



Ultra-thin LCD Monitor Lift with Microphone



TS-F156MT3

TS-F173MT3

Before using the system, please read the user manual

Document description

Before using this product, please read this manual carefully and keep it for future reference. Read the safety operation guide carefully. Note: Danger! Pay attention to reminder symbol.

This manual is only for user operation instructions, not for maintenance service purposes. The deadline for the described functions is December 30, 2021. If the functions or related parameters change after this date, supplementary explanations will be made without notice. For details, please contact the dealers.

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The product pictures in this manual are for reference only, please refer to the actual product.

Motorized Paperless Interactive Monitor Flipper

Operation Guide

In order to ensure the reliable use of the equipment and the safety of personnel, please observe the following items during installation, use and maintenance:

- There are live parts in the equipment. Non-professionals should not disassemble the equipment without permission to avoid the risk of electric shock.
- Do not disassemble the device when it is powered on or running to avoid the risk of electric shock.
- Do not operate with wet hands to prevent electric shock.
- It is strictly forbidden to use the product in an environment with flammable materials, explosive gases or heat sources.
- It is strictly prohibited to spill any corrosive chemicals or liquids on or near the equipment.

- Do not block the heat dissipation holes, and keep the working environment well ventilated, so that the heat generated by the device during work can be discharged in time, so as to avoid excessive temperature and damage to the device.
- Do not place the device on an unstable surface to avoid damage caused by the device falling.
- In order to avoid the equipment from being damaged by strong vibration during transportation, it is recommended to use proper packaging or use the original packaging during transportation.
- Do not squeeze the power cord and device with heavy objects.
- The equipment must use a grounded power supply.
- Do not repair it privately, so as not to aggravate the damage to the equipment.
- When moving the device, be careful not to drop the device to avoid personal injury or equipment damage.
- Turn off the main power supply of the equipment when it is in a humid environment or not in use for a long time.
- The equipment shall be used after being stored for a long time and must be inspected and trial run before use.
- Before cleaning the equipment, the equipment must be powered off and clean the equipment with a dry cloth.
- Discarded equipment should be treated as industrial waste, and incineration is strictly prohibited.

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1. Description

The product uses intelligent control technology, and adopts original guide rail design, which realizes one-key operation to automatically completes the startup, LCD screen up, elevation and other actions. The product is beautiful, elegant, and space-saving. It is very convenient to use, with functions such as anti-theft, dust-proof, and beautify the desktop. It can be widely used in conferences, office, hotels, teaching studios and other occasions to meet the needs of system diversification, and office environment automation. It is an ideal assistant for office and teaching.

2. Feature

1. Integrate touch ultra-thin HD display and lifter, without exposed connecting wires, connecting backplane, and exposed screws, to ensure the overall beauty of the lift display touch screen.
2. Integrated lift with microphone, the microphone lift has automatic straightening function. It can automatically straighten the rod when the machine is turned off without damaging the rod.
3. The equipment adopts all-aluminum structure, and high-quality aluminum material with CNC engraving processing. The display frame and cabinet are made of aluminum alloy, making the overall equipment exquisite, light, beautiful and elegant.
4. The surface of the equipment is treated with anodizing, and the color is bright
5. The equipment panel has thickness of only 3mm, and width of only 70mm, which takes up little space.
6. The transmission structure is specially treated to minimize the noise. The product transmission is driven by high-quality stretch-resistant belts, high-precision slider guide rail and linear bearings, and AC geared motors are used as driving power; the central control protocol is compatible with all controllers. After the control device rises, the screen automatically powers on, and when it falls, the screen will automatically power off, saving energy.
7. 15.6 inches/17.3 inches ultra-thin LCD touch screen display, with resolution of 1920*1080P, the display effect is clear and bright, and the backlight design can be adjusted to prevent too bright or too dark.
8. Support HDMI and VGA two-channel 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 buttons. When there is no signal input, the screen will automatically enter power saving model.
9. The equipment can be centrally controlled by the central control software, and the controller can rise and fall all the equipment in the room with one key.
10. Built-in loop-through output power socket can supply power to the terminal and reduce the wiring of the terminal power socket, therefore the site wiring is more tidy and beautiful.
11. The desktop panel has USB interface, and files can be browsed or uploaded by connecting U disk.

3. Specification

Model	TS-F156MT3	TS-F173MT3
Touch screen	Support touch	
Lift time	28S	
Elevation angle	0-30°, fully in line with ergonomic principles, without blocking sight and human face	
Product size	555×70×650mm	601×70×650mm
Panel size	555×70×3mm	601×70×3mm
Cabinet size	540×60×647mm	586×60×647mm
Cutout size	542×62mm (Recommended)	588×62mm (Recommended)
Panel sinking size (L×W×T)	556×71×3mm (Recommended)	602×71×3mm (Recommended)
Environmental condition	-20℃~50℃, relative humidity≤70%	
Screen size	15.6"	17.3"
Screen ratio	16:9	
Screen resolution	1920×1080	
Video interface	1-Channel VGA, 1-Channel HDMI	
Control interface	1 group of 232/485 input and output interfaces; control the display screen up and down, support hand-in-hand connection; 1 channel on/off USB interface, 1 channel data transmission USB interface.	
Microphone interface	2 groups of six-core aviation wire interfaces, which can realize "hand in hand" series connection of multiple units	
Backlight type	WLED, 15K hours, with LED driver	
Contrast	600:1	700:1
Brightness	300cd/m ²	
Viewing angle	45/45/20/40(Typ.)	89/89/89/89(Typ.)
Display thickness	9.7mm	10mm
Power supply	~110-240V 50-60Hz	
Power consumption	25W	
Microphone parameters		
Microphone type	Cardioid directional electret	
Frequency response	80Hz-16KHz	
Input impedance	1KΩ	
Sensitivity	-46dBV/Pa	
Maximum SPL	125dB (A)	
SNR	>80dB	
THD	<0.1%	
Power consumption	3W	

4. Packing list

No.	Accessory	Remark
1	Lifting touch screen	1
2	Power cable	1
3	Touch data line	1
4	User manual	1
5	Data USB cable	1
6	Serial line	1

This machine is strictly packaged before leaving the factory. If the ordered products and accessories are damaged, inconsistent or missing before usage, please contact the product supplier.

5. Appearance structure description

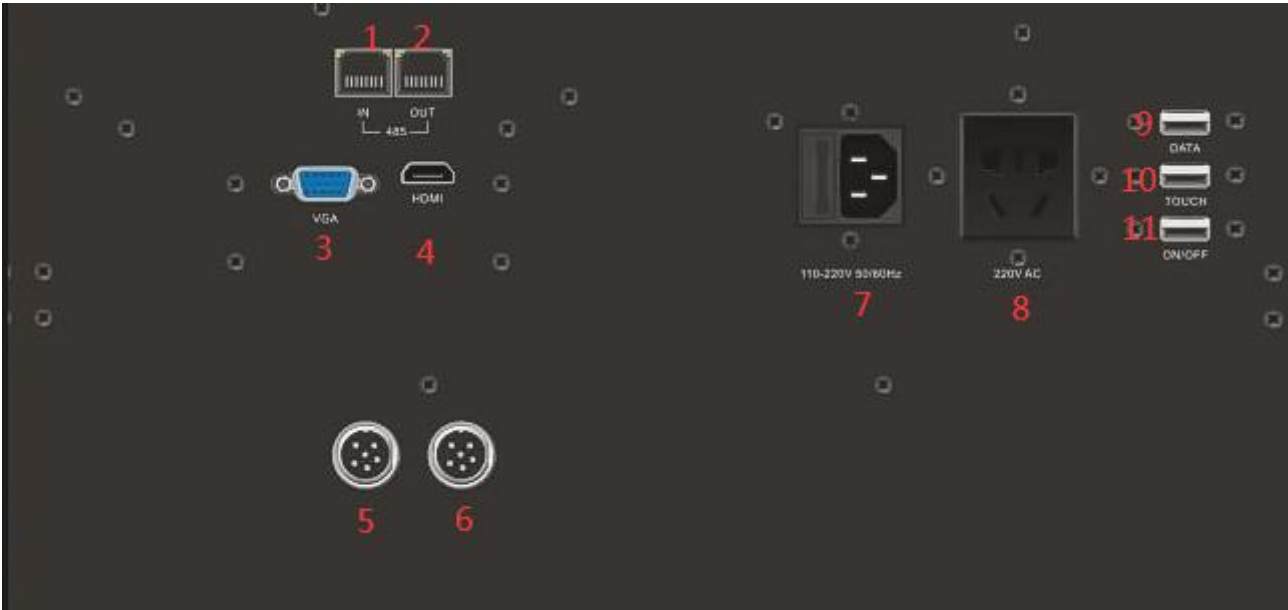
5.1 Front panel function



No.	Name	Description
1	USB interface	Read data
2	Display up button	Control the display to rise (adjustable tilt angle 0-30°)
3	Display pause button	The lifting of display screen can be paused at any time
4	Display down button	Control the display to fall (adjustable tilt angle 30-0°)
5	Signal switch button	If VGA and HDMI signals are connected at the same time, it can be used to switch between VGA signal and HDMI signal.
6	Controller switch button	Switch the controller
7	Microphone lift hole	When the microphone rises, the dome cover will open, and it will close when the microphone falls.
8	Microphone up button	Rise the microphone from the inside cabinet to a suitable position
9	Microphone pause button	Press the microphone pause button to pause the lifting of the microphone
10	Microphone down button	Fall the microphone from the panel to the inside cabinet

11	Microphone enable button	Press to speak, and press again to turn off the microphone
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5.2 Rear panel function

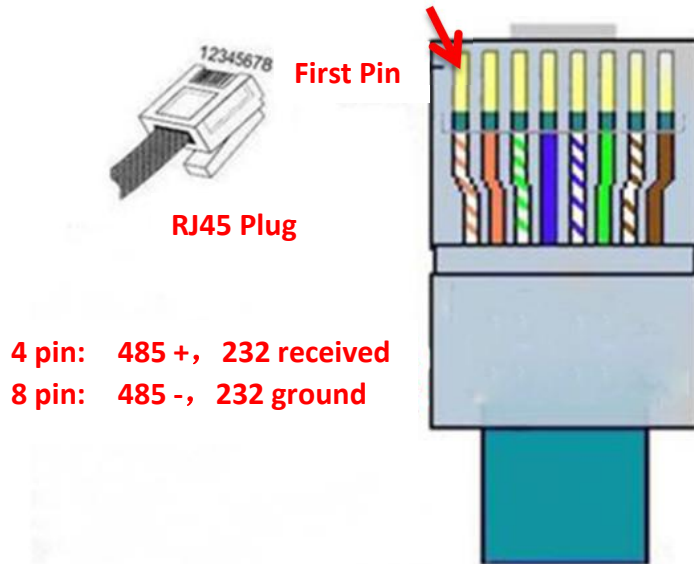


No.	Name	Description
1	Display central control 485 input port	For display lifting central control 485 network input interface
2	Display central control 485 output port	For display lifting central control 485 network output interface
3	Main screen VGA signal interface	For main screen VGA video signal input interface
4	Main screen HDMI signal interface	For main screen HDMI video signal input interface
5	Microphone signal input interface	For microphone signal input interface
6	Microphone signal output interface	For microphone signal output interface
7	Power input interface	For power input interface
8	Power output interface	For power output interface
9	Data transmission USB interface	Used to connect to USB data transmission interface
10	Touch line USB interface	For touch function interface
11	Switch USB control interface	Used to switch controller

1. The card inserted on the rear panel is for reference only;
2. Product pictures are for reference only, please refer to the actual product.

6. Central Control Protocol Control Code

(1) It adopts 232 and 485 protocol control. There are two RJ45 network jacks at the bottom of the device, and multiple sets of common network cables adopts hand-in-hand serial connection. network cable and device protocol connection as shown below:



Baud rate: 2400

Parity check: N

Data bits: 8

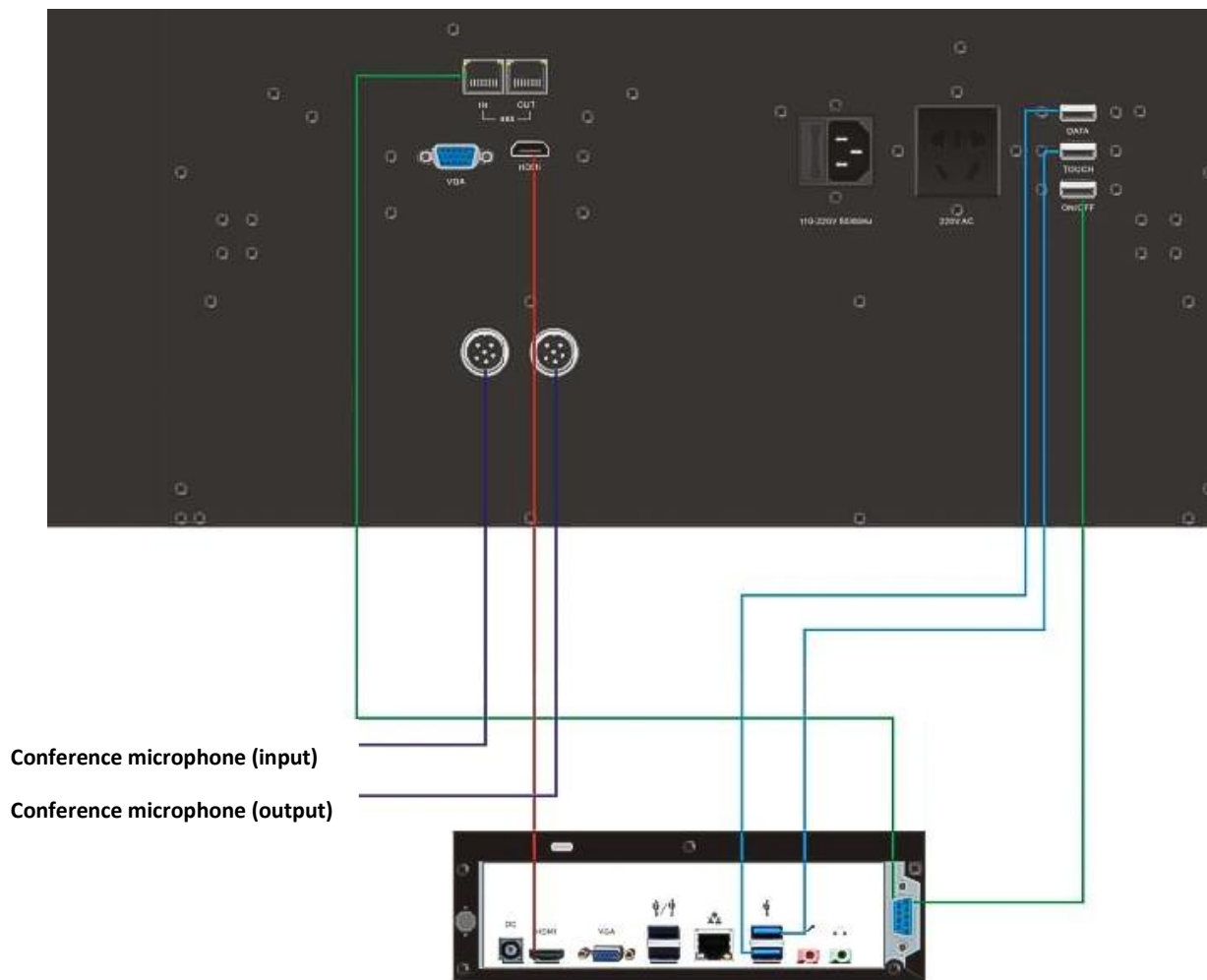
Stop bit: 1

Up code: FF EE EE EE DD

Down code: FF EE EE EE EE

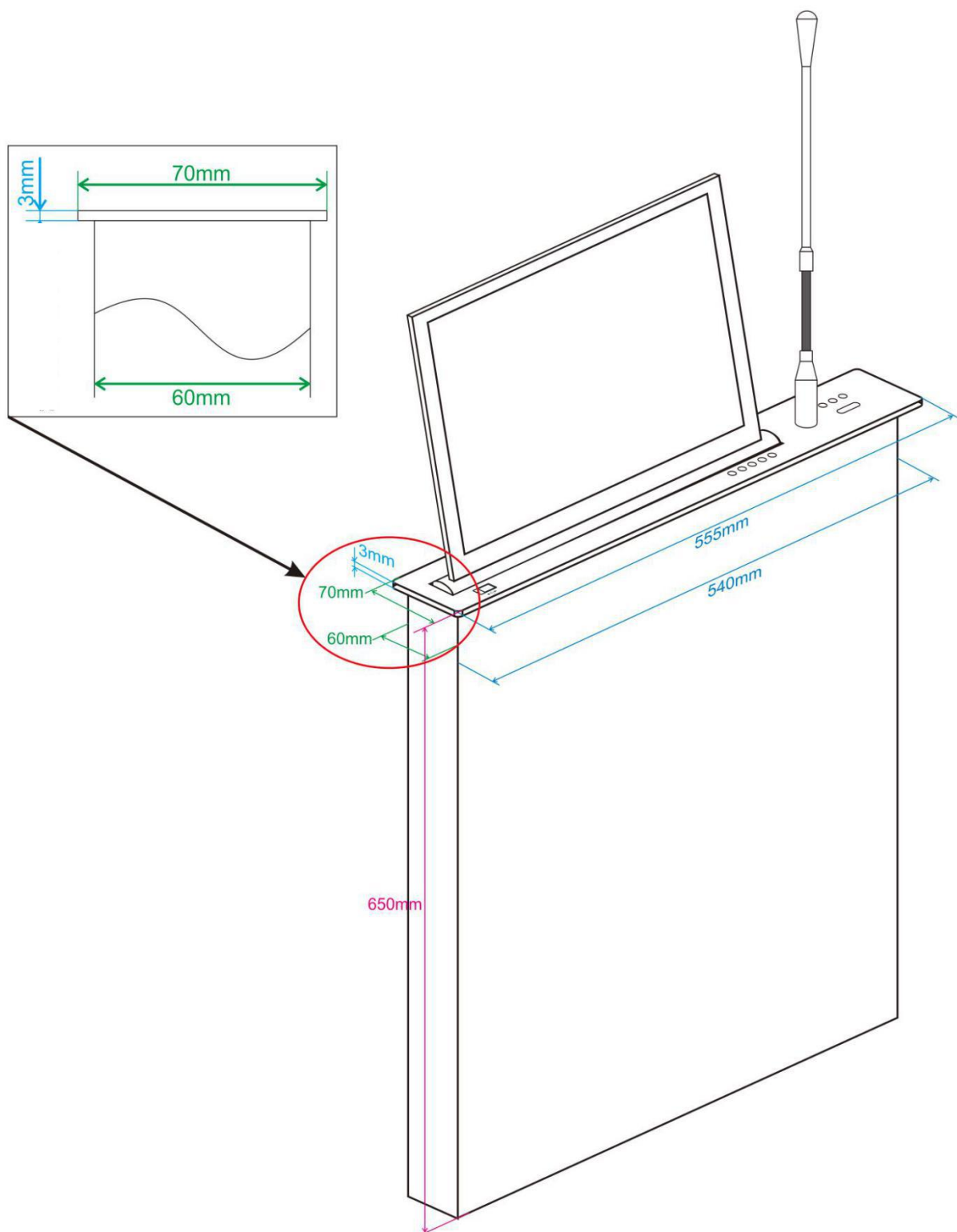
Stop code: FF EE EE EE CC

7. Machine connection diagram



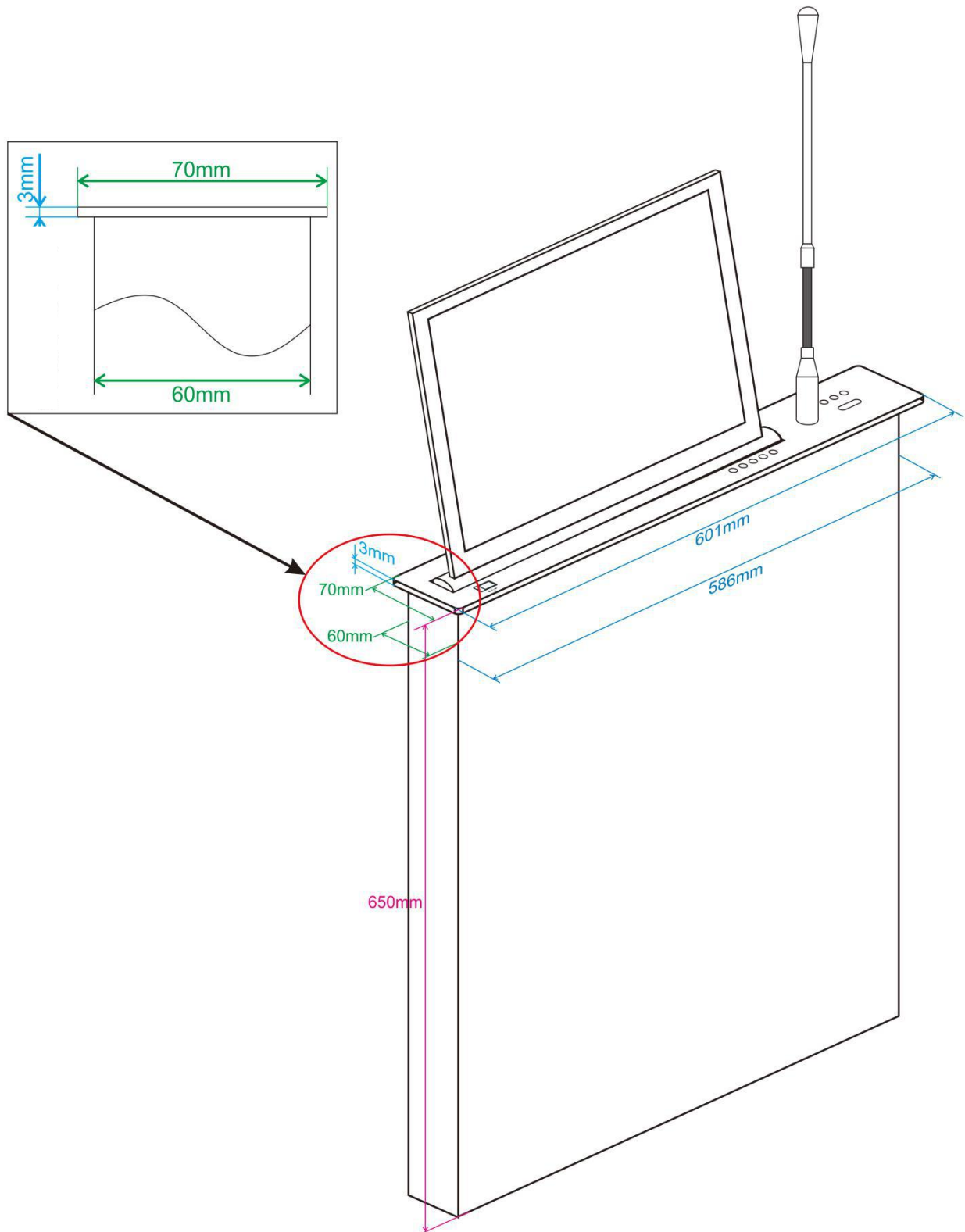
8. Installation size (product size drawing)

TS-F156MT3 Ultra thin 15.6Inch lift



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.

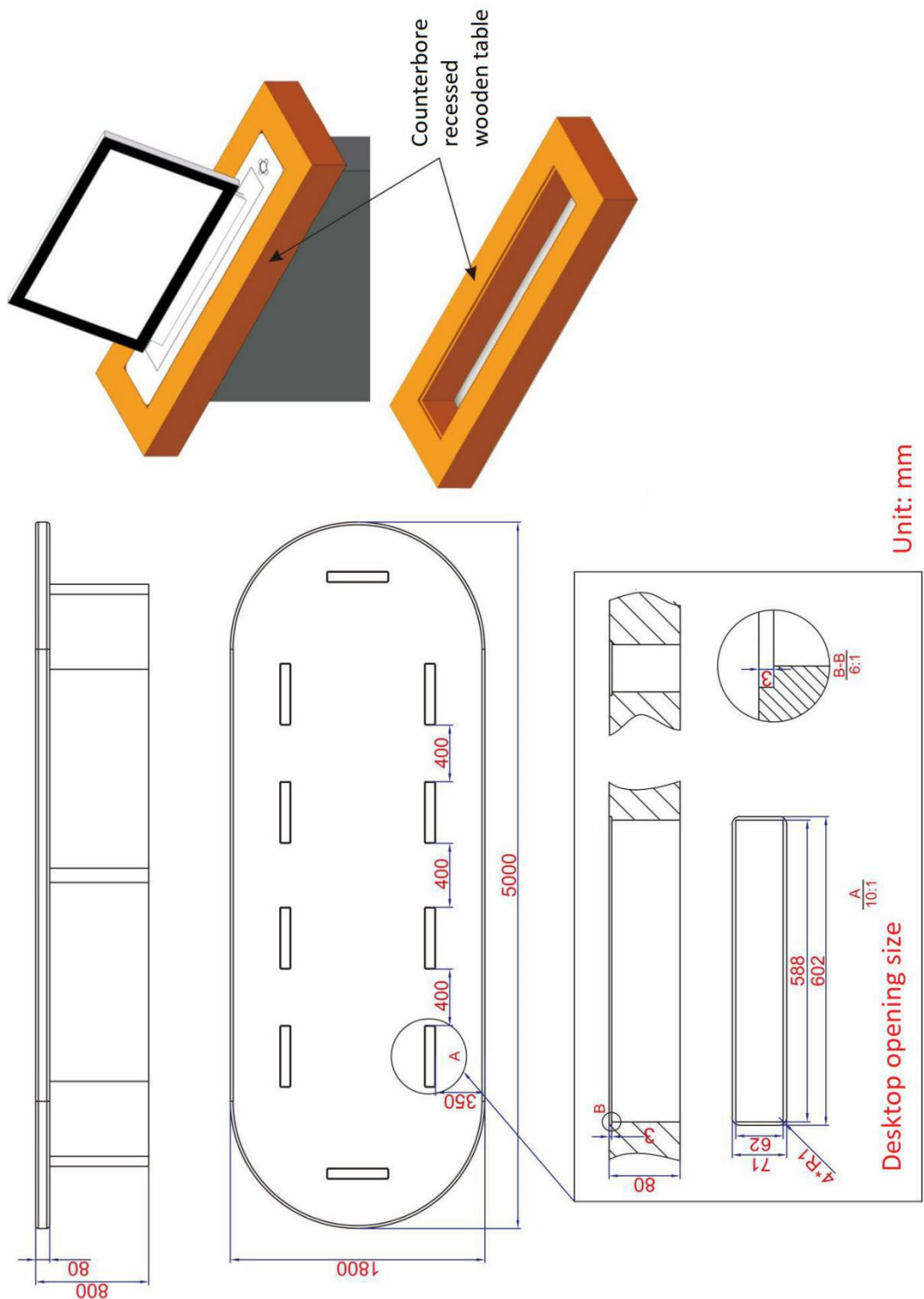
TS-F173MT3 Ultra thin 17.3Inch lift



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 (meeting table opening size diagram)

TS-F173MT3 ultra-thin 17.3 inch lift



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

Fault phenomenon	Cause Analysis	Elimination method
The operation button does not respond and the screen does not rise.	Disconnected to the power supply	Check the power and make sure it is on
	Poor power input	Check the power interface and make sure it is in good contact. Switch to another power input.
No corresponding image outputs 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
	Loose 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	Loose contact between input and output devices	Connect the device properly and make it in good contact
	Input and output connection wire quality is not up to standard or damaged	Replace regular standard wire
	The wire is too long	Replace high-quality wire 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 machine well
Unable to control the unit or remote by serial command	Loose contact of the control port	Check the communication serial port to make sure it is in good contact
	The communication protocol is not 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 controller network segment.	Change the control device network segment to be consistent with the matrix controller
	The matrix controller network segment is inconsistent with the connected LAN segment.	Change the matrix controller network segment to be consistent with the LAN segment.
Not available	Internal damage to the controller	Send it to professional maintenance point

11. After-sales service

(1) During the warranty period of the product, if there are abnormal conditions under normal use, our company will repair without pay due to the failure caused by the quality of the product itself.

(2) Our company provides three-year warranty service for this product, the warranty period start date:

- ✓ Manufacture date;
- ✓ The above date cannot be obtained, and the manufacture date in the company's SN code shall prevail.

(3) In any following conditions, no warranty service is provided and the cost of repair parts is reasonably charged:

- ✓ Damage caused by improper use, storage and maintenance by consumers;
- ✓ Man-made damage to appearance and components;
- ✓ Damage caused by changes to the configuration or the product without the authorization of the company;
- ✓ Damage caused by force majeure.

(4) In any following circumstances, our company has the right to refuse to provide repair services. Or The company provide fee-based repair services ;

- ✓ Damage to the fragile label (except for our company's authorization): the product label content is altered or obscured, and cannot be identified;
- ✓ Damage caused by unauthorized installation and disassembly of our company;
- ✓ No sales voucher. Or sales voucher does not match the repair product model;
- ✓ Not products that our company produces and sells .

(5) You can contact us directly by the company's after-sales service department by letter or telephone, please inform us of the following:

- ✓ The model and name of the product;
- ✓ Failure phenomenon (as detailed as possible);
- ✓ The process before and after the fault.



Warning



1. Do not block the vent.
2. If the power cord is damaged, stop using it immediately.
3. It should not be placed in the following places: poor ventilation; dusty; direct sunlight; high ambient temperature or close to heat sources; subject to vibration.
4. It is required to be protected from rain and moisture.
5. It cannot be placed in a container that can be filled with liquid.
6. The housing is required to be safely grounded.
7. The power plug and socket are required to be compatible.
8. Please do not open the housing cover by yourself to avoid electric shock. When it fails, please contact the supplier or the manufacturer for maintenance services, or you can entrust professionals in professional departments with professional certificates. Non-professionals are forbidden to disassemble the machine by themselves, otherwise electric shock may endanger their life.

Specifications and parameters are subject to change without notice