



Ultra-thin HD LCD Lifter



TS-8201A/TS-F173T

Before using this system, please read this manual carefully

Notification



WARNING

To ensure the reliability of the equipment and the safety of personnel, please observe the following when installing, using and maintaining:

- If any of the following conditions are found, please immediately turn off the power, plug out and quickly contact your nearest dealer. Do not continue using this unit, which may cause a fire or electric shock.
 - If you find smoke or have a strange taste from the machine.
 - If water or metal falls into the machine.
 - If the unit is dropped or the case is damaged.
 - If the wire is damaged (wire core exposure, broken wire, etc.).
- If the machine contains high-pressure parts, in order to avoid the fire or electric shock, absolutely don't open the case, if any questions please inform your nearest dealer.
- Do not place cups, bowls, vases or metal and other water-filled substances on the unit. Serious spilled liquid may cause a fire or electric shock.
- Never expose the unit to rain and any moisture or water, which may cause electric shock or fire.
- Do not place metal objects or flammable materials from the vents on the machine cover, nor place coins, which may cause fire or electric shock.
- Do not place heavy objects on the unit to avoid personal injury or property damage when the unit is slipping.
- Make sure that the volume is turned on at the beginning of the boot, and the high volume of the boot may cause hearing problems.
- Make sure that the volume is turned on at the beginning of the boot, and the high volume of the boot may cause hearing problems.
- For long-term accumulation of dust to be cleaned, please inform your dealer to regularly clean the machine, so as to avoid damage to the machine or cause a fire.
- The battery must be replaced with the same type of product and the correct installation should be made in order to avoid electrical damage and explosion hazard.
- The product is a Class I device. The device must be well connected to ground. The power plug must be connected to a power outlet with a grounding device to ensure that the equipment is fully grounded.

- This product uses a power plug or appliance input socket as a disconnecting device with the power supply, and must be disconnected if necessary for safety reasons.



- This equipment is only suitable for safe use at altitudes under 2000 meters.

Precautions

1. The installation environment

When installing the unit, in order to ensure the normal cooling of the host, should avoid the poor ventilation of the place or high temperature environment, to avoid direct sunlight.

Recommend to install cabinet or other well-ventilated place indoor. If you use the machine in the outdoors, please pay attention to waterproof, moisture, lightning protection measures.

Avoid installing in a violent place of vibration; do not place other equipment on the machine.

Working temperature : -10°C~ 60°C.

Humidity is limited to 5% to 90% (non-condensing).

2. To avoid electric shock and fire

Do not touch the hands and the source with wet hands

Do not spill liquid on the machine, so as to avoid short-circuit or fire inside the machine.

Do not place other equipment directly on the top of the unit.

Non-professional service personnel Do not disassemble the unit yourself to avoid damage and electric shock.

3. Transport and handling

The packaging of the machine is designed and tested to ensure that the host will not be accidentally damaged during transport. It is best to use the original packaging when handling the unit.

Do not move the host device between the place or cold or over hot to avoid condensation inside the machine, affecting equipment life.

4. Please follow the warning instructions on this product, the warning signs on behalf of:

	Applicable to 2000 meters above sea level and below safe use
	Safe use only in non-tropical climates

5. Agreement

Please strictly follow the instructions in this manual. The software, hardware and appearance of this product will be upgraded and updated continually. The above changes will be made without notice.

Non-professional maintenance personnel, do not remove the product, to avoid damage and electric shock.

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1 Introduction

Multimedia Delegate Microphone for the conference table computer' display, the new product is more practical for paperless conference equipment, which regards the LCD touch display terminal as the center and is integrated high-definition video and unified communications, intelligent multi-screen interactive sharing , Intelligent conference control, audio and video capture and sound reinforcement system, to form a "people-oriented" intelligent conference experience. You can control it through the panel button, IR remote, RS232 command and RS485 command.

When using, you only need to simply press the up button on the panel, the elevator hidden the conference table will raise the screen from the chassis to the desk and angled (angle can be adjusted to the appropriate angle by pressing the manual button). When the display is not used, you can press the drop button to automatically drop the display and microphone hidden with the inside of the meeting table, and automatically turn off the valve and the desktop to keep flat. And the LCD screen will automatically disconnect the power, to achieve the efficient meeting, the beautiful desk, saving space. It is very convenient to use, and it is with anti-theft, dust, landscaping and other functions.

2 Function & Features

1. This equipment adopts aluminum structure and high-quality aluminum with CNC carved processing. The display as overall frame is for the overall aluminum CNC molding. Thickness is no more than 4 mm. the chassis are made of aluminum alloy equipment which looks dedicate, light, beautiful, & atmospheric.
2. The equipment surface adopts anodic oxidation treatment, with bright color, which can be processed with sandblasting, drawing and other process. You can also ask for a variety of colors.
3. The product panel's thickness is only 3mm, width only 70mm. Compared to the traditional one, the lifting is lighter, occupied space is smaller, the weight of the product is only one-third, which reduces the transportation cost and the pressure on the table.
4. With special handling onto the transmission structure, the noise drops to the minimum. The internal structure is used by waterproof treatment and the general meeting of tea leakage will not influence the use of the machine
5. High-definition screen for the domestic well-known brands, selected A regulation screen, high resolution, bright color transparent. Resolution: 1920 * 1080P aspect ratio 16: 9.
6. The product adopts imported steel wire, high precision rails and linear bearings with AC gear motor as the drive power; control protocol compatibility is strong, compatible with all control hosts and control equipment
7. After rising, the screen will automatically power on; when going down, the screen will automatically power off to save environmental protection.
8. Supporting HDMI and VGA signal inputs, when there is only one signal input, the screen will automatically identify the signal; when both signals are input at the same time, you can manually switch through the panel keys; when no signal is input, the screen will automatically go to the power saving mode.
9. This device can be controlled by the central control software, which can be controlled by remote control or host. There is one key to allow all the equipments in the room are up or down.

3 Product Model & Specification

Product Model	TS-8201A	TS-F173T
Product Dimension	430×70×565mm	476×70×565mm
Chassis Dimension	415×60×562mm	461×60×562mm
Desktop Opening	417×62mm	463×62mm
Panel Sink	431×71×3mm	477×71×3mm
Lifting Time	28S	30S
Elevation angle	0-30°	0-30°
Video Port	HDMI/VGA	HDMI/VGA
Screen Resolution	1920×1080	1920*1080
Working Voltage	~220V 50HZ	220V 50/60HZ
Contrast	600: 1	600: 1
W*H*L	16: 9	16: 9
Brightness	300cd/m ²	300cd/m ²
Power Consumption	18W	20W

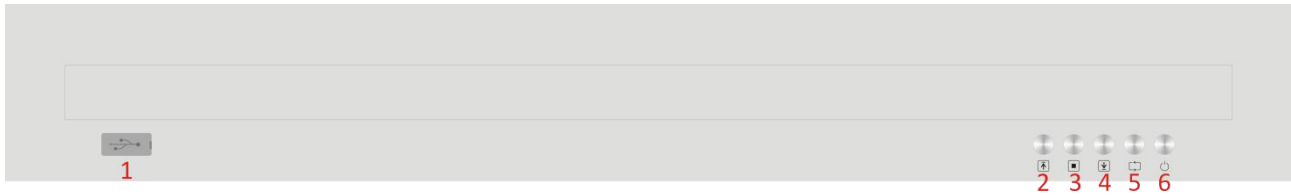
4 Packing List

NO.	Appendix	Notes
1	Lifter	1
2	Power cable	1
3	Touch data line	1
4	User's manual	1
5	Data USB cable	1
6	Serial cable	1

It is strictly packed before leaving the factory. Before use, please confirm whether the products and appendix ordered are damaged, deformed or missing. If it is damaged, inconsistent or missing, please contact the product supplier.

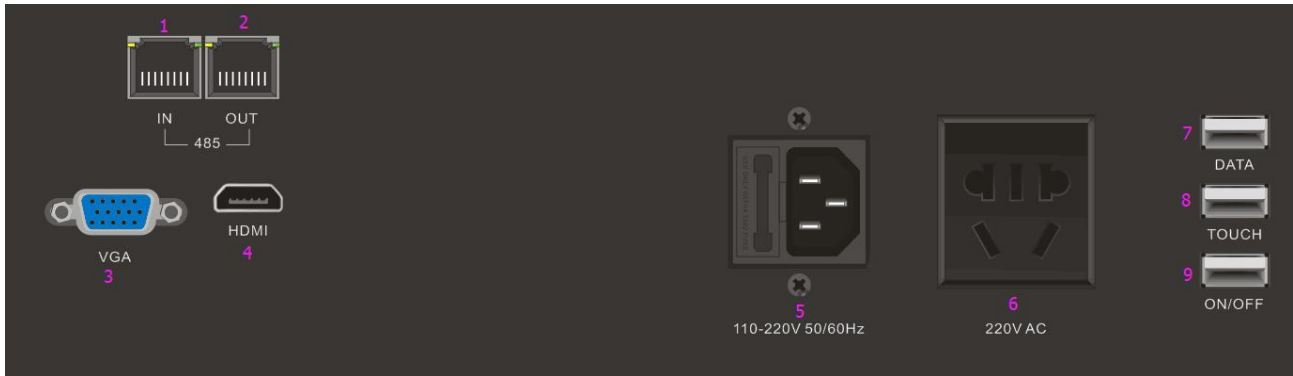
5 Product Appearance & Structure Instruction

5.1 Front Panel' Function & Introduction



NO.	Name	Description
1	USB Interface	Read data
2	Up Button	To control the rise of the screen
3	Pause Button	To control screen to pause
4	Down Button	To control the screen to drop
5	Switch Button	To switch screen video signal
6	On/Off Button	To boot/shut down the controller

5.2 Rear Panel's Function Introduction



No	Name	Description
1	Display control 485 input port	Used for display lifting central control 485 network input interface
2	Display control 485 output port	Used for display lifting central control 485 network output interface
3	Main screen VGA signal interface	Use for the main screen VGA video signal input interface
4	Main screen HDMI signal interface	Use for the main screen VGA video signal output interface
5	Power input interface	Use for power input interface
6	Power output interface	Use for power output interface
7	Data transfer USB interface	Used tor connect USB data transmission interface
8	Touch line USB interface	Use to touch function interface
9	Switching machine USB control interface	Used to control the host switch interface

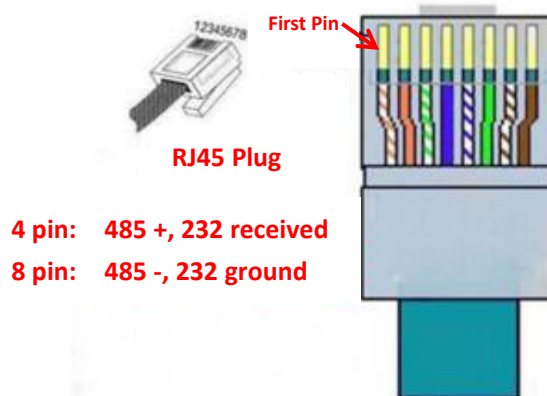
1. Rear Panel' card is only for reference;

2. Product picture is only for reference, and please see the real product.

6 Central Control Protocol Code learning

1. With 232 and 485 protocol control, the bottom of the device is configured with two RJ45 network sockets, which can allow multiple devices to use ordinary cable connecting hand in hand;

The cable and the equipment protocol are connected as follows:



Baud Rate 2400

Parity N

Stop bit 1

Rising Code: FF EE EE EE DD

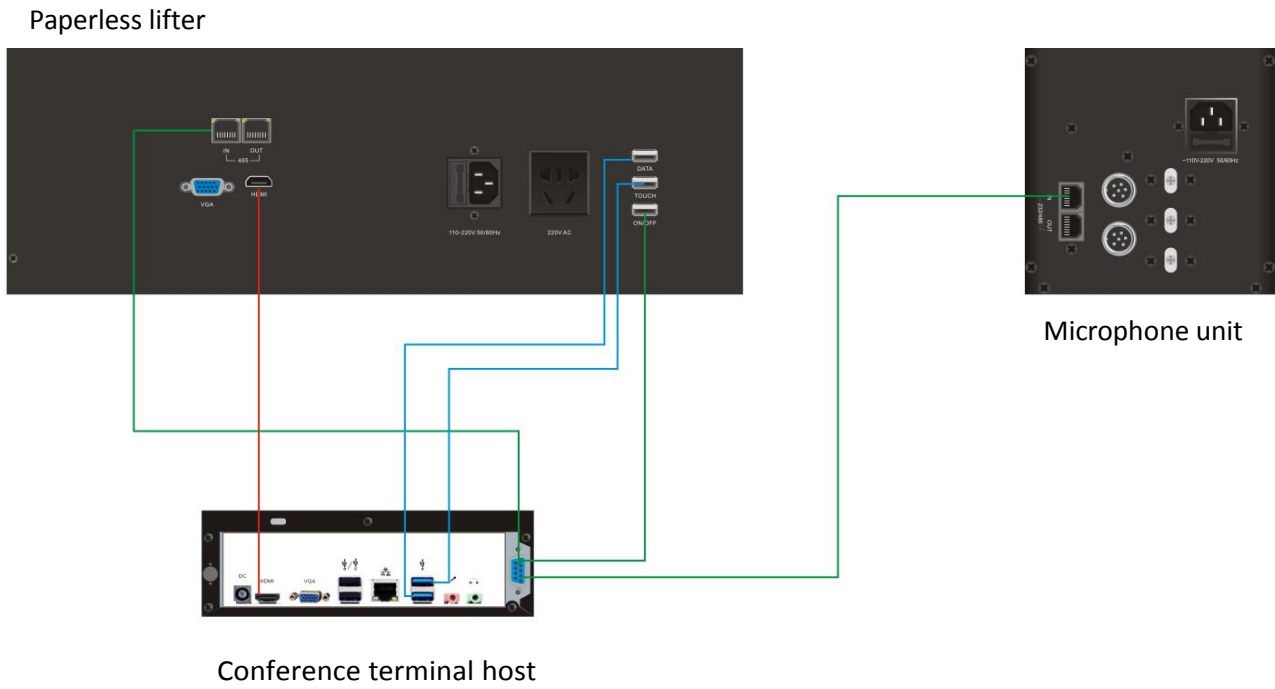
Decline Code: FF EE EE EE EE

Stop Code: FF EE EE EE CC

2. The above default code is the original factory code. You can control all the equipment. If need for group control, you have to set the code for the group settings. The steps are as follows:
 - ① Firstly connect the computer and machine through the serial device, open the serial debugging software, and confirm the computer serial port transmitter and receiver connected with the device. You can control the equipment through the default code to ensure that all connections are with no problem.
 - ② In the serial debugging software code input field to write the learning code, to learn the first group, write code: FF 10 11 01 AA; To learn the second group, write code: FF 10 11 02 AA; To learn the third group, write code: FF 10 11 03 AA and so on.
 - ③ After writing the code, do not operate. Go back to the device which needs learning and press the "pause" key on the device panel without moving. Keep pressing it for 3-5 seconds, then the machine has a slight change.
 - ④ Release the "pause" button, click on the serial port debugging software code to send the button, send step written in the learning code which can be continuous for 2-3 times.
 - ⑤ After completion, the first set of control codes becomes: FF 10 11 01 DD(rise), FF 10 11 01 EE

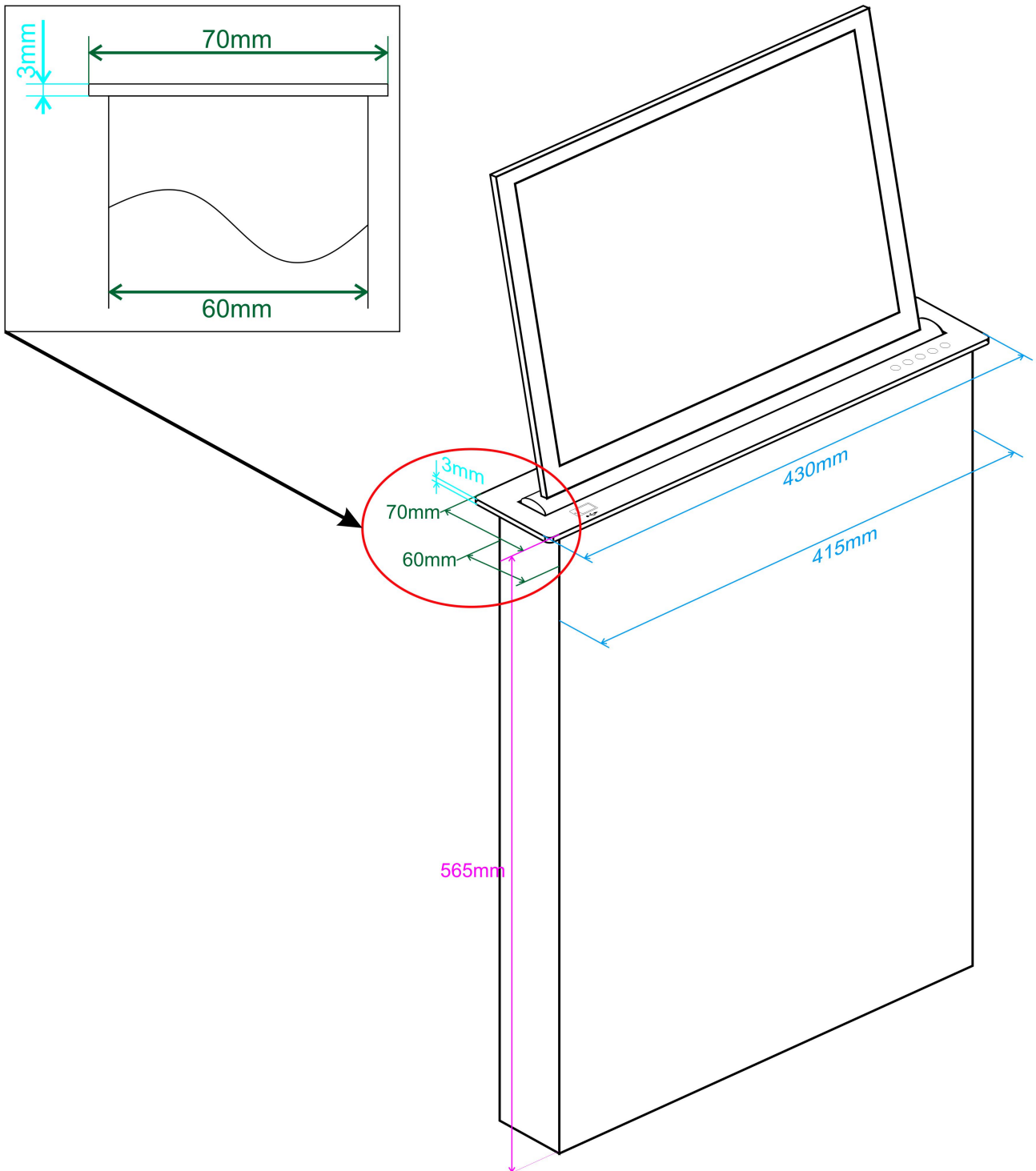
(drop), FF 10 11 01 CC (pause), the second set of control codes becomes: FF 10 11 02 DD (rise), FF 10 11 02 EE (drop), FF 10 11 02 CC (pause), and so on.

7 Machine wiring diagram



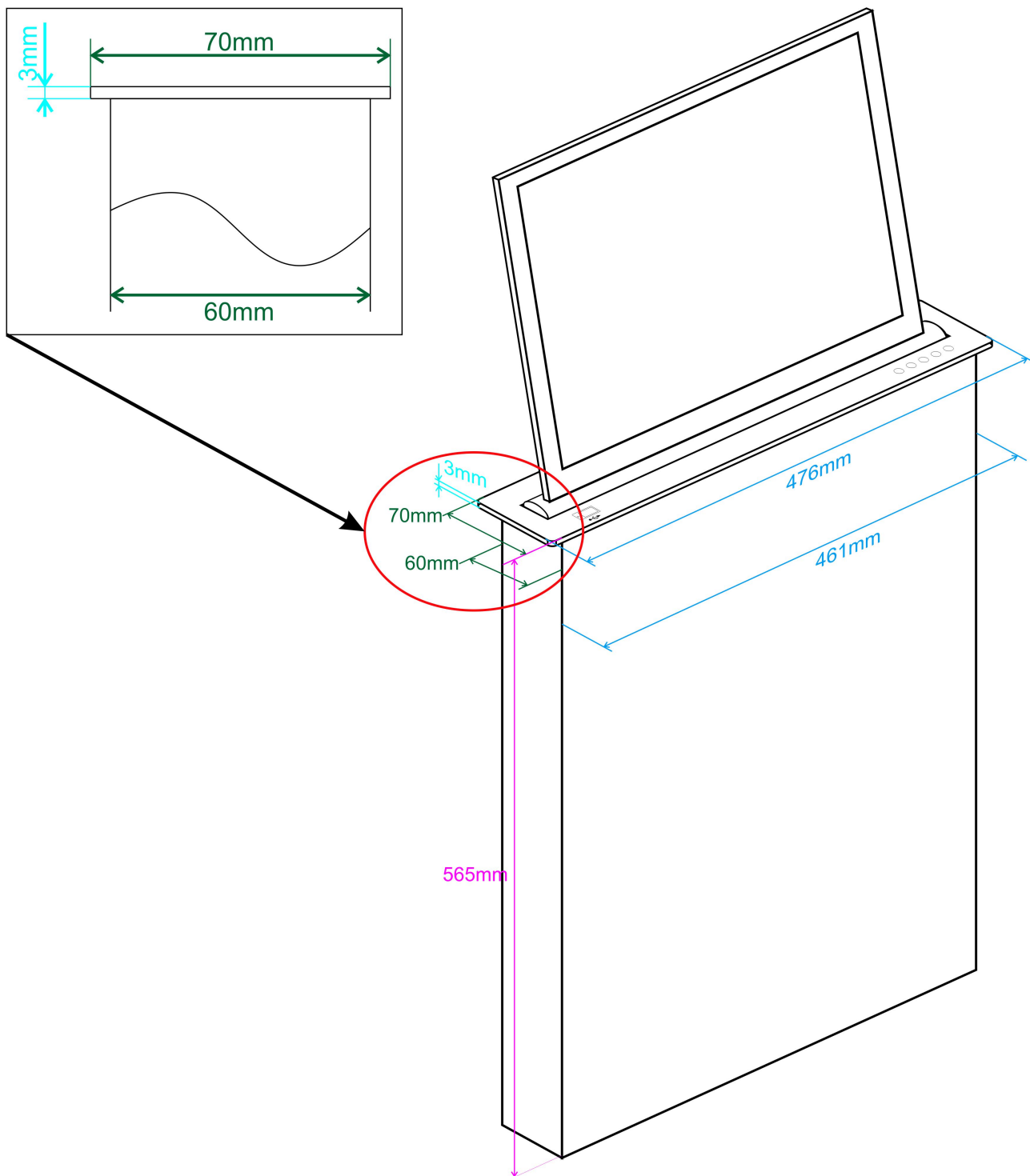
8 Installation size (product size chart)

TS-8201A Panel side view:



Note: Before installation, please remove the two 'transport fixing screws' on the cover, and the side display fixing clips and clean the foam filling inside the flip door.

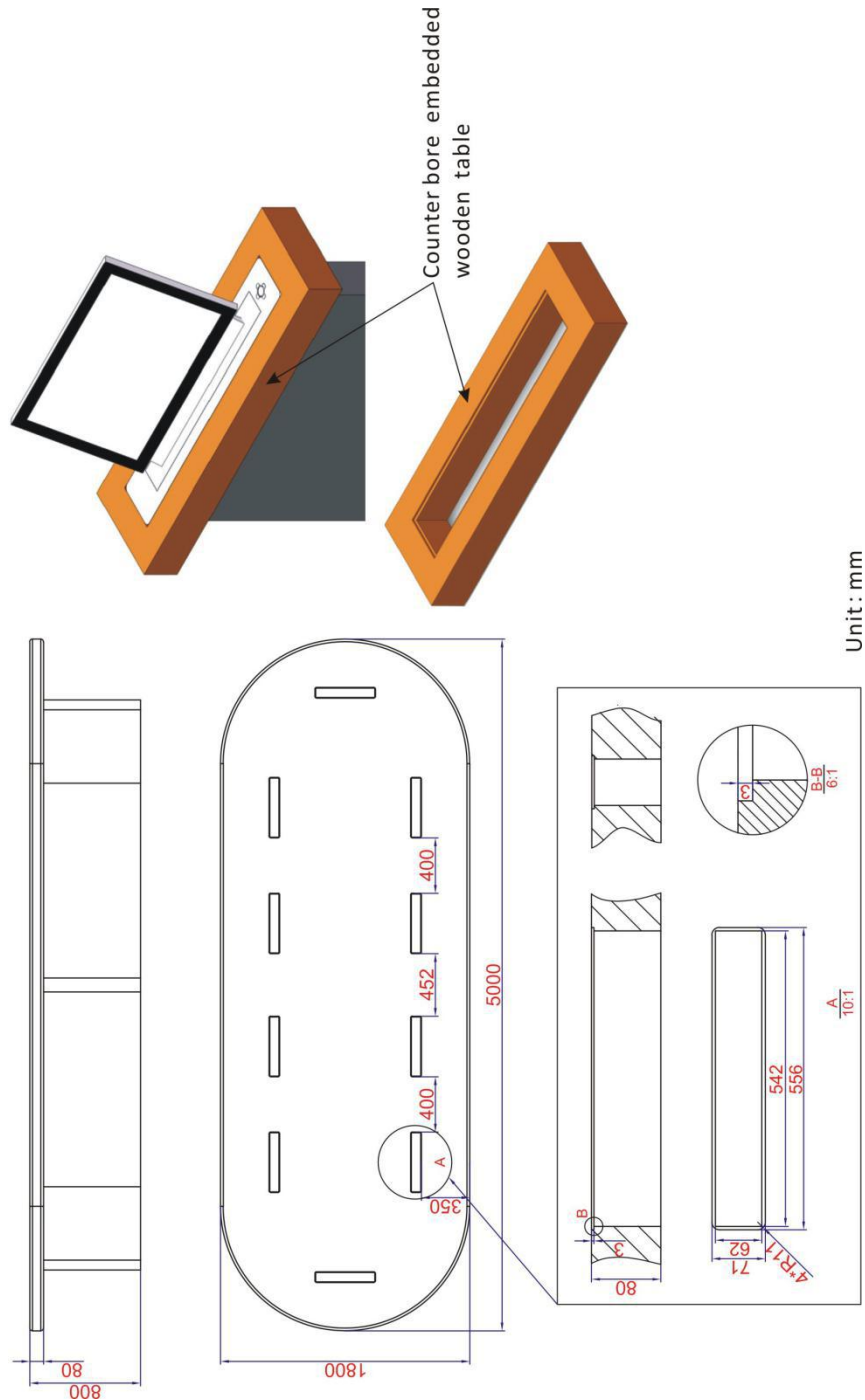
TS-F173T Panel side view:



Note: Before installation, please remove the two 'transport fixing screws' on the cover, and the side display fixing clips and clean the foam filling inside the flip door.

9 Installation size (conference table opening size chart)

Take TS-F173T as an example:



Taking a $5\text{m} \times 1.8\text{m} \times 0.8\text{m}$ conference table as an example, the distance between the elevators is 0.4m, and it is appropriate to have a distance of 0.35m from the edge of the conference table. The user can adjust the size according to the actual needs. For the installation hole of the elevator, please mark the opening according to the drawing.

10 Common faults and maintenance

Troubleshooting situation	Cause Analysis	Solution
The operation button does not respond, the screen and the microphone does not rise.	Not connected to the power supply.	Check the power and make sure it is on.
	Poor power input.	Check the power connector and make sure it is in good contact. Switch to another power input.
No corresponding image output when the signal is switched	Signal source or terminal display is not turned on.	Check and make sure the source and terminal display are on.
	Poor contact of video signal port.	Check and make sure the corresponding video signal port is connected properly.
After the signal is switched, the display shows a black screen	Display does not support source resolution.	Switch to a new source or set to automatically adapt to display resolution.
Output image is disturbed	Poor contact between input and output devices.	Connect the device properly and make it in good contact.
	Input and output connection wires are not qualified or damaged.	Replace regular standard wire.
	The wires are too long.	Replace high-quality wire with a length that supports the transmission range of the system.
Panel touch has obvious static electricity	The device is not well grounded.	Ground the grounding terminal of the unit well.
Unable to control the unit or remote terminal by serial command	Poor contact of the control port.	Check the communication serial port to make sure it is in good contact.
	The communication protocol is not well-set.	Set the local or remote communication protocol as needed.
The network port cannot control the machine	The control device network segment is inconsistent with the local matrix host network segment.	Change the control device network segment to be consistent with the matrix host
	The matrix host network segment is inconsistent with the connected LAN segment.	Change the matrix host network segment to be consistent with the LAN segment.

Not working	Internal damage to the main unit.	Send professional repair center for maintenance.
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