



**ELECTRO400 MANUAL**

## 1. Display panel

Key definition:

Menu : selecting functions

Up: parameter increment

Down: parameter decrement

Confirm: Confirm and save



## 2. Menu function

After powering on, press the menu button and the menu menu will appear in sequence;

Up or down key to modify function parameters, confirm key to save the current function and

Parameters (with power down memory after saving).

A001 → A512	Modify the address code (A001~A512) up or down, confirm to save, default to A001.
Ch01 → Ch08	Modify channels (CH01, CH04, CH08) up or down, save with the confirm key, and default to Ch08.
M000 → M012	Modify the built-in mode effect (M000~M012) up or down, confirm to save, default to M000.
S000 → S255	Modify the running speed of the built-in mode effect up or down (S000~S255), confirm to save, and default to S010.
R255 → R000	Modify the brightness of the first lamp bead up or down (R000~R255), confirm to save, and default to R255.
G255 → G000	Modify the brightness of the second lamp bead up or down (G000~G255), confirm to save, and default to G255.
B255 → B000	Modify the brightness of the third lamp bead up or down (B000~B255), confirm to save, and default to B255.
W255 → W000	Modify the brightness of the fourth lamp bead up or down (W000~W255), confirm to save, and default to W255
T000	Display temperature, such as T045 indicating that the current lamp temperature is 45 ° C; No 10K thermistor installed, displaying T000.

## 3. Master slave control

Two or more identical lighting fixtures are connected with a three core signal wire using a DMA. All lighting fixtures are set to any address code from A001 to A512, with any one set as the host and the other lighting fixtures as the slave. All slave display screens do not flash; When using the host to adjust the gradient, pulse, jump, voice control, and self-propelled effects, all slaves synchronize the gradient, pulse, jump, voice control, and self-propelled effects.

Special attention:

1. A set of lighting fixtures can only have one host. If there are multiple hosts, all lighting fixtures will flash randomly and not synchronize.
2. All lighting fixtures must be functional when the DMX512 console is turned off.

## 4. Factory settings

When entering any address code from A001 to A512, press the menu button for 5 seconds to enter the factory settings. The factory settings mainly include the output power of each lamp, fan setting mode, temperature protection point setting, and parameter sending functions, Press the menu button for 5 seconds to exit any mode set by the factory.

R255 → R032	Modify the R bead current (R032-R255) up or down, save with the confirm key, and default to R220.
G255 → G032	Modify the G bead current (G032-G255) up or down, save with the confirmation key, and default to G220.
B255 → B032	Modify the B lamp bead current (B032-B255) up or down, save with the confirm key, and default to B220.
W255 → W032	Modify the W bead current (W032-W255) up or down, save with the confirm button, and the default value is W220.
Y255 → Y032	Modify the Y bead current (Y032-Y255) up or down, save with the confirmation key, and default to Y220.
I255 → I032	Modify the I-bead current (I032-I255) up or down, save with the confirm key, and default to I220.
F255 → F032	Modify the F bead current (F032-F255) up or down, press the OK key to save, and the default value is F220.
H255 → H032	Modify the H bead current (H032-H255) up or down, save with the confirmation key, and default to H220.
FAN0 → FAN1	Fan setting: When the FAN0 light is on, start the fan. When FAN1 reaches the set temperature protection point, start the fan. Press the confirm button to save.
T040 → T070	Set the temperature protection point, modify the parameters up or down (40°C~70 °C), and save with the confirmation key. The default value is T060.
Send → Send	Send the factory setting parameters of the machine up or down to all other three core signal wires connected in parallel for lighting fixtures; Confirm sending parameters, press the menu button for 5 seconds to exit, deny parameters, press the confirm button to cancel sending.

## 5. DMX512 Console

After powering on, set the address codes of all lighting fixtures, and then connect all lighting fixtures in parallel with a three core signal wire to the DMX512 console. The address codes will stop flashing, indicating that the DMX512 console signal has been sent to the lighting fixtures. According to the channel instructions, use the DMX512 console to control the relevant functions.

CH01	1	000-255	Total dimming.
	1	000-255	Linear dimming of the first lamp bead
	2	000-255	Linear dimming of the second lamp bead
	3	000-255	Linear dimming of the third lamp bead
CH04	4	000-255	Linear dimming of the fourth lamp bead
	1	000-255	Total dimming.
	2	000-255	Strobe
	3	000-255	Mode (see: 6. Mode Effect)
CH08	4	000-255	Speed
	5	000-255	Linear dimming of the first lamp bead
	6	000-255	Linear dimming of the second lamp bead
	7	000-255	Linear dimming of the third lamp bead
	8	000-255	Linear dimming of the fourth lamp bead

## 6. Mode effect

Ch08 channel mode: (Reminder: Mode codes 11-127, RGB can be pushed or pulled to change the background color.)

channel value	Mode code	Effect
0-24	0	No effect
25-29	1	The first lamp bead shines.
30-34	2	The second lamp bead is on.
35-39	3	The first and second lamp beads light up together.
40-44	4	The third lamp bead is on.
45-49	5	The first and third lamp beads light up together.
50-54	6	The second and third lamp beads light up together.
55-59	7	The first, second, and third lamp beads light up together
60-64	8	The fourth lamp bead is on.
65-69	9	The first and fourth lamp beads light up together.
70-74	10	The second and fourth lamp beads light up together.
75-79	11	The first, second, and fourth lamp beads light up together.
80-84	12	The third and fourth lamp beads light up together.
85-89	13	The first, third, and fourth lamp beads light up together.
90-94	14	The second, third, and fourth lamp beads light up together.
95-99	15	All four lamp beads are bright.
100-124	16	Gradient
125-149	17	Pulse transformation
150-159	18	A light running clockwise
160-169	19	A light running counterclockwise
170-179	20	A light refreshes clockwise
180-189	21	A light refreshes counterclockwise
190-199	22	Two lights running parallel and diagonally back and forth
200-209	23	Two lights running parallel back and forth
210-219	24	Two lights running vertically back and forth
220-229	25	A light running back and forth from tail to head
230-239	26	A light running back and forth from beginning to end
240-249	27	Two diagonal X-shaped running lights
250-255	28	Audio Mode

## 7. Technical Parameter

Voltage: AC100~240V 50/60Hz

Power: 200W (50W \* 4)

Lamp beads: four eye monochrome COB lamp beads

Control methods: DMX512, master-slave, voice control, RDM.

Channels: CH01, CH04, and CH08 (see channel table description for details)

Dimming: 32bit 0-100% linear dimming

Features: COB flash+monochrome

Working temperature: -30 °C~50 °C

Strobe frequency: 1-30Hz

Appearance: Metal, black

Connection method: DMX512 input/output/power input/output.

IP level: IP20

## 8. Routine maintenance

Attention! Excessive dust, smoke flow, and damage caused by abnormal use are not covered by the warranty. Warning! Turn off the power before opening any covers.

### ☉ Clean

Optical components should be lightly rubbed, and the coating surface is very brittle and easy to scratch. Do not use destructive solvents, otherwise it will damage the plastic or coating surface.  
Note: Reset the channel value to its active range for 5 seconds before executing the action.

### ☉ Cleaning optical components

1. After cutting off the power, cool thoroughly and open the cover;
2. Use a vacuum cleaner or pressure blower to gently blow away dust and floating objects;
3. Use odorless cotton paper or a cotton cloth soaked in clean water or distilled water to wipe off particles, do not wipe the surface, and use pressure gas to blow away floating objects
4. Use cotton cloth or odorless cotton paper soaked in propanol to remove smoke and residue, or use a glass cleaner, But the residue must be removed with distilled water, wiped in circles from the center to both sides, and then wiped dry with a soft cotton cloth

### ☉ Clean the fan and air holes

Use a soft brush, cotton paper, air cleaner, or pressure blower to remove dust from the fan and air holes.

## 9. Fault handling

The lamp contains professional components such as microcomputer circuit boards and high-voltage power supplies. For your safety and product lifespan, Non professionals are not allowed to dismantle lamps and related accessories without authorization.

### ☉ The beam appears dim

Possible cause: The bulb has been used for a long time or the light path is not clean, and the following measures should be taken:

Check if the fan is operating normally or getting dirty, causing an increase in internal temperature of the lamp;  
Check if the bulb has reached its service life and replace it with a new one;  
Check whether the optical components or bulbs are clean, and whether there is dust accumulation on the optical components such as bulbs. Regular cleaning and maintenance of the bulbs and various components inside the lamp should be carried out.

### ☉ Intermittent operation of lighting fixtures

Possible reason: The internal circuit has entered a protected state, and the handling is as follows:

Check if the fan is operating normally or getting dirty, causing an increase in internal temperature of the lamp;  
Check if the internal temperature control switch is in a closed state;  
Check if the bulb has reached its service life and replace it with a new one.

### ☉ After the lamp is reset normally, it does not accept control from the console

Possible cause: Signal line malfunction or abnormal lamp parameter settings, the following measures should be taken:  
Check the starting address code and the connection of the DMA signal cable  
(whether the signal cable is intact and whether the connector is loose);  
Add a signal amplifier and a 120 ohm terminal resistor;

### ☉ Lamp cannot be activated

Possible cause: Poor power circuit, treatment as follows:

Check if the fuse on the power input socket is blown and replace the fuse;  
Poor contact of lighting fixtures due to vibration during long-distance transportation  
Check the input power supply, computer board, and other plug-in devices.

## 10.Security information

The products are packaged in good condition when leaving the factory. Please follow the user manual for operation, as it may be caused by human factors. The machine malfunction is not covered by the warranty.

▲ The light source inside this lamp should be replaced by the manufacturer or its service agent or someone with similar qualifications. If the exterior of this lamp or the flexible cable or cord is damaged, it should be replaced by a qualified person from the manufacturer or its service agent to avoid danger.

▲ After receiving the lamp, please unpack and check for any damage caused by transportation. If there is any damage, do not use this lamp. And quickly contact suppliers or manufacturers.

▲ This product is suitable for indoor use, with a protection level of IP20.

Luminaires should be kept clean to avoid exposure to moisture or excessive dust.

When used in an environment, maintenance should be carried out every three months.

▲ Qualified professionals are only allowed to install, operate, and maintain lighting fixtures, and ensure strict adherence to the procedures described in this manual.

▲ The lighting fixtures should be installed in a well ventilated area, at least 50CM away from the wall, and the ventilation holes should be checked for smoothness.

Do not look directly at the light source to avoid damage to the eyes.

▲ Please do not turn on the lamp for self repair.

▲ The electrical connections must be operated by qualified installation personnel.

▲ Each lamp should be securely grounded and electrically installed in accordance with relevant standards.

▲ Do not use power cords with damaged insulation layer, and do not place the power cord on other wires. When the lamp is not in use or clean, please unplug the power cord and do not forcefully plug or drag the power cord directly.

▲ If the back cover of the lamp is equipped with a safety buckle or connection hole, for safety reasons, please use a safety rope to penetrate the connection hole for auxiliary lifting.

▲ There are no user repairable components inside this lamp. Before starting to operate the lamp, please check whether all parts are properly connected and whether the screws are reliable and secure.

▲ If you have any further questions, please contact the supplier or manufacturer in a timely manner and return the product with the original packaging stating the reason for the defect.

## 11.Lamp connection

Power connection (power and fuse configurations are shown in the table below)

power supply	fuse
100V-240V~	T5A, 250V

Do not connect too many lighting fixtures or overload a single power cord.

Do not use power cords with damaged insulation, and do not lay the power cord on other wires.

When the lamp is not in use or cleaned, please unplug the power cord.

Do not forcefully unplug or drag the power cord directly.

### Signal Connection



## DMX512 Connect

In order to reduce signal errors and avoid signal attenuation and interference during transmission, it is recommended to use the add a 120 ohm 1/4W resistor between the 2-core and 3-core outputs of the DMX.

Connect the lamp with an XLR signal cable, with one end connected to the output port of the lamp and the other end connected to the input port of the next lamp.

Signal wires can only be used in series and cannot be connected in parallel. Because the DMX512 signal transmission speed is very fast, when the signal line is damaged and the welding joint is not secure, Poor contact, etc., can affect signal transmission and cause the system to shut down.

When the machine power supply of a certain unit is disconnected, the connection between the output and input of the DMXs is bypassed to maintain the connection of the DMXs line.

Each lamp must have an address code that can receive messages from the control console.

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

## Precautions for using RDM

RDM is an extended version of the DMX512-A protocol, which is a Remote Device Management protocol. Traditional DMX512 protocol communication is unidirectional, based on RS-485 bus. RS-485 is a time-sharing, multi-point, and half duplex protocol, allowing only one port to output to the host at the same time. Therefore, when using RDM, the following points should be noted:

To use a console or host device that supports the RDM protocol host;

To use a bidirectional signal amplifier, traditional unidirectional signal amplifiers are not suitable for the RDM protocol because the RMD protocol requires feedback data.

The use of a unidirectional amplifier will block the returned data, resulting in the inability to search for the lamp; When a lamp is controlled by the DMXs but cannot be searched by the RDM, first check the signal amplifier, and then check if there is a poor contact between the 2 and 3 wires of the signal line.

All lighting fixtures must be set to DMA mode to ensure that there is only one host on the signal line;

A 120ohm impedance matching resistor must be inserted between terminals 2 and 3 of the terminal plug.

When the signal line is relatively long, Reducing signal reflection will make differential signals more stable, which is beneficial for the quality of communication;

## 12.Dimension

