



**Motorized Paperless
Interactive Monitor Lift**

User Manual

TS-F1107T

Please read this manual in detail before usage.

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1. Description

The Motorized Paperless Interactive Monitor Lift adopts a dual-screen 7-inch LCD screen design, built-in high-performance processor and processing software. It can simultaneously display participant name, position, conference logo, slogan and title, etc. It can satisfy diverse conference demands and improve the conference efficiency. In addition, it adopts a professional and stylish UI design to greatly simplify the usage steps and provide a new conference experience.

2. Feature

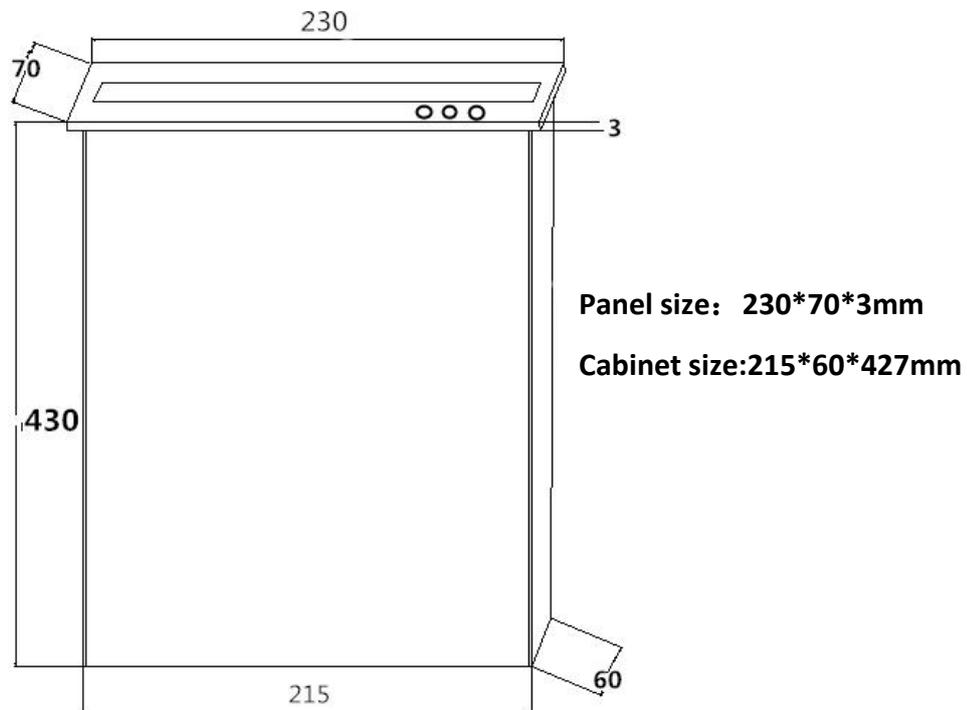
- 1) Double-screen design, front and rear 7-inch HD LCD screens with IPS full viewing angle, no backplane connection, high-end and elegant appearance, used to display the conference patterns, participant name, etc.
- 2) All-aluminum structure, high-quality aluminum material and CNC engraving craft. The screen frame adopts aluminum alloy and CNC one-piece forming craft. The thin part is less than 4 mm. Aluminum alloy cabinet, beautiful and elegant.
- 3) The surface is anodized and looks bright; it supports sandblasting, wire drawing and other processes, and also supports various custom colors.
- 4) The panel is only 3mm in thickness and 70mm in width, neat and space-saving.
- 5) The transmission structure is specially treated to minimize noise.
- 6) A-level screen, high resolution, bright color; resolution: 1024*600P.
- 7) It is matched with high-precision guide rails and linear bearings, and AC geared motors are used as driving power; the central control protocol has strong compatibility and is compatible with all controllers to control equipment.
- 8) After going up, the nameplate screen will be automatically powered on; after going down, the screen will be powered off automatically, which is environment-friendly.
- 9) Users can import information by a U disk, making it easy and convenient to change information.
- 10) It can be centrally controlled by the central control software, the remote or the controller. It can make all the nameplates in the room go up/down with one key.

3. Specification

Model	TS-F1107T
Dual screen	Not touch screen
Power supply	~220-240V 50-60HZ
Power consumption	>20W
Lifting time	15S
Double screen angle	2.5°
Total weight	4.0Kg

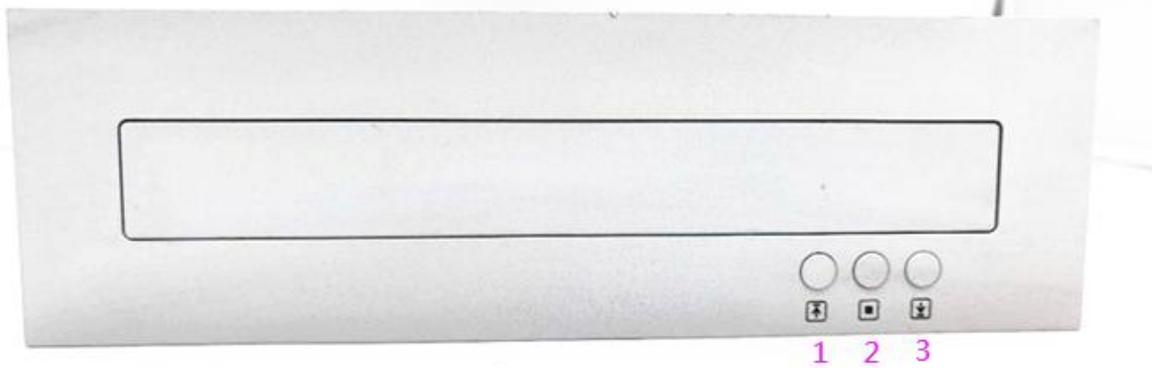
Overall size	215 × 60 × 430mm
Panel size	230 × 70 × 3mm
Desktop opening size	215 × 60mm (Recommended to open hole according to the actual product)
Panel sinking size	230 × 70 × 3mm (L×W×T) (Recommended to open hole according to the actual product)
Working environment	-20℃～50℃, Humidity≤70%
Home screen size	7 inch
Home screen contrast ratio	Minimum 600:1, Maximum 800:1
Home screen resolution	1024 × 600
Viewing angle	IPS full viewing angle
Home screen brightness	400cd/m ²
Viewing angle	85/85/85/85 (Typ.) (CR≥10)
Voltage	3.3V
Signal system	RGB

4. Opening size diagram



5. Product appearance & structure

5.1 Panel function



NO.	Name	Description
1	Screen up button	Control screen up function
2	Screen pause button	Screen up or down operation can be paused at any time
3	Screen down key	Control screen down function

5.2 Rear cover function



NO.	Name	Description
1	Communication serial port	Interface for nameplate hand-in-hand connection
2	Screen central control 485 output port	485 network output interface, used for screen lift central control
3	Phoenix tail power interface	220V power input interface
4	Five-hole power socket	220V power output interface

6. Installation steps

1. Before installing the device into the conference table, please power on and debug one by one to make sure that the appearance, lifting and display of all devices are normal.
2. To power on the device, use a twisted pair with a phoenix terminal (2P/4P-5.08mm) to connect the communication serial port in series to the 485 communication host. Pay special attention to the DIP switch at the bottom of the nameplate. The DIP switch of the last nameplate needs to be switched to ON, while that of other nameplates should be switched to I. If this setting is incorrect, it will cause problems such as slow update speed of the nameplates or offline. The interface diagram is as follows:

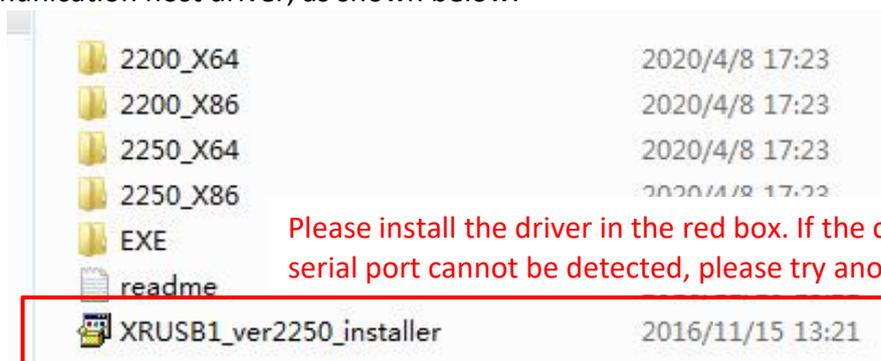


Communication host



If central control is needed, connect all the devices in series with a suitable length of network cable, You can also use a USB to 485 converter to plug into the computer terminal that controls the nameplate update, control lifting through nameplate software, choose one of two.

3. Connect the nameplate to be debugged to the communication host, the communication host is connected to the computer through a male-male USB cable, and then use the nameplate software installation package provided by the manufacturer (the installation package contains the nameplate control software, communication host driver, and name editing template) to decompress and install the communication host driver, as shown below:

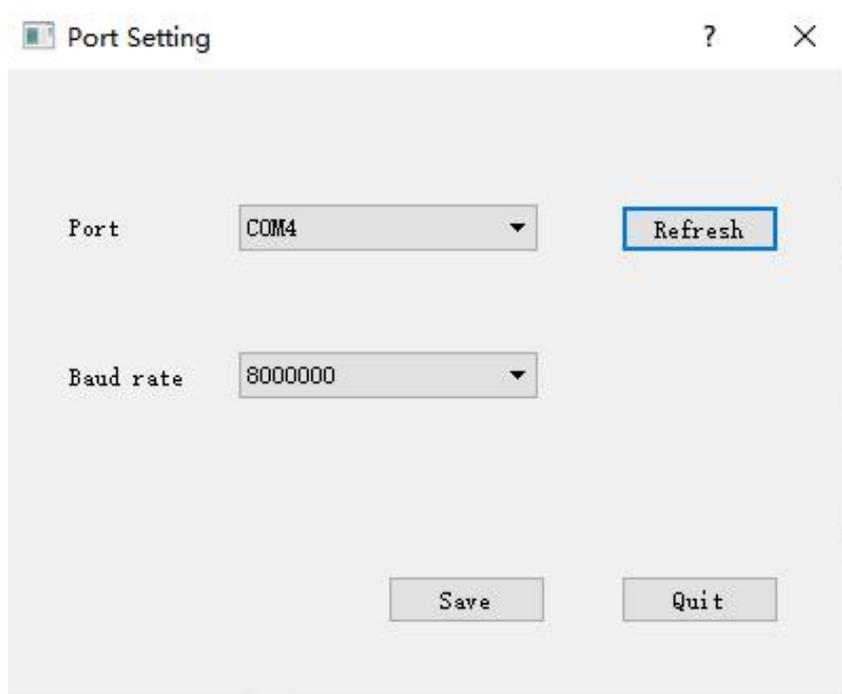


4. The software does not need to be installed, just click the folder of the electronic nameplate control software 1.8 version to run the nameplate software. If you want to create a desktop shortcut, just copy the folder of the electronic nameplate control software to the desktop. The nameplate software in the folder cannot be copied to the desktop separately.

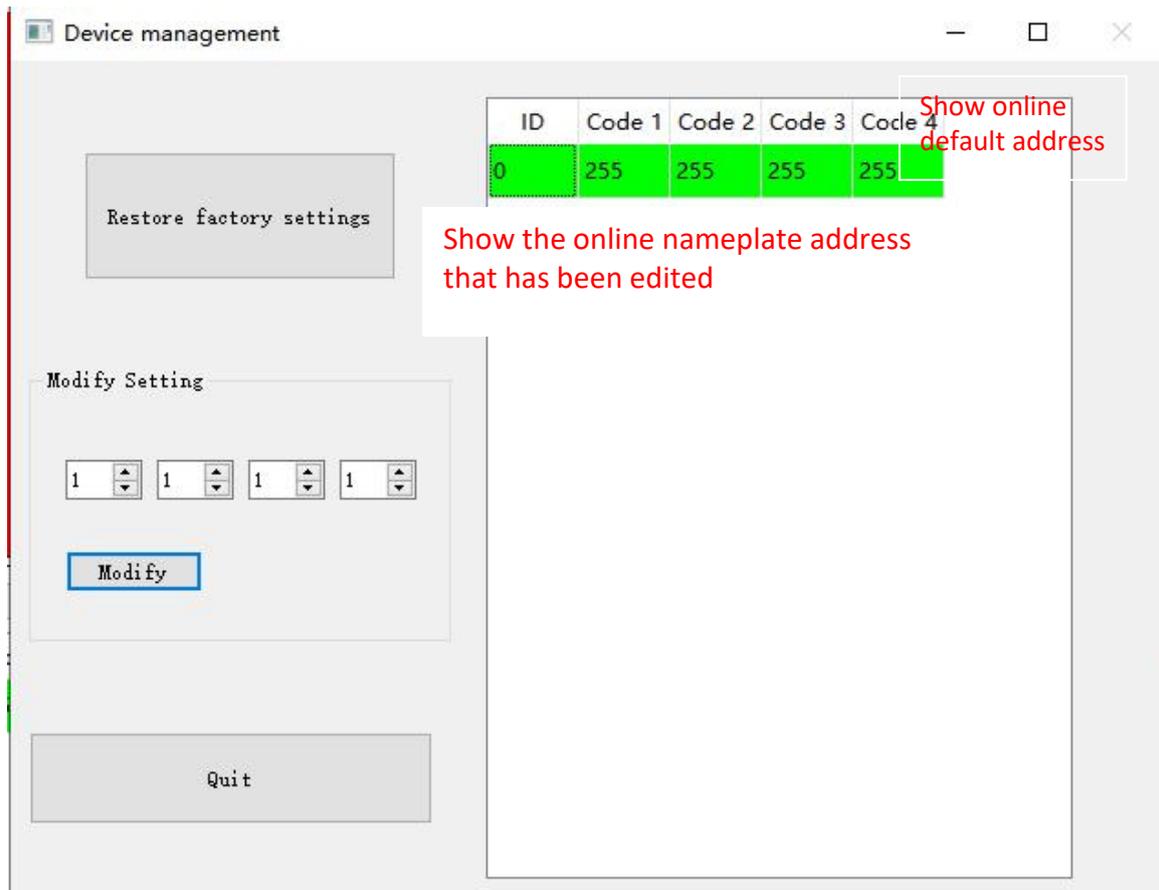
7. Address code and software lifting control settings

When all equipment leaves the factory, they use unified and default address codes: 255; 255; 255; 255, and the ID numbers are all automatically numbered (infinitely extended from 1). The customer needs to modify the address according to the actual use, and then the nameplates are automatically numbered without manual input.

1. After the electronic nameplate is connected to the computer, open the control software and click Settings - Serial port settings and refresh the serial port. The software will automatically detect which COM port the current nameplate communication host is connected to, and refresh it two to three times. It is recommended to refresh it every 1-2 seconds. If the refresh is invalid, please select it manually, and then click Save. If the lift control on the software is not used, it is not necessary to set the lift serial port, otherwise, it is required, as shown in the following figure:



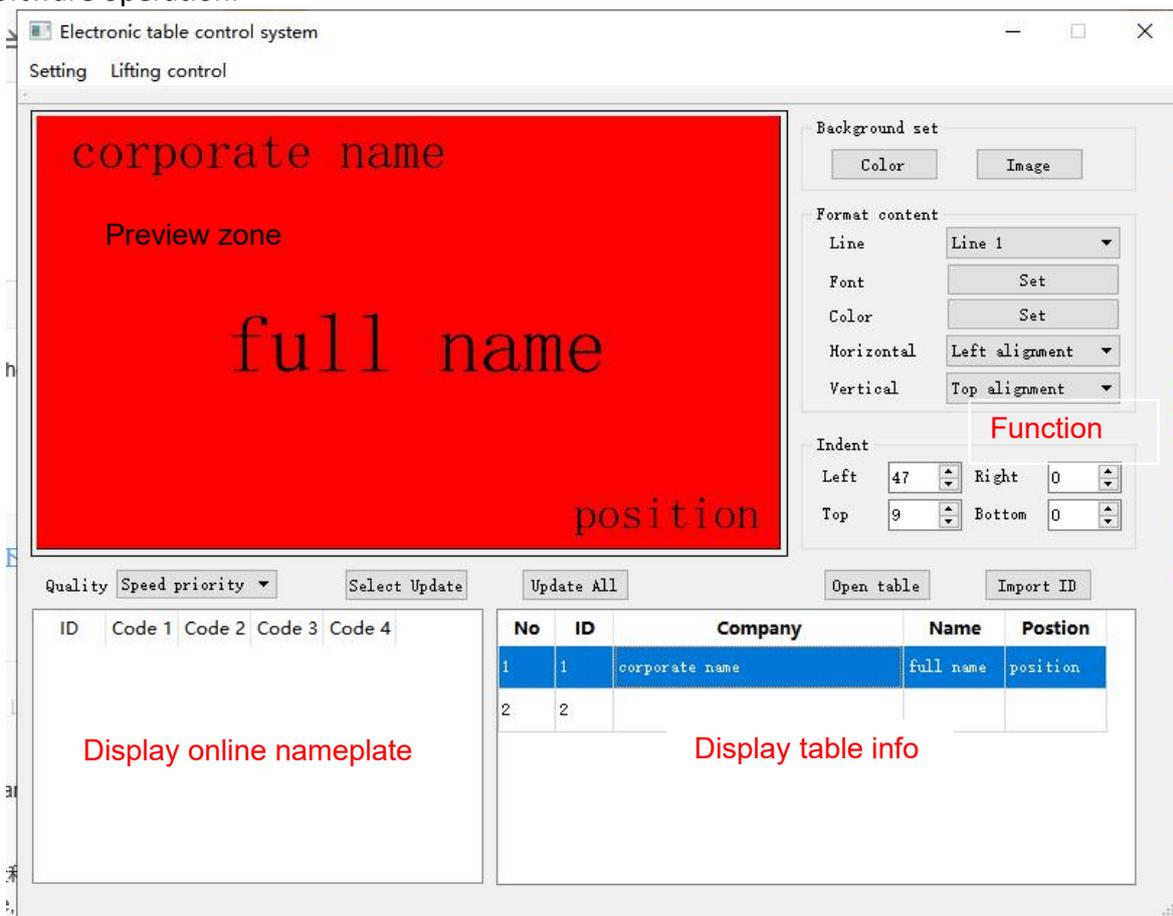
2. Address editing: The default address codes of all nameplates are 255; 255; 255; 255. So when setting the address, when the nameplates are all closed, whichever nameplate needs to be the 1st position will be lifted first, and then change the address; the number does not need to be edited, just Machine No. 2 - No. 3 and so on. Enter the address editing entry (Settings-Number control), this entry is set with permission and requires a password to log in (original password 123456). It is recommended not to modify it, because if you forget the login password, you will not be able to edit the nameplate address.



3. As shown in the figure above, the following table is the function description.

Factory reset	This button can restore the addresses of all online nameplates (the restored addresses are 255; 255; 255; 255). When restoring, you need to wait for the addresses in the online nameplate display area to be cleared. If you want to restore the address of a single nameplate, please power off the nameplates that do not need to be restored.
Modification bar	The modification bar can only modify the online default address. In theory, you only need to modify the last number. Do not change the first three numbers. (The maximum supported address code for nameplate addresses is 255; 255; 255; 255 upper limit) Moving the device up or down can change the device numbers.
Default address bar	This address bar shows the default address of the nameplate; green means there is an online default address, red means there is no online address.
Edited address bar	This address bar shows the address that has been changed, including the automatic number, and the number in it can be moved. For example, if you want to swap No. 1 and No. 2, then you need to use the up or down button of the modification setting bar.
Exit	When all nameplate addresses have been edited, click this button to exit.

4. Software operation.



4.1 The above picture shows the software operation interface, the specific functions are as follows:

Preview area	In this area, the font position and size can be adjusted by moving the mouse. Place the arrow on the font that needs to be moved, left-click, hold and drag to adjust the font size; left-click to select the text to be adjusted, use the scroll wheel of the mouse to zoom in or out, and right-click to cancel the selection.
Picture quality	The update speed can be selected here. The software defaults to speed priority (update a nameplate in 2 seconds), balance (update a nameplate in 3 seconds), quality priority (update a nameplate in 5 seconds). You can choose according to the different requirements of the picture clarity.
Update one	This button is used to update a single nameplate separately. The usage method is: select any nameplate in the online nameplate display area and click this button.
Update all	This button is used for all online nameplate updates.
Open sheet	This button can open the edited exeCEL (the format must be in XLSX format) and import it into the sheet display area.
Import ID	This button is used to import the address in the device. When the nameplate address is not restored and there is no address on the software, you need to use this button. The method of use is: find the text of the device in the nameplate folder and click to open, the editing format is (1;1 ;1;1) as a group, and then click Enter to edit the second group, and so on. After editing, save and exit, and click Import ID on the nameplate software interface.

Function area	Here you can change the background color and picture, font size, font style, font color, and font position.
Sheet display area	Displayed here is the text imported from the exeCEL sheet. The software supports changing the display content. Double-click the place to be modified.

8. Nameplate editing

After all nameplates are edited, the displayed nameplate content can be edited.

1. Open the nameplate software installation package and find the name editing template and open: ID, unit, name, position, and the customer needs to enter the content to be displayed in the relative descending lines. Save and close the document when you are done typing.

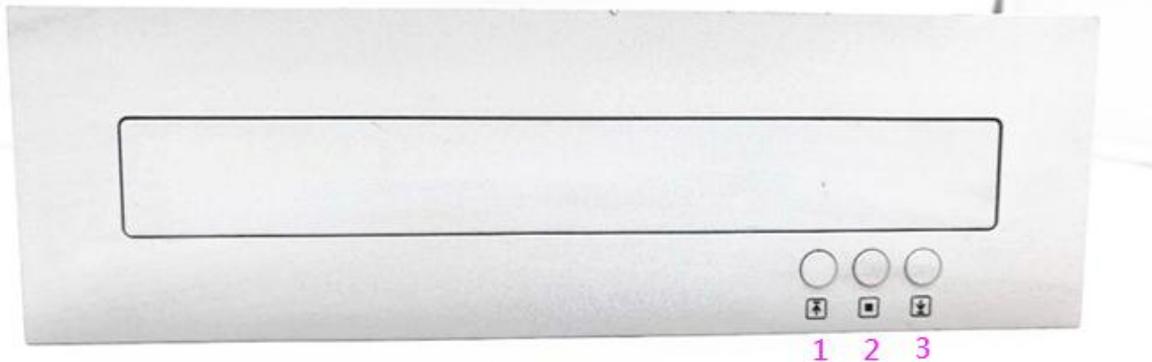
No	ID	Company	Name	Postion
1	1	corporate name	full name	position
2	2			

2. Click "Open sheet" in "Electronic Nameplate Control Software" and select the edited nameplate template.

3. The font display position can be directly adjusted by dragging and dropping with the mouse, or you can enter the corresponding value in the "Indent" column to adjust.

9. Lifting control

1. There are three buttons on the lift panel, which are "Up, Pause, and Down" respectively.



Press "Up" and the nameplates are powered on and lift above the desktop.

Press "Pause", the nameplate stops lifting or lowering.

Press "Down", the nameplate starts to lower down, and the nameplate is powered off when it is completely lowered.

2. Remote control

The devices have not learned the remote control code before leaving the factory, and it needs to be learned by itself during on-site installation. The remote control supports controlling in groups or in a unified manner.

The front and rear views of the remote control are as follows:



(Front)



(Rear)

The function of the front control buttons is the same as that of the device panel control;

To control the specified device, you also need to perform the code pairing, the specific steps are as follows:

- ① Keep the device powered on, press and hold "Pause" on the device panel for 3-5 seconds;
- ② The machine will operate, then release the button, if the machine does not start, please try to repeat step ①;
- ③ Flip the remote control to the back, and press the Pair button in the round hole a few times with a sharp hard object;
- ④ After completing the above steps, you can start to control with the remote control. If you can't control it, please repeat the above actions, and if it fails after repeated many times, please contact the relevant technical personnel;
- ⑤ For multiple devices to be controlled by the same remote control, each device needs to be paired with the same steps.

If you need to cancel the remote control of the device, you can also set the device to clear the code. The specific steps are as follows:

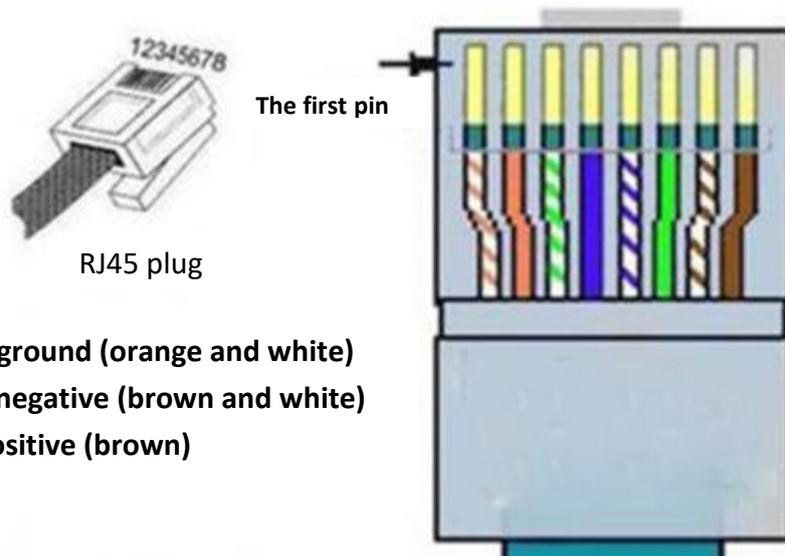
- ① Press and hold "pause" on the device panel, the device will operate after 3-5 seconds, continue to hold, and then the device will operate again;
- ② At this time, release the "Pause" button, and quickly press the "Pause" button on the panel 2-3 times, then the code clearing is completed;
- ③ After clearing the code, all remote controls that have been successfully paired with this device will be invalid;
- ④ The remote control adopts radio frequency control, and the control distance can reach 50-80 meters in the open area. In actual use, however, due to the installation of the radio frequency receiving motherboard and the interior of the device, and the external factors such as furniture blocking, the control distance will be affected. Therefore, if you press the remote control and some device is out of control, you can press the button again, or press it again after getting close.
- ⑤ The indicator light will flash after the button is activated effectively. If the indicator light does not flash after pressing the button, one of the reasons may be that the battery is exhausted. You can try again after replacing the battery. The second reason may be that the button is faulty, you can contact the relevant technical personnel for maintenance, or contact the seller for replacement;
- ⑥ The remote control battery can be replaced by the customer. The battery is located at the bottom of the back of the remote control. Pull out the battery case directly to replace the battery;
- ⑦ The remote control is equipped with a casing, and you can fix the remote control on the wall or other convenient fixing places through the holes on the casing, making it easy to take at any time.

10. Central Control

485 protocol control is adopted, and the hand-in-hand connection interface between devices is RJ45 network interface. All the devices can be connected in series with ordinary network cables, as shown in the blue area in the following figure:



The network wiring is defined as follows:



The first pin: ground (orange and white)
Seventh pin: negative (brown and white)
Eighth pin: positive (brown)

1. Default control protocol:
 - Baud rate 2400
 - Data length 8
 - Parity N
 - Stop bit 1
 - Up code: FF EE EE EE DD

Down code: FF EE EE EE EE

Pause code: FF EE EE EE CC

2. The above default code is the original code, which can control all devices. If group control is required, the code learning setting should be performed for the group. The steps are as follows:
 - ① First, connect the computer to the device through the serial port device, open the serial port debugging software, and make sure that the transmitter end of the computer serial port is connected with the receiver end of the device, and then control the device through the default code to ensure that all connections are correct;
 - ② Input the learning code in the serial port debugging software code input column, if you want to learn the first group, input code: FF 10 11 01AA; if you want to learn the second group, input code: FF 10 11 02 AA; if you want to learn the third group, input code: FF 10 11 03 AA, and so on;
 - ③ After writing the code, do not operate, go back to the device to be learned, press and hold the "Pause" button on the device panel for 3-5 seconds, the device will move slightly;
 - ④ Release the "Pause" button, click the serial port debugging software code sending button to send the learning code written in step ②, which can be sent 2-3 times in a row;
 - ⑤ After that, the first group of control codes becomes: FF 10 11 01 DD (Up), FF 10 11 01 EE (Down), FF 10 11 01 CC (Pause); the second group of control codes becomes: FF 10 11 02 DD (Up), FF 10 11 02 EE (Down), FF 10 11 02 CC (Pause), and so on;
3. When learning the code, it can be operated by multiple people, and multiple units can learn at the same time. And note that only after the device moves slightly, the device can receive the learning code sent by the computer, and the code sent in other states is invalid;
4. The same device can learn multiple group of codes;
5. If you want to clear the learned codes, please refer to the remote control clearing steps. After this operation is completed, all the codes learned later in the device will be cleared, and only the original default codes will be retained;
6. When writing code in the central control software, it is recommended to write it several times. If you click the central control touch terminal once, and there is a device that cannot be controlled, just click it again.

Motorized Paperless Interactive Monitor Lift

