Smart e-Blackboard

V1.0

Manual
(2022)

Contents

I、 Foreword

Dear customers:

Thank you for purchasing our smart e-blackboard series products. Our company strives to be the best in product design, development, manufacturing, installation, and after-sales service. We have always been adhering to the business philosophy of "technology and service orientation" to provide the fastest and highest quality professional services to our customers. Here we express our most sincere thanks to all users. Please join us to enter the era of smart classrooms and smart teaching.

Disclaimer: This is class A product which may cause radio interference in the living environment. In such cases, it may be necessary for users to take practical measures against their interference.

- For safety, please read the safety instructions in this manual before use.

- If you have any questions during use, please read the manual first, which contains a detailed description of equipment operation. If you still have any questions, please contact us and we will reply to you as soon as possible.

Notes

1. Do not use this product in the environment with poor ventilation, dust, high temperature, low temperature or chemical substances.
2. This product is suitable for relatively free electromagnetic interference environment.
3. Do not strike the product with hard objects.

Ⅱ. Safety Instructions

•Please read and understand all safety and operating instructions before using the product.
•Please keep the user manual for reference.

1. Power Supply

Do not use damaged or loose power cord, power plug and power socket, otherwise electric shock or fire may occur.

Do not use wet hands to pull out or plug in the power plug, otherwise it may cause electric shock.

Please make sure that the power cord is connected to a grounded power outlet, otherwise electric shock or personal injury may occur.

Please make sure that the power plug is firmly and correctly inserted into the power socket, otherwise a fire may occur.

Do not bend or pull the power plug by force, or place any heavy objects on it, otherwise a fire may occur.

Do not connect more than one device to the same power socket, or a fire may occur due to overload.

Do not disconnect the power cord when using this product; otherwise, it may damage the product due to electric shock.

When disconnecting the equipment from the power supply, the plug must be unplugged from the power socket. Therefore, the power plug should be easy to operate; otherwise it may cause a fire or electric shock.

Please disconnect the power when there is no one indoors or the device is not used for a long time.

Please disconnect the power during thunderstorm or lightning

weather.

Please make sure that the product with power supply greater than safety voltage is installed or placed in a place out of the reach of children.

Please check and make sure that the voltage value on the nameplate of the whole machine matches the voltage value of the main power supply.

Please use the power cord provided by our company instead of those suitable for other products. Similarly, the power cord suitable for this product is prohibited to be used in other equipment; otherwise it may cause fire or electric shock.

2. Installation

Before installation, please check whether the power supply voltage, wire specifications, power sockets, fuses or electrical switches at the installation site meet the relevant requirements (please refer to product specifications).

When moving this product, make sure that there are at least two people. Otherwise, falling may occur, causing personal injury or product damage.

Do not install it in bookcases or closets and other places with poor ventilation. Otherwise, the product may catch fire due to high internal temperature.

Please avoid direct sunlight on the product to avoid visual discomfort.

Do not place the device in a place with strong electricity, magnetic field, radiation, etc., because it may affect the use of the device.

Based on the construction requirements of the national classroom standardization specifications, when using this product in the classroom, please install blackout curtains and professional blackboard lights to avoid visual discomfort to students.

When transporting this product, be sure to handle it carefully, otherwise it may cause damage.

Do not place the front of this product facing the floor, otherwise it may cause damage.

Please ensure that there is at least 10cm of space on the left, right, top and bottom of the product to ensure ventilation and good heat dissipation.

Please ensure that the distance between the bottom edge of the product and the ground is 80-90cm to ensure the best use of the product (especially convenience for operation) .

For safety, please ensure that the carrier of the product has sufficient load-bearing capacity (please refer to product specifications).

Please be sure to install the product by an installation company or professional authorized by our company, otherwise it may cause a fall and personal injury. Be sure to install the specified wall bracket.

3. Battery

Please properly dispose and recycle the used batteries of the remote control of this product.

Do not let children touch the battery or throw the battery into the fire to avoid danger.

4. Visual distance

The best visual distance is about 4 times the diagonal length of the LCD screen.

Please avoid direct sunlight on the blackboard or reverse viewing.

5. Glass surface

Please use the touch pen to write correctly, and do not write or hit the product with hard or sharp objects.

Please turn off the product and unplug the power plug when cleaning its surface.

After daily use, please use a cloth to wipe the blackboard of this product. It is forbidden to use other hard objects to wipe, so as to avoid scratches on the surface, thereby affecting the use.

Since the top of the product is a heat dissipation area, do not spray or pour liquid on the top, otherwise it will cause short circuit and damage to the device.

Do not intentionally damage all exposed interfaces of this product to avoid abnormal working.

If you need to clean the inside of the product machine, please contact our customer service.

6. LCD screen

It is forbidden to display high-brightness images on the screen for a long time.

7. Temperature and humidity

It is forbidden to place candles, mosquito coils, cigarettes and other heat-generating objects around this product.

When transporting the product from a low-temperature area to a high-temperature area, please leave it for a period of time before turning it on to fully dissipate the internal condensation.

Please ensure that this product operates at a normal ambient temperature of 0-40 degrees Celsius.

Please do not expose the device to wind, rain, humidity, water leakage or places close to water leakage.

Please ensure that the product is operated in a dry and ventilated place, and the humidity shall be 10-90%.

III、 Product Technology

1. Product specifications

Product name	Standard size (length X width X thickness)	weight	Power consumption
75-inch Smart e-Blackboard	4000mmx1238mmx96mm	64KG（middle） 26KG（two sides）	500W（fully load）
85-inch Smart e-Blackboard	4167mmx1238mmx97mm	61KG（middle） 29KG（two sides）	500W（fully load）
86-inch Smart e-Blackboard	4000mmx1238mmx96mm	65KG（middle） 26KG（two sides）	500W（fully load）
98-inch Smart e-Blackboard	4289mmx1400mmx96mm	79KG（middle） 32KG（two sides）	500W（fully load）

2. Product functions

(1) Schematic diagram of the division of the main functions of the product (the appearance of the product with different scheme sizes will vary)

(2) Schematic diagram of the front interface function (the side interface of some products is slightly different）
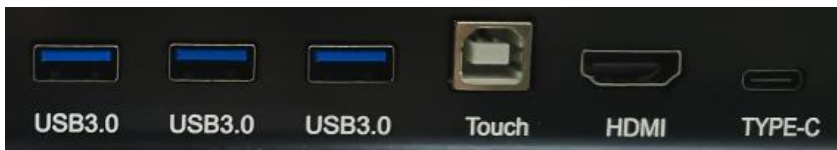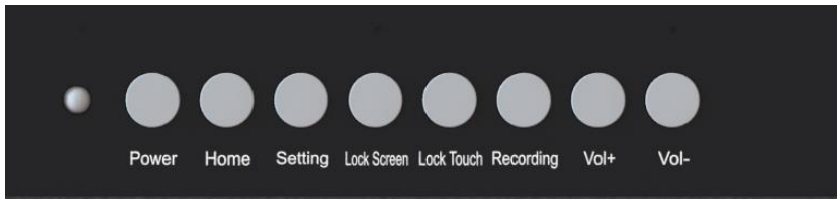
No.	Type	Use description
1	IR remote control	IR remote control （in the middle of the blackboard）
2	Power	Device power button (including indicator light). (Note: Since Windows system requires to save or close some files when it is shut down, users must confirm that Windows is normally shut down.)
3	Home	When you press the home button, the signal source will switch to the Android home page
4	Setting	After pressing the Settings key, the OSD touch menu interface will be displayed
5	Lock screen	Gently press the lock screen key to leave the screen, and long press the lock screen key to lock the display interface
6	Lock touch	When the lock touch button is pressed, the touch function will be locked
7	Recording	After pressing the record screen button, start recording the screen
8	Vol+	After pressing the volume Up button, the sound of the device will be amplified
9	Vol-	After pressing the volume down button, the sound of the device will decrease

10	USB 3.0	USB interface, connect USB devices to blackboard devices, such as low power portable hard disk, U disk, USB keyboard and mouse, etc. (3.0 under Windows, 2.0 under Android)
11	Touch	TOUCH interface, connect the TOUCH data line to the corresponding external device, which can realize display and support TOUCH operation
12	HDMI	Multimedia interface signal input can be connected to a computer with HDMI output, set-top box or other video equipment, and supports up to 4k resolution.
13	TYPE-C	Intelligent bidirectional data transfer interface, optional support 65W quick charge

（3）Schematic diagram of the bottom interface function (the bottom interface of some products is slightly different)

No.	Type	Use description
1	RS232	It is a central control and is used for control.
2	EARPHONE OUT	It supports external earphone audio output
3	AV IN	Multimedia audio input interface
4	VGA IN	It is a multimedia interface signal input, which can be connected to a computer with a VGA output, a set-top box or other video equipment, and supports a resolution of up to 1080.
5	VGA AUDIO	VGA signal audio input interface
6	YPBPR IN	Chromatic component input interface

7	USB 2.0	USB interface, only supports Android system
8	Touch	It is the touch interface, which can connect the TOUCH data cable to the corresponding external device, which can realize the display and touch operation functions at the same time.
9	RJ45*2	NET network interface (1 in 1 out), connect the RJ45 port to the Internet
10	HDMI IN*2	Multimedia interface signal input, connect to a computer with HDMI output, set-top box or other
11	RF IN	TV signal input interface
12	HDMI OUT(Optional)	Synchronous output interface, the Android display signal source is output on the same screen, and the output resolution is the same as the source resolution

(4) Side bar touch menu introduction (the menu of some products is
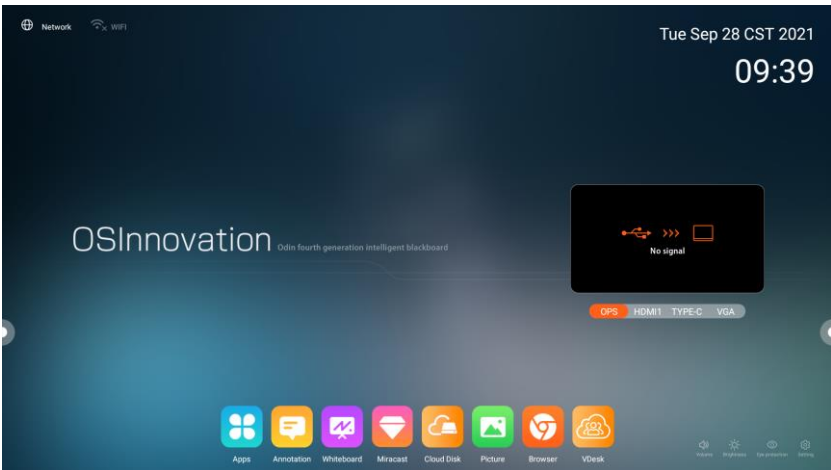
slightly different)。

(5) Introduction to the hover ball touch menu (some product menus are slightly different)

Note: By clicking the floating balls on both sides, a shortcut key window will pop up, and you can perform related operations.
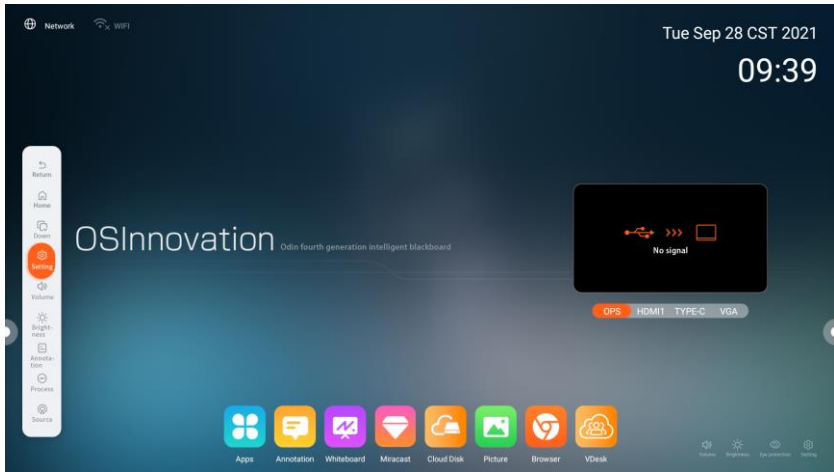
singn	Function
Return	Tap to return to the previous screen
Home	Tap to return to the Android Preview main screen
Down	Tap to enable the screen down function (for all channels)
Setting	Tap to enter the Settings menu
Volume	Tap to open the volume control panel and adjust the volume

☼ Bright-ness	Tap to open the brightness control panel and adjust the screen brightness
⊟ Annota-tion	Tap to open the annotation function, which allows real-time annotation under the all-channel signal
⊘ Process	Tap to open a list of recently used apps
◎ Source	Tap to open a list of recently used apps

(6) OSD touch menu introduction (some product menus are slightly different)

Description: Pull up the bottom edge of the touch screen by gesture touch, and a shortcut button window will automatically pop up, which can perform operations such as switching the signal source, lo the height of the signal interface, eye protection mode, closing the screen recording of the machine, and restoring. (Note: The Android switching menu is only designed for dual-system products.)

sign	Function
	Switch the signal source to Android mode
	Switch signal to HDMI input mode
	Switch signal to VGA input mode
	Display signal window moves down
	Power off the device
	Switch signal to Windows mode
	Switch signal to TV input mode
	switch signal to ypbpr input mode
	Record screen (need to install centralized control software)
	Turn on and off eye protection mode
	After clicking, enter the password to restore the windows system

3. Description of smart remote control

In addition to the remote control function, the smart remote control also contains keyboard functions and mouse functions.

1) Button icon

2) Function of remote control mode

Align the remote control with the infrared receiver of the product equipment, and then use the infrared remote button function.

Icons are defined as follows:

NO.	Button icon	Functions
1		POWER
2		Volume up and down
3		Mute
4		Source selection key
5	OK	ENTER
6		Direction selection keys (up, down, left and right keys)
7		ENTER
8		Escape key
9		Turn on (off) the mouse function
10	F1	The upper left corner displays the PM2.5CO2 value
11	F2	back to android homepage
12	F3	Pop up setting interface
13	F4	Lock screen/unlock screen (password required)
14	F6	screen recording
15	F7	4:3/16:9 switch
16	F8	Restore WINDOWS system (requires password for restoration)
17	F9	touch on/off

3) Mouse mode function

Aim the remote control at the infrared receiver and press the remote control mode selection button. When the word mouse mode appears in the upper left corner of the interactive blackboard screen, it means that it is in keyboard and mouse mode. (Note: Since the Windows system will be prompted to save or close some files when shutting down, the user must confirm that Windows is shut down normally when shutting down.)

Available key definitions in the current mode (other keys not described, same as the remote control mode):

NO.	Button icon	Functions
1	▲ ▼	Select previous page, next page
2	**NUMBER 1-10**	Numeric keys 1-10
3	Del	delete key
4	←	backspace
5	OK	Enter key (keyboard mode)/left click (mouse mode)
6	Tab	Tab key
7	⎵	space bar

4) Instructions for smart remote control

Battery installation:

(1) Open the back cover of the battery assembly on the back of the

remote control;

(2) Install the AAA battery according to the corresponding electrode, and ensure that the positive and negative poles of the battery are correctly placed ("+" to "+", "-" to "-", do not mix old and new batteries);

(3) After the battery is installed, close the back cover of the battery assembly and make sure that the buckle below is tight.

(1)   (2)   (3)
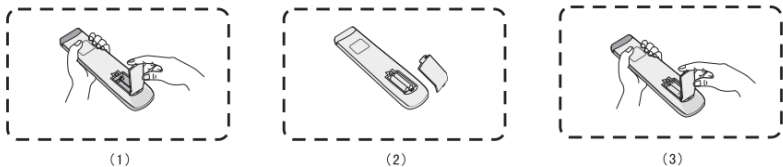
Note: using the wrong type of battery may cause explosion. In order to protect the environment, please put the waste batteries into the recycling box.

4. Touch switch screen operation instructions

The interactive blackboard product supports any signal and any operation, ensuring five-point effective contact touch at any position in the display area for 2 seconds (five-finger touch screen), the screen turns black without light source, and realizes writing chalk on the whole board. Moreover, this function It can ensure that there will be no false touch phenomenon in the black screen state. When it needs to be turned on, ensure that the five-point effective contact touch time is 2 seconds at any position in the display area, and the screen changes from black to normal display state.

5. Procedures for turning on

① Connect the power line of the host to the three hole socket of

the power supply of the strong current equipment；

② Turn on the Power button of the blackboard device；

Note: If there is no built-in computer in the machine, please follow the instructions below. (Before installing this product, please insert the blackboard TOUCH interface data cable into the USB port of the external computer. If the cable is not long enough to reach the USB port of the computer, please use the USB extension cord recommended by our company for connection. At the same time, please connect the video input interface of the touch screen to the corresponding graphics output interface of the computer.)

6. Procedures for turning off

① The touch menu, smart remote control or physical Power button shall be preferred to turn off the screen.；

② Note: please first shut down the system normally before performing the above procedures if there is a built-in PC computer. It is forbidden to cut off the power supply directly when the machine is working normally, because it may cause damage to the machine hardware.

7. Description of energy saving state

According to GB21520-2015 *Energy Efficiency Limits and Ratings of Computer Monitor* and GB28380-2012 *Energy Efficiency Limits and Ratings of Microcomputer*, the energy-saving state of this product is now explained as follows:

① Shutdown state: Turn off the ship type switch with hardware, and then test the power under the shutdown state.

② Sleeping state: Click the power button on the remote control to enter the sleeping state of the whole machine.

③　　When the optional computer is in idle state, touch the screen to wake up.

④　　When the optional computer is in sleep state, use computer switch to wake up.

IV、 FAQ and Troubleshooting

1. FAQ

(1) Why is there blank black borders on both sides of the page when the office file (PPT file) is displayed in full screen, and the content does not completely cover the screen?

As the file display ratio is set to 4:3 when using PPT, please switch the ratio to 16:9.

(2) Why do some classroom equipment start slowly after turning on?

This may be caused by a variety of reasons. In theory, their configuration is the same, so the startup speed should be the same after booting. The boot speed will slow down in the following situations, including inserting a USB flash drive, poisoning, full hard disk space, or damaged system disk. For more detailed instruction please contact us (After-sales service 4006910002), we will arrange professional engineers to provide you with remote judgment and guidance.

(3) Why is the multi-touch function of some devices unavailable?

First of all, the multi-touch function is not applicable to XP and IOS systems. For the WIN7 system, multi-touch function is only available for home premium version or above no matter it's an external computer or a built-in one. (Windows7 Professional Edition and Ultimate Edition are recommended).

(4) Why is there no sound from an external laptop device?

If you use an HDMI cable to connect, please check whether the sound playback device column is set as the default HDMI device.

(5) As the number of smart touch pens equipped with the product is limited, is there any object that can be used to replace the touch pen for flexible writing without scratching the screen?

You can temporarily use your fingers to replace writing; in addition, if you need to buy, you can also scan the QR code of the WeChat official mall on the surface of the interactive blackboard to place an order to buy consumables such as touch pen tips

（6）How to deal with inaccurate touch?

If this happens, please turn on the computer system and follow the steps below: Click the control panel-enter the Tablet PC--click reset--click calibration--click the OK button.

（7）Is it normal for the screen to overheat after a period of use? Will it affect the normal use of the device?

This is a normal phenomenon, just like a TV, there will be no adverse effects. At present, we are the industry standard setter, and the heat dissipation technology of our product is leading in the industry and meets national health standards.

（8）Will long-term use of the product damage the eyes?

The human eye can detect and recognize flicker below 50 Hz. In this case, the eye muscles will constantly adjust to adapt to the flicker causing eye fatigue. Our products use 60Hz and 120Hz LCD screens, so the human eye can't actually feel the flicker of our screen. Compared with other products of the same kind, this can reduce eye fatigue to a large extent and meet the requirements of the international standard IEC62471.

（9）Why doesn't the smart classroom interactive blackboard have a

magnetic adsorption function?

The magnetic adsorption function is an optional function of the product. Please consult the local specific seller to see if the product you purchased has this function.

（**10**）**Why can't ordinary chalk write on the interactive smart blackboard ?**

Our smart classroom interactive blackboard products support ordinary chalk writing. Because the teacher used dust-free chalk to write in the previous teaching process, a certain amount of grease would remain on the surface of the blackboard, making it impossible to use ordinary chalk for writing. Please use a special wet wipe for blackboards or a special cleaning agent for blackboards to clean the surface of the blackboard; if you need to buy special cleaning agents for blackboards, you can scan the QR code of the WeChat official mall on the surface of the interactive blackboard to place an order to purchase the corresponding consumables.

(11) If the operating system is reinstalled or restored, how to use the teaching software of the product?

In this case, please be sure to use it after online registration. The registration code is on the product body or CD. Please refer to the software manual on the desktop of the built-in computer system or in the product CD.

(12) How to set the automatic restoration function of the system after rebooting?

Please purchase and install the relevant genuine software by yourself or from our company.

2. Troubleshooting

(1) Remote control malfunction

① Check if there are any objects between the remote control and the product obstructing smart reception.

② Check whether the battery poles in the remote control are placed correctly and whether the battery power is sufficient.

(2) Automatic shut-down

① Whether the automatic standby and hibernation function modes are turned on.

② Check whether the Power button is pressed.

③ Check whether the power supply is stable.

(3) The indicator light doesn't work

Check whether the power supply is normal

(4) Fail to turn on

① If the product fails to be turned on with the remote control, please check whether the remote control is in good condition.

② If the computer cannot be turned on, power it off for 15 minutes before restarting.

(5) No signal after turning on

① If the machine is equipped with a computer, check whether the current signal channel is in the corresponding mode channel.

② If the machine is connected to an external computer, check whether the current channel is in the current channel mode, and whether the signal wire on the external computer is disconnected or defective.

(6) Missing or abnormal image color

① Adjust the chroma, brightness or contrast in the menu via the remote control.

② If you are using an external computer, check whether the signal cable is connected well or whether there is a quality problem.

(7) The display screen does not fill or extend beyond the screen.

Check if the resolution is ratio of 16:9.

(8) Unable to enter the system (display the interface that the system is automatically repairing)

If the machine is equipped with a computer, please use the smart remote control to control the built-in computer for selection before rebooting into the system.

(9) Abnormal sound function

Adjust by using the VOL+/- button of the remote control.

(10) Inaccurate touch positioning

Check whether the windows calibration function is set correctly, please restart the positioning and calibration.

(11) Touch function jumps and is invalid

① Restart the machine (power off) before using.

② If the machine is equipped with a computer, check whether there is pre-installed software such as 360 anti-virus. If so, please close it.

3．Notes on environmental protection:

① Zero energy consumption can be achieved when the machine (display) is not connected to any external input power source.

② We can provide upgrade or replacement service for the software and hardware of the machine (display).

③ We guarantee to provide replaceable parts within 3 years after the machine (display) is sold.

④ According to the relevant national laws and regulations on the

recycling and processing of waste electrical and electronic products and in order to better protect the earth, when the user no longer needs this product or the product life ends, please send it to the local manufacturer with nationally recognized recycling and processing qualifications for recycling.

Disclaimer:

Product damage caused by the following factors will not be guaranteed:

• Accidents, earthquakes, fires, floods, lightning or other natural disasters, unauthorized product modifications;

• The product has been repaired or tried to be repaired by personnel not authorized by ODIN TECH;

• Physical damage caused by the user moving or installing the product;

• Malicious destruction of products by external forces;

• Use substitutes or parts that do not meet the technical specifications to repair the product;

• Damage not caused by product quality.

• Loss caused by the user's failure to operate in accordance with the requirements of product use specifications (including losses of products, property, personal safety, etc.);

Note: Product contents are subject to change. All images are for reference only without notice.