



**ELIO 4 MANUAL**

## 1. Display panel

Key definition:

Menu : Select various functions

Up: Incremental selection of function parameters

Down: Function parameter descending selection

Confirm: Determine current menu



## 2. Menu function

After turning on the power, press the menu key (MENU key) to display the following functions in sequence. If you need that function, press the confirmation key to confirm. (This sequence is the order of a new machine. If the lamp has been used in other modes and saved the mode before shutting down, the mode before the last shutdown will be displayed after turning it on again) After setting other functions, you also need to press the confirmation button to save, otherwise the next time you turn it on Afterwards, the effect set before shutting down will not appear.

A001 → A512	A channel mode, press the up or down key to select the address code (A001-A512), press the confirm key to save the address code
D001 → D512	D channel mode, press the up or down key to select the address code (d001-d512), and press the confirm key to save the address code.
EE10 → EE99	In pulse change mode, use the up or down key to select the running speed (EE00-EE99), and press the confirm key to save the running speed.
P110 → P199	In P1 mode, use the up or down keys to select (P100-P199), and press the confirm key to save.
P210 → P299	In P2 mode, use the up or down keys to select (P200-P299), and press the confirm key to save.
P310 → P499	In P3 mode, use the up or down keys to select (P300-P399) and press the confirm key to save.
P410 → P499	In P4 mode, press the up or down button to select (P400-CP499), and press the confirm button to save.
P510 → P599	In P5 mode, press the up or down button to select (P500-P599), and press the confirm button to save.
P610 → P699	In P6 mode, use the up or down keys to select (P600-P699), and press the confirm key to save.
P710 → P799	In P7 mode, use the up or down keys to select (P700-P799), and press the confirm key to save.
P810 → P899	In P8 mode, press the up or down button to select (P800-P899), and press the confirm button to save.
P910 → P999	In P9 mode, use the up or down keys to select (P900-P9899), and press the confirm key to save.
PA10 → PA99	PA mode, press the up or down button to select (PA00-PA99), press the confirm button to save.
Soud → Soud	Voice control mode
ww255 → ww001	Manual red adjustment, when there is no console, use the up or down button to adjust the brightness between WW000-WW 255, press the confirm button to save.
ww255 → ww001	Manual green adjustment, when there is no console, use the up or down keys to adjust the brightness between WW000-WW25, and press the confirm key to save.
ww255 → ww001	Manual blue adjustment, when there is no console, use the up or down keys to adjust the brightness between WW000-WW25, and press the confirm key to save.
ww255 → ww001	Manual white adjustment, when there is no console, use the up or down button to adjust the brightness between WW000-WW25, and press the confirm button to save.
T000	Display temperature

## 3. Commonly used functions

1. DMX512 control

After powering on, set the digital display panel to A001 or d001, and then use a signal line to connect the console to the par lamp. The digital display panel of the par lamp connected to the 512 signal will not flash (if the digital display panel continues to flash, it means that the LED par lamp The lamp does not receive the 512 signal. Please check the lamp, signal line, or console if there is a problem). As long as the address code is set correctly, you can use the 512 console to control the LED par lamp.

2. EE00 (pulse change mode), P1-PA ten self-propelled effects, Soud (voice control mode), as long as you use the menu to call it up, you can use the relevant functions by pressing the confirmation button.

## 4. Channel

A001 8 channel mode

Mode code	channel value	Effect
1	000-255	Luminance
2	000-255	000-009 invalid0 10-255 Strobe from slow to fast
3	000-255	000-019 dimming 020-036 Pulse change 040-059 P1 effect 060-079 P2 effect 080-099 P3 effect 100-119 P4 effect 120-139 P5 effect 140-159 P6 effect 160-179 P7 effect 180-199 P8 effect 200-219 P9 effect 220-239 P10 effect 240-255 Voice control
4	000-255	Self-propelled speed
5	000-255	WW brightness linear adjustment
6	000-255	WW brightness linear adjustment
7	000-255	WW brightness linear adjustment
8	000-255	WW brightness linear adjustment

D001 4 channel mode

1	000-255	WW brightness linear adjustment
2	000-255	WW brightness linear adjustment
3	000-255	WW brightness linear adjustment
4	000-255	WW brightness linear adjustment

## 5. Master and slave settings

Two or more identical lamps are connected with a 3-core signal line. If any host is set to voice control or gradient, pulse change or jump, and the other lamps are in A001 or d001 mode, they will enter the master-slave mode and the slave. The display screen of the machine does not flash (flashing means that the machine does not receive a signal and the connection cable must be checked)

Special note: Only one host can be set in a group of lamps. If there are multiple hosts, all the lamps will flash randomly and synchronize.

## 7. Technical Parameter

Voltage: AC100~240V 50/60HZ

Power: 400W(100W\*4)

Lamp beads: four-eye two-color COB lamp beads

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

Channel: CH02, CH08, CH12 three channel selection

(see the channel table description for details)

Dimming: 32bit 0~100% linear dimming

Features: COB flash + two-color

Working temperature: -30 degrees ~ 50 degrees

Strobe frequency: 1~30HZ

Appearance: metal, black

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

IP rating: 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 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 RDM 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

