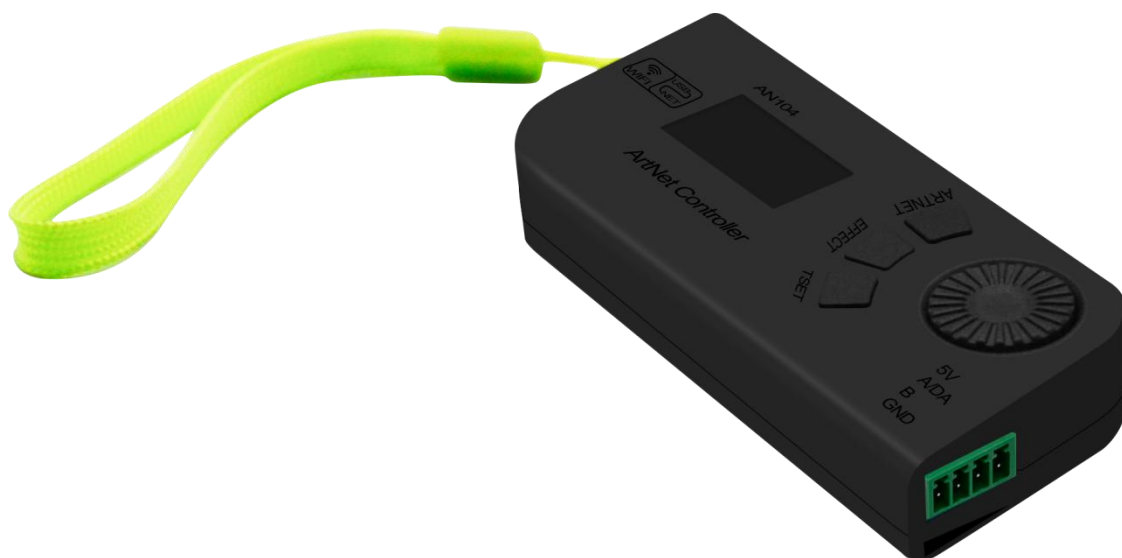


# Product Specification

CL-AN104 controller



深圳市晨亮光电科技有限公司  
Shenzhen Clen Optoelectronics Co.,



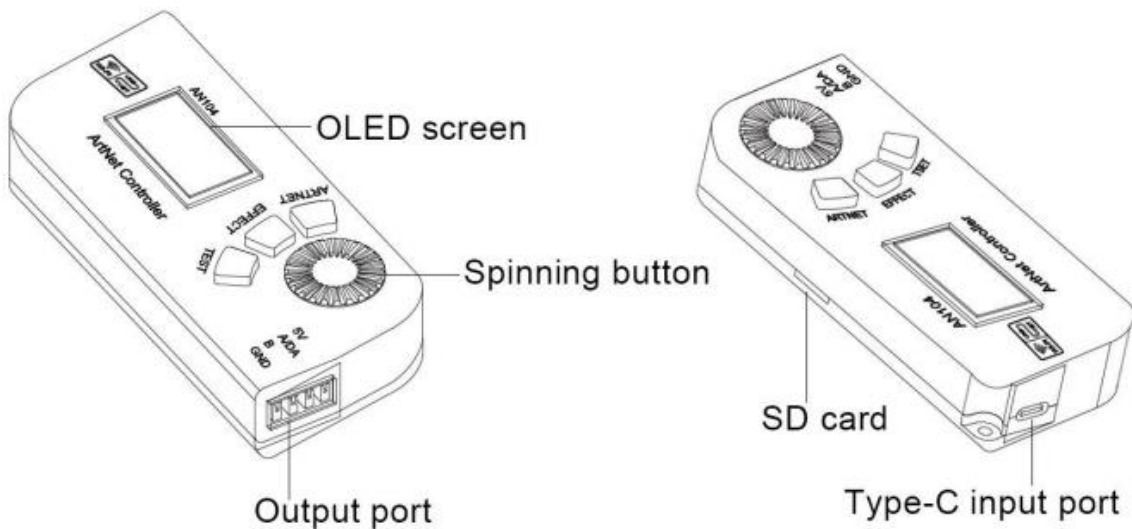


**Product name: ARTNET WIFI controller**

**Product model: CL-AN104**

**Description:** Based on the ARTNET protocol Ethernet driver, the controller can convert the network data packets in the ARTNET protocol into standard SPI&DMX data. The controller can be connected to ARTNET software through USB and WiFi, and the WiFi signal transmission distance is less than or equal to 20M; Four working modes, ARTNET mode is connected to the software; built-in effect mode can play gradient, flowing water, jumping, total 31 lighting effect. It has built-in effects and supports recording function; TSET mode can find the position of the connected lamps; DMX coding mode, one-click code writing for led light; this product is light and compact, easy to carry, easy to use, and can be widely used in distributed lighting control, DIY lighting and other occasions lighting control.

**Product picture:**





**Feature:**

- Input voltage: DC5V
- Single port output,max support 680pixels
- Four working mode:ARTNET USB/ARTNET WiFi/SD card built-in lighting effect /Test mode and DMX code writing mode
- Two connect method:2.4G WiFi wireless connection,USB3.0 data transmission
- Built-in 31 lighting effect, support recording effect
- Need connect with external power supply, easy for carry
- Support SPI&DMX output control
- Support DMX512 code writing function(only for IC ucs512c0)
- Support Mad-show、Madrrix、Madmapper such Artnet software control

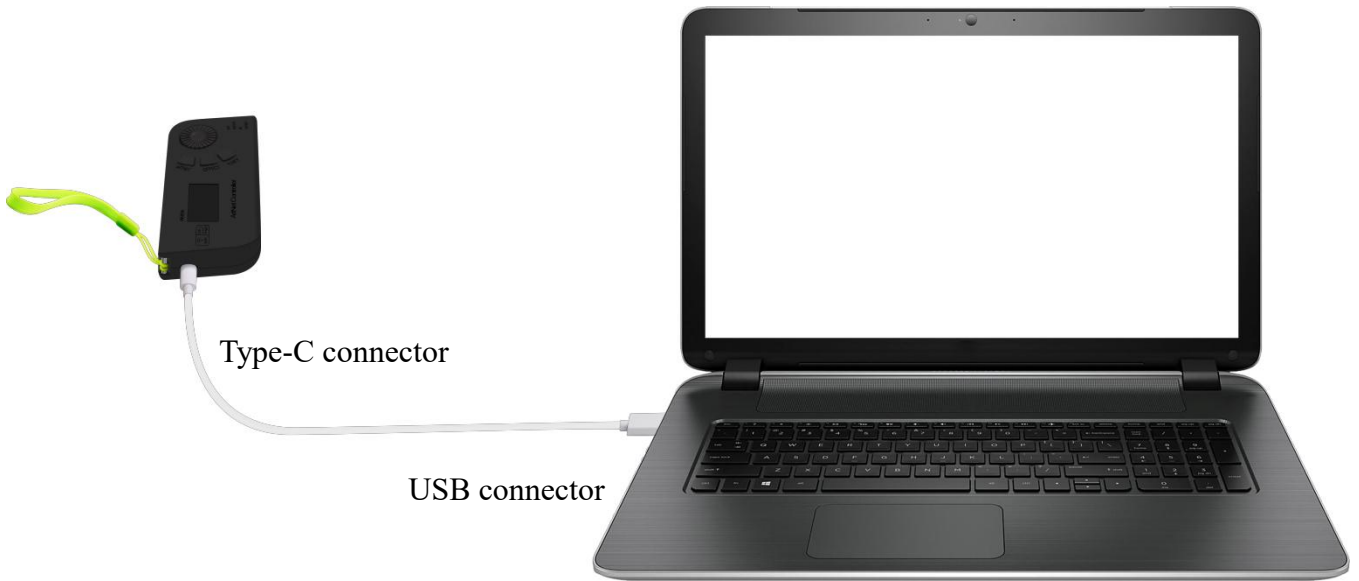
◆ **Parameter**

Name	Unit	Min.	Typical	Max.
Voltage(DC)	V	—	5	—
Power	W	—	<1	—
Output port	PCS	—	1	—
Support pixel	PIX	1*170	—	1*680
Control IC type	—	—	WS2811/SK6812/UCS1903/UCS8903/UCS9812/ DMX512	—
Software	—	—	MAD-SHOW (MADRIX/RESOLU/MAD-MAPPER)	—
Connect method	—	—	USB/WiFi	—
Cascade unit	—	—	254 units	—
WIFI distance	M	—	—	20
Control mode	—	—	ART-NET	—
Working mode	—	—	ART-NET/SD card/TEST/DMX code writing	—
Product weight	KG	—	0.064	—
Product size	MM	—	53*116*18(L*W*H)	—
Product color	—	—	black	—



◆ **Connect with controller**

1. ARTNET USB mode connect with controller



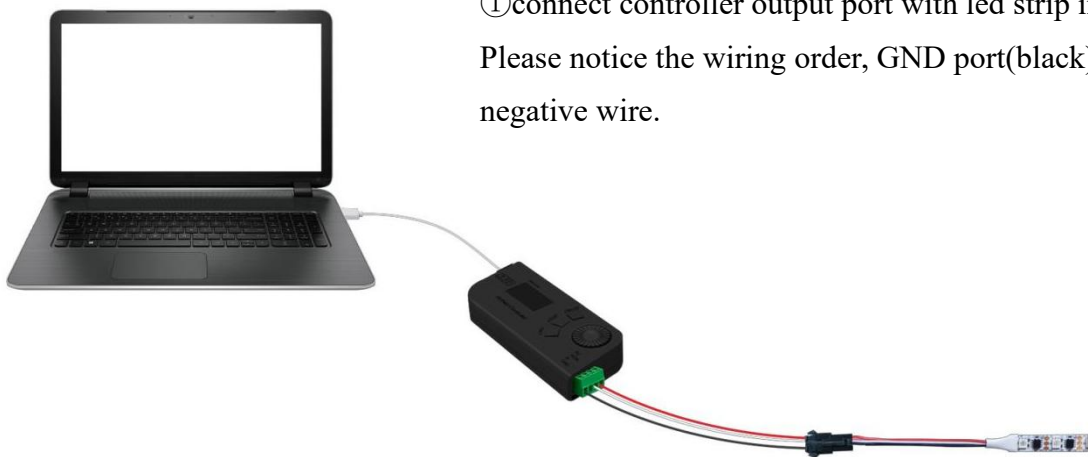
Computer USB connector connect with controller Type-C connector to give the power to controller and for signal transmission Open the specified plugin, right click artnet to transfer USB plugin, operate the software as administrator, do not close this plugin. Then open the Artnet software(such as Madrix, Mad-show, Mad-mapper) to search the controller signal.





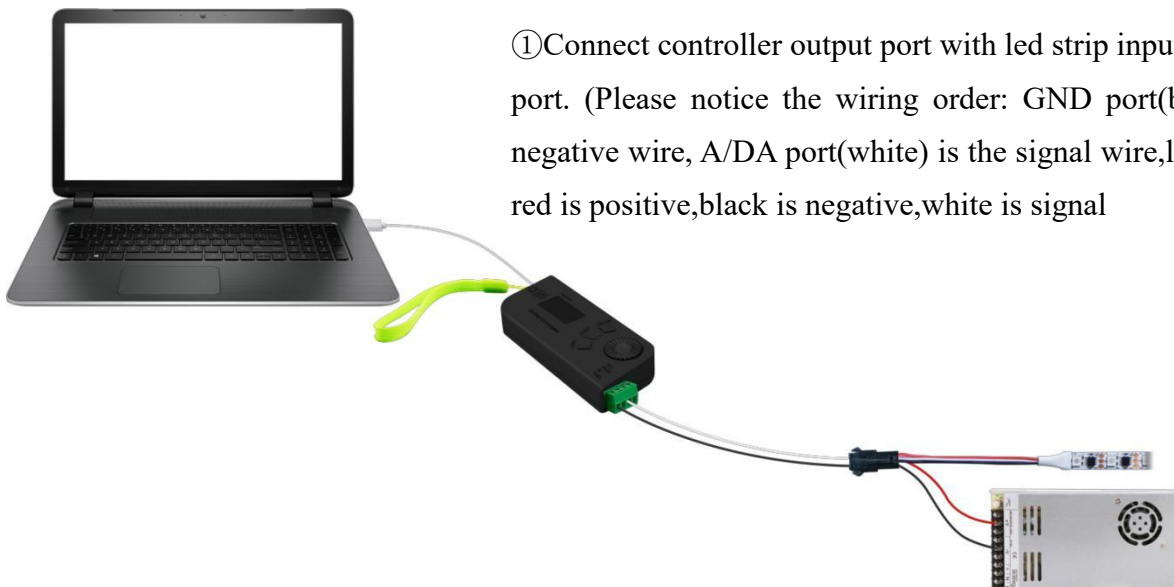
## ARTNET USB mode connect lamp

When the led strip voltage is 5v, you can connect controller with led strip directly. If the controller connect with computer, max connect 5w led strip. If need connect with more led strip, please connect external power supply.



①connect controller output port with led strip input port  
Please notice the wiring order, GND port(black) is the negative wire.

When led strip voltage is 12V or 24V, it need to connect the same voltage power supply to connect the led strip;



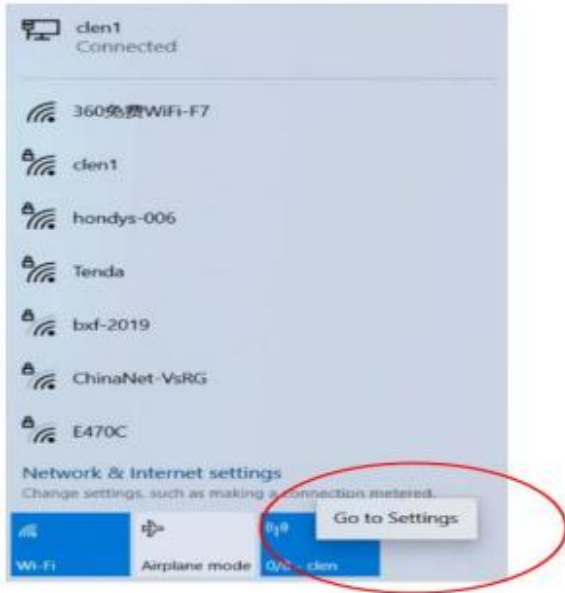
①Connect controller output port with led strip input port. (Please notice the wiring order: GND port(black) is the negative wire, A/DA port(white) is the signal wire, led strip wire red is positive, black is negative, white is signal)

External power supply

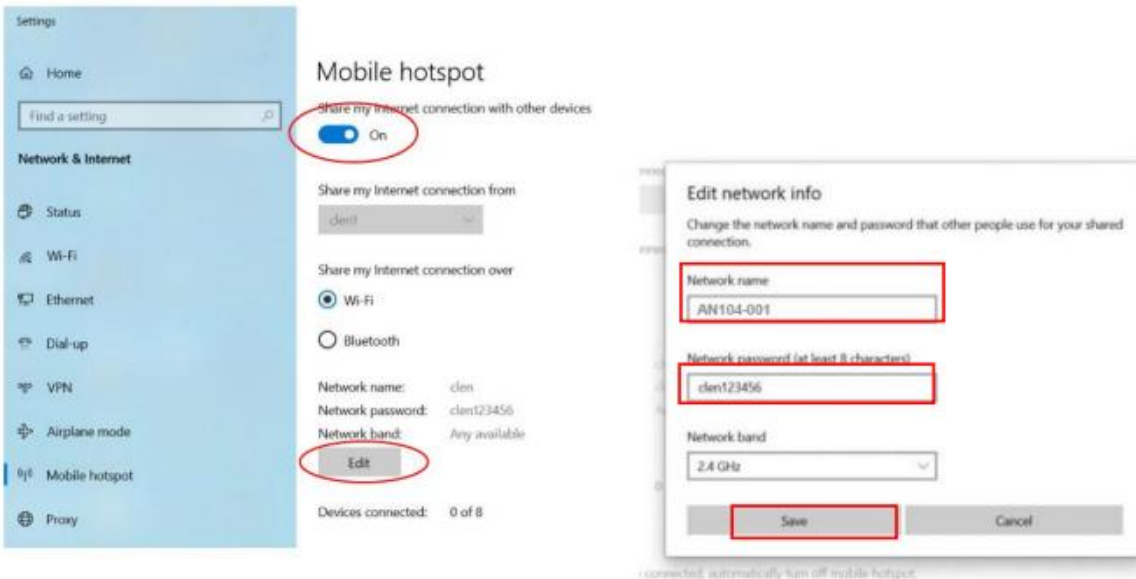


## 2. ARTNET WiFi mode connect controller

After light up the controller, setting the mobile hotspot of computer,click setting, open the mobile hotspot;

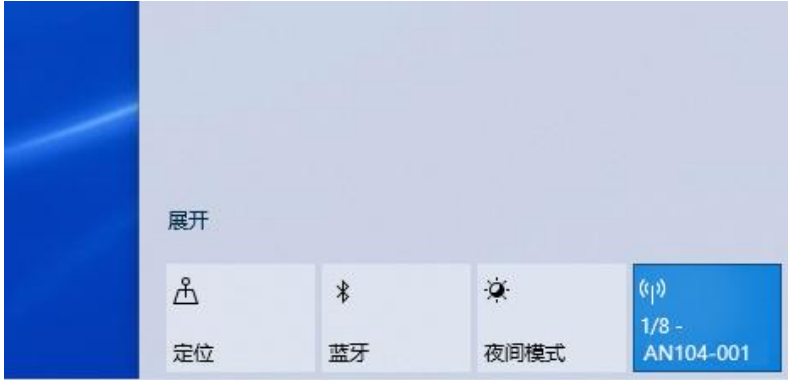


Click edit,enter network name:AN104-001, network password: clen123456, then save setting;

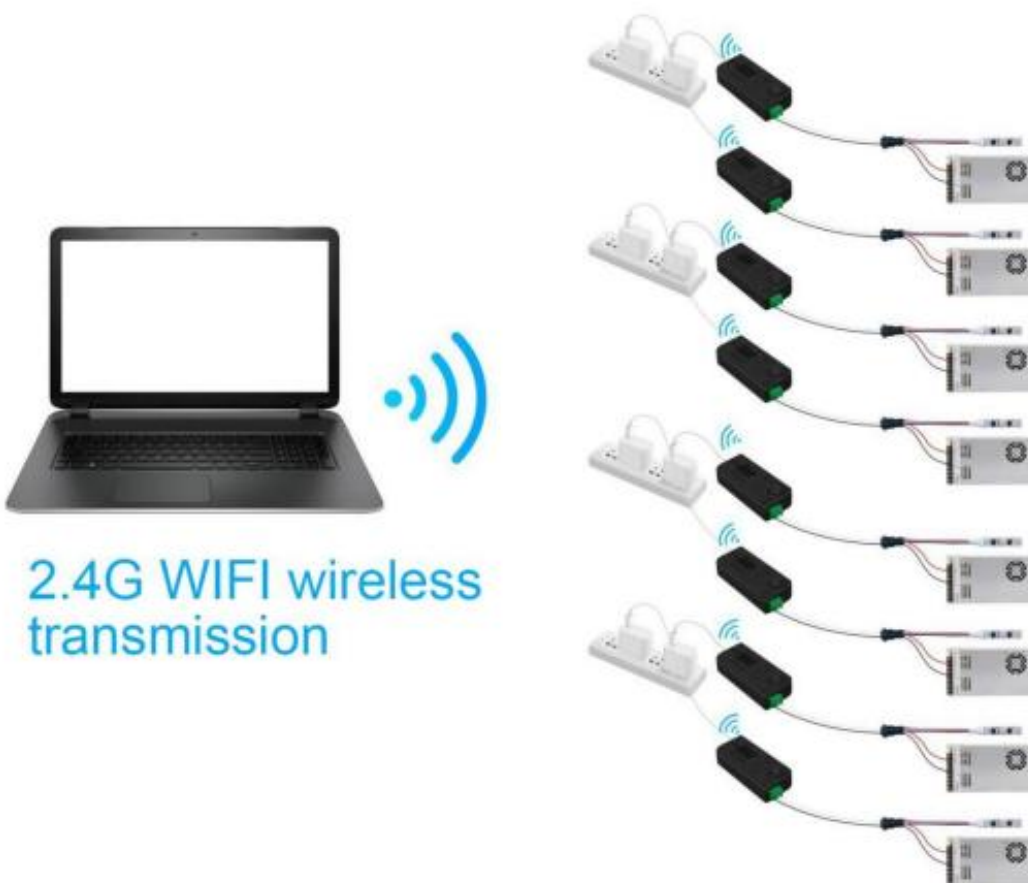




Mobile hotspot showing connected 1/8-AN104-001, that means connect one piece controller successfully;

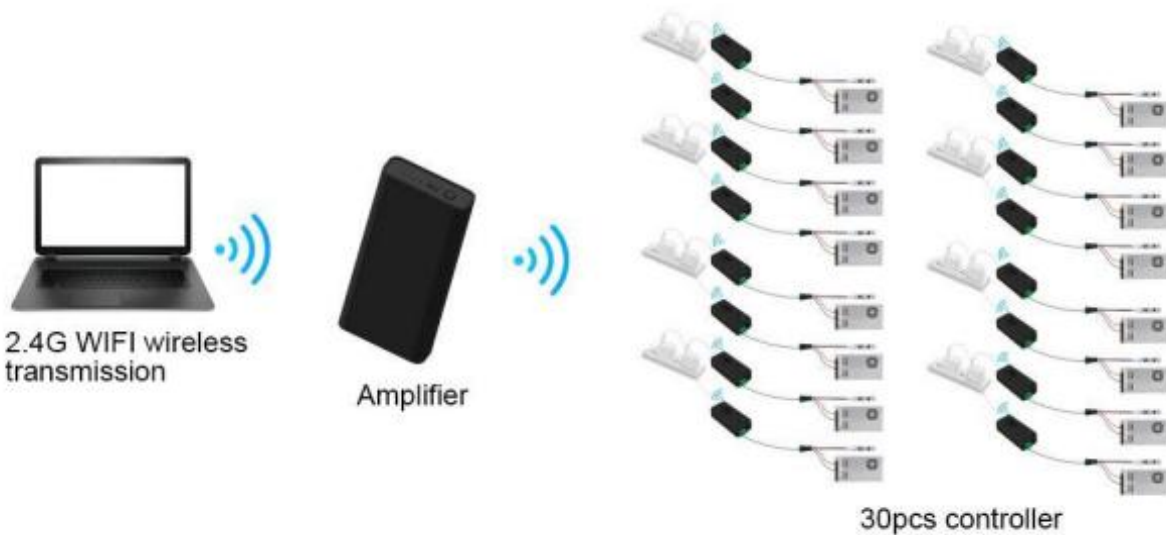


Can be connected to multiple controller devices at the same time(2.4G wifi wireless transmission).





Start Artnet software (Madrix、Mad-show、Mad-mapper) to search the controller IP address.



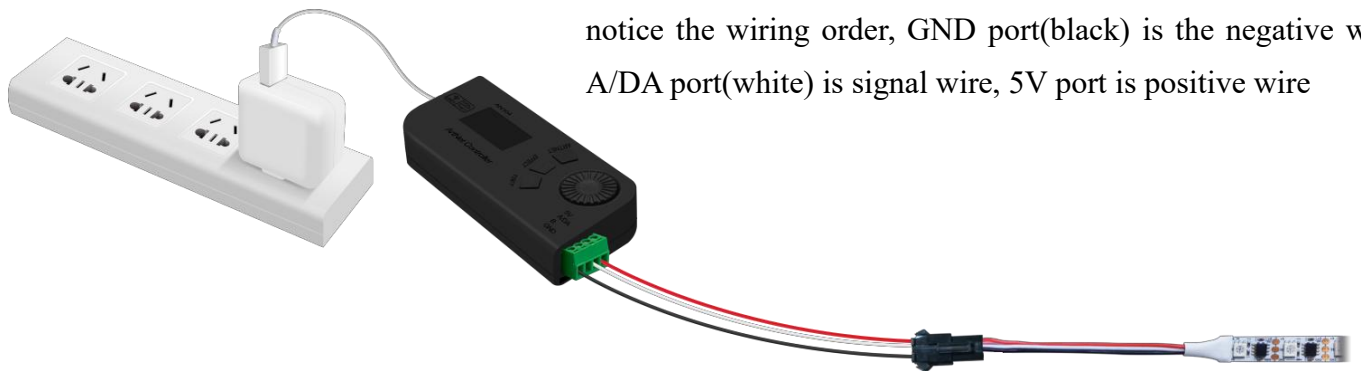
When multiple controllers are cascaded, use amplifier to expand the signal transmission range, and each amplifier can be connected to 30 controllers.





## ARTNET WiFi mode connect lamp

When the led strip voltage is 5v, it can connect controller with led strip directly.If the controller connect with adapter, max connect 10w led strip. If need connect with more led strip, please connect external power supply.



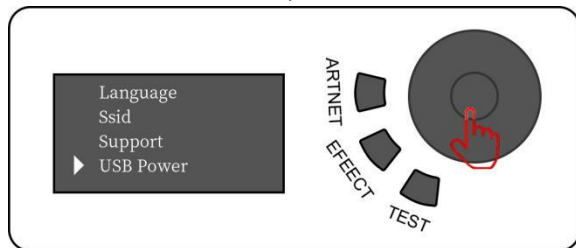
①connect controller output port with led strip input port Please notice the wiring order, GND port(black) is the negative wire. A/DA port(white) is signal wire, 5V port is positive wire

When the voltage of the led strip is 12V or 24V, need to power the led strip with external power supply with the same voltage as the led strip.

The external power supply can supply power to the controller at the same time.

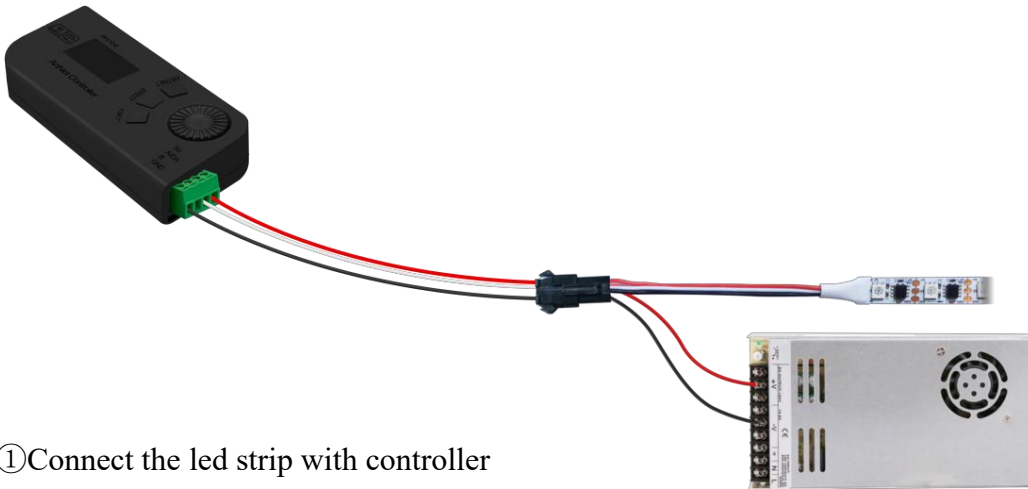
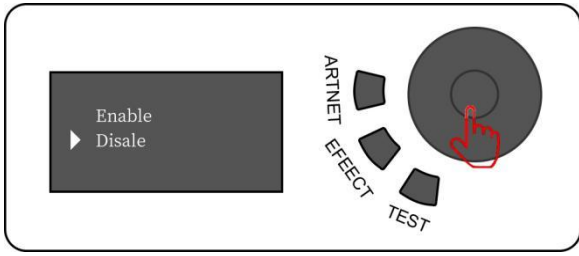
(Note: When the voltage of the external power supply is more than 5V, need to set "Disable" " USB Power " in the controller)

Turn on the controller, click the knob to enter the menu, and select the "USB Power"





Select "Disable" to turn off the "USB Power";



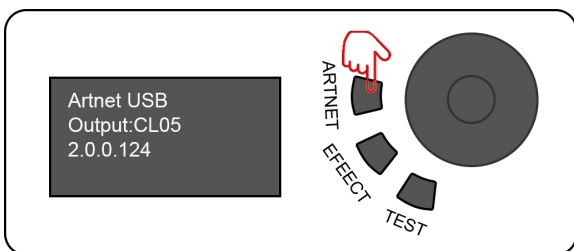
①Connect the led strip with controller

(Pay attention to the wiring sequence: the 5V is the positive pole cable (red), GND is the negative pole cable (black); the A/DA port is the signal cable (white);

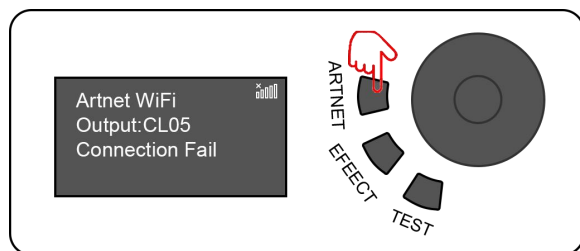
The led strip cable definition: red cable is positive pole, a black cable is negative pole, and white cable is signal

### ◆ Control Mode

**ARTNET USB Mode:**①After power up the controller, long press "ARTNET" three second to change Artnet WiFi/Artnet USD mode



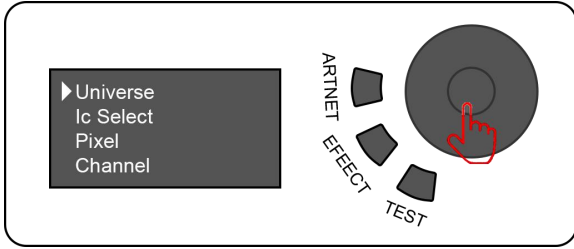
Artnet USB mode



Artnet WiFi mode

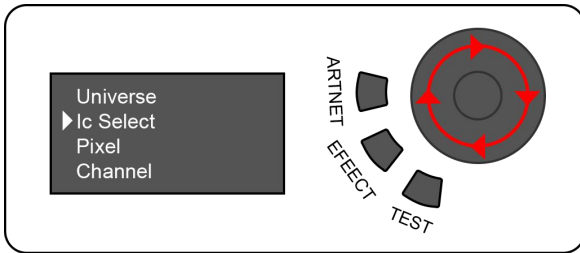


②long press button to enter the menu, modify the specified para



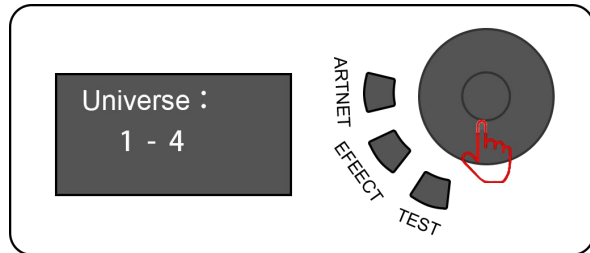
Menu

③turn the button to switch options



Turn the button to switch options

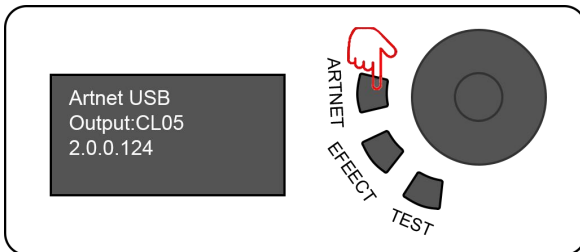
④click button enter the specified parameter for setting



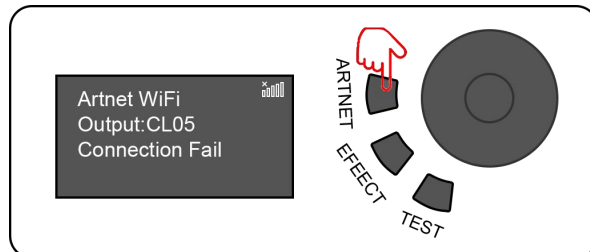
Click the button to enter options

After finish settings, click button return last interface and long press button back to initial interface;

**ARTNET WiFi mode:** ①After power up the controller, long press “ARTNET” three second to switch ARTNET USB/ARTNET WIFI mode

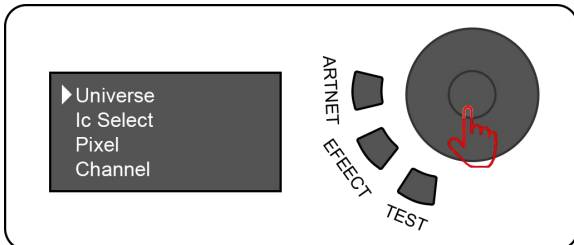


Artnet USB mode



Artnet WiFi mode

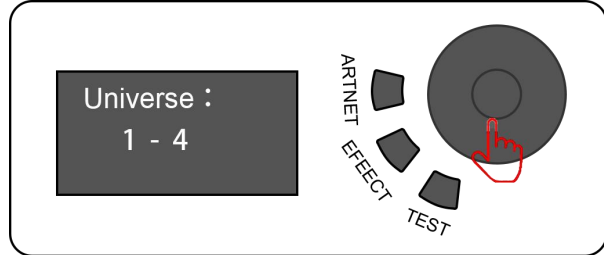
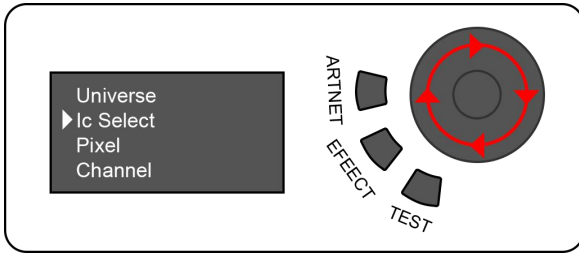
②long press button to enter the menu, modify the specified parameter





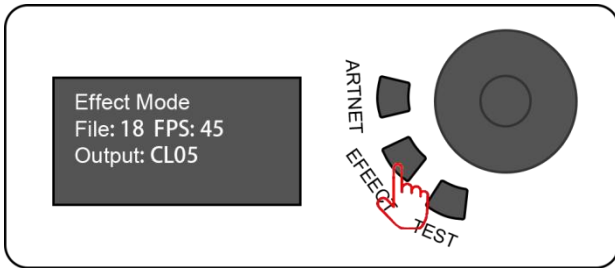
③turn the button to switch options

④click button enter the specified parameter for setting

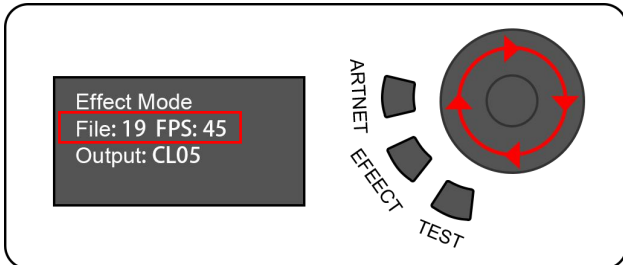


After finish settings, click button return last interface and long press button back to initial interface;

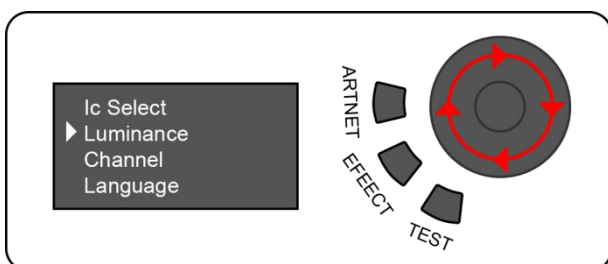
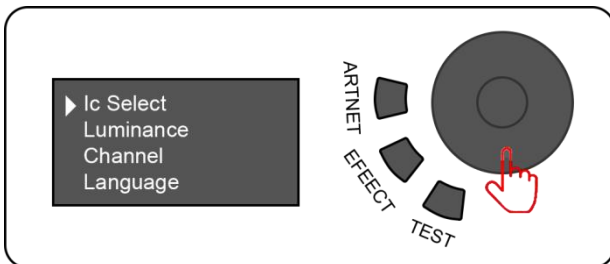
EFFECT mode: ①Power up the controller, long press “EFFECT” three second to switch built-in lighting effect mode



②turn the button to switch built-in effect option

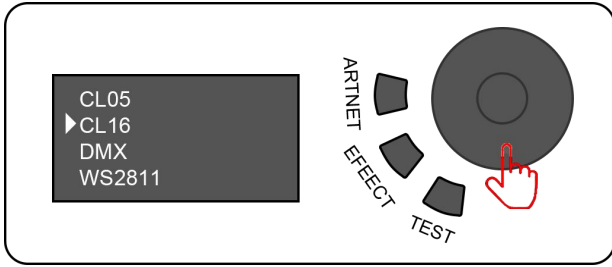


③long press button to enter the menu for setting ④turn the button for switch option



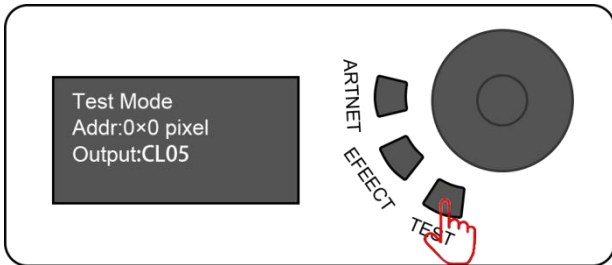


⑤click button enter the specified

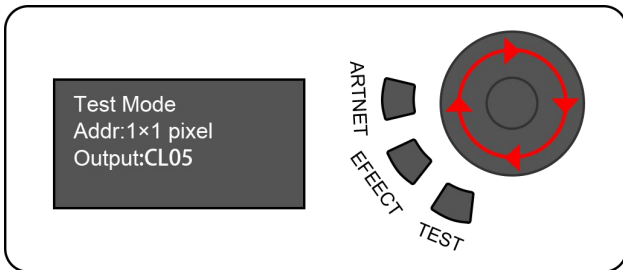


After finish settings, click button return last interface and long press button back to initial interface

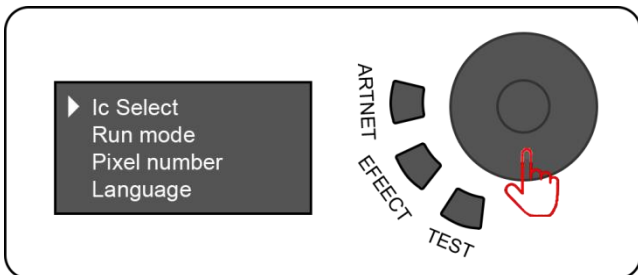
TEST Mode: ①Power up the controller, long press “TEST” three second to switch test mode



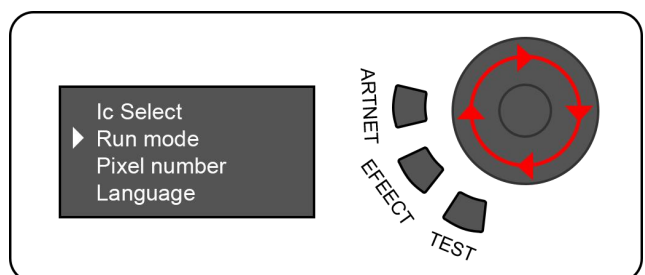
②turn the button to switch pixel options ;



③long press button to enter the menu for setting

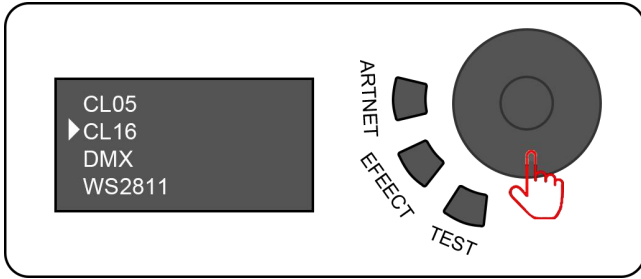


④turn the button for switch option



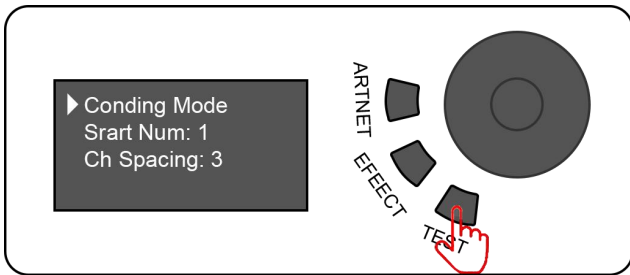


⑤click button enter the specified parameter for set

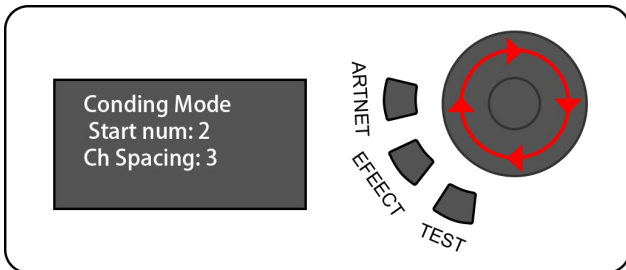


After finish settings, click button return last interface and long press button

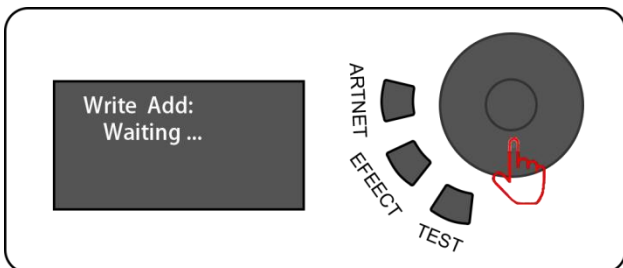
DMX code writing mode: ①long press“TEST”, switch test mode to DMX code writing mode



②turn the button to switch initial pixel point

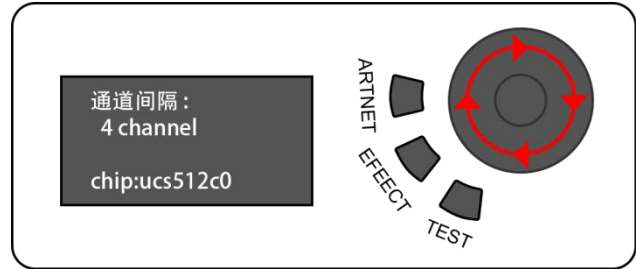
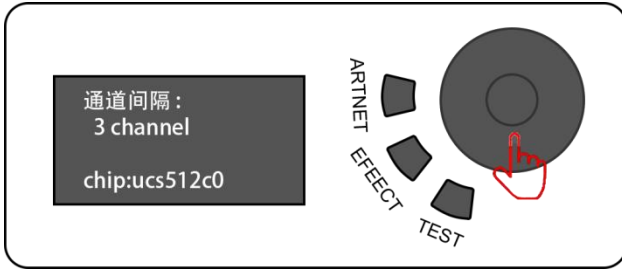


③Click button, waiting for code writing finished





④long press button to switch channel spacing option; ⑤turn the button to modify the quantity of channel spacing



### ◆ Application

1. Stage performance;
2. The site of the product/press conference;
3. Concert lighting control;
4. Bar and KTV lighting control



### Attention

1. Pay attention to the use environment and be waterproof and moisture-proof;
2. The input voltage of the controller is 5V, do not connect to high-voltage power supply to avoid burning the controller main board;
3. The controller need to connect with external power supply, please pay attention to the input voltage of power supply should be consistent with lamp input voltage.
4. If any abnormality is found during