Product Specification

CL-104PS controller

深圳市晨亮光电科技有限公司

Shenzhen Clen Optoelectronics Co., Ltd

Product name：LED one port controller

Product mode：CL-104PS

Overview： Based on the ARTNET protocol Ethernet network driver, the controller can convert the network data packets in the ARTNET protocol into standard DMX512 data or SPI data. The controller has three control modes: ARTNET、DMX and sACN mode, which can perform effect recording and can be used offline; This product can be widely used in stage performance lighting control system, stage performance, bar lighting and other occasions, and it is more convenient to use with our lamps.

Product picture：
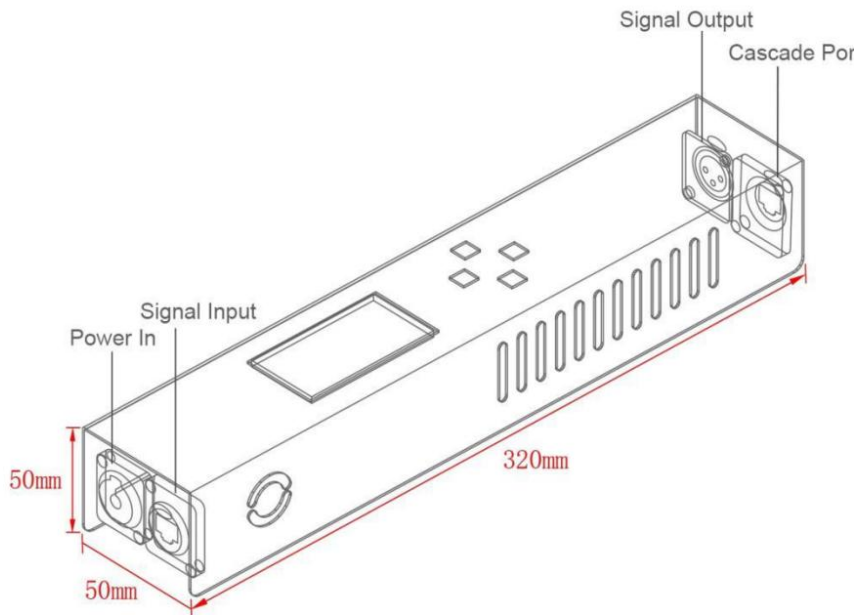
◆ **Product features：**

➢ Input voltage: AC110—220V Output voltage: DC5V, DC12V, DC24V optional

➢ Single port output, can output up to 680 pixels;

➢ Three control modes, ARTNET、DMX and sACN mode;

➢ Support effect recording, 31 effects can be recorded, offline use;

➢ The light strip does not need an external power supply, it can be directly connected to the controller;

➢ Lightweight and compact, easy to carry;

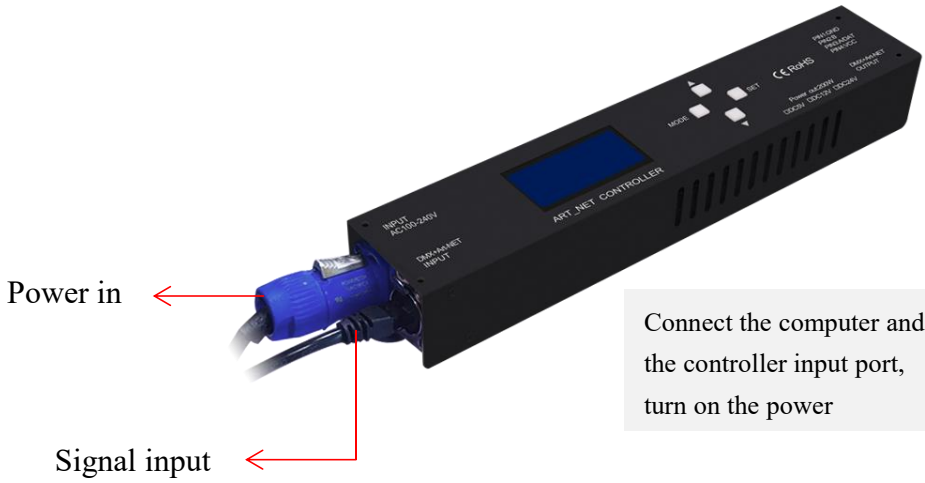➢ The connection is simple, just connect the port network cable;

◆ **Parameter list**

Parameter	Unit	Min	Typical	Max
Working voltage(AC)	V	110	—	220
Output voltage（V）	V	5	24	24
Output power（p）	W	—	—	200
cascaded units	PCS	—	—	254
Support IC type	—	—	WS2811/SK6812/UCS1903/UCS8903/UCS9812/ DMX512	—
Supporting software	—	—	MAD-SHOW (MADRIX/RESOLUME/MAD-MAPPER)	—
Control mode	—	—	ART-NET/DMX/sACN	—
Working mode	—	—	ARTNET/SD card	—
Controller IP address	—	—	2.0.0.X	—
Subnet mask	—	—	255.0.0.0	—
Computer IP address	—	—	2.0.0.2	—
Port loading points	PIX	—	1*680	—
Port universe	PCS	1	—	4
Product color	—	—	Black	—
Product size(L*W*H)	MM	—	320*62*50	—
Product weight	KG	—	1.2	—

◆ Connection

①connect controller input port

Power in

Signal input

Connect the computer and the controller input port, turn on the power

②Connect lamps

Connect the XLR cable to the output of the controller and the input of the tube
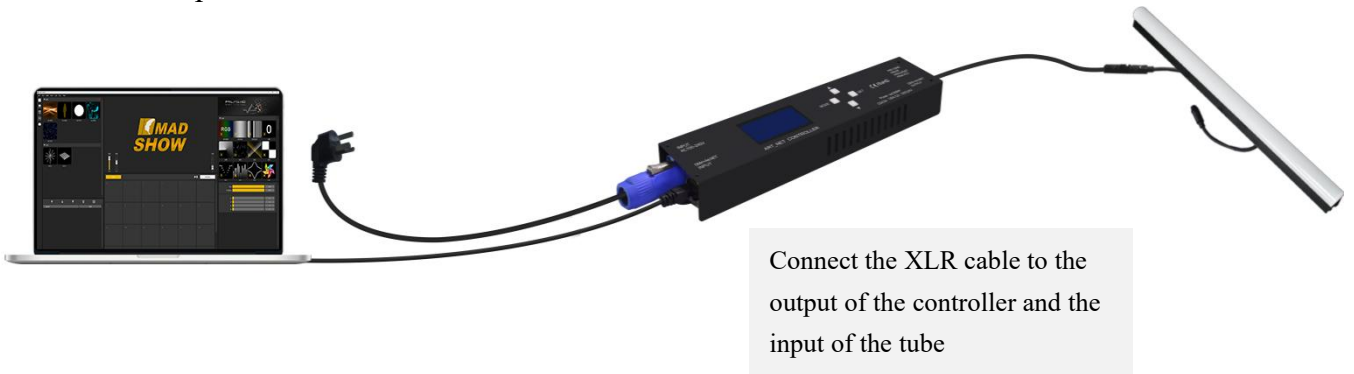
③Console connect controller

Connect the console and the controller through the signal conversion board
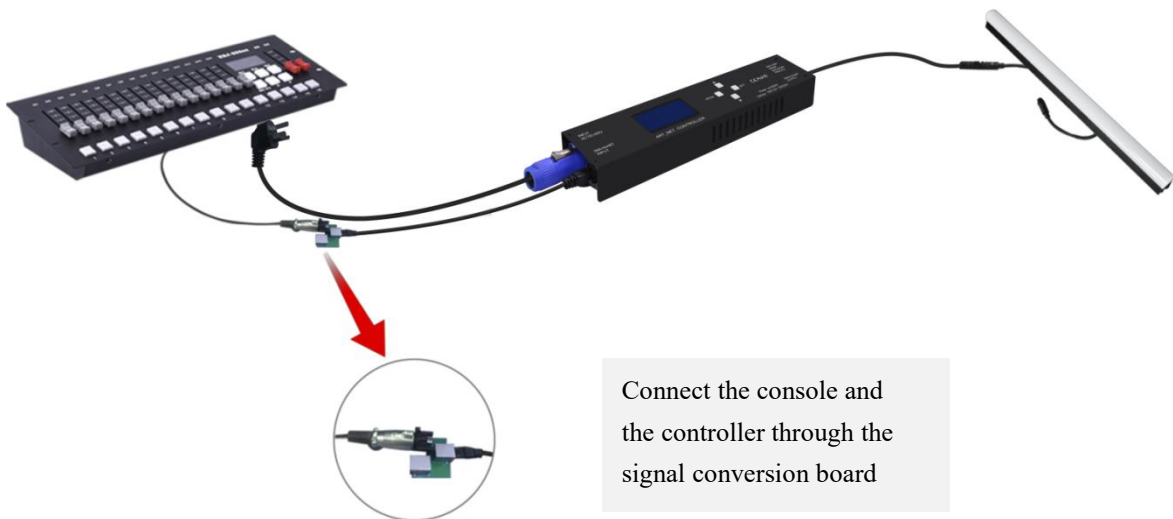
◆ **Multiple units can be used in cascade**

Connect the network cable to the output port and the input port of the next controller
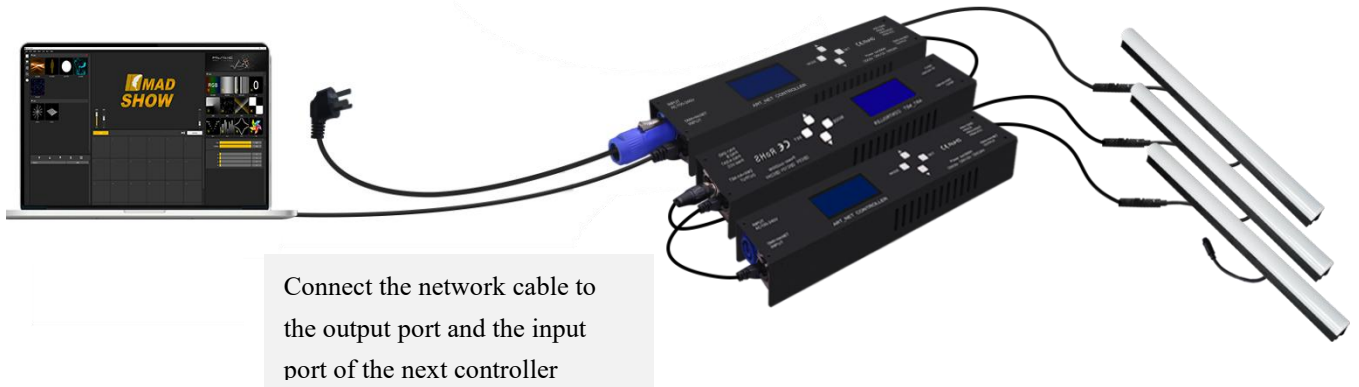
Note: When multiple controllers are cascaded, each controller IP setting cannot be the same!（Except for sACN mode）

◆ **Control mode**

ARTNET mode：①After the controller is powered on, it enters the "ART-NET" mode by default, press and hold "MENU" for 3 seconds to enter the parameter setting, and set the IP address matching the computer, the IC matching the lamp, the channel and other parameters;
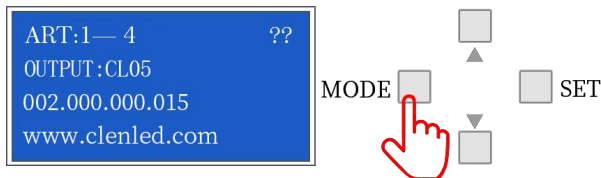

②Click "SET" to modify the parameters, click "SET" again to save, and long press "MENU" to return to the initial interface. The controller port output is an independent port output, and the port can carry a maximum of 680 pixels (IC UCS8903 has a maximum of 340 pixels).
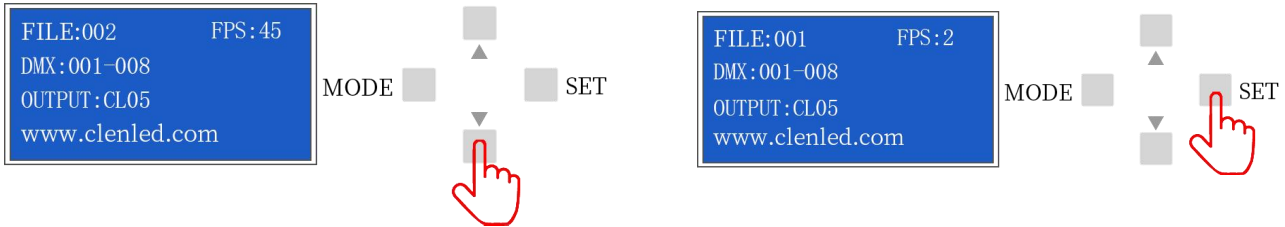
SD card mode：①After the controller is powered on, it enters the "ART-NET" mode by default, and simultaneously presses "UP" and "DOWN" for 3 seconds to enter the SD card mode;
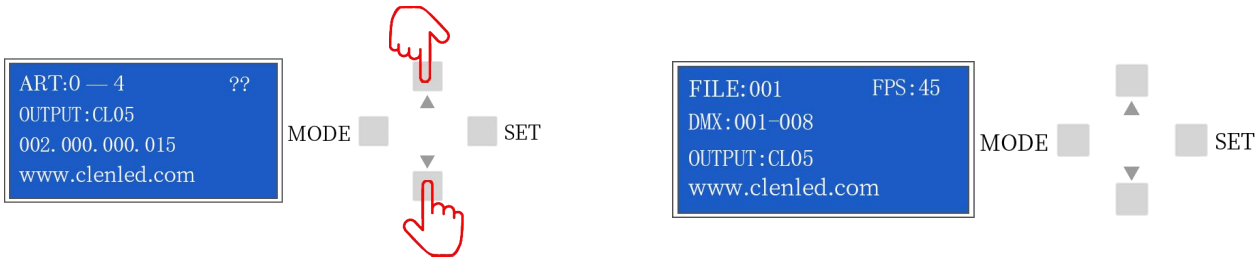

②Click "UP" or "DOWN" to switch the built-in effects; click "MENU" or "SET" to switch the effect speed; total 31 built-in effects can be selected; long press "UP" and "DOWN" for 3 seconds to exit the SD card model.

sACN mode：①After the controller is powered on, it enters "ART-NET" mode by default. Press and hold MENU to enter the menu.
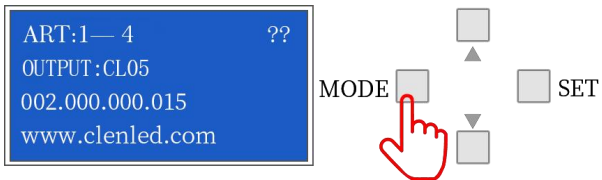

②Click "UP" or "DOWN" to switch options, select Mode Switch, click SET to enter the options, select sACN Mode, click SET and long press MENU to save the setting;
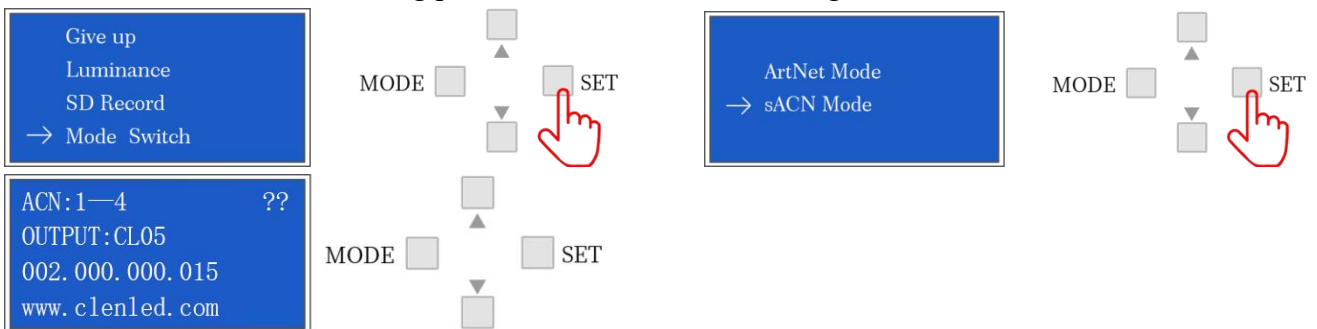
The sACN protocol is a lighting control protocol based on UDP. It uses Ethernet as the transmission medium. There is no need to set the IP address and it can be used immediately after connection;

Take Madrix as an example. After connecting the computer and controller, there is no need to set the IP address to open it. Open Preferences-Options-Device Network Interface;
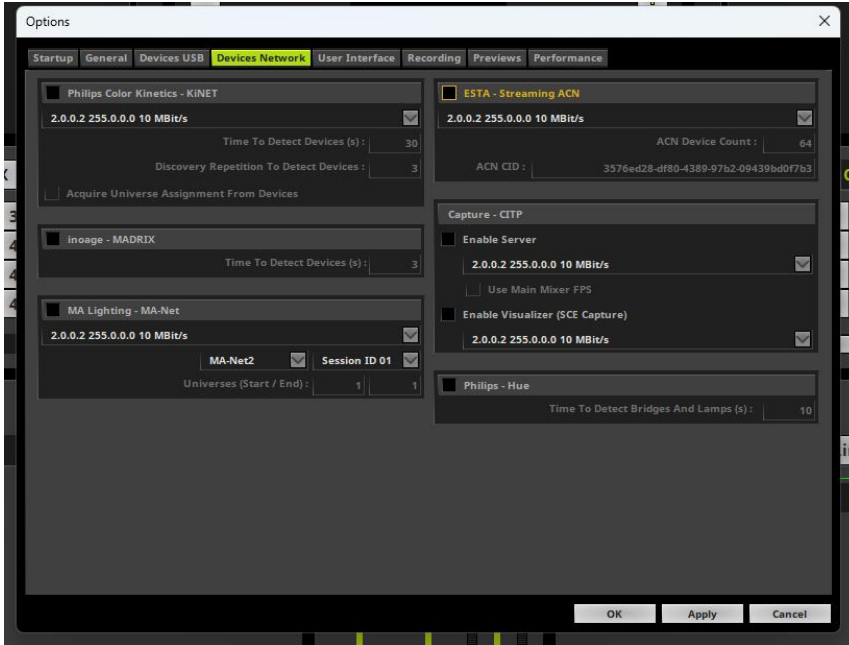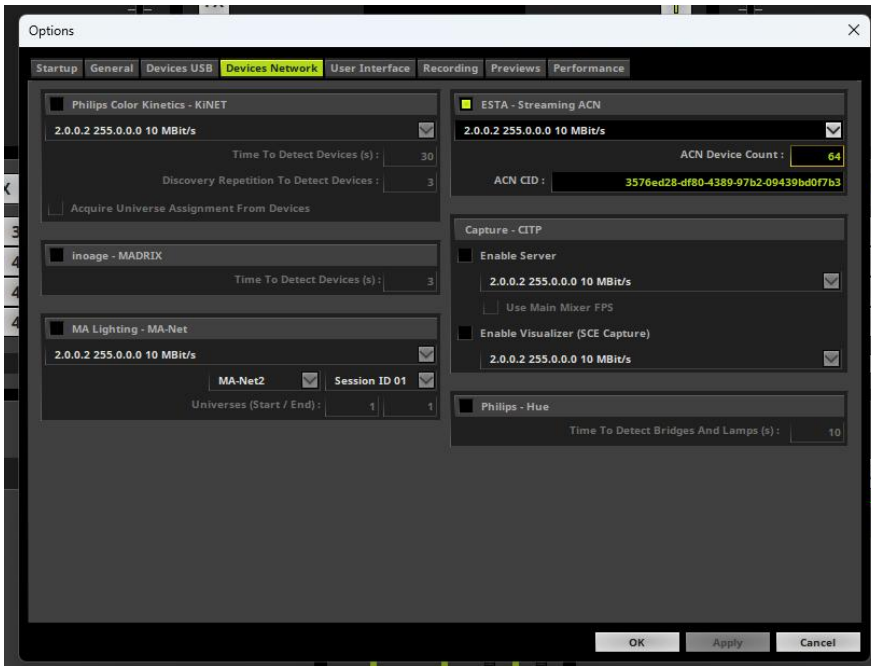

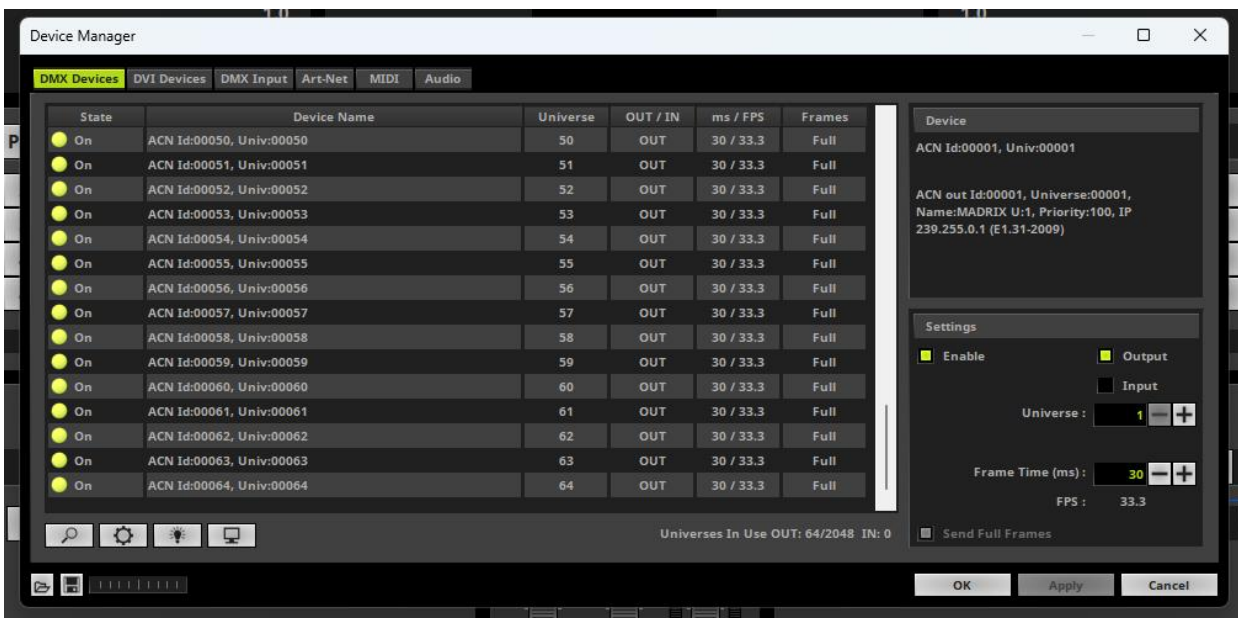Turn on ESTA-Streaming ACN and select the IP address of the current computer;
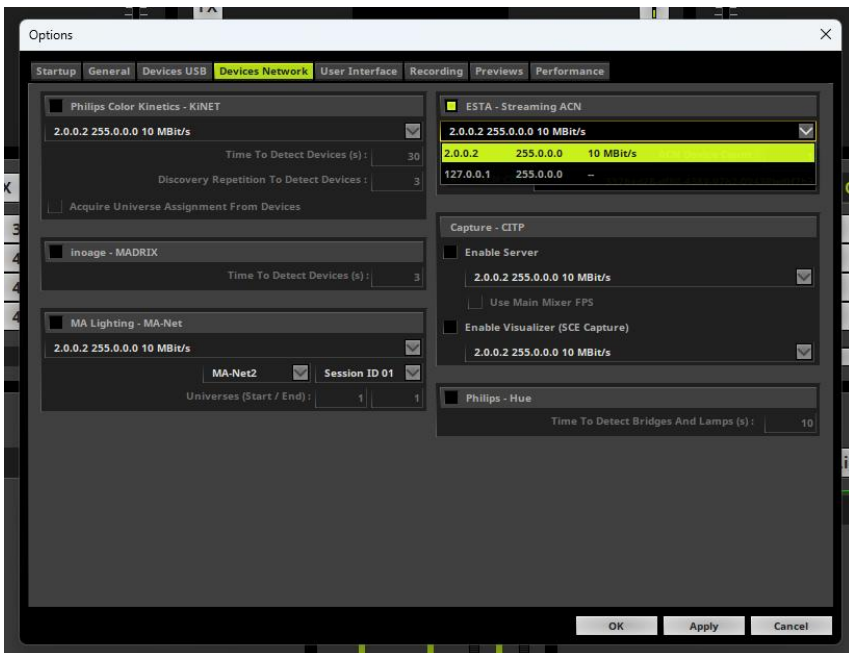
In the number of ACN devices, fill in the number of universe of the current controller and click the Apply button;

When we open the device manager list, we can see the list of connected universe;

◆ **DMX Channel Table Description**

Channel	Name	Figure	Instructions
1	Mode selection	000-247	Call internal 31 effects (one effect for every 8 addresses, and 0-7 for SD card effect 1)
		248-255	Switch to ART_NET mode
2	Speed	000-255	0 is the slowest speed, 255 is the fastest speed, SD card mode is valid
3	Brightness	000-255	0 is the brightness off, 255 is the brightest, SD card mode is valid
4	R- mask	000-255	Subtract red from the effect. 000 is the original effect, and 255 means subtract all red from the effect
5	G-mask	000-255	Subtract green from the effect. 000 is the original effect, and 255 is subtracting all green from the effect
6	B-mask	000-255	Subtract the blue in the effect. 000 is the original effect. 255 means subtract all the blue in the effect
7	invalid	000-007	
	Normally on	008-015	Constant bright white, color selection by mask (brightness, mask channel available)
	stroboscopic	016-255	The higher the value, the faster the strobe (speed, brightness, mask channel is effective)
8	invalid	000-200	
	Record	201-255	When the value of channel 4.5.6 is 255, the recording is valid and the ART_NET effect is recorded to the file specified by channel 1

◆Application

1. Stage performance;

2. The site of the product/press conference;

3. Concert lighting control;

4. Bar and KTV lighting control;

◆Common problems

(1) **Question：After the wiring is completed, the controller cannot be connected?**

Answer：Check whether the wiring is correct and whether the plug is loose;In Art Net mode, check if the computer IP and subnet mask of the controller are consistent.

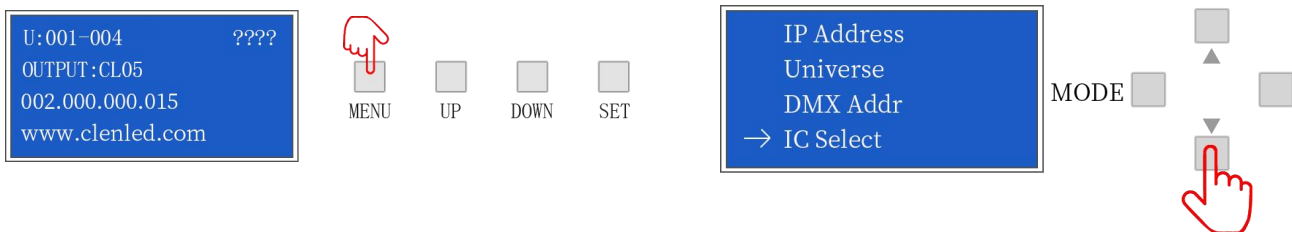The corresponding computer IP and subnet mask are as follows：

IP:002.000.000.002 Subnet mask will be 255.000.000.000

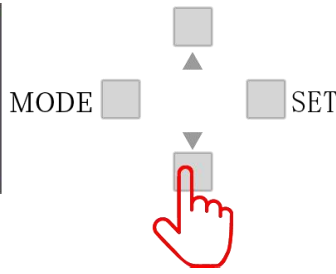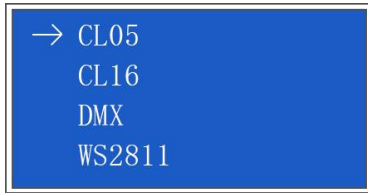IP:192.168.001.001 Subnet mask will be 255.255.255.000
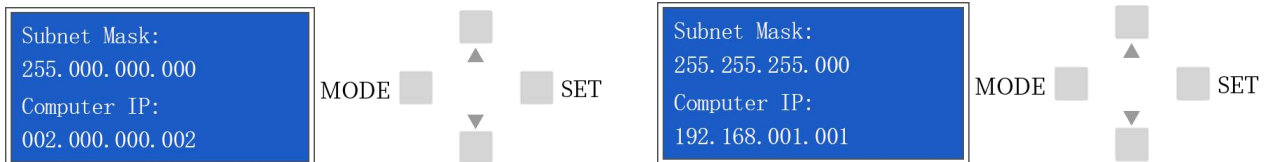
(2) **Question:The controller is connected, but only the first lamp lights up? (Controller IC model setting)**
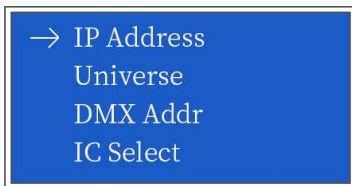
Answer：Check if the controller IC settings are correct.

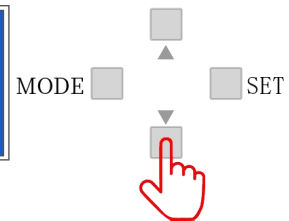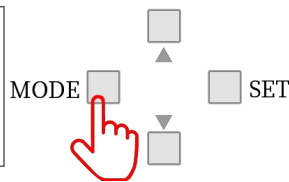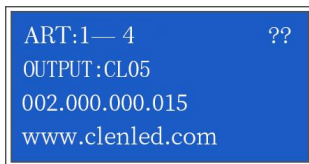①long press"MENU"enter the parameter setting　②click"UP"or"DOWN"select IC module

```
→  CL05
   CL16
   DMX
   WS2811
```

MODE   ▲ ▼   SET

③Click"SET"enter the parameter setting，press"UP"or"DOWN"choose the same IC with lamps

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

MODE   ▲ ▼   SET
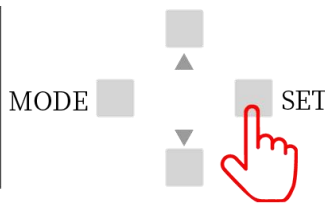
④press"SET"to save the setting,check whether the lamp is work normally, long press "MODE" to return to the initial interface.
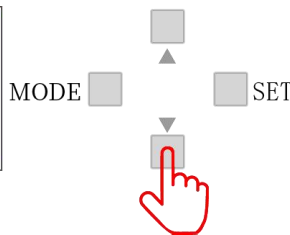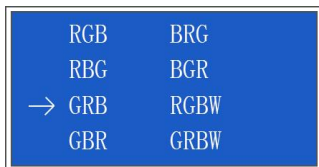
(3) Question：The lighting effect is inconsistent with the playback order?(Controller channel order setting)

（1）)

```
ART:1— 4          ??
OUTPUT:CL05
002.000.000.015
www.clenled.com
```

MODE   ▲ ▼   SET

```
   IC Select
   Pixel
   LED/Pixel
→  Channels
```

MODE   ▲ ▼   SET

①long press"MENU"enter the parameter setting   ②click"UP"or"DOWN"choose channel order

```
   RGB     BRG
   RBG     BGR
→  GRB     RGBW
   GBR     GRBW
```

MODE   ▲ ▼   SET

③click"SET"enter the parameter setting,press"UP"or"DOWN"choose the same channel order with lamps

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

MODE   ▲ ▼   SET
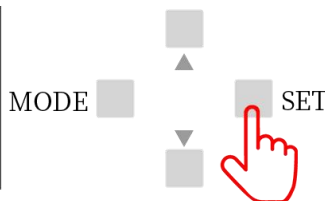
④click"SET"save setting,check whether the lamp is work normally, long press "MENU" to return to the initial interface.

Setting other parameters of the controller, please refer to the above steps

Question：After the controllers are cascaded in Art-Net mode, some controllers have no signal?

(Controller Computer IP, Universe settings)

Answer：Check whether the wiring is correct and whether the plug is loose; check the computer IP (Computer IP) of each controller when the connection is correct. When multiple controllers are cascaded, the computer IP of each controller cannot;

After the controllers are cascaded, the playback effect of each controller is the same?

When multiple controllers are cascaded, each controller space (Universe) should be added, for example, the first one is 1-32, the second one is 33-64, and so on.
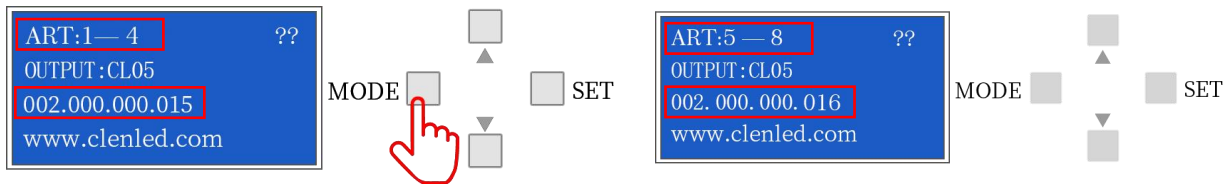
Attention

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.The company does not guarantee man-made damage and natural damage;

4.If any abnormality is found during use, please contact us;