

Ultra-thin HD LCD Lifting Unit



Please carefully read the use manual before using the system

File Instruction

Please carefully read the manual before using the product and appropriately keep for reference in the future. Please carefully read the Guidelines for Safe Operation. Notes: ⚠️ Danger. ⚠️ Attention.

This manual is only for guiding the user operation rather than for repair service. The expiry date of the aforementioned functions is December 30, 2020. If there is any change in the functions or relevant parameters after the expiry date, additional notes will be provided without further notice. If you need more information, please inquire the distributors.

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In view of trademark statement, all the other trademarks or registered trademarks mentioned in this file shall be owned by their owners, respectively.

The pictures of the products in this manual are for reference only. Please refer to the physical objects.

Machine name: ultra-thin HD LCD lifting unit

Guidelines for Safe Operation

In order to guarantee the reliable use of devices and staff safety, please abide by the following issues in installation, use and maintenance:

 Danger
<ul style="list-style-type: none">● There are live parts in the device, without permission, non-professionals shall not dismantle the device in case of electric shock.● Please do not dismantle the device when electrified or during operation in case of electric shock.● Please do not operate with wet hands in case of electric shock.● It is forbidden to place the product in the environments with flammables, explosive gases or heat sources for use.
 Attention
<ul style="list-style-type: none">● It is forbidden to spray any corrosive chemicals or liquids on or near the device.● Please maintain the good ventilation of working environment and do not block the cooling hole in convenience of in-time discharge of heat emitted by the device in operating and in case of device damage due to excessive high temperature.● Please do not place the device on the unstable platforms to avoid falling of device that leads to damages.● It is suggested to use the appropriate packaging or use the original packaging during the transportation process to avoid the device damages due to sharp vibration.● Please do not squeeze the power supply wires and device with heavy objects.● A grounded power supply must be used for the device.● Please do not repair arbitrarily in case of aggravation of the device's damage degree.● Please be cautious of device falling during transportation to avoid staff injury or device damage.● If the device is used in the moist environment or is not used for a long time, please turn off the general power supply of the device.● If the device is used after long-time preservation, the device must be checked and operated for trial before use.● Before cleaning the device, the power supply must be cut off and the device must be cleaned by dry dishcloths.● If the device is declared worthless, please process as industrial wastes and burning is forbidden.

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I. Brief Introduction

It is a type of integrated lifting unit for computer display on the conference tables. New model of this product is more applicable for paperless conference devices. With LCD touch display terminal and as the center, HD video, unified communication functions, smart multi-screen interaction and sharing functions, smart conference control, video&audio collection and sound amplifying systems are integrated to form a “people-oriented” smart conference experience. It is feasible to control through panel keys, IR remoter and RS485 central commend.

It only requires to press the LIFT key on the panel for use. After pressing the key, the lifting unit hidden in the conference table will automatically lift the display and the microphone from the chassis to the table top at a certain elevation (the angle can be adjusted by manual keys if inappropriate). When there is no necessity for use, it is feasible to press the LOWER key to automatically lower the display to hide into the conference table. The valve will automatically keep level with the table top and the LCD screen will automatically disconnect the power supply so as to realize the conference efficiency, good-looking and graceful table top, less space, convenient use, as well as functions of anti-theft, dustproof and table top beautifying.

II. Function Characteristics

1.The all-aluminum structure including high-quality aluminum materials and exquisite CNC processing is adopted for the device. The display screen framework is modeled by integral aluminum alloy and CNC at one time and the thickest part is not more than 4mm. The chassis made of aluminum alloy makes the appearance delicate, portable, beautiful and graceful.

1. The surface of the device is processed by anodic oxidation treatment with bright color and luster. It is also available for crafts like sandblasting and drawbench as well as color customization.

2. The product panel is 3mm in thickness and 70mm in width, which is more portable and occupies less space than traditional lifting units. The weight of the product is only 1/3 of that of conventional lifting units, which helps to reduce the transportation costs and pressure on the conference table.

3. The transmission structure is specially processed to lower the noise to the minimum. The internal structure is processed in a waterproof way so usual tea leakage during conferences will not influence the use of the device.

4. The HD screen is produced by a famous brand in China and A-level display screen with high resolution and bright color is chosen. The resolution is 1920*1080P and the aspect ratio is 16:9.

5. There is the combined unit of imported steel wires, high-precision lead rails and linear bearings, AC decelerating motor as the driving power and central control association in the product.

6. The screen is automatically connected to the power supply after lifting while it is automatically disconnected with the power supply after lowering for energy saving and environment protection.

7. It supports the signal inputs of HDMI and VGA. When there is only one type of signal inputting, the screen will automatically identify the signals. When there are two types of signals inputting simultaneously, it is feasible to manually switch through panel keys. When there is no signal inputting, the screen will automatically enter the power-saving mode.

8. The device can be centrally controlled through the central control software, the remoter or the host. All the indoor devices can be lifted or lowered by one key.

III. Product Models, Specifications and Parameters

Model	10.1 inch single screen	13.3 inch single screen	15.6 inch single screen	17.3 inch single screen	18.4 inch single screen	21.5 inch single screen
Product size	300*70*565mm	375*70*565mm	430*70*565mm	476*70*565mm	510*70*650mm	582*70*650mm
Case size	285*60*562mm	360*60*562mm	415*60*562mm	461*60*562mm	495*60*647mm	567*60*647mm
Hole size	285*60mm	360*60mm	415*60mm	461*60mm	495*60mm	565*60mm
Panel sink size	300*70*3mm	375*70*3mm	430*70*3mm	476*70*3mm	510*70*3mm	582*70*3mm
Lifting time	20S	25S	28S	30S	30S	32S
Elevation	0-30°	0-30°	0-30°	0-30°	0-30°	0-30°
Video interface	HDMI/VGA	HDMI/VGA	HDMI/VGA	HDMI/VGA	HDMI/VGA	HDMI/VGA
Screen resolution	1280*800	1920*1080	1920*1080	1920*1080	1920*1080	1920*1080
Voltage/ Frequency	110-240V; 50/60HZ	110-240V; 50/60HZ	110-240V; 50/60HZ	110-240V; 50/60HZ	110-240V; 50/60HZ	110-240V; 50/60HZ
Contrast ratio	600: 1	800: 1	600: 1	600: 1	700: 1	800: 1
Aspect ratio	16: 9	16: 9	16: 9	16: 9	16: 9	16: 9
Brightness	330cd/m ²	300cd/m ²	300cd/m ²	300cd/m ²	300cd/m ²	300cd/m ²
Power consumption	16W	18W	18W	20W	20W	20W

IV. Packaging List

No.	Name of accessories	Notes
1	Monitor lift unit	1 pcs
2	Power cord	1 pcs
3	Touch data cable	1 pcs
4	Use manual	1 pcs
5	USB data cable	1 pcs

The device must be strictly packaged before coming out the plant. Please confirm that there is not any damage,, deformation or loss of the ordered product and accessories before using the product. If there is any damage, inconformity or loss, please contact the product supplier.

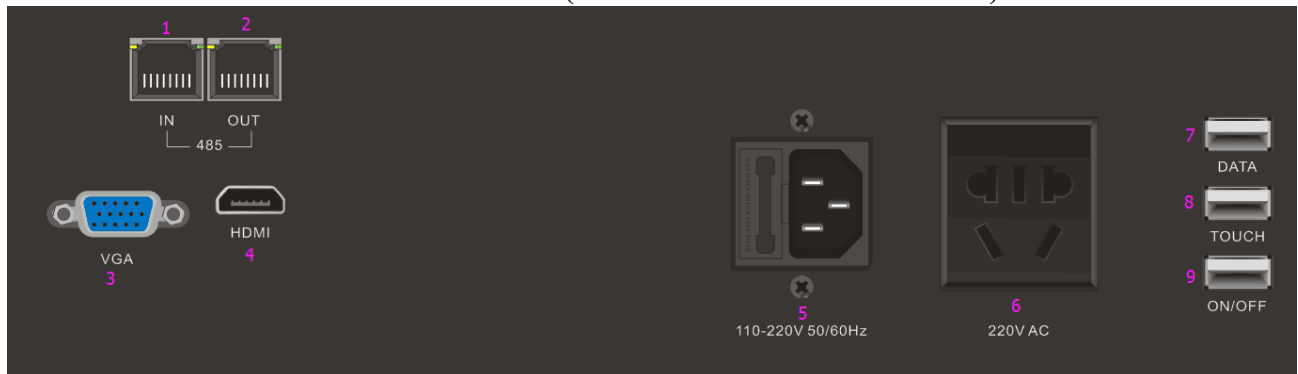
V. Instruction of Product Appearance and Structure

5.1 Function Introduction of Front Panel (introduced in numerical order)



No	Name	
1	USB interface	Read the data
2	Lifting key	Control the lifting function of display screen (adjustable elevation 0-30°)
3	Pause key	Can pause the lifting or lowering functions of display screen at any time
4	Lowering key	Control the lowering function of display screen (adjustable elevation 0-30°)
5	Switch key	Switch the functions for VGA and HDMI signals if VGA and HDMI signals are simultaneously connected
6	ON/OFF key	Control the switch-on and switch-off functions of computer host

5.2 Function Introduction of Back Panel (introduced in numerical order)



No.	Name	Description
1	485 network port input of central control	Used for 485 network input port of central control
2	485 network output of central control	Used for 485 network output port of central control
3	VGA port	VGA video signal input port
4	HDMI port	HDMI HD video signal input port
5	Power supply port	Power supply input port
6	Power supply port	Power supply output port
7	USB port 1	Used for data transmission port
8	USB port 2	Used for touch function port
9	USB port 3	Used for switch port of the terminal host

1. The panel card inserted in the back panel is for reference only.

2. The product pictures are for reference only. Please refer to the real objects.

VI. Control Protocol Code Learning

Serial Port Protocol for Central Control Software

V1.4

I. Serial Port Configuration

Baud rate (2400), data bit (8), stop bit (1), check (none).

II. Frame Format

There are five bytes in the frame length. The first byte is the frame header field. The second and the third bytes are reserved fields. The fourth byte is the group field. The fifth byte is the command field. Here are the examples.

frame header field	reserved fields	group field	command field
0*FF	0*EE 0*EE	0*EE	0*DD

The frame header field is fixed as 0*FF. The reserved fields are fixed as 0*EE 0*EE. The scope of group field is 0*01~0*40 (64 independent groups in total) and 0*EE (the general control group). The explanation of the command field is shown as the following table.

Command	Value	Explanation
Cmd_UP	0*DD	Lift (add the elevation)
Cmd_STOP	0*CC	Stop
Cmd_DOWN	0*EE	Lower (reduce the elevation)
Cmd_PAIR	0*A1	Match
Cmd_UNPAIR	0*A2	Cancel the match

III. Operation Examples

Control all the machines to lift (add the elevation)

0*FF	0*EE 0*EE	0*EE	0*DD
------	-----------	------	------

Control all the machines to stop

0*FF	0*EE 0*EE	0*EE	0*CC
------	-----------	------	------

Control all the machines to lower (reduce the elevation)

0*FF	0*EE 0*EE	0*EE	0*EE
------	-----------	------	------

Send the matching code for group1

0*FF	0*EE 0*EE	0*01	0*A1
------	-----------	------	------

Control the machines in group 1 to lift (add the elevation)

0*FF	0*EE 0*EE	0*01	0*DD
------	-----------	------	------

Control the machines in group 1 to stop

0*FF	0*EE 0*EE	0*01	0*CC
------	-----------	------	------

Control the machines in group 1 to lower (reduce the elevation)

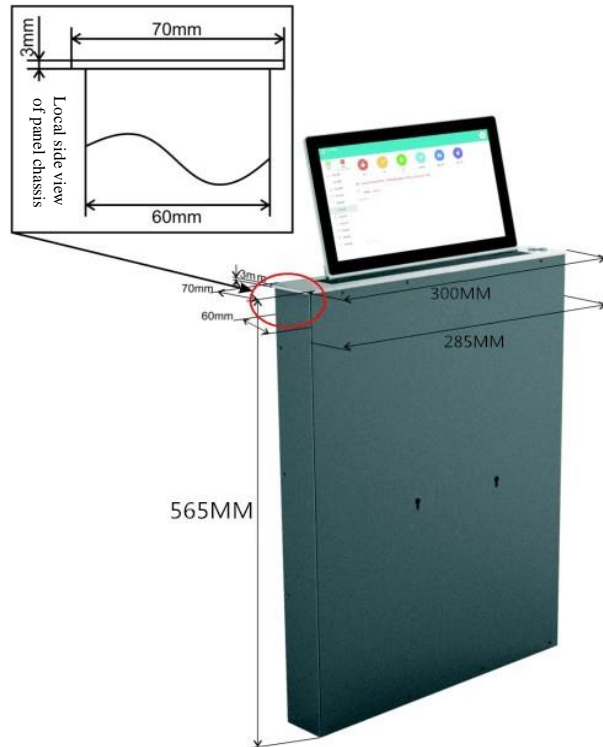
0*FF	0*EE 0*EE	0*01	0*EE
------	-----------	------	------

Send the match cancellation code of group 1

0*FF	0*EE 0*EE	0*01	0*A2
------	-----------	------	------

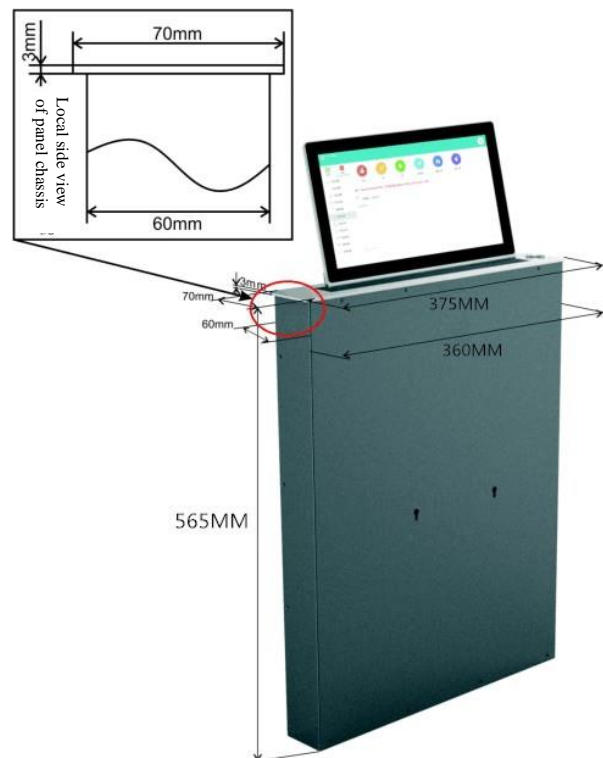
VII. Product Size Chart

NWS-APM-S101 (10.1 inch single-screen lifting unit)



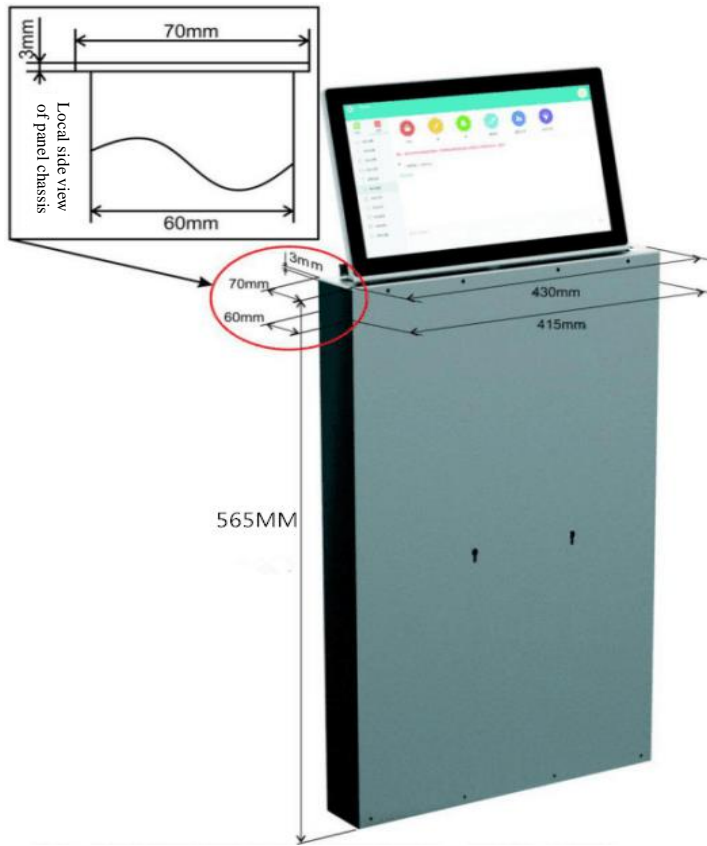
Notes: before installation, please unscrew the two “fixation screws for transportation” on the covers and clean up the foam filler in the flip gate

NWS-UM-S133 (13.3 inch single-screen lifting unit)



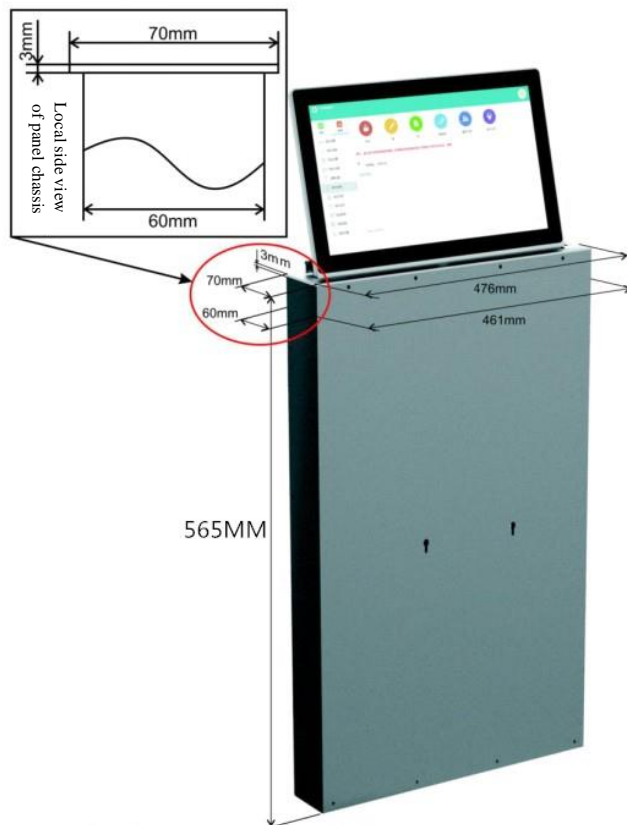
Notes: before installation, please unscrew the two “fixation screws for transportation” on the covers and clean up the foam filler in the flip gate

NWS-UM-S156 (15.6 inch single-screen lifting unit)



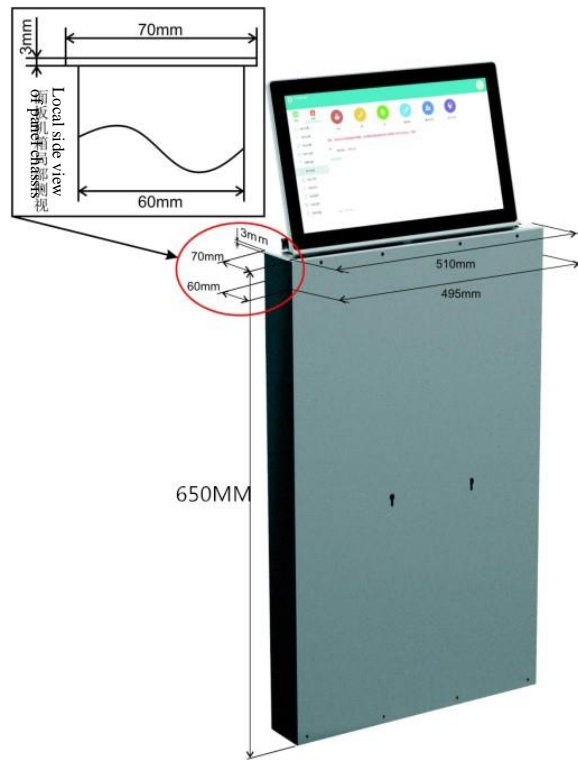
Notes: before installation, please unscrew the two “fixation screws for transportation” on the covers and the fixing clip of side display and clean up the foam filler in the flip gate

NWS-UM-S173 (17.3 inch single-screen lifting unit)



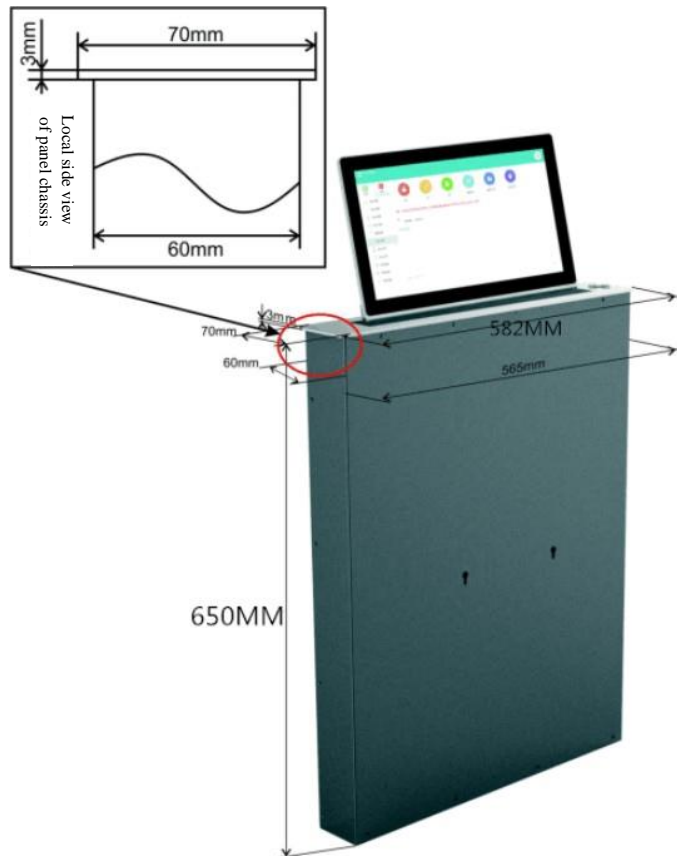
Notes: before installation, please unscrew the two “fixation screws for transportation” on the covers and the fixing clip of side display and clean up the foam filler in the flip gate

NWS-UM-S184 (18.4 inch single-screen lifting unit)



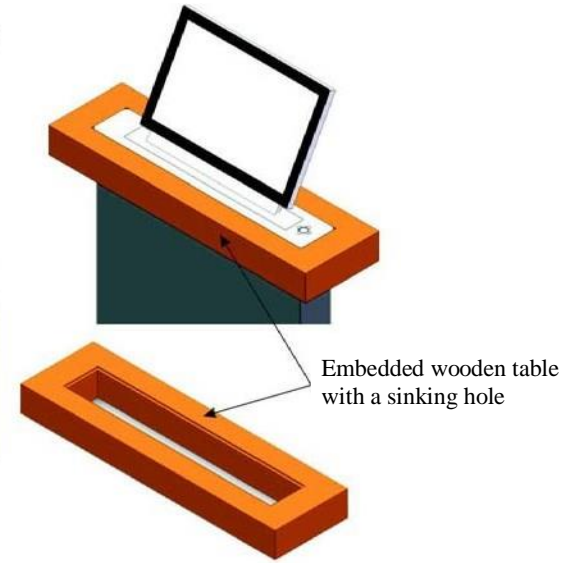
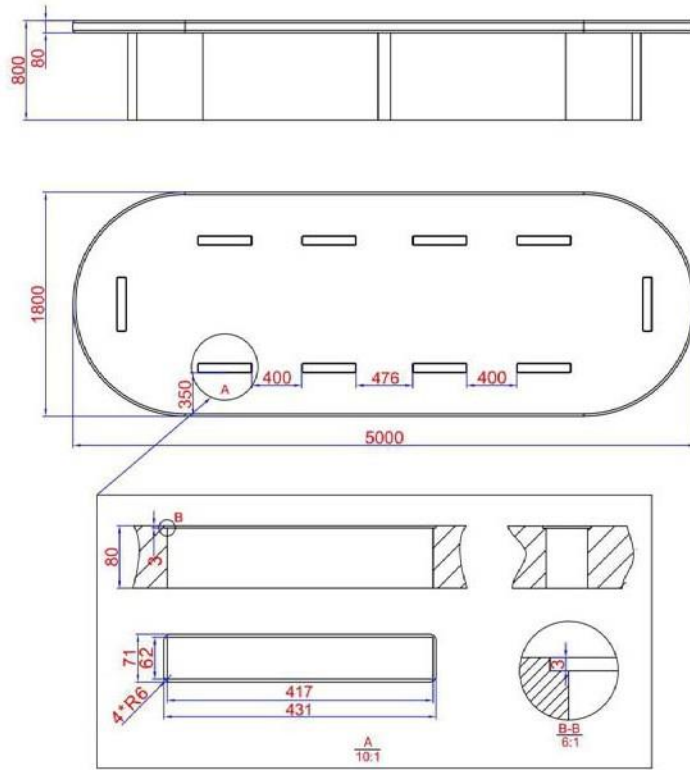
Notes: before installation, please unscrew the two “fixation screws for transportation” on the covers and the fixing clip of side display and clean up the foam filler in the flip gate

NWS-UM-S215 (21.5 inch single-screen lifting unit)



Notes: before installation, please unscrew the two “fixation screws for transportation” on the covers and clean up the foam filler in the flip gate

VIII. Installation Size (Size Chart of the Hole on Conference Table)



Taking the 5m*1.8m*0.8m conference table as the example, it is appropriate to space 0.4m to the lifting unit and space 0.35m to the edge of the conference table. The users can appropriately adjust the sizes according to actual requirements. Please refer to the drawing marks for the installation hole size of the lifting unit.
Unit: mm

IX. Common Failures and Maintenance

Fault phenomenon	Reasons	Debugging
No reaction to operation of keys and the display does not lift	Unconnected power supply	Check the power supply and ensure the ON state
	Poor contact of power supply	Check the power supply port and ensure the good contact; change another power supply input port for connection
No corresponding image output in signal switch	The signal source or terminal display is off	Check and ensure the ON state of signal source and terminal display
	Poor contact of video signal port	Check and ensure the normal connection of corresponding video signal port
The display turns black after signal switch	The display does not support the resolution of signal source	Switch new signal sources or set as self-adaptive display resolution
Output images are disturbed	Poor contact of connecting wires between input and output devices	Correctly connect the device and ensure the good contact
	Unqualified or damaged materials of input and output connecting wires	Change the normal-standard wire materials
	Excessive long wires	Change the high-quality wire materials whose length is available for the system's supporting transmission distance
Obvious static electricity in panel touch	Poor grounding of devices	Ensure the good grounding of the grounding terminal of the machine
Cannot control the machine or terminals by serial port commands	Poor contact of communication port at the control terminal	Check the communication serial port and ensure the good contact
	Unset communication protocol	Set local or remote communication protocol according to requirements
Cannot control the machine by network	Inconsistency in network segments of the controlling device and matrix host	Change the network segment of the controlling device so that it will be consistent with that of matrix host
	Inconsistency in network segments of matrix host and connected LAN	Change the network segment of the matrix host so that it will be consistent with that of LAN
Cannot control the machine by remoter	Dead battery	Change new batteries
	Failed learning of remoter and machine	Learn again
Unusable	Internal damage of the host	Send to professional repair sites for repairing

X. After-sales Service

(1) If there is any abnormal situation during your use of the product, within the product warranty period, our company will take charge of free repair of any failure arising out of the quality problems of the product itself under normal use if not dismantled or repaired.

(2) Our company will provide three-year warranty service for the product and the starting date of the warranty period is

- ✓ The date of production of the product.
- ✓ If there is no evidence available for the date above, the date of production of the product in our company's SN code shall prevail.

(3) If any of the following situations occurs, the warranty service shall not be available and the fees of repairing parts shall be reasonably charged.


- ✓ Damages arising out of consumers' inappropriate use, keeping and maintenance.
- ✓ Manual damages in appearance and parts.
- ✓ Damages arising out of configuration alternation or product modification without authorization of our company.
- ✓ Damages arising out of force majeure.

(4) If any of the following situations occurs, our company has the right to reject to provide repair service or to provide repair service that charges.


- ✓ The label of fragile machine body is damaged (unless authorized by our company). The label contents of the product are altered or blur, leading to incapability of recognizing.
- ✓ Damages arising out of dismantling or repair that is not authorized by our company.
- ✓ There is no sales document or the sales document is inconsistent with the model of the product requiring to be repaired.
- ✓ The products that are not produced or sold by our company.

(5) Please write to or call the After-sales Service Department of our company along with the following contents.

- ✓ The model and name of the product that you use
- ✓ Fault phenomenon (as specific as possible)
- ✓ The specific process of failure appearing



Warning



1. Do not block the vent.
2. Please immediately stop using the power supply wire if there is any damage.
3. The product shall not be placed in the following places: where there is bad ventilation, much dust, direct sunshine, high room temperature, heat sources, vulnerability to vibration.
4. The machine shall be protected from rain and damp.
5. The device cannot be placed in the containers filled with liquids.
6. The machine shell shall be grounded safely.
7. The power supply plug shall match the socket.
8. In order to avoid electric shock, please do not arbitrarily open the chassis cover.

When failure occurs to the device, please turn to the supplier or manufacturer for repair service or entrust the professionals with professional certificates from professional departments to check and repair. It is forbidden for non-professionals to dismantle the machine arbitrarily in case of electric shocks that endanger the staff security.

Please understand that there will be no prior notice for any improvement in technical specifications or parameters