settings (please see remark *1)	090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function
		110-114	Redshift On (hold 1,5s / affects only between 2700-3500K)
		115-119	Redshift Off (hold 1,5s)
		120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		130-134	CCT Calibration (RAW Colors / hold 3s)
		135-139	No function
		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)
		160-164	LED Frequency 12KHz (hold 3s)
		165-169	LED Frequency 25KHz (hold 3s)
		170-174	No function
		175-179	Fan Auto (hold 3s)
		180-184	Fan Silent (hold 3s)
		185-189	Fan Off (hold 3s)
		190-194	Fan High Power (hold 3s)
		195-199	No function
		200-214	Invert Mapping Off (hold 3s)
		215-219	Invert Mapping On (hold 3s)
		220-224	No function
		225-229	LED Mode – Illumination (hold 1,5s)
		230-234	LED Mode – Boost (hold 1,5s)
		235-239	No function
		240-244	Factory Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250
		245-249	User Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250 / no self test by DMX
		250-255	No function

13CH STANDARD RGB

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Shutter	000-255	0 – 100%
		0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
3	Dimmer 1	000-255	0-100%
4	Red 1	000-255	0-100%
5	Green1	000-255	0-100%
6	Blue1	000-255	0-100%
7	Dimmer 2	000-255	0-100%
8	Red 2	000-255	0-100%
9	Green2	000-255	0-100%
10	Blue2	000-255	0-100%

11	CTC(affects RGB 1+2)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
12	Tint (affects CTC and RGB)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
13	Device Settings (please see remark *1)	000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)
		040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function
		090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function
		110-114	Redshift On (hold 1,5s / affects only between 2700-3500K)
		115-119	Redshift Off (hold 1,5s)
		120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		130-134	CCT Calibration (RAW Colors / hold 3s)

		135-139	No function
		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)
		160-164	LED Frequency 12KHz (hold 3s)
		165-169	LED Frequency 25KHz (hold 3s)
		170-174	No function
		175-179	Fan Auto (hold 3s)
		180-184	Fan Silent (hold 3s)
		185-189	Fan Off (hold 3s)
		190-194	Fan High Power (hold 3s)
		195-199	No function
		200-214	Invert Mapping Off (hold 3s)
		215-219	Invert Mapping On (hold 3s)
		220-224	No function
		225-229	LED Mode – Illumination (hold 1,5s)
		230-234	LED Mode – Boost (hold 1,5s)
		235-239	No function
		240-244	Factory Reset (hold 3s)
		245-249	User Reset (hold 3s)
		250-255	No function

22CH STANDARD RGB

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Master Dimmer Fine	000-255	0-100%
		0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open

3	Shutter	90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
4	Dimmer 1	000-255	0-100%
5	Dimmer 1 Fine	000-255	0-100%
6	Red 1	000 – 004	2900K
7	Red Fine1	000-255	0-100%
8	Green 1	000-255	0-100%
9	Green Fine1	000-255	0-100%
10	Blue1	000-255	0-100%
11	Blue Fine1	000-255	0-100%
12	Dimmer 2	000-255	0-100%
13	Dimmer Fine2	000-255	0-100%
14	Red 2	000-255	0-100%
15	Red Fine2	000-255	0-100%
16	Green 2	000-255	0-100%
17	Green Fine2	000-255	0-100%
18	Blue2	000-255	0-100%
19	Blue Fine2	000-255	0-100%
		000-004	5600K

20	CTC (affects RGB 1+2)	005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
21	Tint (affects CTC and RGB 1+2)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
22	Device Settings (please see remark *1)	000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)
		040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function
		090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function
		110-114	Redshift On (hold 1,5s / affects only between 2700 - 3500K)
		115-119	Redshift Off (hold 1,5s)
		120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		130-134	CCT Calibration (RAW Colors / hold 3s)
		135-139	No function

		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)
		160-164	LED Frequency 12KHz (hold 3s)
		165-169	LED Frequency 25KHz (hold 3s)
		170-174	No function
		175-179	Fan Auto (hold 3s)
		180-184	Fan Silent (hold 3s)
		185-189	Fan Off (hold 3s)
		190-194	Fan High Power (hold 3s)
		195-199	No function
		200-214	Invert Mapping Off (hold 3s)
		215-219	Invert Mapping On (hold 3s)
		220-224	No function
		225-229	LED Mode – Illumination (hold 1,5s)
		230-234	LED Mode – Boost (hold 1,5s)
		235-239	No function
		240-244	Factory Reset (hold 3s)
		245-249	User Reset (hold 3s)
		250-255	No function

24CH STANDARD RGB

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
		0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)

2	Shutter	105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
3	Duration	000-255	0 – 100% (0ms – 510ms)
4	Dimmer 1	000-255	0 – 100%
5	Red 1	000-255	0 – 100%
6	Green 1	000-255	0 – 100%
7	Blue 1	000-255	0 – 100%
8	CTC (affects RGB 1)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
9	Tint (affects CTC and RGB 1)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
10	Color Macro 1 (override RGB 1 / CTC 1)		Please see Pomelo color macro chart
		000-005	No function

11	Color Macro Cross fade (Transition Time between Color Macros)	006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
12	Dimmer 2	000-255	0 – 100%
13	Red 2	000-255	0 – 100%
14	Green 2	000-255	0 – 100%
15	Blue 2	000-255	0 – 100%
16	CTC (affects RGB 2)	005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
17	Tint (affects CTC and RGB 2)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
18	Color Macro 1 (override RGB 2 / CTC 2)		Please see Pomelo color macro chart
19	Color Macro Cross fade (Transition Time between Color Macros)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
20	Effect override RGB 1+2 / CTC 1+2, Color Macro 1+2		
		000-015	No Function
		016-039	Effect 1 (slow to fast)
		040-063	Effect 2 (slow to fast)
		064-087	Effect 3 (slow to fast)
		088-111	Effect 4 (slow to fast)
		112-135	Effect 5 (slow to fast)
		136-159	Effect 6 (slow to fast)
		160-183	Effect 7 (slow to fast)

		184-207	Effect 8 (slow to fast)
		208-231	Effect 9 (slow to fast))
		232-55	Effect 10 (slow to fast)
21	Dimmer Curve	000-051	No Function – Current Preset from Menu
		Settings	
		052-101	Linear Dimmer Curve
		102-152	Exponential Dimmer Curve
		153-203	Logarithmic Dimmer Curve
		204-255	S-Curve Dimmer Curve
22	Dimmer Response	000-063	No Function – Current Preset from Menu Settings
		064-127	LED / fast
		128-191	Medium
		192-255	Halogen / slow
23	Redshift	000-084	No Function – Current Preset from Menu Settings
		085-170	Redshift Off
		171-255	Redshift On
		000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)
		040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function
		090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function

24	Device Settings (please see remark * 1)	110-114	Redshift On (hold 1,5s / affects only between 2700-3500K)
		115-119	Redshift Off (hold 1,5s)
		120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		130-134	CCT Calibration (RAW Colors / hold 3s)
		135-139	No function
		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)
		160-164	LED Frequency 12KHz (hold 3s)
		165-169	LED Frequency 25KHz (hold 3s)
		170-174	No function
		175-179	Fan Auto (hold 3s)
		180-184	Fan Silent (hold 3s)
		185-189	Fan Off (hold 3s)
		190-194	Fan High Power (hold 3s)
		195-199	No function
		200-214	Invert Mapping Off (hold 3s)
		215-219	Invert Mapping On (hold 3s)
		220-224	No function
		225-229	LED Mode – Illumination (hold 1,5s)
		230-234	LED Mode – Boost (hold 1,5s)
		235-239	No function
		240-244	Factory Reset (hold 3s)
		245-249	User Reset (hold 3s)
		250-255	No function

33CH STANDARD RGB

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%

2	MasterDimmerFine	000-255	0 – 100%
3	Shutter	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
4	Duration	000-255	0 – 100% (0ms – 510ms)
5	Dimmer 1	000-255	0-100%
6	Dimmer 1 Fine	000-255	0-100%
7	Red 1	000-255	0-100%
8	Red Fine1	000-255	0-100%
9	Green 1	000-255	0-100%
10	Green Fine1	000-255	0-100%
11	Blue1	000-255	0-100%
12	Blue Fine1	000-255	0-100%
		000-004	5600K

13	CTC 1 (affects RGB 1)	005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
14	Tint1 (affects CTC and RGB 1)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
15	Color Macro 1 (override RGB 1/ CTC 1)		Please see Pomelo color macro chart
16	Color Macro Cross fade (Transition Time between Color Macros)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
17	Dimmer 2	000-255	0-100%
18	Dimmer 2 Fine	000-255	0-100%
19	Red 2	000-255	0-100%
20	Red Fine2	000-255	0-100%
21	Green 2	000-255	0-100%
22	Green Fine2	000-255	0-100%
23	Blue2	000-255	0-100%
24	Blue Fine2	000-255	0-100%
25	CTC 2 (affects RGB 2)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
26	Tint2 (affects CTC and RGB 2)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral

		129-255	Neutral -> Green
27	Color Macro 2 (override RGB 2/ CTC 1)		Please see Pomelo color macro chart
28	Color Macro Cross fade (Transition Time between Color Macros)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
29	Effect override RGB 1+2 / CTC 1+2, Color Macro 1+2	000-015	No Function
		016-039	Effect 1 (slow to fast)
		040-063	Effect 2 (slow to fast)
		064-087	Effect 3 (slow to fast)
		088-111	Effect 4 (slow to fast)
		112-135	Effect 5 (slow to fast)
		136-159	Effect 6 (slow to fast)
		160-183	Effect 7 (slow to fast)
		184-207	Effect 8 (slow to fast)
		208-231	Effect 9 (slow to fast))
		232-55	Effect 10 (slow to fast)
30	Dimmer Curve	000-051	No Function – Current Preset from Menu Settings
		052-101	Linear Dimmer Curve
		102-152	Exponential Dimmer Curve
		153-203	Logarithmic Dimmer Curve
		204-255	S-Curve Dimmer Curve
31	Dimmer Response	000-063	No Function – Current Preset from Menu Settings
		064-127	LED / fast
		128-191	Medium
		192-255	Halogen / slow
32	Redshift	000-084	No Function – Current Preset from Menu Settings Redshift affects only between CCT 2700- 3500K.
		085-170	Redshift Off
		171-255	Redshift On

33	Device Settings	000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)
		040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function
		090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function
		110-114	Redshift On (hold 1,5s / affects only bet ween 2700- 3500K)
		115-119	Redshift Off (hold 1,5s)
		120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		130-134	CCT Calibration (RAW Colors / hold 3s)
		135-139	No function
		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)
		160-164	LED Frequency 12KHz (hold 3s)
		165-169	LED Frequency 25KHz (hold 3s)
		170-174	No function
		175-179	Fan Auto (hold 3s)
		180-184	Fan Silent (hold 3s)
		185-189	Fan Off (hold 3s)

	190-194	Fan High Power (hold 3s)
	195-199	No function
	200-214	Invert Mapping Off (hold 3s)
	215-219	Invert Mapping On (hold 3s)
	220-224	No function
	225-229	LED Mode – Illumination (hold 1,5s)
	230-234	LED Mode – Boost (hold 1,5s)
	235-239	No function
	240-244	Factory Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250
	245-249	User Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250 / no self test by DMX
	250-255	No function

10CH DIRECT

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Shutter	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open

		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
3	Red 1	000-255	0-100%
4	Green 1	000-255	0-100%
5	Blue1	000-255	0-100%
6	Amber 1	000-255	0-100%
7	White 1	000-255	0-100%
8	CTC (affects RGBAW)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
9	Tint (affects CTC and RGBAW)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
10	Color Macro (override RGB /CTC)		Please see Pomelo color macro chart
11	Color Macro Cross fade (Transition Time between Color Macros)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
		000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)

12	Device Settings (please see remark *1)	040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function
		090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function
		110-114	Redshift On (hold 1,5s / affects only between 2700-3500K)
		115-119	Redshift Off (hold 1,5s)
		120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		130-134	CCT Calibration (RAW Colors / hold 3s)
		135-139	No function
		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)
		160-164	LED Frequency 12KHz (hold 3s)
		165-169	LED Frequency 25KHz (hold 3s)
		170-174	No function
		175-179	Fan Auto (hold 3s)
		180-184	Fan Silent (hold 3s)
		185-189	Fan Off (hold 3s)
		190-194	Fan High Power (hold 3s)

		195-199	No function
		200-214	Invert Mapping Off (hold 3s)
		215-219	Invert Mapping On (hold 3s)
		220-224	No function
		225-229	LED Mode – Illumination (hold 1,5s)
		230-234	LED Mode – Boost (hold 1,5s)
		235-239	No function
		240-244	Factory Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250
		245-249	User Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250 / no self test by DMX
		250-255	No function

17CH DIRECT

17Device Settings (please see remark *1)160-164

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	Shutter	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)

		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
3	Dimmer1	000-255	0 – 100%
4	Red 1	000-255	0-100%
5	Green 1	000-255	0-100%
6	Blue1	000-255	0-100%
7	Amber 1	000-255	0-100%
8	White 1	000-255	0-100%
9	Dimmer2	000-255	0-100%
10	Red 2	000-255	0-100%
11	Green 2	000-255	0-100%
12	Blue2	000-255	0-100%
13	Amber 2	000-255	0-100%
14	White 2	000-255	0-100%
15	CTC (affects RGB AW 1+2)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
16	Tint (affects CTC and RG-BAW1+2)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
		000-029	No function

Device Settings (please see remark *1)

030-034	Display Backlight On (hold 3s)
035-039	Display Backlight Off (hold 3s)
040-044	No function
045-049	DMX Fail Blackout (hold 3s)
050-054	DMX Fail Hold (hold 3s)
055-059	DMX Fail – Emergency Light (hold 3s)
060-064	No function
065-069	Linear Dimmer Curve (hold 1,5s)
070-074	Exponential Dimmer Curve (hold 1,5s)
075-079	Logarithmic Dimmer Curve (hold 1,5s)
080-084	S-Curve Dimmer Curve (hold 1,5s)
085-089	No function
090-094	LED (Fast) Dimmer Response (hold 1,5s)
095-099	Medium Dimmer Response (hold 1,5s)
100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
105-109	No function
110-114	Redshift On (hold 1,5s / affects only between 2700- 3500K)
115-119	Redshift Off (hold 1,5s)
120-124	No function
125-129	Full Calibration (Colors & CCT / hold 3s)
130-134	CCT Calibration (RAW Colors / hold 3s)
135-139	No function
140-144	LED Frequency 800Hz (hold 3s)
145-149	LED Frequency 1200Hz (hold 3s)
150-154	LED Frequency 2000Hz (hold 3s)
155-159	LED Frequency 3600Hz (hold 3s)
LED Frequency 12KHz (hold 3s)	
165-169	LED Frequency 25KHz (hold 3s)
170-174	No function
175-179	Fan Auto (hold 3s)

	180-184	Fan Silent (hold 3s)
	185-189	Fan Off (hold 3s)
	190-194	Fan High Power (hold 3s)
	195-199	No function
	200-214	Invert Mapping Off (hold 3s)
	215-219	Invert Mapping On (hold 3s)
	220-224	No function
	225-229	LED Mode – Illumination (hold 1,5s)
	230-234	LED Mode – Boost (hold 1,5s)
	235-239	No function
	240-244	Factory Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250
	245-249	User Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250 / no self test by DMX
	250-255	No function

28CH DIRECT

28Device Settings (please see remark *1)130-134

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
		0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)

2	Shutter	145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
3	Duration	000-255	0 – 100% (0ms – 510ms)
4	Dimmer1	000-255	0 – 100%
5	Red 1	000-255	0-100%
6	Green 1	000-255	0-100%
7	Blue1	000-255	0-100%
8	Amber 1	000-255	0-100%
9	White 1	000-255	0-100%
10	CTC 1 (affects RGBAW 1)	000-255	0-100%
		000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
11	Tint 1(affects CTC 1 and RGBAW1)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
12	Color Macro 1 (override RGBAW1/ CTC 1)		Please see Pomelo color macro chart

13	Color Macro Cross Fade 1 (Transition Time between-Color Macros 1)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
14	Dimmer2	000-255	0 – 100%
15	Red 2	000-255	0-100%
16	Green 2	000-255	0-100%
17	Blue2	000-255	0-100%
18	Amber 2	000-255	0-100%
19	White 2	000-255	0-100%
20	CTC 2 (affects RGBAW 2)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
21	Tint 2(affects CTC 2 and RGBAW2)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
22	Color Macro 2 (override RGBAW2/CTC 2)		Please see Pomelo color macro chart
23	Color Macro Cross Fade 2 (Transition Time between-Color Macros 2)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
25	Dimmer Curve Settings	000-051	No Function – Current Preset from Menu
		052-101	Linear Dimmer Curve
		102-152	Exponential Dimmer Curve
		153-203	Logarithmic Dimmer Curve

		204-255	S-Curve Dimmer Curve
26	Dimmer Response Settings	000-063	No Function – Current Preset from Menu
		064-127	LED / fast
		128-191	Medium
		192-255	Halogen / slow
27	Redshift Settings	000-084	No Function – Current Preset from Menu
		085-170	Redshift Off
		171-255	Redshift On
		000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)
		040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function
		090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function
		110-114	Redshift On (hold 1,5s / affects only between 2700-3500K)
		115-119	Redshift Off (hold 1,5s)

28	Device Settings (please see remark *1)	120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		CCT Calibration (RAW Colors / hold 3s)	
		135-139	No function
		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)
		160-164	LED Frequency 12KHz (hold 3s)
		165-169	LED Frequency 25KHz (hold 3s)
		170-174	No function
		175-179	Fan Auto (hold 3s)
		180-184	Fan Silent (hold 3s)
		185-189	Fan Off (hold 3s)
		190-194	Fan High Power (hold 3s)
		195-199	No function
		200-214	Invert Mapping Off (hold 3s)
		215-219	Invert Mapping On (hold 3s)
		220-224	No function
		225-229	LED Mode – Illumination (hold 1,5s)
		230-234	LED Mode – Boost (hold 1,5s)
		235-239	No function
		240-244	Factory Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250
		245-249	User Reset (hold 3s) Reset only starts if Shutter channel is set to DMX 250 / no self test by DMX
		250-255	No function

41CH DIRECT

CH	Function	Value	Setting
1	Master Dimmer	000-255	0 – 100%
2	MasterDimmerFine	000-255	0 – 100%

3	Duration	0-19	Shutter close
		20-24	Shutter open
		25-64	Strobe 1 (fast → slow)
		65-69	Shutter open
		70-84	Strobe 2: opening pulse (fast slow)
		85-89	Shutter open
		90-104	Strobe 3: closing pulse (fast slow)
		105-109	Shutter open
		110-124	Strobe 4: random strobe (fast slow)
		125-129	Shutter open
		130-144	Strobe 5: random opening pulse (fast slow)
		145-149	Shutter open
		150-164	Strobe 6: random closing pulse (fast slow)
		165-169	Shutter open
		170-184	Strobe 7: burst pulse (fast slow)
		185-189	Shutter open
		190-204	Strobe 8: random burst pulse (fast slow)
		205-209	Shutter open
		210-224	Strobe 9: sine wave (fast slow)
		225-229	Shutter open
		230-244	Strobe 10: burst (fast slow)
		245-255	Shutter open
4	Duration	000-255	0 – 100% (0ms – 510ms)
5	Dimmer 1	000-255	0-100%
6	Dimmer 1 Fine	000-255	0-100%
7	Red 1	000-255	0-100%
8	Red Fine1	000-255	0-100%
9	Green 1	000-255	0-100%
10	Green Fine1	000-255	0-100%
11	Blue1	000-255	0-100%
12	Blue Fine1	000-255	0-100%
13	Amber 1	000-255	0-100%
14	Amber Fine 1	000-255	0-100%

15	White 1	000-255	0-100%
16	White Fine 1	000-255	0-100%
17	CTC 1 (affects RGBAW 1) (please see detailed CTC chart)	000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps
		182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
18	Tint 1(affects CTC1 and RGBAW1)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
19	Color Macro 1 (override RGBAW1/ CTC 1)		Please see Pomelo color macro chart
20	Color Macro Cross Fade 1 (Transition Time between- Color Macros 1)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
21	Dimmer 2	000-255	0-100%
22	Dimmer 2 Fine	000-255	0-100%
23	Red 2	000-255	0-100%
24	Red Fine 2	000-255	0-100%
25	Green 2	000-255	0-100%
26	Green Fine 2	000-255	0-100%
27	Blue 2	000-255	0-100%
28	Blue Fine 2	000-255	0-100%
29	Amber 2	000-255	0-100%
30	Amber Fine 2	000-255	0-100%
31	White 2	000-255	0-100%
32	White Fine 2	000-255	0-100%
		000-004	5600K
		005-182	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)

33	CTC 2 (affects RGBAW 2)	182-182	5600K
		226-226	6500K
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)
34	Tint 2(affects CTC2 and RGBAW2)	0	no function
		000-127	Magenta -> Neutral
		128-128	Neutral
		129-255	Neutral -> Green
35	Color Macro 2(overrideRG- BAW2/ CTC 2)		Please see Pomelo color macro chart
36	Color Macro Cross Fade 2 (Transition Time between- Color Macros 2)	000-005	No function
		006-105	0,1s – 10s (0,1s steps)
		106-214	11s – 119s (1s steps)
		215-244	2m – 4m50s (10s steps)
		245-255	5m – 15m (1m steps)
37	Effect override RGB 1+2 / CTC 1+2, Color Macro 1+2	000-015	No Function
		016-039	Effect 1 (slow to fast)
		040-063	Effect 2 (slow to fast)
		064-087	Effect 3 (slow to fast)
		088-111	Effect 4 (slow to fast)
		112-135	Effect 5 (slow to fast)
		136-159	Effect 6 (slow to fast)
		160-183	Effect 7 (slow to fast)
		184-207	Effect 8 (slow to fast)
		208-231	Effect 9 (slow to fast))
		232-55	Effect 10 (slow to fast)
38	Dimmer Curve	000-051	No Function – Current Preset from Menu Settings
		052-101	Linear Dimmer Curve
		102-152	Exponential Dimmer Curve
		153-203	Logarithmic Dimmer Curve
		204-255	S-Curve Dimmer Curve
39	Dimmer Response	000-063	No Function – Current Preset from Menu Settings
		064-127	LED / fast

		128-191	Medium
		192-255	Halogen / slow
40	Redshift	000-084	No Function – Current Preset from Menu Settings
		085-170	Redshift Off
		171-255	Redshift On
41	Device Settings (please see remark *1)	000-029	No function
		030-034	Display Backlight On (hold 3s)
		035-039	Display Backlight Off (hold 3s)
		040-044	No function
		045-049	DMX Fail Blackout (hold 3s)
		050-054	DMX Fail Hold (hold 3s)
		055-059	DMX Fail – Emergency Light (hold 3s)
		060-064	No function
		065-069	Linear Dimmer Curve (hold 1,5s)
		070-074	Exponential Dimmer Curve (hold 1,5s)
		075-079	Logarithmic Dimmer Curve (hold 1,5s)
		080-084	S-Curve Dimmer Curve (hold 1,5s)
		085-089	No function
		090-094	LED (Fast) Dimmer Response (hold 1,5s)
		095-099	Medium Dimmer Response (hold 1,5s)
		100-104	Halogen (Slow) Dimmer Response (hold 1,5s)
		105-109	No function
		110-114	Redshift On (hold 1,5s / affects only bet
		ween 2700-3500K	
		115-119	Redshift Off (hold 1,5s)
		120-124	No function
		125-129	Full Calibration (Colors & CCT / hold 3s)
		130-134	CCT Calibration (RAW Colors / hold 3s)
		135-139	No function
		140-144	LED Frequency 800Hz (hold 3s)
		145-149	LED Frequency 1200Hz (hold 3s)
		150-154	LED Frequency 2000Hz (hold 3s)
		155-159	LED Frequency 3600Hz (hold 3s)

	160-164	LED Frequency 12KHz (hold 3s)
	165-169	LED Frequency 25KHz (hold 3s)
	170-174	No function
	175-179	Fan Auto (hold 3s)
	180-184	Fan Silent (hold 3s)
	185-189	Fan Off (hold 3s)
	190-194	Fan High Power (hold 3s)
	195-199	No function
	200-214	Invert Mapping Off (hold 3s)
	215-219	Invert Mapping On (hold 3s)
	220-224	No function
	225-229	LED Mode – Illumination (hold 1,5s)
	230-234	LED Mode – Boost (hold 1,5s)
	235-239	No function
	240-244	Factory Reset (hold 3s)
	245-249	User Reset (hold 3s)
	250-255	No function

Channel priority: Dimming>Built-in program call>User program call>ARGBW dimming>HSV dimming>Macro command>Color temperature

MAINTENANCE

In order to extend the service life of lamps, lamp maintenance is very necessary. The outdoor use environment is relatively harsh, or the lamps have been left for a long time.

The lens cover, lamp housing and other parts accumulate moisture and dust. At this time, the lamp needs to be cleaned to optimize the light output and to prevent dust and acid.

Gas causes corrosion to the casing.

The frequency of cleaning depends on the frequency of operation of the lamp and the surrounding environment.

When cleaning, wipe carefully with a soft cloth and general glass cleaning products. It is recommended

Clean at least every 20 days.

Do not use organic solvents such as alcohol to wipe the lamp shell to avoid damage

GENERAL TROUBLESHOOTING

Fault phenomenon	cause of issue	Approach
No menu displayed	1. No AC power input 2. The switching power supply is damaged 3. Display board failure	1. Check the power supply line 2. Check whether the switching power supply has voltage output 3. Replace the display board
Can't receive DMX signal	1. DMX signal line failure 2. The signal line wiring sequence is wrong. 3. The signal input terminal receiving signal IC is damaged. 4. DMX address code setting and console The corresponding controls do not match 5. Other parameter settings are incorrect 6. Did not press the confirm key after entering the menu Or press the Esc key to exit to the main menu	1. Check or replace signal cable 2. Check the wiring sequence of signal lines 3. Check the display board signal receiving IC and are the two resistors in series on the signal line open circuit. 4. Check or reset the address code Or restore to factory settings and try again 5. Press Esc to exit to the main menu
The surface temperature of the lamp body exceeds 75° Temperature control protection is not possible	1. Thermistor failure on the LED lamp bead board 2. The temperature control circuit on the display board is faulty	1. Replace the thermistor 2. Check the temperature control circuit on the motherboard
Uneven light mixing Uneven spots	1. LED welding is incorrect 2. The lens or bracket is not installed properly	1. Check the welding condition of LED lamp beads 2. Check the lens assembly process, Adjust the bracket assembly direction
The lamp does not light up or flickers a little	The LED is damaged or the driver board has no current output.	1. Replace LED lamp beads 2. Replace damaged LEDs Or check the driver board circuit 3. Replace the corresponding driver IC
Parameters are not saved	The IC used to store parameters is damaged	Replace storage IC
The whole lamp does not work when powered on	When the temperature is too high, the temperature control protection causes Switching power supply over-temperature protection does not work	Wait for the lamp body to cool down before turning it on

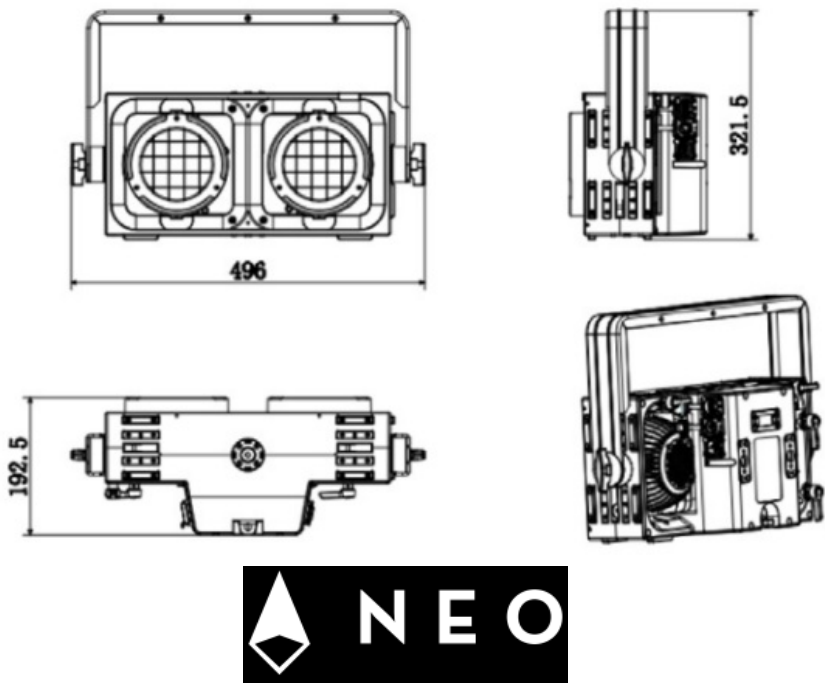
LAMP PARAMETERS

Optical parameters	
light source	2x 300W Red, Green, Blue, Amber, Warm-White
illumination	ALL: 26000Lux@1M ALL: 3400Lux@3M ALL: 1500Lux@5M
color temperature	WW2000K-10000K (±100K)
Optical system	Reflector with compound eye lens
color rendering index	Ra≥86

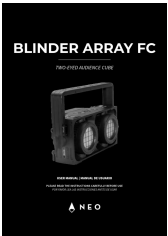
dominant wavelength	R630nm/G529nm/B461nm/A115nm
Light source life	50000
Beam angle (50%)	50°
Maximum field angle (10%)	87°
pixel matrix	Point control/overall control
Strobe	0/20Hz
Power parameters	
Input voltage and frequency	100/240VAC , 50-60Hz
Power connection	Waterproof power cord input/output, maximum number of connections 6 units @230V
Signal connection	Three-core waterproof signal adapter cable input/output, maximum number of connections 32 units
constant power	220W
Maximum power	610W
Power Factor	0.95/230V
working environment	-20-45 °C
Structural parameters	
SIZE	SIZE: 400*200*192.5mm
WEIGHT	NET WEIGHT: 8.9 kg
Protection level	IP65
cooling system	Fan cooling
shell	Die-cast aluminum, black (customizable color)
Installation method	Flat ground, vertical hanging, side hanging
CONTROL	
control method	DMX512 / RDM
DMX CHANNEL	1CH DWE, 2CH DWE, 4CH DWE, 9CH DWE+, 6CH STROBE, 6CH RGB, 10CH BASIC RGB, 14CH BASIC RGB, 13CH STANDARD RGB, 22CH STANDARD RGB, 24CH EXTENDED RGB, 33CH EXTENDED RGB ,
10CH DIRECT, 12CH DIRECT, 17CH DIRECT, 28CH DIRECT, 41CH DIRECT	
DISPLAY	OLED display with 4 touch buttons
Refresh frequency	800Hz/1200Hz/2000Hz/3600Hz/12000Hz/25000Hz
Dimming delay	LED/Medium/Halogen
Dimming curve selection	Linear /Exponential/Logarithmic/S-Curve

Accessories	
Standard configuration	European standard waterproof power cord 1PCS; instruction manual 1PCS

DIMENSIONAL DRAWING



Documents / Resources

	Macaio Blinder Array FC [pdf] User Manual Blinder Array FC, Blinder, Array FC, FC
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References

- [User Manual](#)

[Manuals+.](#) [Privacy Policy](#)

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