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Ultra-thin LCD microphone lifting machine

TS-FE156MT3/FE173MT3

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.

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.

CONTENTS

1 Introduction

An integrated elevator for combining a computer monitor on a conference table with a conference microphone. This new product is more practical for paperless conference equipment, The back of the device is equipped with 11.6 inch IPS full-view screen. It uses seamless and backless connection to highlight the high-end atmosphere of the product. With paperless conference terminal, it can display the required pattern of the conference, the name of the conference guests, and perfectly realize the interactive paperless and powerful conference function. with LCD touch display terminals and conference microphones as the center, integrating HD video and unified communication. Function, intelligent multi-screen interactive sharing function, intelligent conference control, audio and video collection and sound reinforcement system, etc., form a "people-oriented" intelligent meeting experience. Can be controlled by panel button, IR remote control, RS232 command control, RS485 command control.

When you need to use it, just press the up button on the panel, the display and the microphone have a separate control system, you can choose according to your needs, the start button hides the elevator in the conference table and automatically raises the display and microphone from the chassis to the desktop. Rise at a certain angle (if the angle is not suitable, you can adjust the appropriate angle by manual button). When the display and microphone are not used, press the down button to automatically lower the display and microphone to hide inside the conference, and automatically close the valve and the desktop to keep it flat. The LCD will automatically disconnect the power, thus achieving efficient meeting, beautiful desktop and atmosphere. For the purpose of saving space, it is very convenient to use, with anti-theft, dustproof, beautifying the desktop and other functions.

2 Function & Features

1. This device adopts double-screen and paperless Intelligent Desktop with double-screen design. The back of the device is equipped with 11.6 inch IPS full-view screen. It uses seamless and backless connection to highlight the high-end atmosphere of the product. With paperless conference terminal, it can display the required pattern of the conference, the name of the conference guests, and perfectly realize the interactive paperless and powerful conference function.

2. The microphone lift has an automatic straightening function. When the straw is bent, the machine is closed to automatically support the straw and will not damage the straw.

3. The display and microphone lift have a separate lifting system, both can be used according to the needs of lifting.

4. The equipment adopts all-aluminum structure, high-quality aluminum material and CNC engraving processing. The display frame is one-piece CNC forming of the whole aluminum alloy. The thin part is not more than 4 mm. The chassis is made of aluminum alloy, making the whole equipment exquisite, light and beautiful. ,atmosphere.

5. The surface treatment of the equipment is anodized, bright color, can be sandblasted, wire drawing and other processes, can also be customized in a variety of colors.

6. The thickness of the product panel is only 3mm and the width is only 70mm. Compared with the traditional lifter, it is lighter and takes up less space. The weight of the product is only one-third of the weight of the conventional lifter, which reduces the transportation cost and the pressure on the Huiyi table is small.

7. The transmission structure is specially treated, the noise is reduced to a minimum, and the internal structure is treated by waterproofing. The general meeting tea leakage will not affect the use of the machine.

8. High-definition screen for domestic well-known brands, the choice of A gauge display screen, high resolution, colorful and transparent. Resolution: 1920*1080P aspect ratio 16:9.

9. The product with imported steel wire and high-precision guide rail and linear bearing, AC reducer motor to drive power; Central Control Association

10. After the rise, the screen automatically supplies power, after the decline, the screen automatically power off, saving environmental protection.

11. Support HDMI and VGA two-way signal input. When there is only one signal input, the screen will automatically recognize the signal. When two signals are input at the same time, it can be manually switched through the panel button. When there is no signal input, the screen automatically enters the power saving Mode.

12. This device can be centrally controlled by the central control software, which can be controlled by remote control or host. One button can make all the devices in the room rise or fall.

13. The desktop panel has a USB interface, and files can be browsed or uploaded by connecting a U disk.

3 Product Model & Specification

Product number	TS-FE156MT3	TS-FE173MT3
Product Size	555*70*650mm	601*70*650mm
Chassis size	540*60*647mm	586*60*647mm
Desktop opening	542*62mm	588*62mm
Panel sinking	556*71*3mm	602*71*3mm
Lifting time	28S	28S
Elevation angle	0-30°	0-30°
Video interface	HDMI/VGA	HDMI/VGA
Screen Resolution	1920*1080	1920*1080
Operating Voltage	220V 50Hz	220V 50Hz
Contrast	600：1	600：1
Aspect ratio	16：9	16：9
Brightness	300cd/㎡	300cd/㎡
Power consumption	25W	25W

Secondary screen parameters

Secondary screen size	11.6inch, 255*143mm
Secondary screen	Does not support touch
Secondary screen resolution	1366(RGB)×768 [WXGA]
Secondary screen contrast	800：1
Secondary screen brightness	250 (Typ.)
Secondary screen working environment	Working temperature: 0～50℃; Storage temperature: -20～60℃
Secondary screen operating	60Hz
Secondary screen viewing angle	89/89/89/89 (Typ.)(CR≥10)
Secondary screen type	IPS soft screen full view
Secondary screen voltage	3.3V
Signal system	eDP (1 Lane), terminal, 30 pins

4 Packing List

S/N	Accessories Name	Notes
1	Lifting machine	1piece
2	Power cable	1piece
3	Touch data line	1piece
4	User's manual	1piece
5	Data USB cable	1piece
6	Serial cable	1piece

The machine is strictly packed before leaving the factory. Before using the product, please confirm whether the products and accessories ordered are damaged, deformed or missing. If it is damaged, inconsistent or missing, please contact the product supplier.
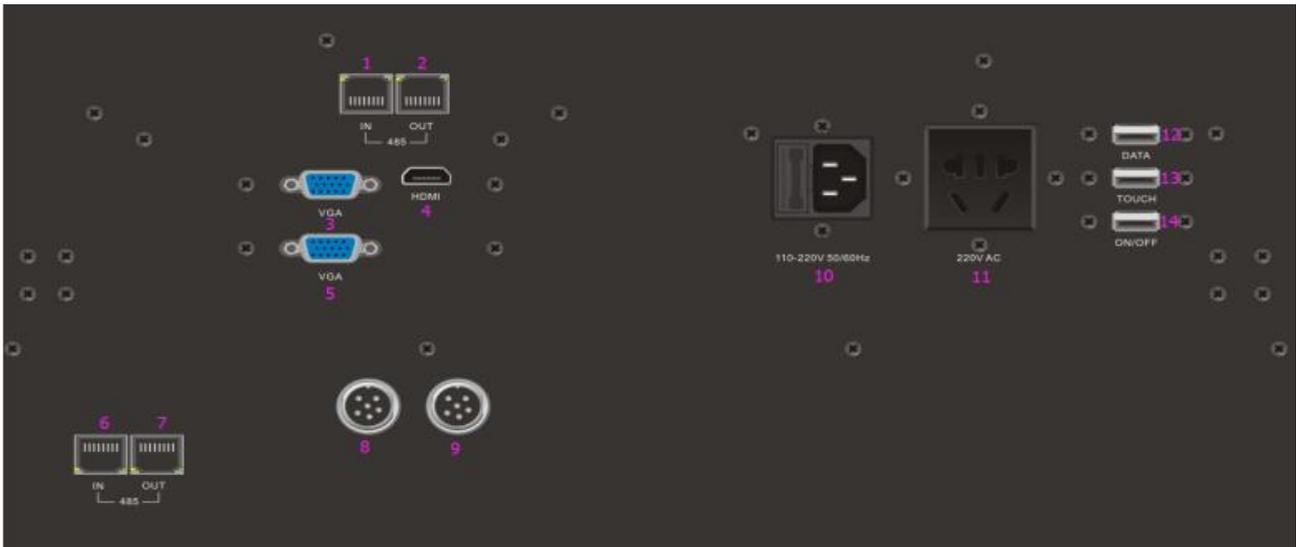
5 Product Appearance & Structure Instruction

5.1 Front Panel' Function & Introduction

No	Name	Description
1	USB interface	Read data
2	Display up button	Display control screen up function (adjustable tilt angle 0-30°)
3	Display pause button	You can pause the display screen up or down at any time.
4	Display down button	Display control screen down function (adjustable tilt angle 30-0°)
5	Signal switching button	If connect VGA and HDMI signals at the same time, you can switch between VGA signal and HDMI signal.
6	Computer host switch button	Control the computer's on/off function
7	Microphone lifting hole	When the microphone is raised, the cover will open with it .When the microphone is lowered, the cover will be closed.
8	Microphone up button	Press the microphone up button and the microphone will rise from the inside of the chassis to the proper position.
9	Microphone lever pause button	Press the microphone pause button to pause the rise or fall of the microphone
10	Microphone down button	Press the microphone up button and the microphone will descend from the panel to the inside of the chassis.
11	Microphone start button	When need to speak, press the start button to realize the speech function. After speaking,press the microphone to turn off the microphone.

5.2 Rear Panel's Function Introduction (from left to right)

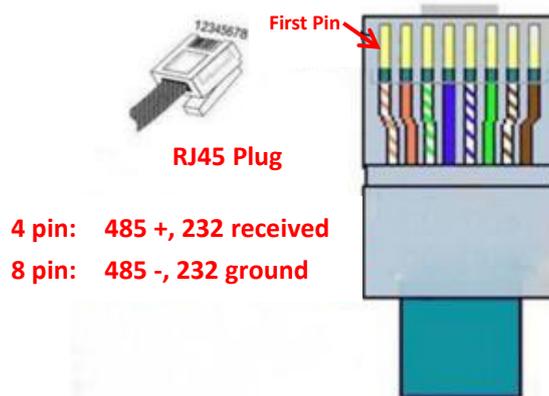| No	Name	Description
1	Display control 485 input port	Used for display lifting central control 485 network input interface
2	Display control 485 output port	Used for display lifting central control 485 network output interface
3	Main screen VGA signal interface	Use for the main screen VGA video signal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

1. The board inserted in the rear panel is for reference only;

2. Product images are for reference only, please refer to the actual 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:

First Pin

RJ45 Plug

4 pin: 485 +, 232 received
8 pin: 485 -, 232 ground

   Baud Rate   2400
   Parity N
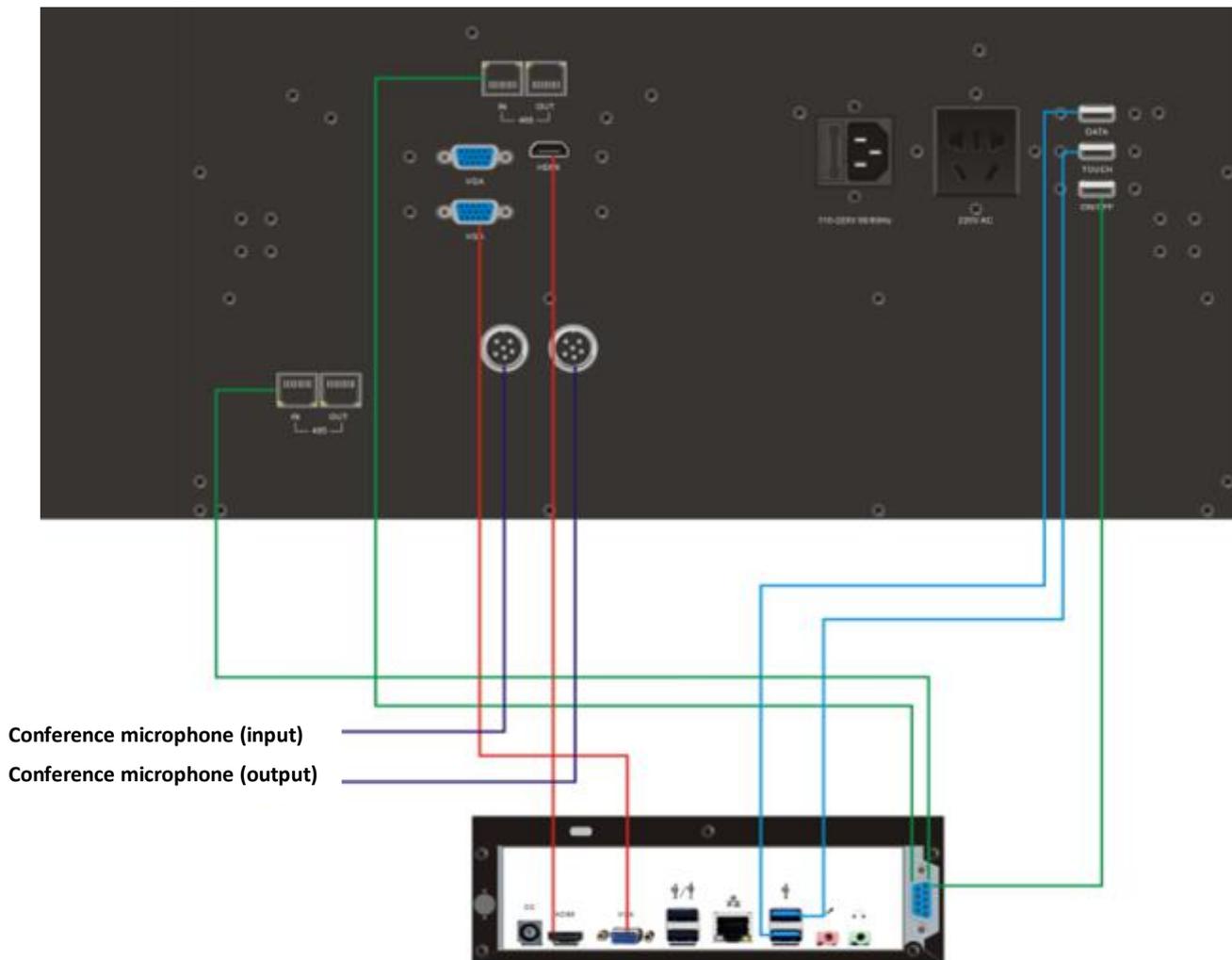   Data bits 8
   Stop bit 1
   Rising Code：FF EE EE EE DD
   Decline Code：FF EE EE EE EE
   Stop Code：FF EE EE EE CC

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.
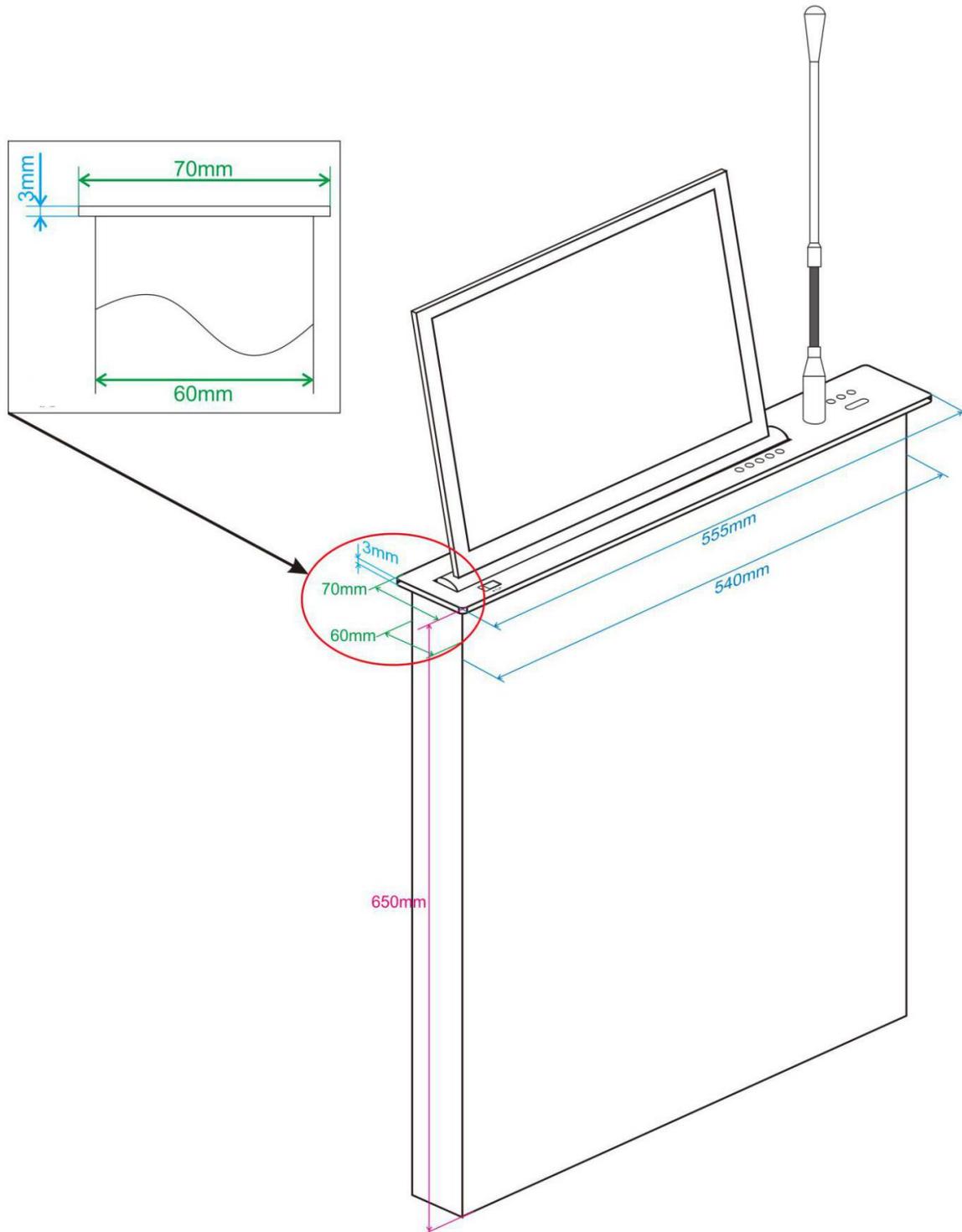
⑤ After completion, the first set of control codes becomes: FF 10 11 01 DD(rise), FF 10 11 01 EE (drop), FF 10 11 01 CC (pause), the second set of control codes becomes: FF 10 11 02 DD (rise), FF 10 11 02 EE (drop), FF 10 11 02 CC (pause), •••••• and so on.

7 Machine wiring diagram

Conference microphone (input)
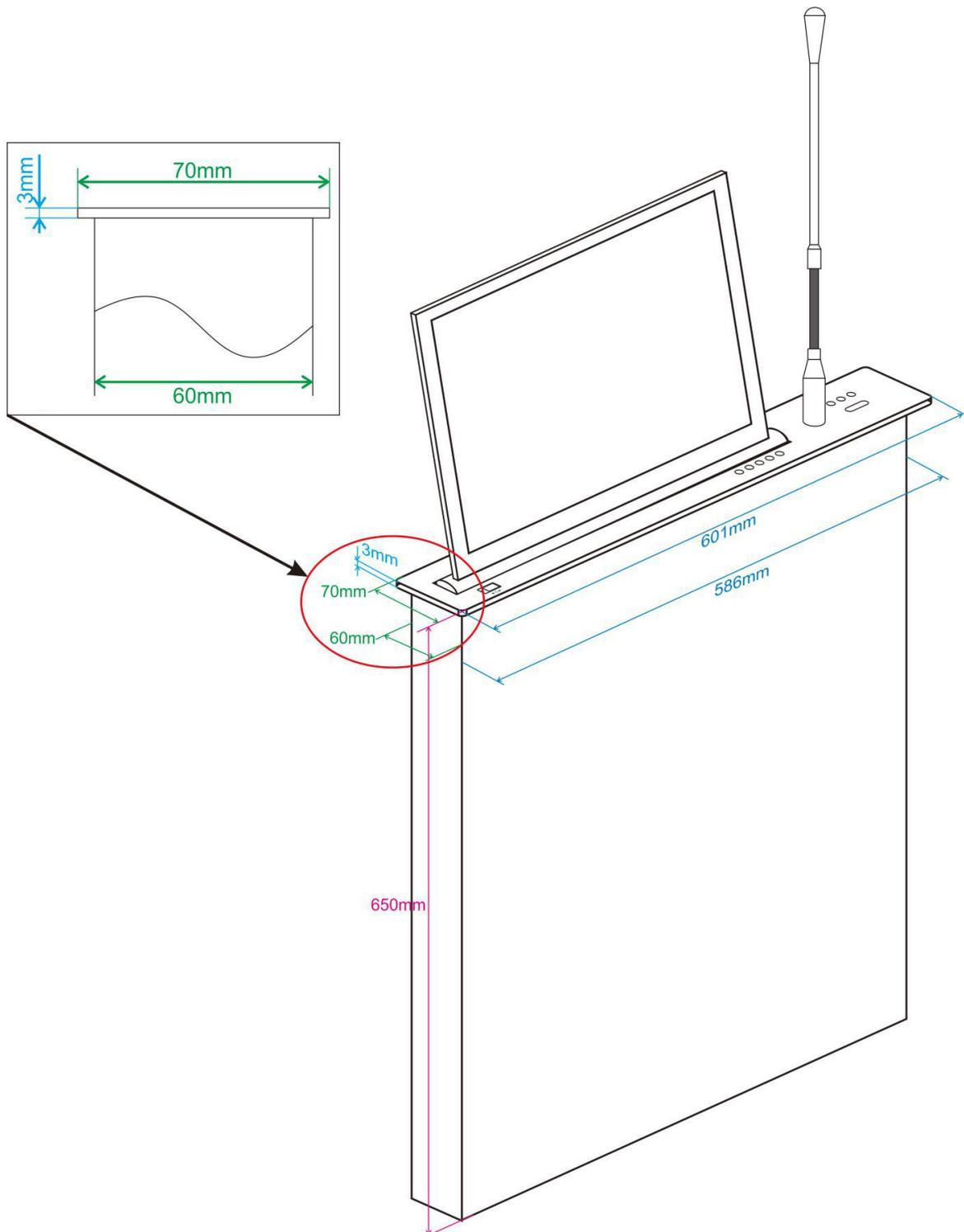
Conference microphone (output)

8 Installation size (product size chart)

TS-FE156MT3 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-FE173MT3 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.
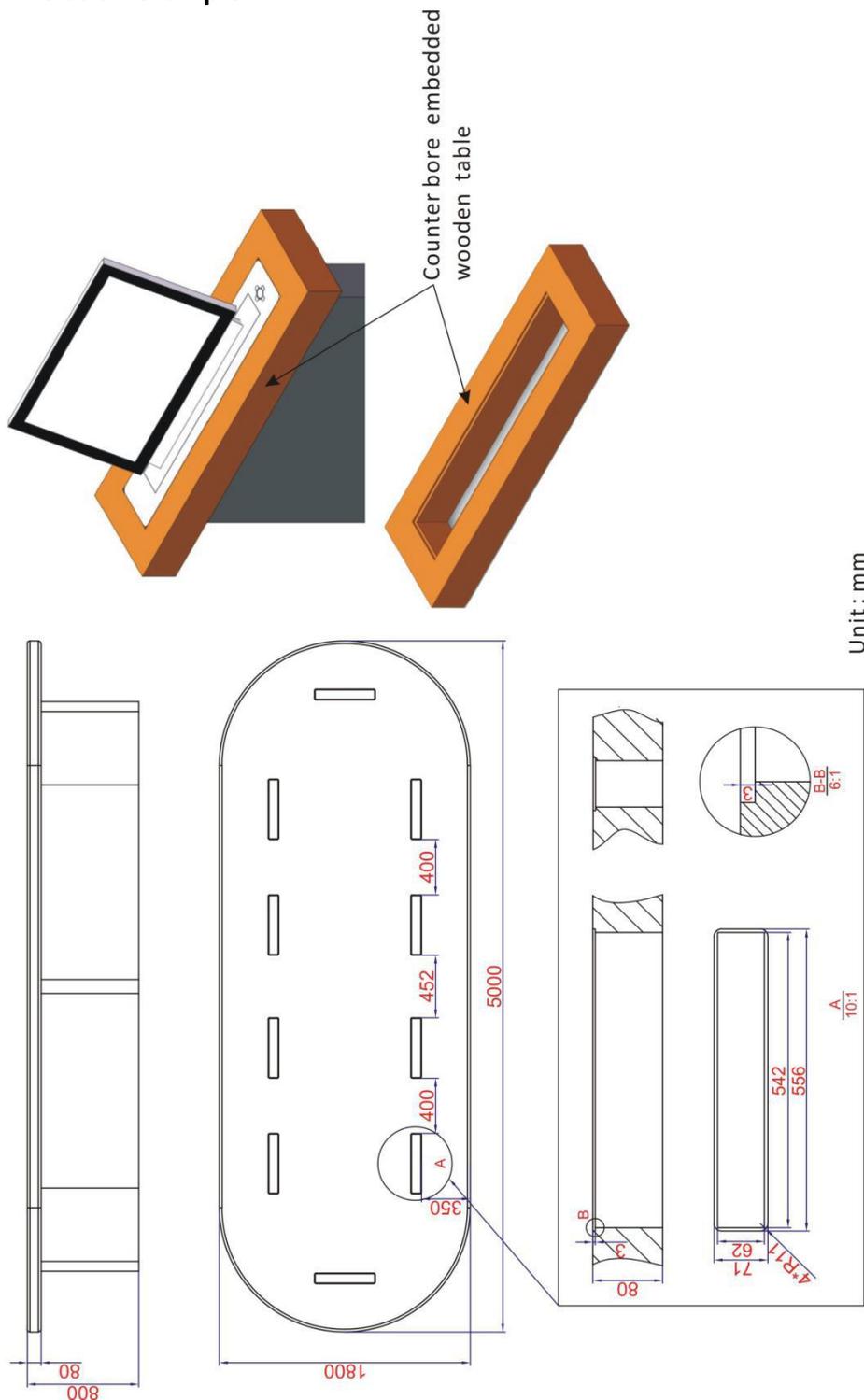
9 Installation size (conference table opening size chart)

Take TS-FE156MT3 as an example:

Counter bore embedded wooden table

Unit：mm

Taking a 5m×1.8m×0.8m 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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