



Manual

Model: SY-208-J13

Versions: 2.3

2023.8

1. Function Overview

- 1) 8-channel signal output (data independent), suitable for small projects or long-distance transmission, can be synchronized with multiple AC.
 - 2) Professional effect production software is included, and users can create any effect by themselves and put it into the SD card for use.
 - 3) Supports the control of a variety of TTL chip lamps.
 - 4) Adjustable effect and speed.
 - 5) Professional effect production software is included, and users can create any effect by themselves and put it into the SD card for use.
- The controller can support up to 32G SD card (effect files can be up to 3.5GB).

2. Technical Parameters

Shell material: sheet metal box

Input voltage: AC 100-240V

Output signal: TTL × 8 channels

Driving points: single-wire lamps: 3840 channels × 8 channels

Output power: < 3W

Working temperature: -15 °C~ 60 °C

Relative humidity: ≤ 50% RH

Protection class: IP20 (to prevent human fingers from touching the internal parts of the appliance, to prevent the intrusion of foreign objects with a diameter greater than 12.5mm, and no special protection against water or moisture.)

Use environment:

- 1) Do not install this control box in an environment with magnetic force, high pressure, or high temperature and humidity.
- 2) In order to reduce the risk of fire and damage caused by short circuits in components, please ground them safely.
- 3) Please confirm the use of an AC100-240V power supply, and ensure that the transformer and control box are connected with the same polarity.

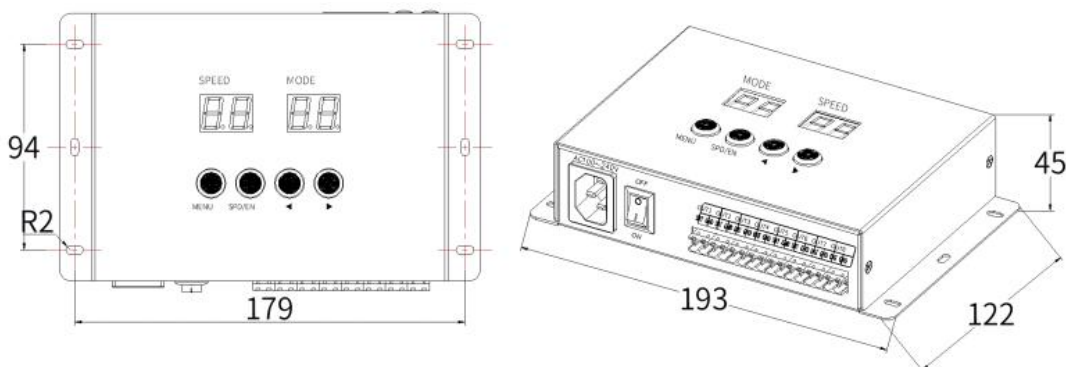
To ensure the appropriate supply voltage.

- 4) The control system has no waterproof function. Please pay attention to rainproof and waterproof when installing.

Product net weight: 0.65kg

Size: L193 * W122 * H45

(Unit mm)



3. Can Support Wiring Methods

3.1 Control The Output Terminal Wiring Of The Lamp

Please match the wiring according to the screen printing of the lamps.

1. Use Super Category 5 network cable (100 metres resistance $<10\Omega$), poor quality network cable, telephone line, copper wire is basically not work.
2. Use 1 of the twisted pair cables, green + green-white or orange + orange-white is recommended. The quality and colour of the cable is very important. Blue and brown colours have a strong influence on signal transmission, so do not use several sets of twisted-pair cables together.
3. The control box signal output GND must be connected directly to the luminaire input GND, and cannot be connected to the luminaire through the negative terminal of the switching power supply.
4. After connecting all the signal and power lines of the hardware, then turn on the power of the control box. Do not plug or unplug the signal cable with electricity, so as not to burn the protection circuit or components at the output end by current backlash.



Transmission Distance:

| Transmission Method | Transmission Signal | Transmission Medium | Reference Transmission Length | Remarks |
|---|---------------------|--------------------------------|-------------------------------|--|
| Master/Relay → SW Lighting | TTL | Super Category 5 network cable | 30-50 m | |
| | | Two-core copper wire | 5-30m | |
| Main control/relay → single-wire lamps | TTL | Super Category 5 network cable | 5-20m | |
| | | Two-core copper wire | 1-5m | |
| Master/Relay → SW Lighting Master/Relay → DMX Lighting | TTL | Super Category 5 network cable | 5-20m | More than 5 meters, the number of meters controlled is reduced (The address line cannot exceed 5 meters) |
| | | Two-core copper wire | 1-5m | |
| | | Three-core copper wire | 1-5m | |
| Single-wire lamps → Single-wire lamps | TTL | Super Category 5 network cable | 1-2m | More than 1 meter, the number of meters controlled is reduced |
| | | Two-core copper wire | 0.1-1m | |

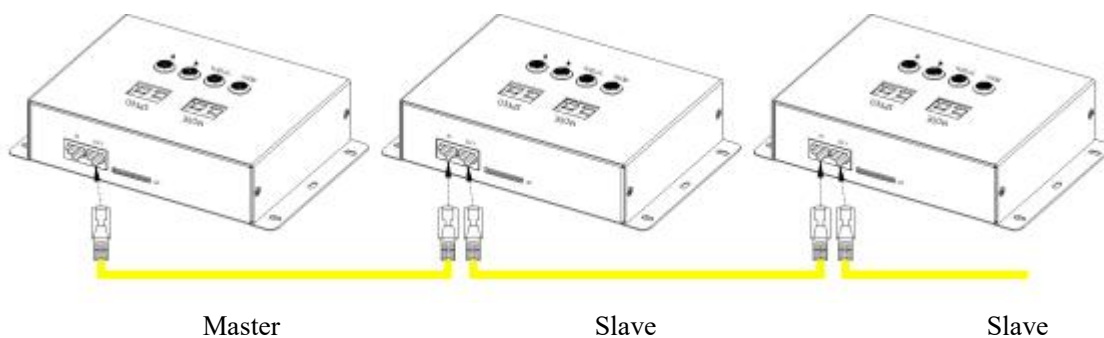
3.2 Master/Slave Machine Cascade Wiring

When the project requires multiple control boxes to control the lamps, each of the two control boxes can be connected through a Super Category 5 network cable.

The first control box is set as the master, and the rest are set as slaves (one cascade signal bus has and can only have one master).

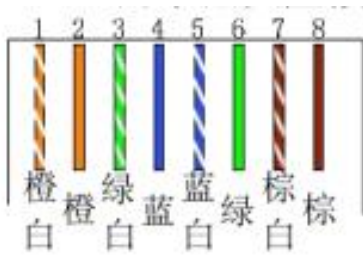
The network cable distance of one cascade signal must not exceed 50 meters, and the number of slaves must not exceed 32 units (when the distance of each unit exceeds 50 meters or the total number of slaves exceeds 32 units, please use the AC synchronization solution or choose other GPS synchronization control box).

Customers can extend the cable with their own cable by re-clamping the straight-through cable at both ends according to the T568B method.



3.3 Network Cable Sequence

Crystal Head Pressing Method for T568B



4. Built-In basic Operations

4.1 Speed Adjustment

Press the speed button on the controller panel to adjust the playback speed. The smaller the value, the faster the speed.

| Parameter | Speed | | | | | | | | | | | | | | | | |
|--------------------|-------|----|----|----|----|----|----|----|-----|----|-----|----|-----|----|-----|----|-----|
| Independent speed | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 15 | 20 | 30 | 50 | 80 | 99 |
| Synchronous Speed | 2. | / | 4. | / | 6. | / | 8. | / | 10. | / | 12. | / | 20. | / | 50. | / | 99. |
| Frame Number (fps) | 50 | 33 | 25 | 20 | 17 | 14 | 13 | 11 | 10 | 9 | 8 | 7 | 5 | 3 | 2 | 1 | 0.5 |

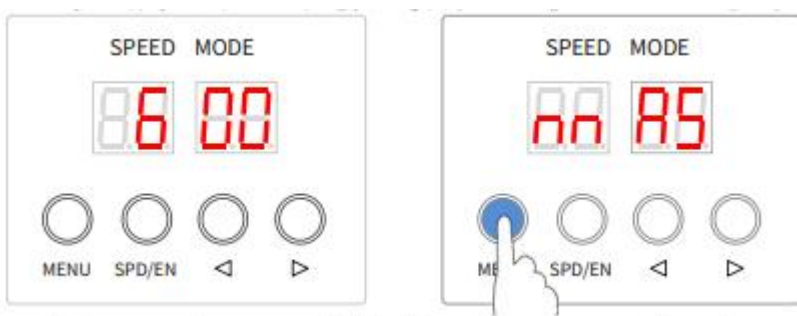
※ Independent Speed: This speed is determined based on the number of meters of the customer's load barrier tube, and values that are less than the actual speed are not displayed.

※ Synchronization speed: In the pattern mode, all controllers must be set to the same synchronization speed and mode, and powered on simultaneously to achieve synchronization.

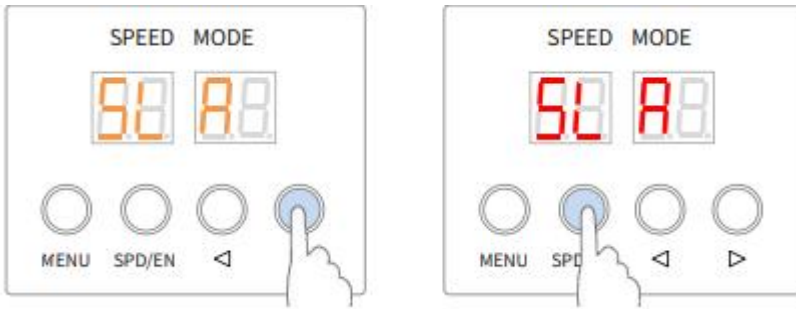
4.2. Setting Master/Slave Mode

4.2.1 Set Slave Mode

1. Press and hold [MENU] to enter the setting interface when the host is working (display speed and mode).

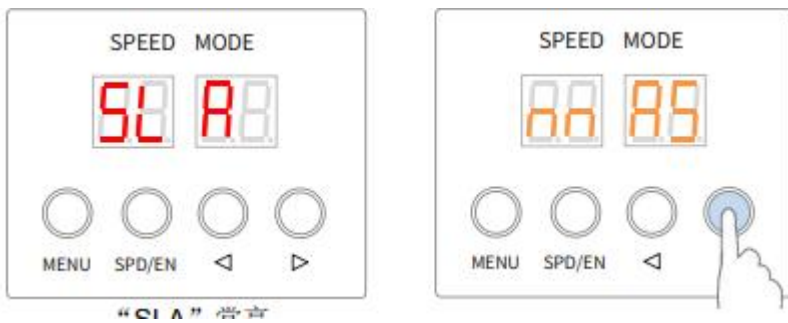


2. Click [◀] or [▶] to switch the digital tube display, and "SLA" flashes to indicate switching to slave option ("nnAS" indicates master);Click [SPD/EN], and the controller switches from master to slave.

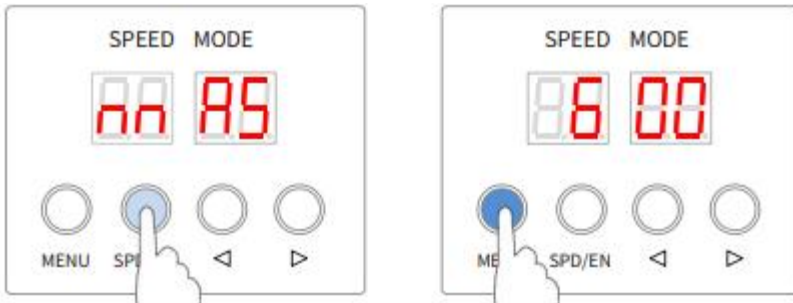


4.2.2 Set Master Mode

1. When the slave is working ("SLA" is displayed), click [◀] or [▶] to switch the display of the digital tube, and "nnAS" flashes to indicate switching to the master option ("SLA" indicates slave).

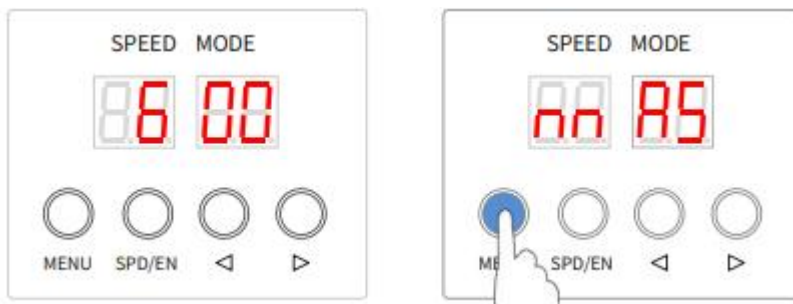


2. Click [SPD/EN], and the controller is switched from slave to host; Long press the "MENU," the controller returns to the normal working state, can be normal transformation effect.

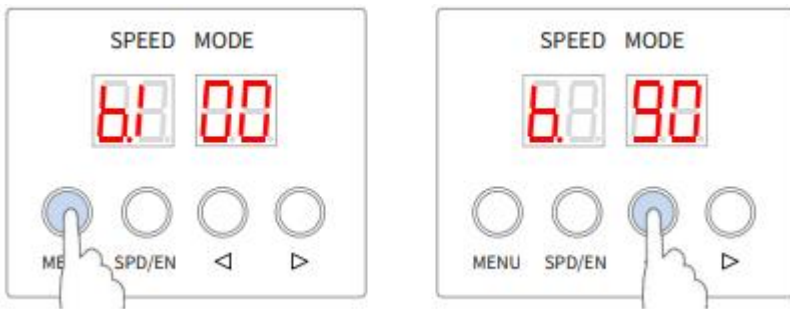


4.3 Brightness Adjustment

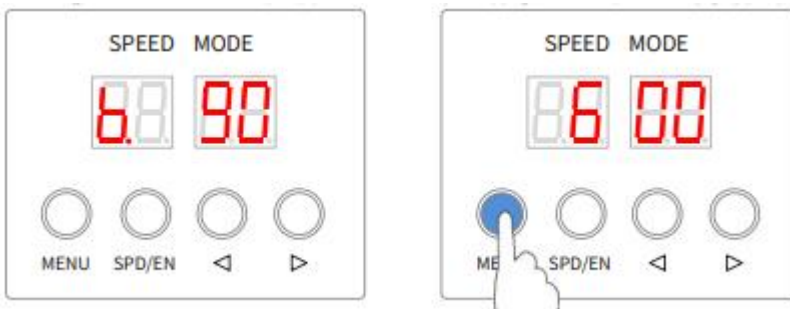
1. Press and hold [MENU] to enter the setting interface when the host is working (display speed and mode).



2. Click [MENU], the digital tube displays "b.***", "b.***" Represents the brightness of lamps; Press [◀] or [▶] to change the brightness of the lamp. The larger the value, the brighter the lamp. 0 is not bright, 100 is the brightest.

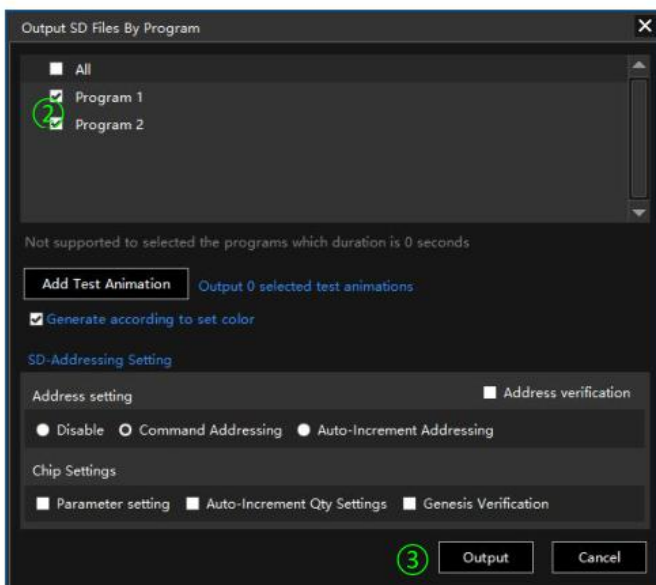


3. Long press the "MENU," the controller returns to the normal working state, can be normal transformation effect.



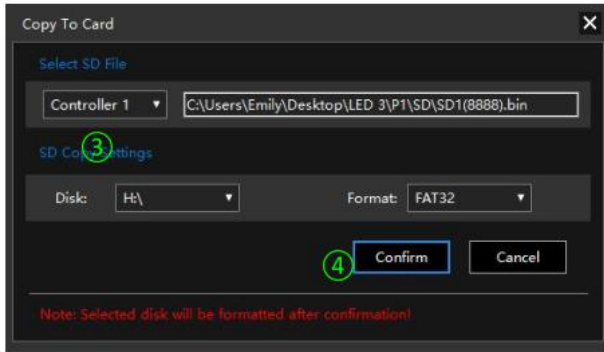
5. Output And Copy The SD Card File

5.1 Output The SD Card File



1. Click "SD" of Output, and open the windows.
2. Select the program be out-put.
3. Click Output.

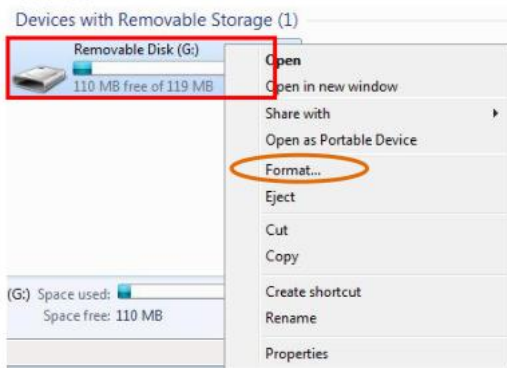
5.2 Copy The SD File By LED PLAYER



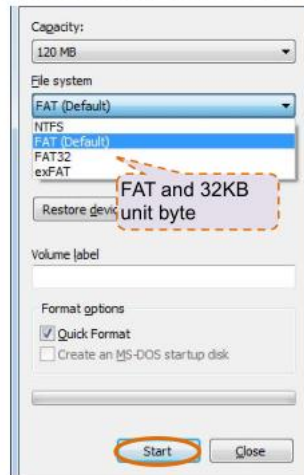
1. Input the SD card.
2. Click “Copy to SD” of Output, and open the windows.
3. Select the controller number be copied.
4. Click Confirm.

5.3 Manual Format And Copy Card

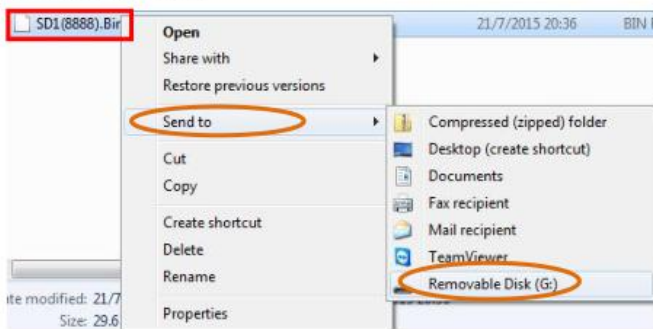
1) Right click the disk where the SD card locates.



2) Select –FAT (Can tick off “Quick Format”) and click START.



3) Right click SD1(8888).bin file, send the file to removable disk.






4) Right click removable disk and select pop to pop the SD card.



6. Error Code

| Error | Message | Description |
|-------|--------------------------------|---|
| E01 | No effect SD card | Poor socket contact/no SD |
| E02 | Effect SD card not responding | Bad card/card does not support continuous reading |
| E03 | Unable to reset effect SD card | Bad card/card does not support continuous reading |
| E04 | Unable to activate SD card | Bad card/card does not support continuous reading |
| E05 | Unable to read SD card effects | Some sectors of card cannot be read/bad contact |

7. Accessories List

| Picture | Name | Quantity |
|--|----------------------|----------|
|  | SD CARD | 1 |
|  | 2P terminal block | 8 |
|  | One-word screwdriver | 1 |