产品规格书
Product Specification

—— 旋转像素环
Rotation Ring

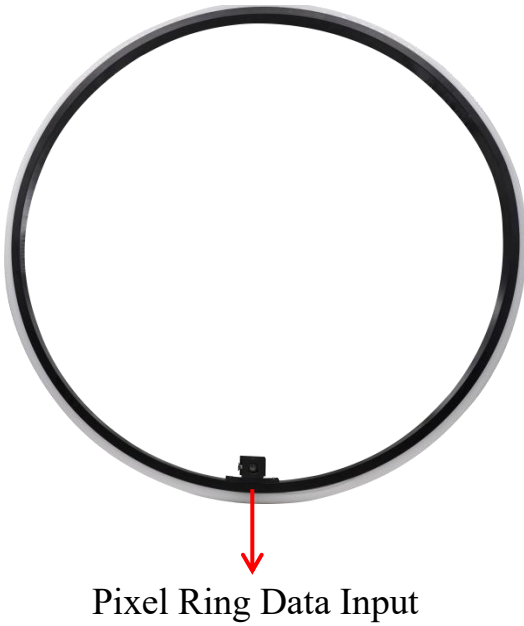晨亮光电 —— 旋转像素环
CLEN LED Rotation Ring

Product name：Rotation ring
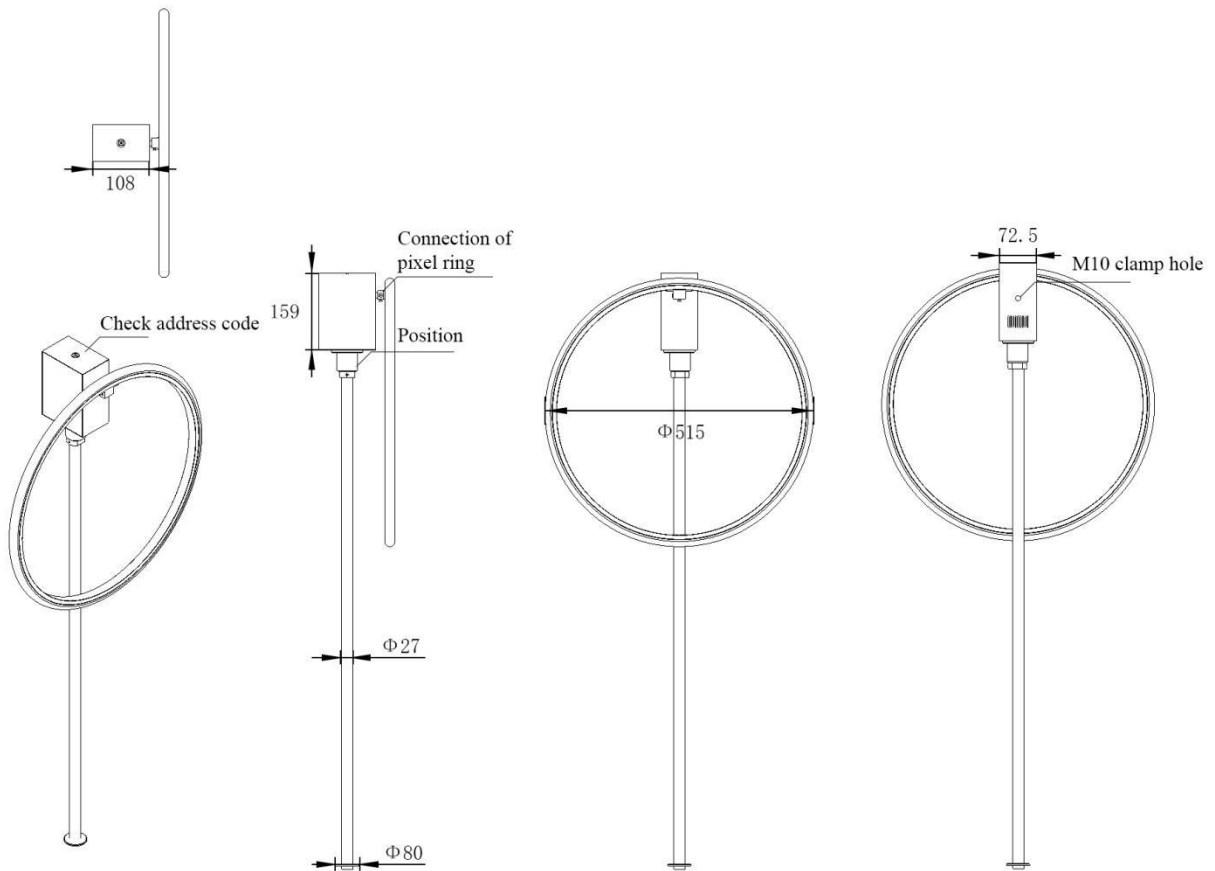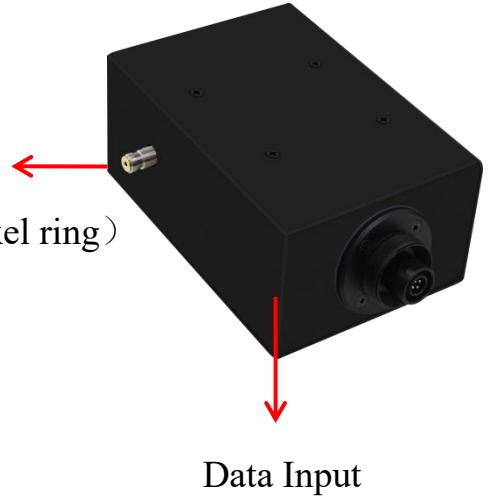
Product mode：CL-MT02-2

Overview： More and more equipment is used in stage lighting. The rotating rings gradually stands out among many lighting equipment due to its 360 degree rotation. This product supports DMX512 signal input, and the rotation angle can be adjusted, and the speed can be adjusted. Can achieve silent operation, noiseless running.Provide more options for stage lighting effects.

Product picture：

Data Output

（Connect with Pixel ring）

Pixel Ring Data Input

Data Input

108

Check address code

Connection of pixel ring

Position

159

Φ27

Φ80

Φ515

72.5

M10 clamp hole

◆ **Features：**

➢ DC24V low voltage input, DMX signal input;

➢ Zero value detection, automatic calibration (reset) after power-on;

➢ 360-degree rotating, adjustable angle, controllable speed;

➢ Can achieve silent operation, noiseless running；

➢ Small size and easy installation;

➢ Multiple units can be used in series;

➢ Can be controlled with Artnet software (MAD-SHOW, MADRIX) and DMX console.

➢ Support program remote upgrade；

◆ **Parameter List**

Parameter	Unit	Min	Typical	Max
Working voltage(DC)	V	—	24	—
Diameter of ring	MM	—	515	—
Power	W	—	26	—
LED quantity	PCS	—	96	—
Pixel quantity	—	—	24	—
Cascade number	PCS	—	—	6
Channel	—	—	RGB	—
Control mode	—	—	DMX512	—
Product weight	KG	—	3	—
product	MM	—	160*110*72	—
Product color	—	—	Black	—
Product material	—	—	Aluminum	—

DMX Code description

DMX code	Parameter	Action start channel	light start channel	Channel range
0	Program upgrade	—	—	—
A	500MM Rotation Ring	1	7	1-78
B		79	85	79-156
C		157	163	157-234
D		235	241	235-312
E		313	319	313-390
F		391	397	391-468

DMX Channel

Channel	Function	Function description
Channel 1	Angle mode	Control the angle of rotation: the value 0-255 corresponds to 0-360° (channel 3 value 0-15 is valid)
Channel 2	Speed	Speed Adjust the speed of angle change (valid when the channel 3 value is 0-15)
Channel 3	mode selection	Value 0-15 angle mode, channel 1 and channel 2 are valid; value 16-31 is infinite rotation mode; value 32-255 is built-in effect mode, one effect for every 16 values;
Channel 4	Forward and reverse + speed	infinite rotation mode (channel 3 value 16-31), the value 0-126 rotates counterclockwise, the value 127-128 maintains the current angle, the value 129-255 rotates clockwise; the fastest is 1 second One lap, the slowest is 5 seconds lap;
Channel 5	Light strobe	value 0-15 to receive software data, external software control; value 16-31 all white; value 32-255 strobe, the larger the value, the faster the strobe frequency;
Channel 6	Reset	The value 0-254 is invalid, the value 255 is reset once, waiting for the channel to be released, the highest priority

Rotation ring installation and wiring：

① Fix the ring on motor with screw；

② The input is connected to extension cable;
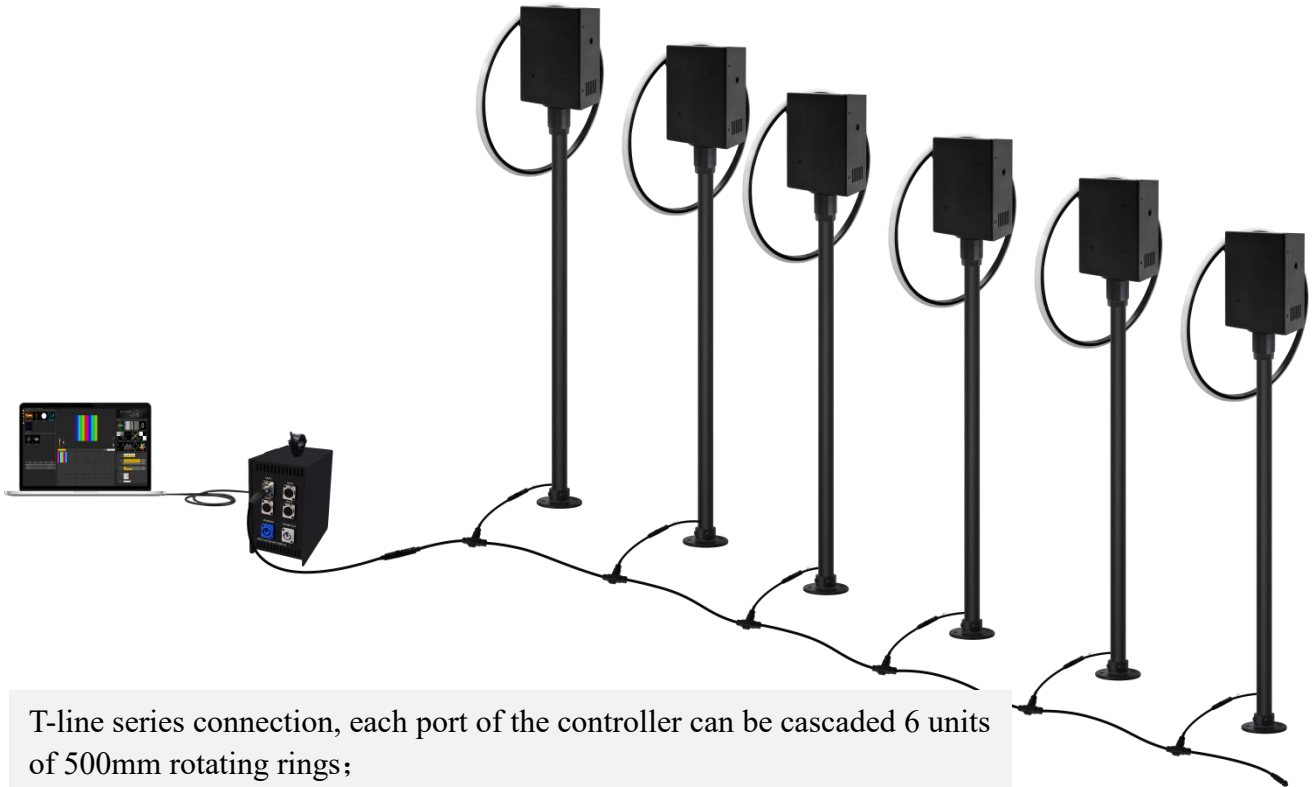

③Install the pillar and orientation adjuster

④Connect the input of rotating rings with controller's XLR cable

Connecting the computer and the controller signal input port through network cable

Connecting the output of the controller with the input end of the rotating rings with XLR cable

⑤ Connect multiple rotating rings together with T-cable

T-line series connection, each port of the controller can be cascaded 6 units of 500mm rotating rings；
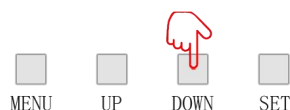
Note: When multiple rotary units are cascaded, the rotary dial codes under each port of the controller need to be modulated in order, couldn't be same!
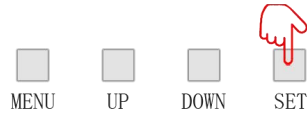
Control mode description

DMX mode：
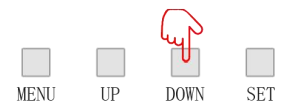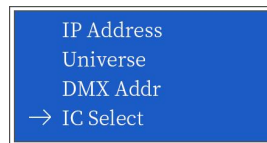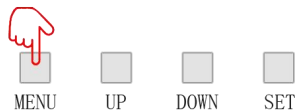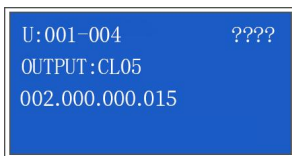
①After the controller is powered on, the default ARTNET mode, long press "MODE" to enter the parameter list, click "UP" or "DOWN" to select the IC type parameters;
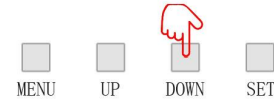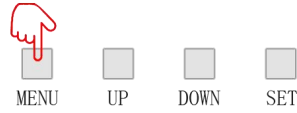

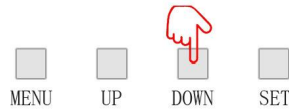②Click "SET" to enter the parameter list, click "DOWN" to select DMX model；

```
→ IP Address
  Universe
  DMX Addr
  IC Select
```

MENU   UP   DOWN   SET

③Click "SET" to save the parameters, long press "MENU" to complete the setting;

Using standard DMX512 signal, each port support 1 universe only;

```
U:001-004        ????
OUTPUT:CL05
002.000.000.015
www.clenled.com
```

MENU   UP   DOWN   SET

```
  Universe
  DMX Addr
  IC Select
→ Pixel
```

MENU   UP   DOWN   SET

①After the controller is powered on, the default ARTNET mode, long press "MODE" to enter the parameter list, click "UP" or "DOWN" to select the pixel parameters;

```
→ 1-Univ
  2-Univ
  3-Univ
  4-Univ
```

MENU   UP   DOWN   SET
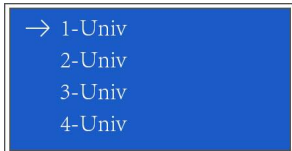
②Click "SET" to enter the parameter list, click "DOWN" to select "1-Univ" to set each port of the controller to support 1 universe ;

```
→ IP Address
  Universe
  DMX Addr
  IC Select
```

MENU   UP   DOWN   SET
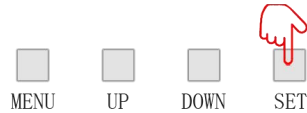
③Click "SET" to save the parameters, long press "MENU" to complete the setting;

◆ **How to upgrade MT02 program**
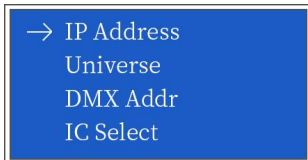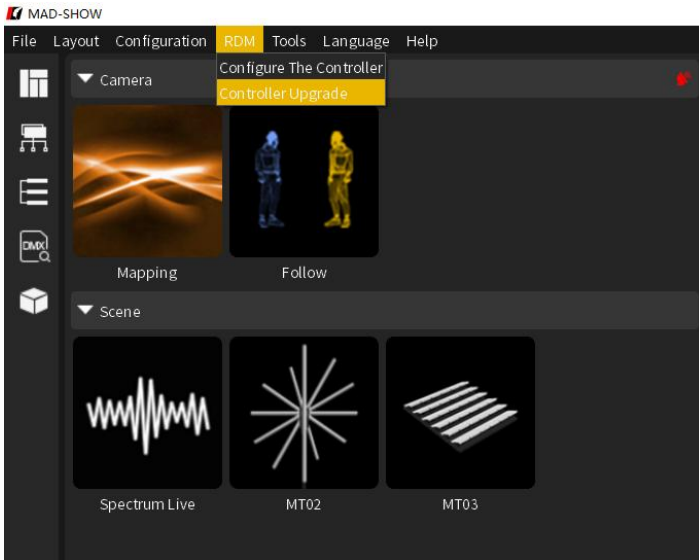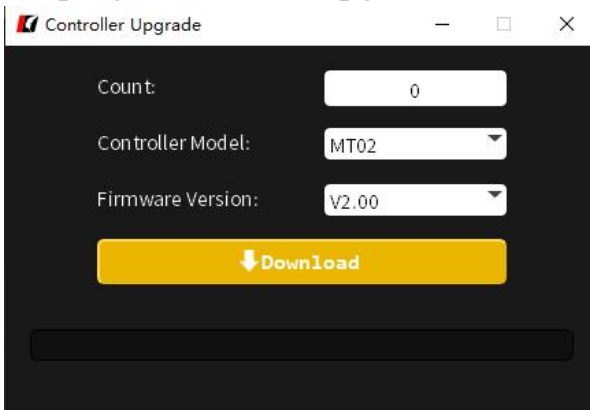
The first step is to turn off the controller ----> turn the coding switch to 0 ----> power on, the light tube turns red, ready to upgrade the program;

The second step is to open the MAD-SHOW software, click on the menu bar RDM---->controller upgrade;

Select the controller model and version, select MT02---->click the Download button, and the program starts to upgrade;

Note: The light is green during the upgrade process, and turn blue after the upgrade is successful. If the software shows that the upgrade is complete, the light is still green, indicating that the program upgrade has failed, and it needs to be powered off to upgrade again;

Step 3 After the upgrade is successful, turn the coding switch to the corresponding value of the led tube, and turn on the rotating led tube;
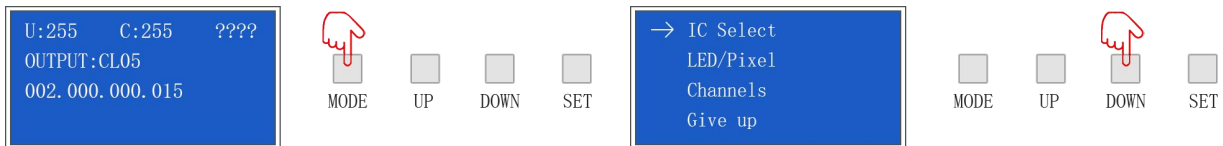
◆ **Application scenarios**

1.Stage;

2.Exhibition；
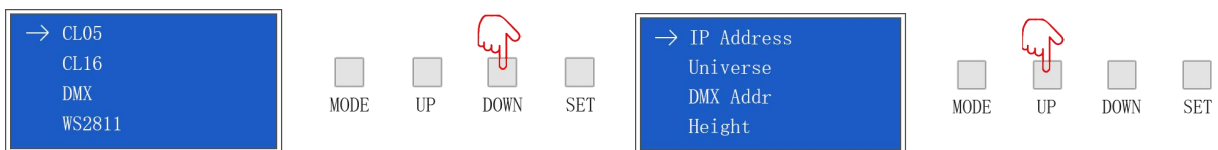
3.Concert light show；

4.Advertisement

◆ **FAQ**

(1) Question: After the wiring is completed, the controller is connected and the rotation is not controlled?

Answer: Check whether the wiring is correct and whether the plug is loose; after confirming the connection is correct, check whether the controller IC (IC Select) is set to the DMX model;

① Long press "MODE" to enter the parameter menu   ② Click "UP" or "DOWN" to select IC type parameters

```
U:255    C:255    ????
OUTPUT:CL05
002.000.000.015
```
MODE UP DOWN SET

```
→ IC Select
  LED/Pixel
  Channels
  Give up
```
MODE UP DOWN SET

③ Click "SET" to enter the parameter list, click "DOWN" to select DMX IC model

```
→ CL05
  CL16
  DMX
  WS2811
```
MODE UP DOWN SET

```
→ IP Address
  Universe
  DMX Addr
  Height
```
MODE UP DOWN SET

④ Click "SET" to save the parameters, and long press "MODE" to complete the setting;

(2) Q: In the case of multiple rotations cascaded, what should I do if the effects of each rotation are synchronized? (Dial code setting)

Answer: When multiple rotary color cloud tubes are cascaded, the code of the rotating rings of each port of the controller cannot be same；
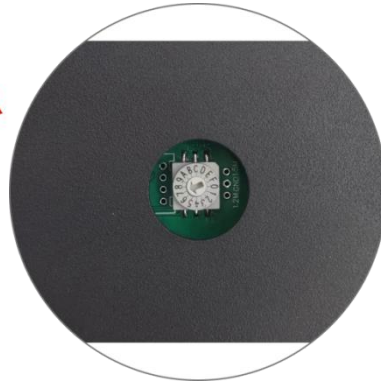
The code of each motor cannot be same!
Need to be arranged in order；

Note:

1. Pay attention to the use environment and be waterproof and moisture-proof;

2. There is high voltage inside, non-professionals should not disassemble the machine, otherwise the consequences will be at your own risk;

3. Regular safety inspection should be conducted to check whether the connecting rod is broken, whether the connection between the head and the lamp tube is fixed, and whether the screws at the joint are loose;

4. Man-made damage and natural damage are not guaranteed by the warranty;

5. If any abnormality is found during use, contact the manufacturer in time.