

# **SS-SD708 All-in-One Machine**

## **Instructions for Use**

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>

Thank you for selecting and using the Soft Stone Optoelectronic product!  
Please read through this document in detail prior to use for satisfactory and correct use of this product. If you have any suggestions about the product or if you need technical support, please feel free to contact us.

### Table of contents

I. Brief Introduction .....	3
II. Specifications & Parameters .....	4
III. Product Appearance .....	5
IV. Basic Operations .....	7

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>

## I. Brief Introduction

SD708 is a new generation of master control designed and developed by SSG featuring simple operations and powerful functions.

The features and functions are as follows:

1. Adopting a new hardware platform, which can operate stably for a long time based on a customized Linux system;
2. Adopting a 4.3-inch touch screen with a resolution of 800\*480, which can be operated directly on the screen of SD708;
3. Built-in high-precision timing function, which enables synchronized playback of multiple devices;
4. Built-in Wi-Fi module, which, after connected to Wi-Fi, can enable remote control, firmware upgrade, file operation, etc. with mobile APP and PC software;
5. Integrated SD card, USB interfaces, which enables to import SD card or U disk to play footages and wiring files, or connect external USB interface devices;
6. Integrated uart port for system debugging;
7. Integrated 485 interface for cascading to other systems;
8. Integrated two Gigabit electrical ports and one 1.25G optical port for cascading sub-control;
9. Video footage playback supports AVI/MP4 and other mainstream video formats, and supports playback preview;
10. Built-in DMX universal chip addressing, parameter writing, screen testing and DMX512 console functions to facilitate on-site debugging;
11. Built-in cascade sub-control query, parameter read/write, and address-ranking functions;
12. Built-in timed playback function;

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>

## II. Specifications & Parameters

Basic parameters of SD708 offline master controller:

Housing	Aluminum
Display screen	4.3 inch, with a resolution of 800*480
Communication interface	PORT (8); USB (2); SDHC (1); SIM (1); DEBUG (1); GPS (1); 4G (1), WIFI/BLE (1)
Network Interface	/
Network Medium	/
Storage Space	32G (factory standard)
WIFI/BLE Module	Wireless Network (factory standard)
4G Module	Wireless Network (factory standard)
Working Environment	Working Temperature: -20°C to 70°C
	Storage Temperature: -40°C to 85°C
	Working Humidity: 5% - 90% No condensation
	Storage Humidity: 5% - 90% No condensation
Working Voltage	AC100-220V
Size (L*W*H)	201*157.98*51.36(mm)
Fixed Hole Spacing	186.66*60(mm)

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>

### III. Product Appearance

SD708 Appearance Design Concept:

1. The controller features a metal housing, which can effectively prevent the impact of squeezing and bumping on the controller;
2. The front of the controller is integrated with 4.3-inch LCD touch screen;
3. The back of the controller is integrated with several interfaces for system function extension;
4. The back of the controller features 1 NET interface for cascading the sub-controllers of the Company;

The appearance is as follows:

#### Product Picture



#### Back Panel

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>



Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

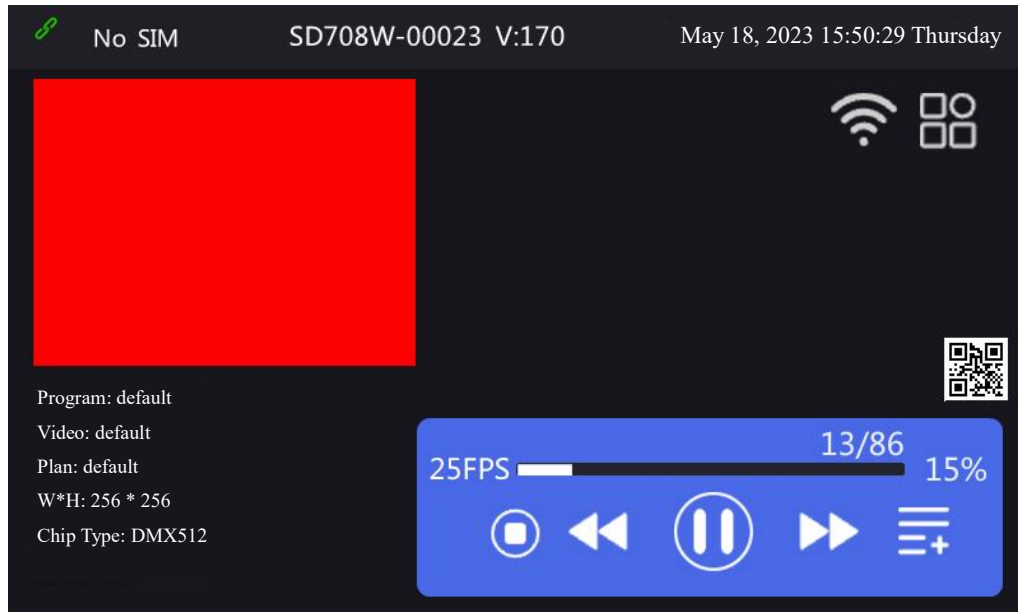
Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>


## IV. Basic Operations

The main page interface is as follows:



The top of the interface features the display of the network signals, controller ID number as well as the date, time and version of the device software.

The page contains the device QR code, which can be enlarged by clicking on it, and the device can be added by scanning the code with the mobile app.


There are two icons in the upper right corner, and the WIFI logo is for networking or connecting to a mobile app.  The icon is for settings and application controller, click the icon to enter the application interface.

Click on  to pop up three options of Settings - Screen Test - Console.

Console: The functions of DMX512 console are integrated in the controller to facilitate practical applications.

Screen Test: It is primarily used to test the color, address, etc., which can maximize the debugging convenience in practical applications.

The bottom of the interface is about the current playback scene setting interface.

1. **Settings:** It involves brightness, speed, address, playback plan, etc., which should be highlighted, click on  to set as follows:

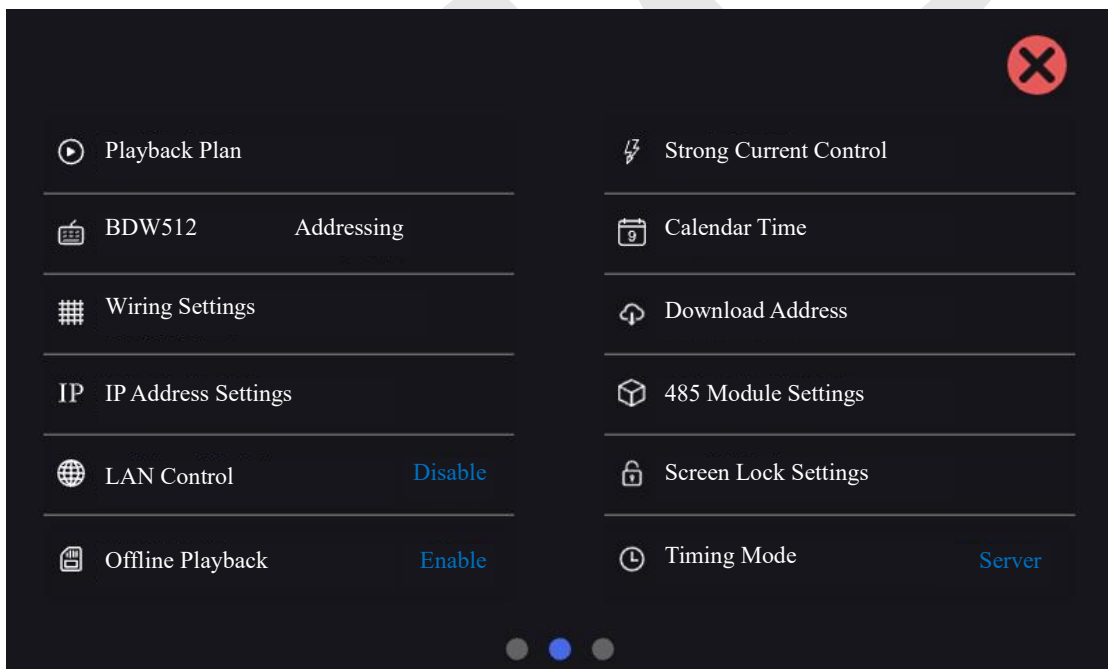
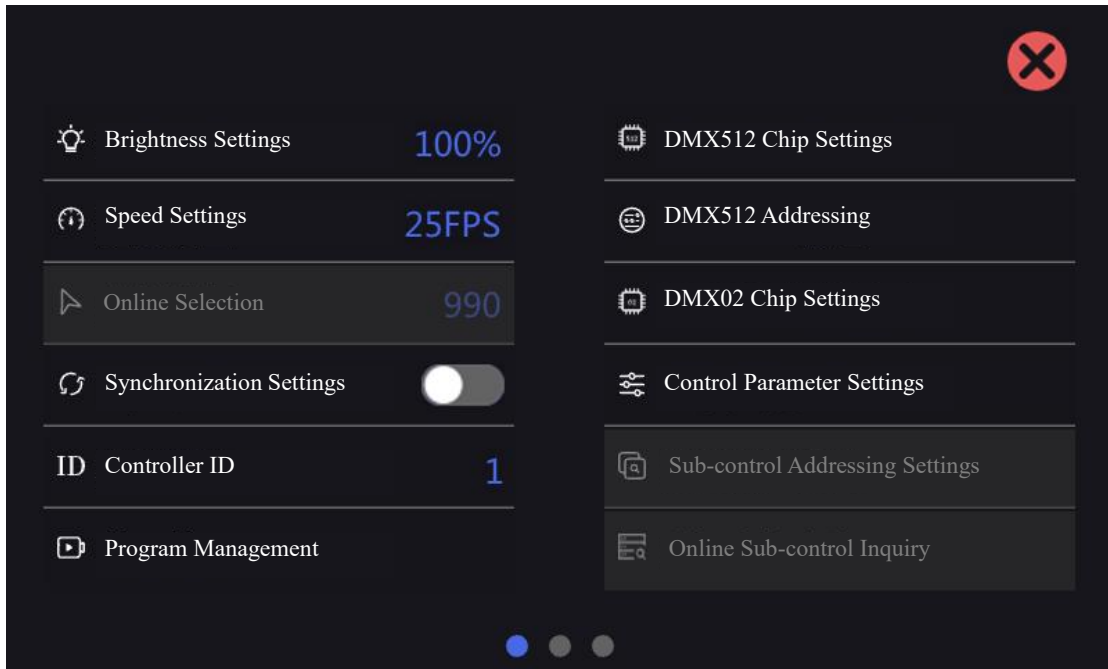
Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>



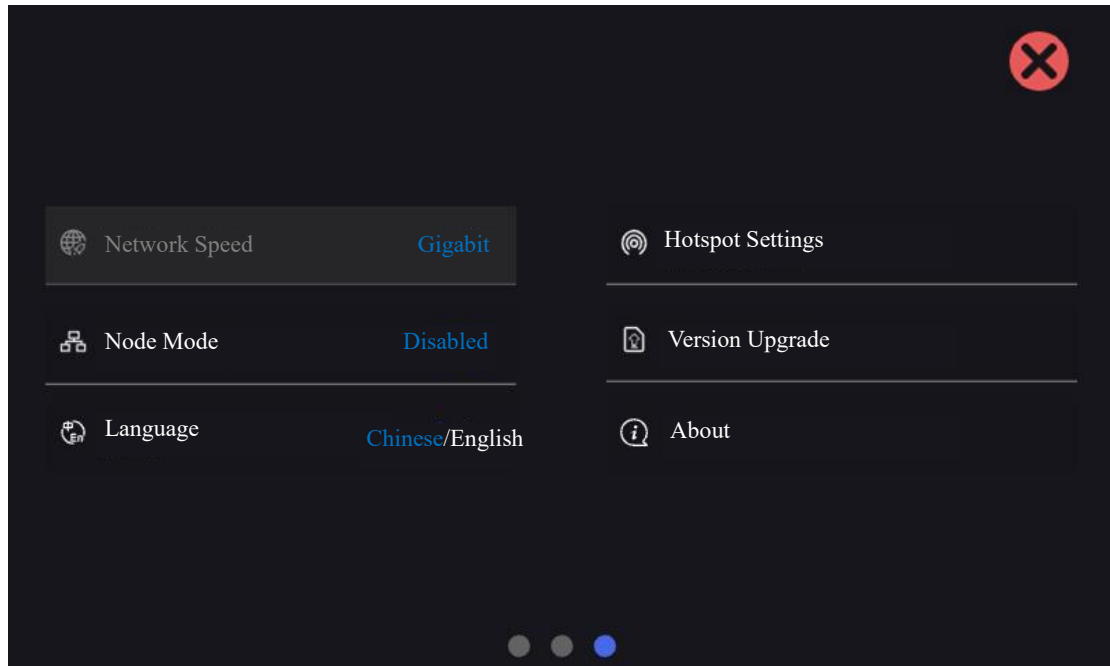
Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>





The three screens inside the settings can be switched by sliding left and right.

**Brightness Settings:** Enabling settings for the brightness of the lighting fixtures.

**Speed Settings:** Enabling the change of playback speed.

**Synchronization Settings:** Enabling synchronous playback of multiple devices if enabled.

**Controller ID:** Enabling the manual setting of the controller ID.

**Program Management:** Enabling the addition and deletion of programs, the addition, deletion and inspection of videos within programs, as well as setting of video timings.

**DMX512 Chip Settings:** Enabling setting of the parameters such as self-test effect, current gain and number of self-channels of the DMX512 chip.

**DMX512 Addressing:** Enabling addressing of DMX512 lighting fixtures.

**DMX512 Chip Settings:** Enabling the setting of DMX02 chip parameters.

**Control Parameter Settings:** Enabling the setting or reading of controller parameters.

**Playback Plan:** Enabling the addition and deletion of plans, modification of programs within the plan as well as setting of plan timings.

**BDW512 Addressing Parameter Writing:** Enabling the setting of BDW512 chip.

**Wiring Settings:** Enabling the import of wiring, or the updating of wiring.

**IP Address Settings:** Enabling the setting of IP for the controller to access the Internet (Internet can be accessed via the network port).

**LAN Control:** Interfaces with other devices and systems.

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>

**Offline Playback:** Enabling the playback of offline files generated by the software of the Company by inserting a U disk or SD card.

**Strong Current Control:** Controlling strong current switch.

**Calendar Time:** Enabling the setting of the date and time of the controller.

**Download Address:** Index of APP download.

**485 Module:** Enabling connection with other devices or systems via 485 Protocol.

**Screen Lock Settings:** Enabling setting of the lock screen function with a length + numeric password, or canceling it to prevent accidental touch.

**Timing Mode:** Enabling system time correction by different methods Server, GPS, GPS-V.

**LAN Control:** It is necessary to plug in the hotspot module, and connect the SD708 hotspot WiFi with a mobile phone to use the led app provided by the Company for LAN control.

**Node Mode:** The master control is connected to the centralized control platform as a node end, and receives the instructions issued (e.g., issue a program, issue a release line, issue a play scene, etc.) to operate automatically, and the centralized control platform transmits heartbeat packets with real-time feedback to check the status. (For detailed instructions, please refer to the platform control protocol)

**About:** Information about the controller.

**Language:** Free switching between Chinese and English.

**Version Upgrade:**

- ① Remote upgrades are available using the mobile app Stoneware IoT (ShiQiWuLian).
- ② It is possible to upgrade any version that has been uploaded successfully before in the settings.
- ③ Insert the U disk, all the upgrade packages in the U disk will be popped up, which can be upgraded by any selection.

**Synchronization Principle:** The slave machine updates the time in a real-time manner according to the synchronization frame received from the host machine, thereby ensuring that the system time of all master devices in the same project is identical. When the total number of frames of SSV files played in the master control is identical, the master control will play the corresponding frames simultaneously at any point of time so as to achieve synchronization of synchronous playback screens.

Under synchronization mode, the pause and play previous and next below the main interface are not operable to ensure synchronized playback.

2. Details about the relationship among video, program, and playback plan, and the Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

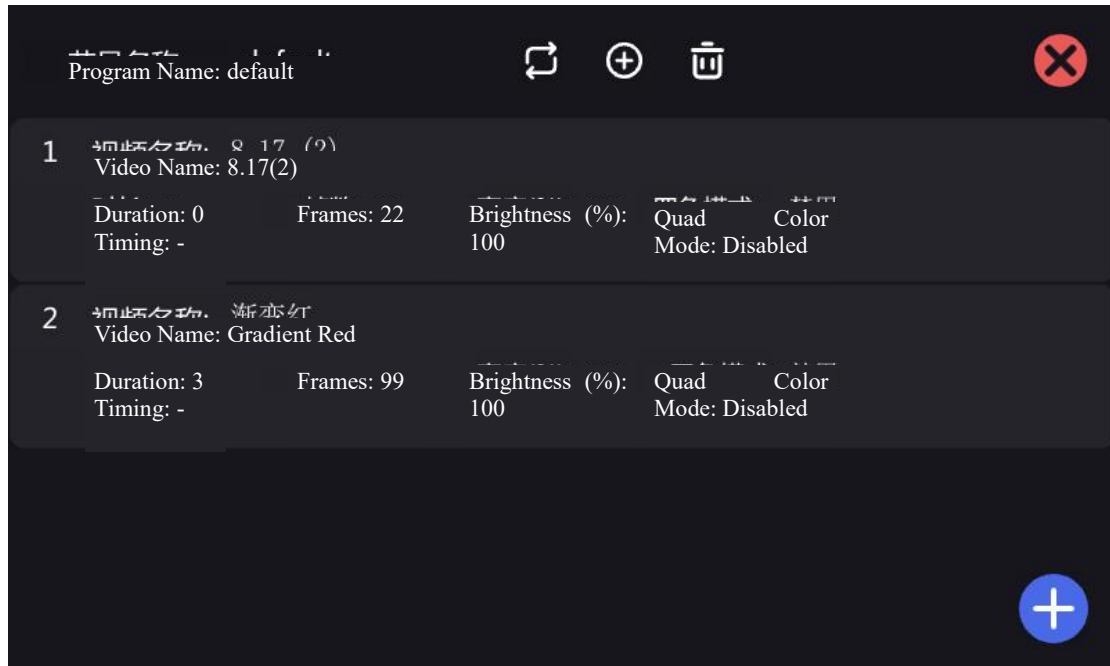
Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>

way to convert video to playback files.

① Click [Program Management] on the settings interface and enter the following interface:



One program is pre-programmed by the controller at the factory, and the name of the program is the default. It can be operated through the icon on the back

Trash Icon: Denoting the deletion of this program clip

Plus Icon: Denoting the addition of a new program clip

Double Arrow: Displaying all programs, enabling the selection of the corresponding program for setting modification

There are video files below the program clips, click on the video file and a yellow box will be popped up in the bottom right corner. In the yellow box:

Alarm clock: Setting the timer function of the video

Bulb: Brightness adjustment

Up and Down Arrows: Changing the order of this video file in this program clip

Cross: Delete the current video file.

The plus icon in the blue box at the bottom denotes the addition of a video file.

② Click [Playback Plan] on the settings interface and enter the following interface:

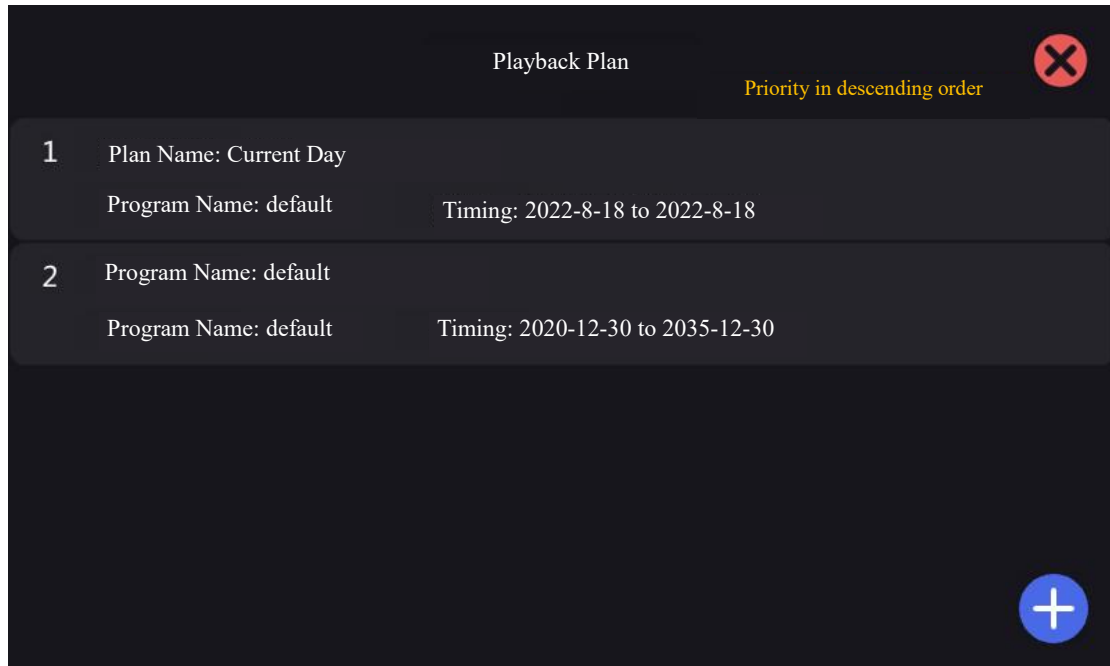
Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>



Human-like Icon: Setting plan name

Double Arrow: Displaying all programs, enabling the change of the corresponding program of the plan

Alarm clock: Setting the timer function of the plan

Up and Down Arrows: Changing the priority of the plan, the upper the position, the higher the priority

Minus Icon: Deleting the plan.

The plus sign at the bottom denotes the addition of a new plan.

### 3. Remote operation

Install the “Stoneware IoT (ShiQiWuLian) APP” or “Stoneware IoT (ShiQiWuLian) PC terminal”, register an account by cell phone number, open the cloud platform privileges, and then operate the SD708 device remotely.

### 4. Details of Strong Current Control

① Manual switch, add device, set address, number of circuits, device manufacturer (can be interfaced with all manufacturers)

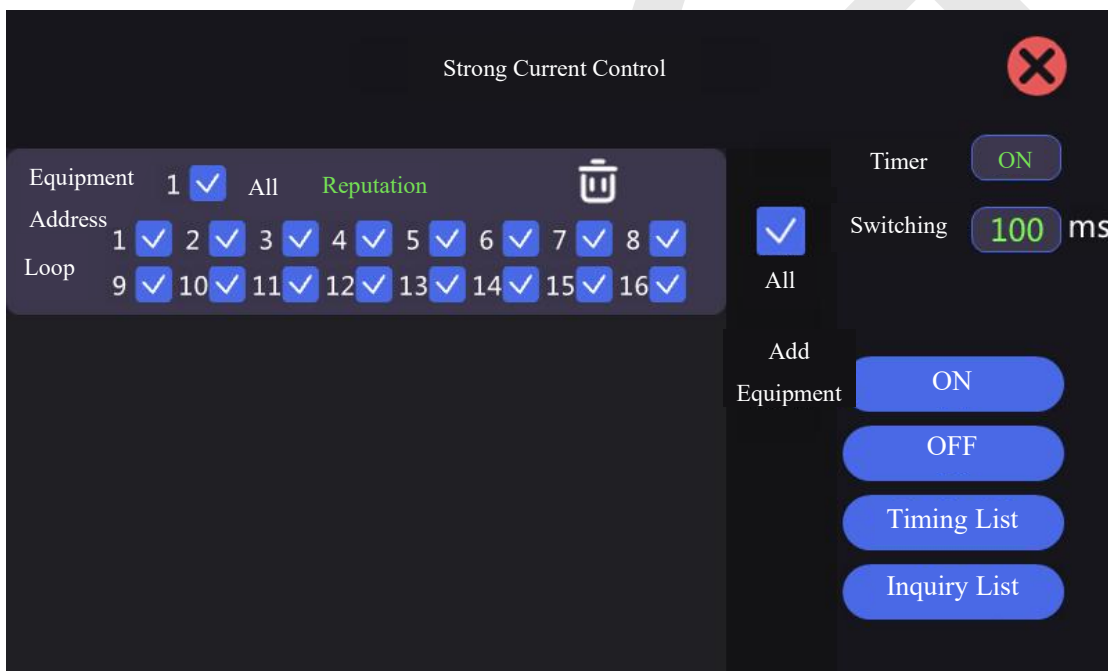
Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

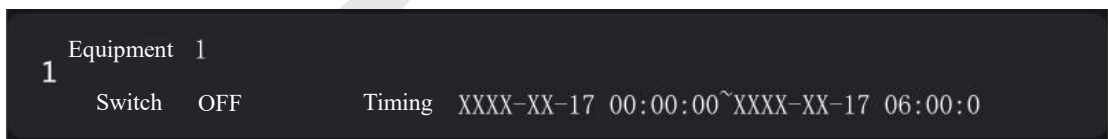
Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>



② Timing list settings, which can be turned on or off at any time.

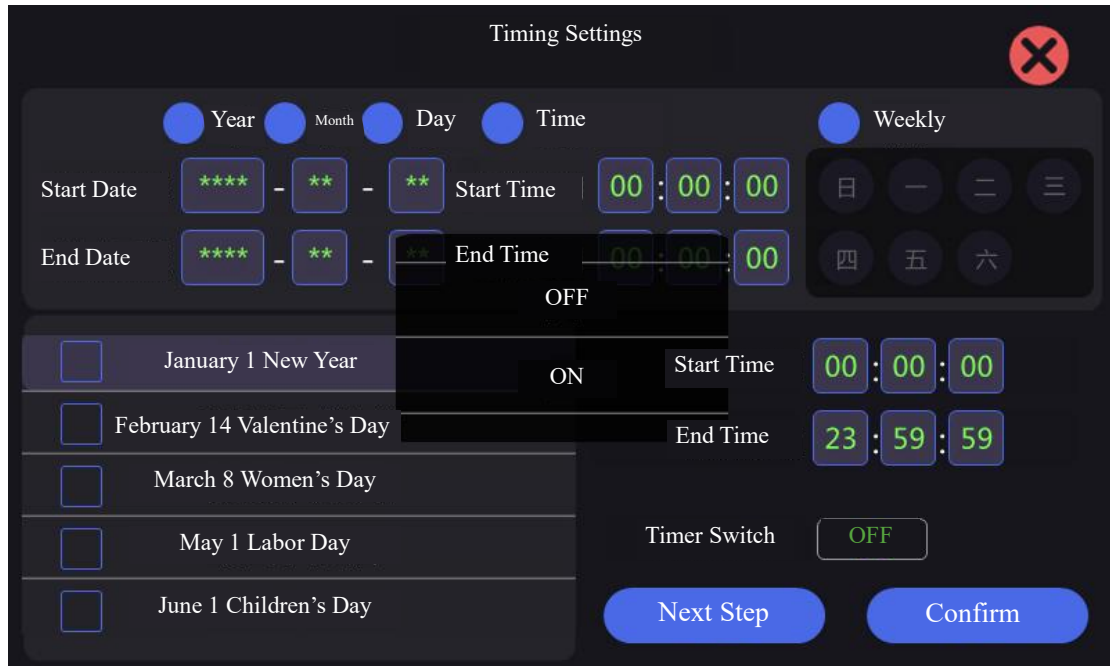


Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing Postal Code: 101102

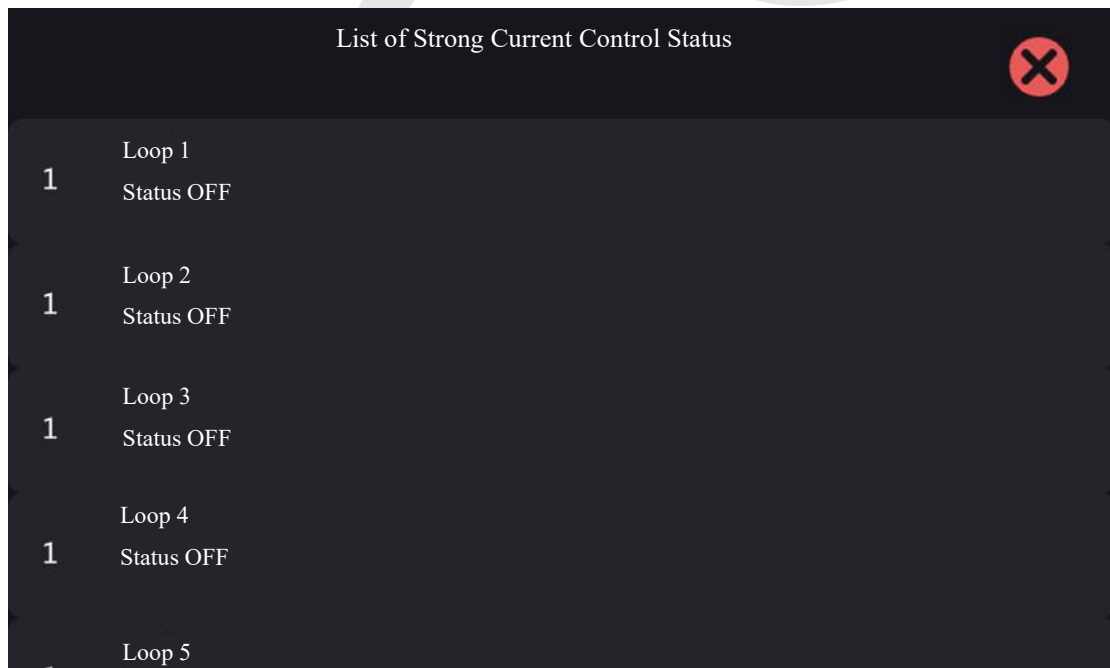
Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>



③ List of inquiry of strong current control status, enabling inquiry of the working status of each circuit.



## 5. Detailed description of 485 module functions

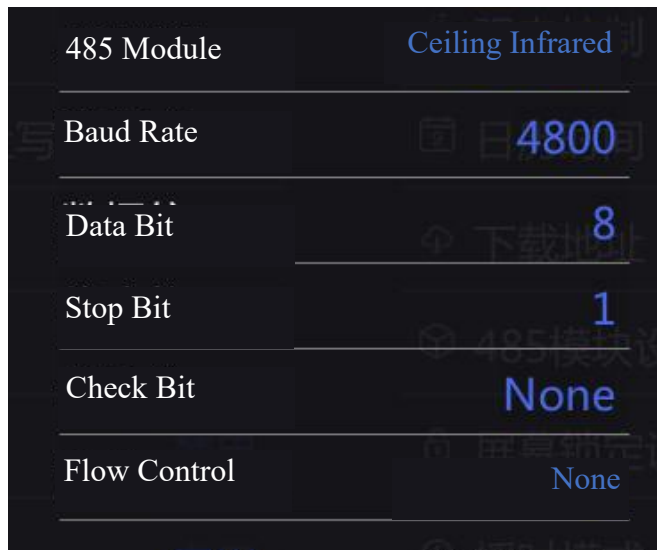
① Ceiling infrared: Infrared detector plays the desired program effect if it detects the movement of someone or an object (can be customized)

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing Postal Code: 101102

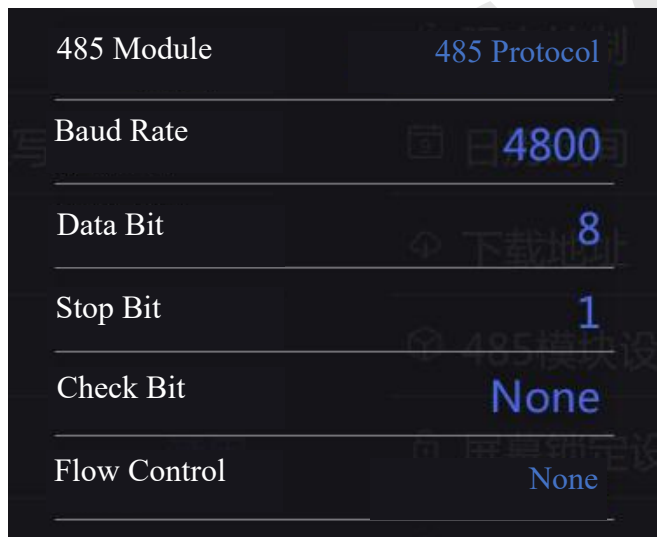
Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>



② 485 Protocol control: Enabling operations such as play, stop and switching of clips via third-party commands (for details, please refer to the control protocol).



③485 Console control: It can receive the standard 512 Protocol.

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>

485 Module	485 Console
Baud Rate	4800
Data Bit	8
Stop Bit	1
Check Bit	None
Flow Control	None
Channel	All Channels

Address: Building #65, No.17, Jingsheng South Fourth Street, Tongzhou Zone, Zhongguancun Science and Technology Park, Tongzhou District, Beijing

Postal Code: 101102

Tel.: +86-10-56370005

Fax: +86-10-56370005-810

Website: <http://www.ssg-china.cn>