

AstralVision

Interactive Flat Panel Display

User Manual



AUGUST 2017

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Safety Instruction

For your safety, please read the following instruction before you use the product. Serious injury or property loss may be caused by improper operations.

 WARNING	
	<p>Disconnect the product from power supply immediately if major failures occur.</p> <p>The major failures include the following:</p> <ul style="list-style-type: none"> • Smoke, peculiar smell or abnormal sound is discharged from the product. • No image or sound is displayed, or the image error occurs. • Where the mains plug or an appliance coupler is used as the disconnect device the disconnect device shall remain readily operable. <p>In the preceding scenarios, do not continue to use the product, disconnect power supply immediately and contact professional staff for troubleshooting.</p> <p>The socket-outlet shall be installed near the equipment and shall be easily accessible.</p>
	<p>Do not drop liquid, metal or combustible into the product.</p> <ul style="list-style-type: none"> • If any liquid or metal is dropped into the product, power off the product and disconnect power supply, then contact professional staff for solutions. • Pay attention to the children when they are close to the product. <p>Do not damage the power cable.</p> <ul style="list-style-type: none"> • Do not damage, change, wind, bend, heat or drag the power cable forcibly. • Do not put weights (such as the product itself) on the power cable. • Do not drag the cable forcibly when you pull out the power plug. If the power cable is damaged, please contact the local distributor to repair or replace it. • The power cable in the accessory box is for this product only. Don't use it on other devices. <p>Put the product on a stable surface.</p> <p>An unstable surface includes and does not limit to an inclined plane, a shaky stand, desk or platform, which might cause the turnover and damage.</p> <p>Use the battery correctly.</p> <ul style="list-style-type: none"> • Galvanic corrosion, electric leakage and even fire may be caused by improper battery usage. • It is recommended to use the designated type of battery and install the battery by correct electrodes (positive and negative electrodes). • Do not install and use new battery together with the used one.



WARNING

	<ul style="list-style-type: none">• Take out the battery if the remote control is not used for a long period.• Do not expose the battery under overheated environments such as sunlight and firing.• Dump the used battery based on local regulations.
	<p>Do not open the cover or change the product by your own.</p> <p>High voltage components are installed in the product. When you open the cover, high voltage, electric shock or other dangerous situations may occur. If inspection, adjustment or maintenance is required, contact the local distributor for help.</p>
	<p>Use the specified power supply.</p> <ul style="list-style-type: none">• Do not use any types of power cables other than the one provided with the product to prevent the product from being damaged.• Use a three-wire socket and ensure that it is properly grounded.• Pull out the power plug from the socket if the product is not used for a long period. <p>Before you move the product, disconnect all external connections and separate all toppling preventing devices.</p> <p>Move the product carefully to prevent it from being hit or squeezed, especially the screen, which may cause injury if broken.</p> <p>Clean the dust and metal on the power plug regularly.</p> <ul style="list-style-type: none">• When you are cleaning, fire or electric shock may be caused if the product is powered on.• Keep in mind to pull out the power plug before cleaning it by using a dried cloth.
	<p>Do not put items on the top of the product.</p> <ul style="list-style-type: none">• Do not put items, such as a container for liquid (a vase, flowerpot, cosmetics or liquid medicine), on the top of the product.• If any water or liquid is spilled on the product, short circuit may occur and cause fire or electric shock.• Do not tread on the product or hang any items on the product.
	<p>Do not install the product in an improper place.</p> <ul style="list-style-type: none">• Do not install the product in humid places, such as the bathroom, the shower room, the place near windows or outdoor environments where experience rain, snow or other harsh weather. The product installation is also required to avoid a place around by hot spring vapor. The preceding environments may cause faults or electric shock under extreme conditions.• Do not put exposed fire source, such as an ignited candle, on the product.
	<p>Pull out the power plug during thunderstorms.</p> <ul style="list-style-type: none">• Do not touch the product when lighting to avoid electric shock.• Install or place components which power supply voltage is high enough to cause personal injury in places out of the reach of children.
	<p>Do not cover or block up any vents on the product.</p> <ul style="list-style-type: none">• The overheated components may cause fire, damage the product and shorten the service life.• Do not put the venting surface of the product facedown.• Do not install the product on a carpet or bed clothes.

 WARNING	
	<ul style="list-style-type: none"> Do not use a cloth such as table cloth to cover the product.
	<p>Do not touch the power cable with wet hands to avoid electric shock.</p> <p>Altitude during operation (m): less than 5000m</p>

 CAUTION	
	<p>Do not install the product in high temperature environments.</p> <ul style="list-style-type: none"> Do not install the product near heat source, such as the radiator, the heat reservoir, the stove or other heating devices. Do not expose the product under sunlight, which may cause high temperature and subsequent faults in the product.
	<p>For transport:</p> <ul style="list-style-type: none"> Pack the product for mobility or maintenance by using the cartons and cushioning material provided with the product. Vertically move the product during transport. The screen or other components are easily broken if the product is moved by an improper way.
	<p>Keep away from the product when you use a radio.</p> <p>The product design to prevent radio interference complies with the international EMI standard. However, the interference still exists and causes noise in the radio.</p> <ul style="list-style-type: none"> If noise occurs in the radio, try the following solutions. Adjust the direction of the radio antenna to avoid the interference from the product. Keep the radio away from the product.
	<p>Advice for watching:</p> <ul style="list-style-type: none"> Use the product in an environment with comfortable light. It is harmful to your eyes to watch in a too bright or too dark environment. Relax your eyes after a period of time for watching. When you are watching, the distance which is 3 to 7 times of the display height should be kept, and it is the best distance to protect eyes and prevent eyestrain. Adjust the volume to an appropriate level, especially at night. Use amplifier equipment as the audio input source with caution. If you must use amplifier equipment, the input power should not exceed the maximum of speaker power. Otherwise, problems occur, such as the speaker is overpowered and damaged.

1 Installation Requirement

Bearing

You can choose the portable or a wall-mounting method according to your needs. The wall mounting can substantially save the space.

If you choose portable mounting, use the mounting rack or support. If you want to use a self-made mounting rack, the bearing capacity of the rack should be at least four times of the display weight. The bearing capacity of the mounting support must be four times of the actual weight of the display to ensure steadiness of the interactive display.

When you choose wall mounted, the bearing capacity of the mounting surface must be at least four times of the weight of the display. When the mounting surface is a wall or ceiling of a building, the wall must be built with solid bricks, concrete or materials of equal intensity. If you need to mount the display on a loose surface such as an old brick wall, wood plank wall, solid wall, metal or non-metal structure wall or a wall with a thick decoration layer, take necessary consolidating measure to ensure that the display is steadily mounted.

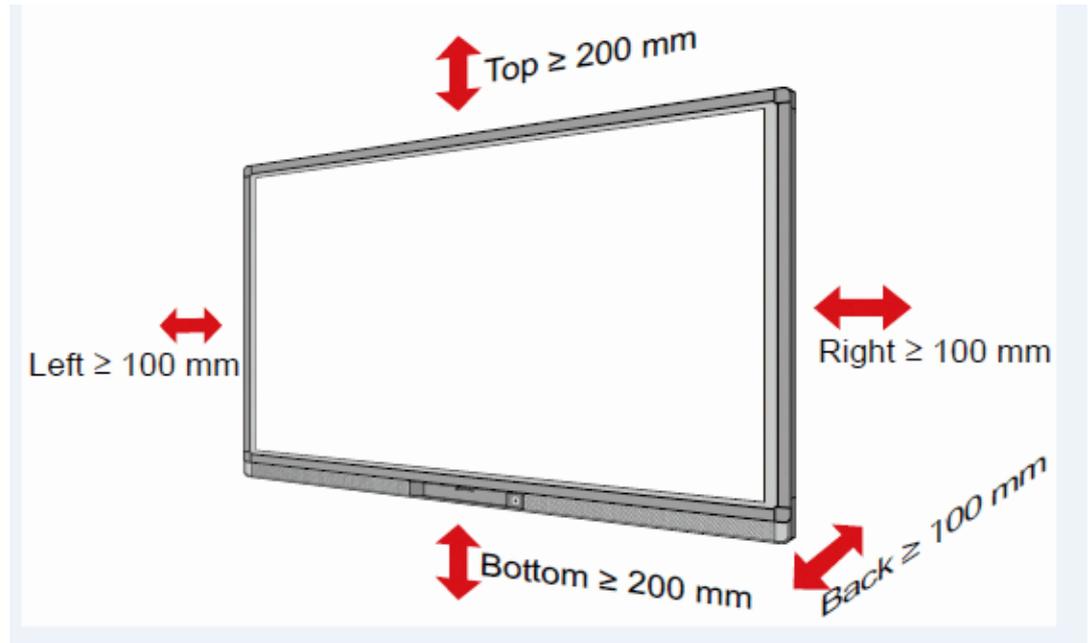
Ventilation

Ventilation requirements	Distance to the surface for installation (mm)			
	Left and right sides	Top	Bottom	Back
Nominal power				
Larger than 100 W	100	200	200	100



WARNING

If the product is mounting inside a wall or a cabinet, in addition to the preceding requirements, the area of ventilation holes at the bottom, top and two sides must be at least 50% of the sealing surface to ensure proper ventilation.



NOTE

- When you install by wall mounting method, ensure insert the screws into the wall deeper than 10mm.
- Do not block ventilation vents.
- Reference to the CAS 132-2006
- The dimension of the 4 bracket mounting holes in the back panel is VESA MIS-F compliant (600mm x 400mm for 65" & 70"; 800mm x 400mm for 75" & 80" & 86"). Please use the metric M8 screws with length of 10 to 15 mm to secure the display with the mounting system.
- Please have a professional installer to install the display.

2 Introduction

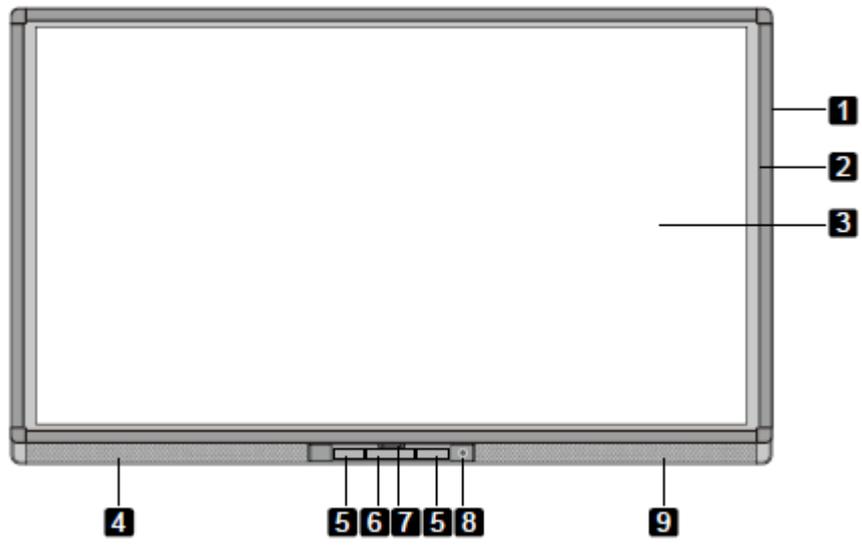
Thank you for choosing the AstralVision interactive display. As our latest independently developed and produced human-machine interactive product, the interactive display is a multi-functional display for interactive teaching, digital demonstration, multi-media presentation, touch operations and handwriting. They are well designed and produced to meet the needs of education and corporate applications, and provide a user-friendly experience, digital intelligent control as an ideal equipment for schools and companies.

The product features are as follows:

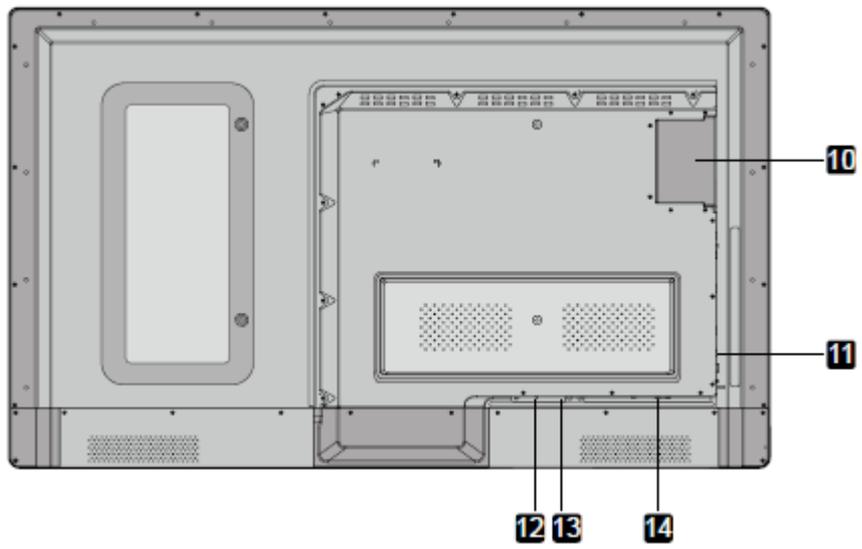
- Specially designed for teaching and meeting systems.
- Adopt advanced infrared array scanning and sensing technology, HID driver-free, meaning the product is activated soon after it is powered on.
- Multi-signal sources can be previewed in the window and be switched by touching the screen.
- A special button is set to adjust the brightness automatically with no impact on watching and save up to 50% energy.
- Support front-facing high-power amplifiers.
- When the screen display function is disabled, the product can still play audio to save energy.
- Sense the illumination and brightness automatically to adjust the screen backlight so that the most comfortable screen brightness can be displayed to teachers and students.

Outer Appearance

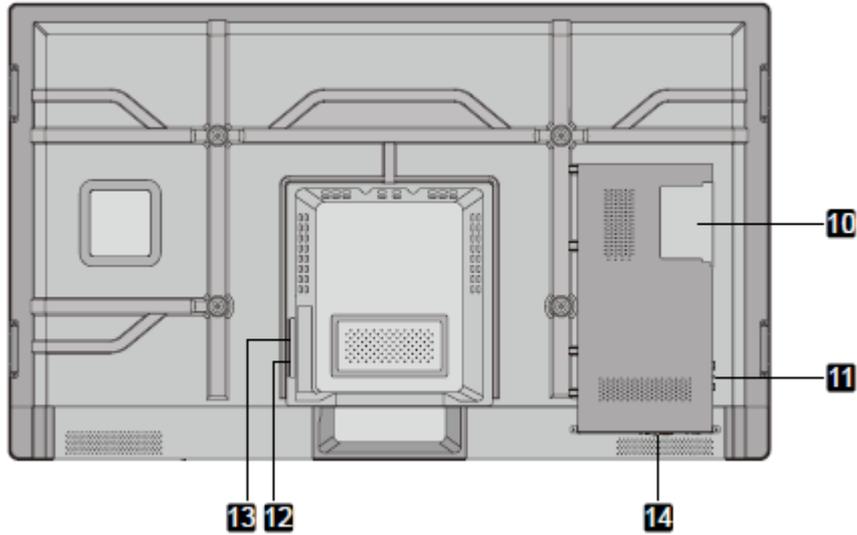
The front view and back view of the product are displayed as follows.



For 65"/70":



For 75"/80"/86":



- 1: Enclosure 2: Infrared Frame 3: Screen 4: Left Loudspeaker 5: Connection Panel 1
 6: Control Panel 7: Front Cover Plate* 8: Power on/off 9: Right Loudspeaker
 10: OPS Port 11: Connection Panel 2 12: Rocker Switch 13: Power Outlet
 14: Connection Panel 3

NOTE
 “*” indicates optional.

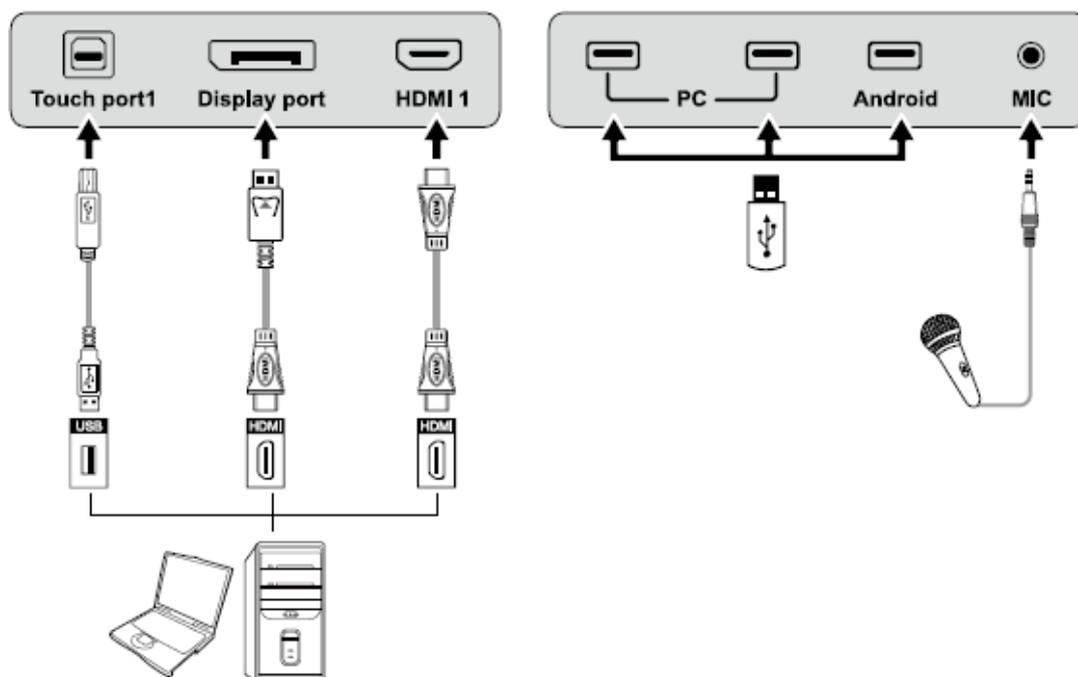
Control Panel



Name	Function Description
Home	Enter/Exit Android home page.
Return	Return to previous menu.
Menu	Enter the function menu of screen.
ECO	Switch among three modes: energy-saving, automatic, and standard.
Source	Enter the menu to select the signal source.
Vol-	Decrease volume.
Vol+	Increase volume.

Name	Function Description
PC Power	Power on or off the OPS.

Connection Panel 1



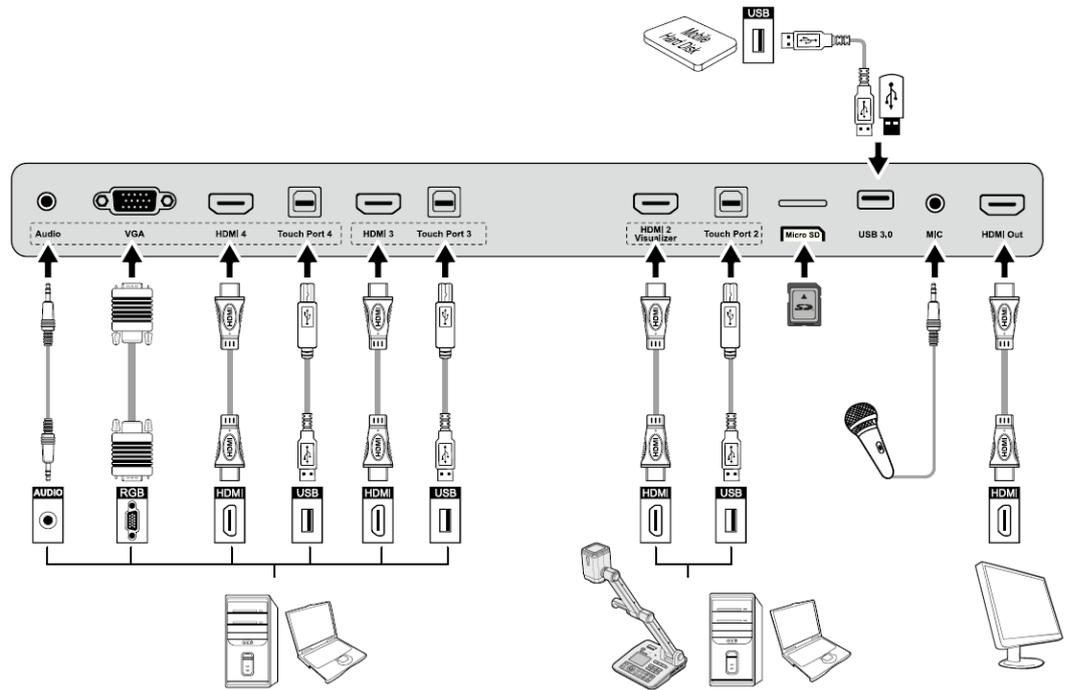
Name	Function Description
Touch Port 1	PC connecting port 1 for touch control.
Display Port	HD digital display port.
HDMI 1	The input terminal 1 for high definition signal, which is used with the Touch Port 1 to operate PC in the way of touch control.
PC	The USB 2.0 (Rated output: 5V/0.5A) and USB 3.0 (Rated output: 5V/0.9A) ports for the OPS.
Android	Android USB port.
MIC	The external microphone port.



NOTE

Touch Port 1 to HDMI 1, Touch Port 2 to HDMI 2, Touch Port 3 to HDMI 3, Touch Port 4 to HDMI 4 and VGA.

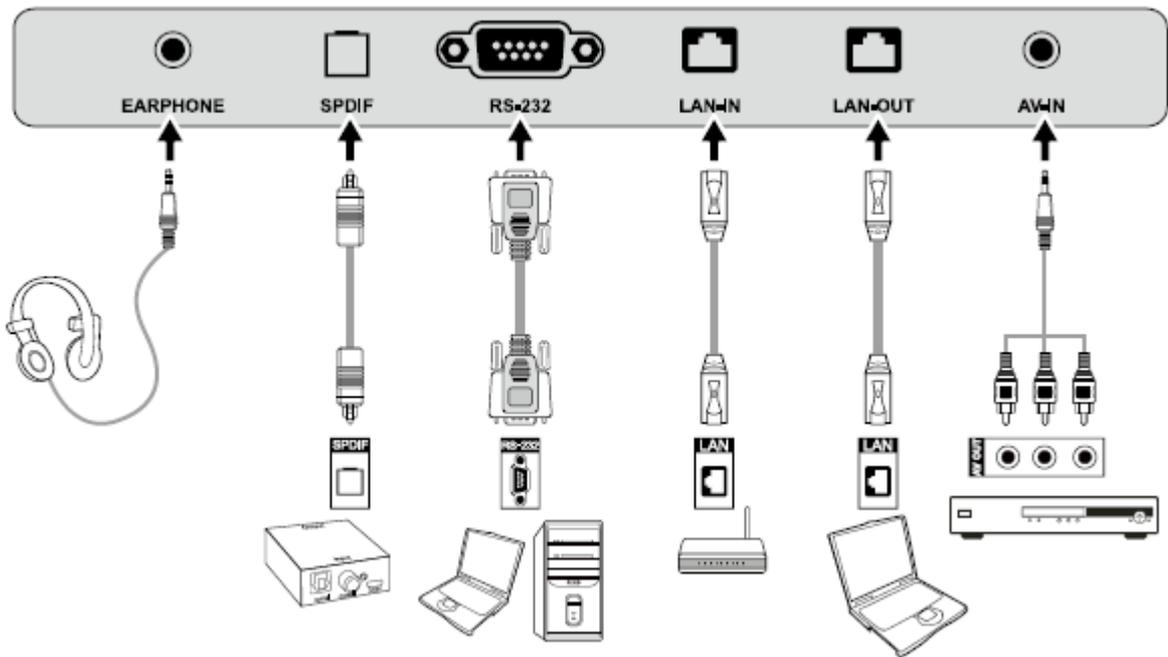
Connection Panel 2



Name	Function Description
Audio	Audio input port.
VGA	The VGA port for an external PC, which is used with the Touch Port 4 to operate PC in the way of touch control.
HDMI 4	The input terminal 4 for high definition signal, which is used with the Touch Port 4 to operate PC in the way of touch control.
Touch Port 4	The terminal 4 for touch control signal.
HDMI 3	The input terminal 3 for high definition signal, which is used with the Touch Port 3 to operate PC in the way of touch control.
Touch Port 3	The terminal 3 for touch control signal.
HDMI 2 Visualizer	The input terminal 2 for high definition signal, which is used with the Touch Port 2 to operate PC or Visualizer in the way of touch control. Note: Connect a visualizer for touch display control function and HD display mode; please use the HDMI 2 Visualizer port.
Touch Port 2	The USB terminal 2 for touch control signal.
Micro SD	The external port for the micro SD card.
USB 3.0	The port for USB 3.0.
MIC	The external microphone port.

Name	Function Description
HDMI Out	The output terminal for high definition signal, which can transmit the signal to other display equipment with high definition.

Connection Panel 3



Name	Function Description
EARPHONE	The port for earphone.
SPDIF	Audio digital output port
RS-232	The input port for series signals, which is used by specific control device of serial port to input serial port protocol in order to control the display.
LAN-IN	The input port for local area network.
LAN-OUT	The output port for local area network.
AV-IN	Audio and video signal input port.

NOTE

- Please use the cable provided with the product to connect to device.
- HDMI 1, HDMI 2, HDMI 3 and HDMI 4 are high-definition multimedia ports, which are used to provide home theatre experience with the best quality for consumers by transmitting high-definition, all-digital audio and video. If there is an HDMI port on the external device, you are advised to connect it with the product by using the HDMI cable in order to display better image and sound effect.

Functions of the Remote Controller

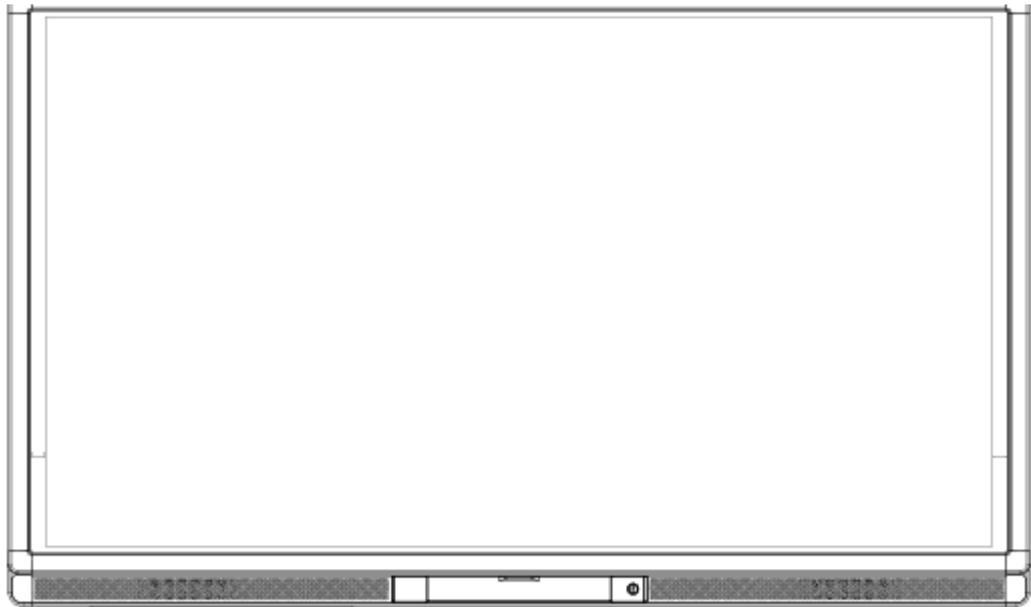


1.  : On or standby
2.  : Mute
3. 0--9: Select TV channel or enter number
4.  : Open the Android home page.
5.  : Go back or return to the parent menu.
6.  : Show or hide menu.
7.  : Show or exit from the list of signal sources.
8.  : Enable audio only mode.
9.  : Freeze.

10. : Up/Down/Left/Right direction buttons
11. : Confirm.
12. : Capture screen shots.
13. : Show the current signal source. You cannot show it in Android.
14. : Adjust screen displaying.
15. : Open WIFI on the computer.
16. : Change the display mode.
17. : Switch to the previous page on whiteboard software and PPT.
18. : Switch to the next page on whiteboard software and PPT.
19. : Open whiteboard software.
20. : Switch over to VGA signal source.
21. : Switch over to HDMI signal source.
22. : Switch over to OPS signal source.
23. : Zoom in and out.

Instructions of Remote Controller

The effective area of the remote controller includes the vertical distance within five meters in front of the product, and the area within an angle of 30 degrees from the vertical point to the left and the right.



The effective receiving area is about 3 meters with 30° angle from vertical point to the left.



The effective receiving area is about 3 meters with 30° angle from vertical point to the right.



The effective receiving distance is about 5 meters from the front of device.



WARNING

To avoid probable faults, please read the following instructions and use the remote controller properly.

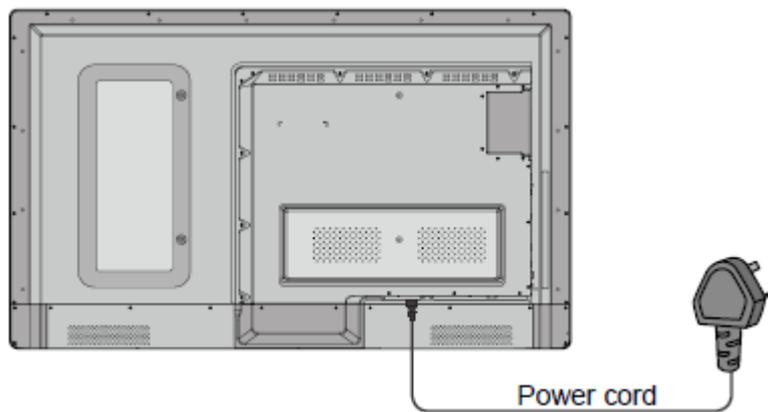
- Do not drop or beat the remote controller.
 - Do not spill water or other liquid on the remote controller.
 - Do not put the remote controller on wet items.
 - Do not expose the remote controller under sunlight or put it near overheated source.
-

3 Basic Operation

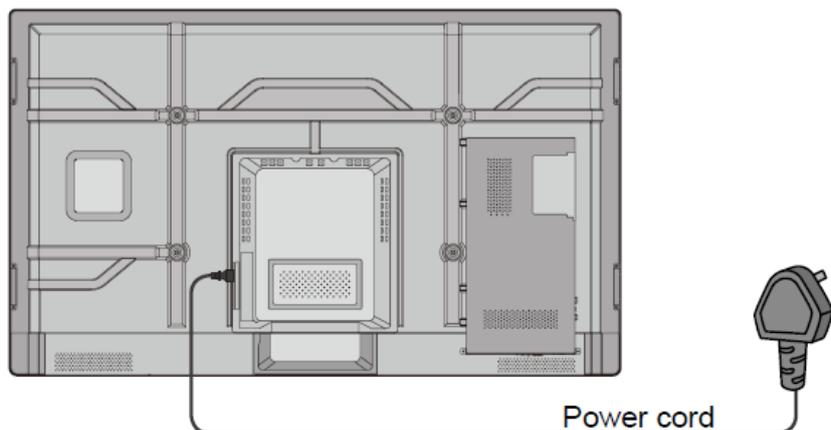
3.1 Power on

Step 1 Turn on the interactive display with the 100V-240V 50Hz/60Hz AC power supply. The power cord should be completely plugged into the power outlet, and insert the power connector into the appliance couplers at the bottom side. The power current must be grounded.

(For 65"/70")

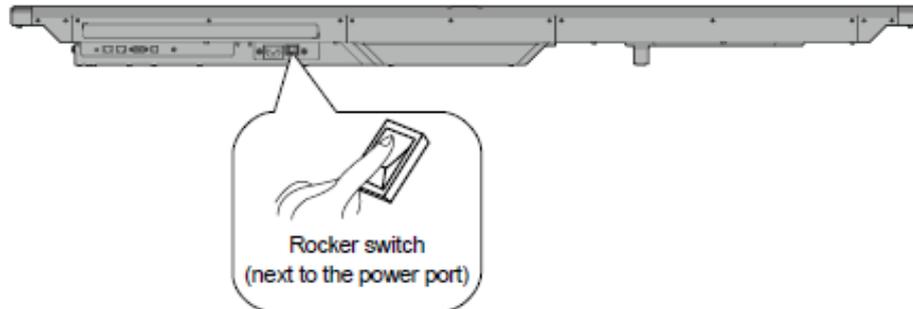


(For 75"/80"/86")

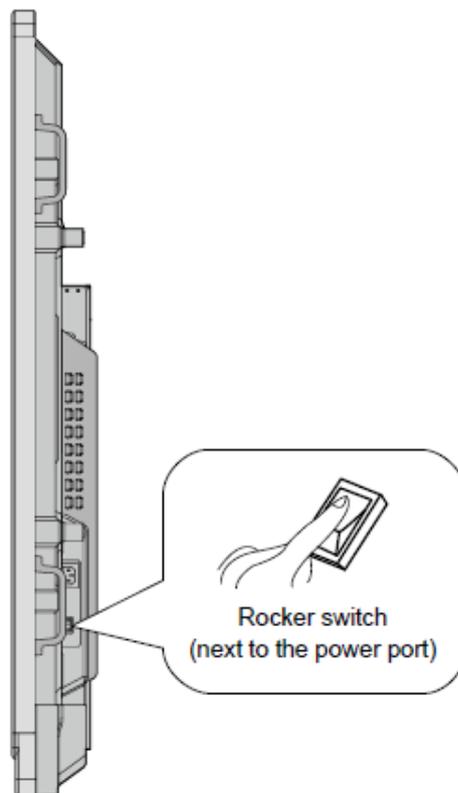


Step 2 Connect the display to the power supply. Switch on the rocker switch (on the right bottom of the rear of the display, next to the power port) to enter the standby status. The power indicator turns red.

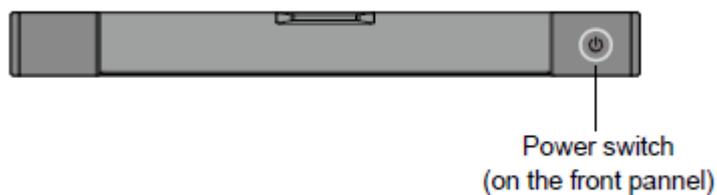
(For 65"/70")



(For 75"/80"/86")

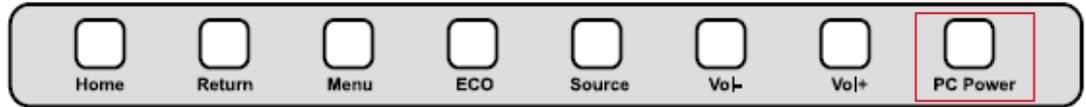


Step 3 Press power switch on the control panel or **Power** on the remote controller to turn on the interactive display. The OPS is boot. The power indicator turns green.

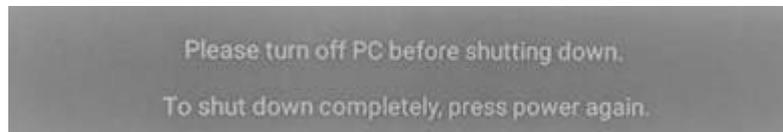


3.2 Power off

Step 1 Press **PC Power** to turn off the OPS (for all-in-one models only).



Step 2 Press **Power** on the control panel or **Power** on the remote controller to enter the standby mode. The screen will show the following information.



Step 3 Press **Power** on the control panel or **Power** on the remote controller to confirm and pass to the Standby mode. The power indicator turns red.

Step 4 In the standby mode, switch off the rocker switch to turn off the interactive display.



WARNING

- Please turn off the OPS before you turn off the interactive display. Otherwise, the computer may be damaged.
- Disconnect the interactive display from power after the display enters standby mode. Otherwise, the display may be damaged. A sudden power failure may damage the interactive display.
- Frequent power on and off in a short time may cause faults.

Status of the power indicator is as follows:

Power Indicator	Status
No light	Powered off
Red	Standby
Green	Powered on

3.3 OPS Installation



WARNING

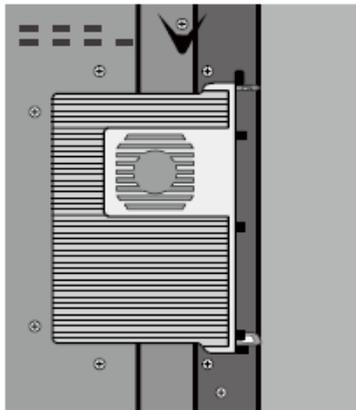
The OPS does not support hot-plugging. Please insert the plug of the OPS after the interactive display is disconnected from the power.

Install the OPS by the following steps:

Step 1 Insert the OPS into the special slot on the rear of the interactive display.

Step 2 Tighten the screws.

Step 3 Confirm the OPS installed correctly.



4 Toolbar Introduction

The toolbar has three modes: Home Page, Task Manager, and Whiteboard.

Under any of the three modes, you can click  on the toolbar to go back to the previous page and click  to exit from other programs or go back to the home page from other signal sources.

- On the home page, the toolbar is under home page mode and shows icons of the task manager, signal source, white board, input signal, file manager, system setting, browser and search engine. You can click an icon to open the corresponding program.



- After the whiteboard program is started, the toolbar enters the whiteboard mode, in which you can choose a pen, line weight and color to write on the whiteboard.
 - If you want to use the whiteboard function with non-signal model, Click  on the displayed menu, the **New Page**, **Overview**, **Delete All** and **Settings** functions are listed.
 - If you want to use whiteboard function with signal model, please click the  icon to enter the menu setting interface.

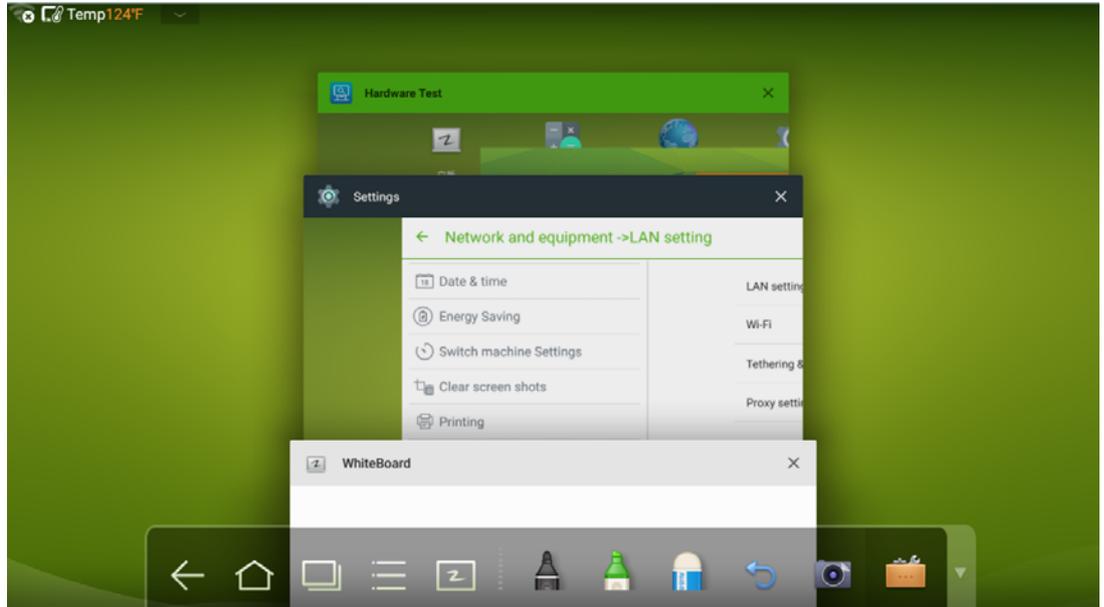


- In programs other than the whiteboard, the toolbar is in the Remarks mode. You can select a pen, line weight and colour to write and add remarks on the opened file (including image, PPT and PDF). Click  on the right to hide the toolbar. Scroll up with your finger to display the toolbar.



4.1 Task Manager

In the task manager, you can view current running programs, switch and end programs. Click  to enter the task manager as shown in the following figure:



View Running Programs

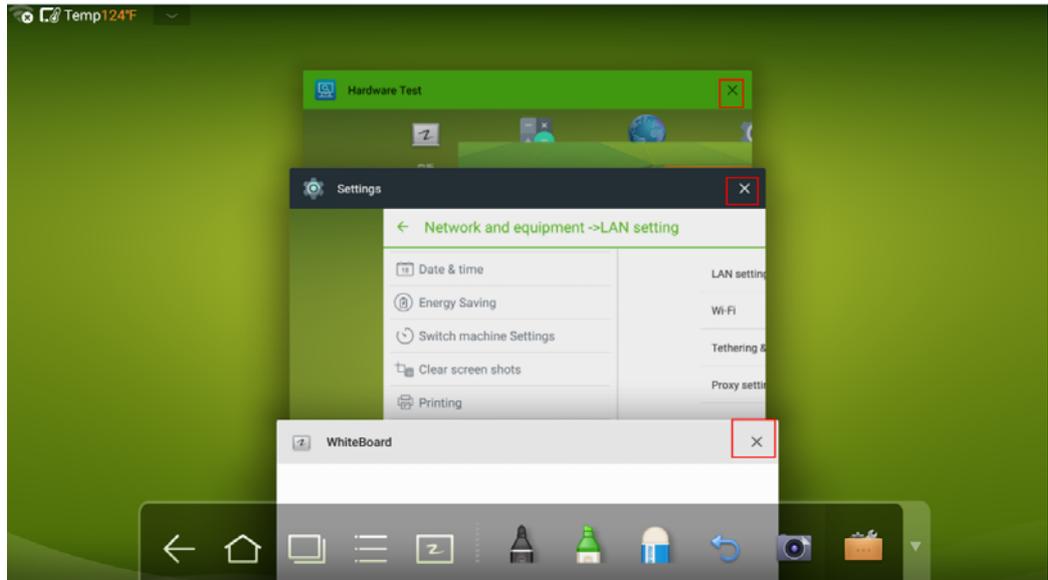
In the task manager, scroll up and down to view the current running programs.

Switch Programs

In the task manager, click an application program icon to switch programs. For example, click **Settings** to switch to the system setting application program, or click **Browser** to switch to the browser application program.

End Programs

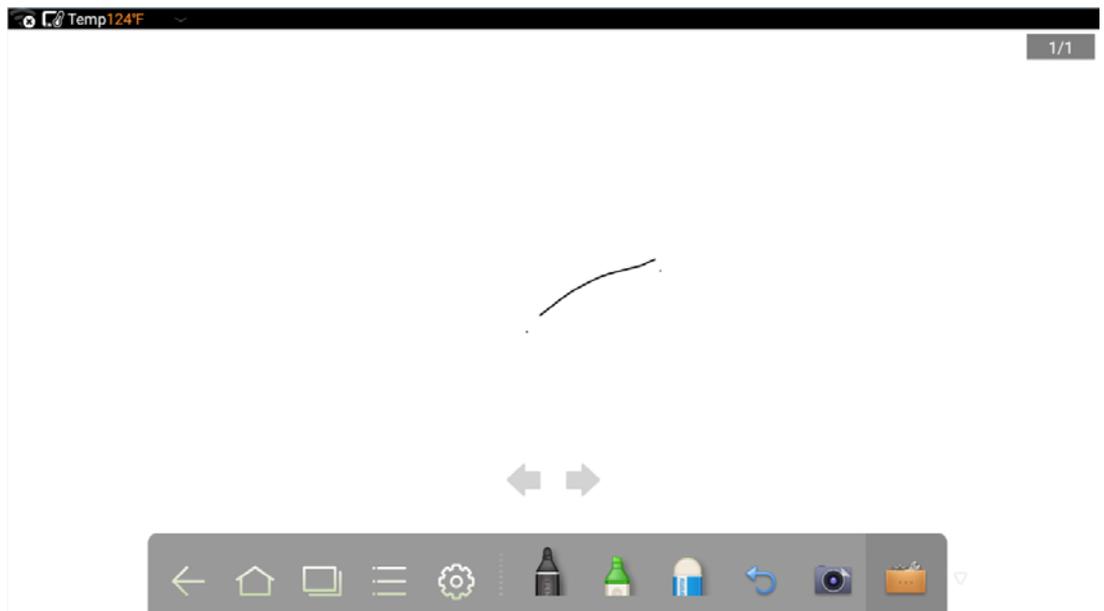
In the task manager, select a program, click the  icon of top right corner or scroll right or left to end the program.



4.2 Whiteboard

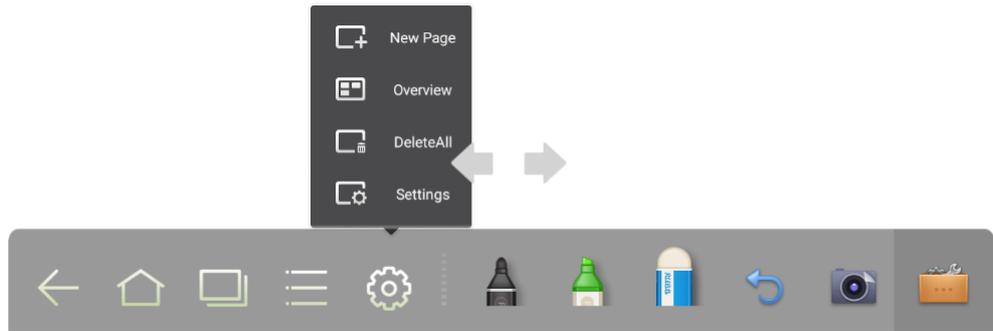
When using the whiteboard program, you can select a pen, line weight and colour to write and use an eraser to erase content on the whiteboard. You can also print and clear the content on the whiteboard.

Click  on the toolbar or press **Whiteboard** on the remote controller to enter the whiteboard interface.

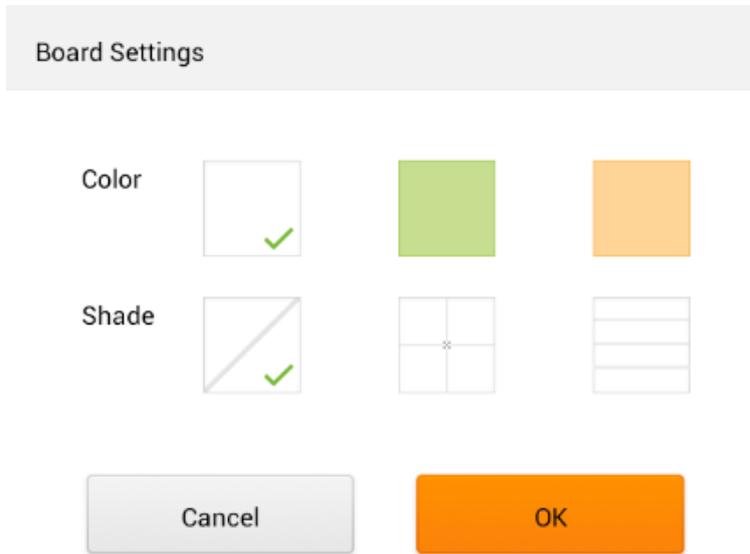


New Whiteboard and Settings

Click  in the displayed menu, the functions of **New Page**, **Overview**, **Delete All** and **Settings** are listed.



Click **Settings** to set the colour and shade of the whiteboard, as shown in the following figure:



Pen, Line Weight and Colour

If the marker is selected, click and hold  for two seconds to set its line weight and color.



If the highlighter is selected, click and hold  for two seconds to set its line weight and color.



Eraser

Two methods are available to erase written errors or content as follows:

- Click  to select the eraser, and then you can use it to erase the content on the whiteboard.
- Use five fingers to touch the screen and a circle is displayed indicating the scope for erasing. Move the circle to erase the content you wrote.



Cancel

Click  to cancel operations.

Screen Capture

The following two methods are used to capture screen:

- Click  to capture current content on the whiteboard and save it as an image in **Screenshots** directory. (The toolbar is not captured in the image.)
- Press **CAPTURE** on the remote controller to save current content on the whiteboard as an image in **Pictures > Screenshots** directory in the file manager.

You can open the directory by two ways:

- Go back to the home page and click  on the toolbar to enter the file manager. In the system file, find and click the **Screenshots** folder to check.
- Click  in application programs to enter the image browsing interface. In the system file, find and click the **Screenshots** folder to check.

Print, Clear and Freeze Screen

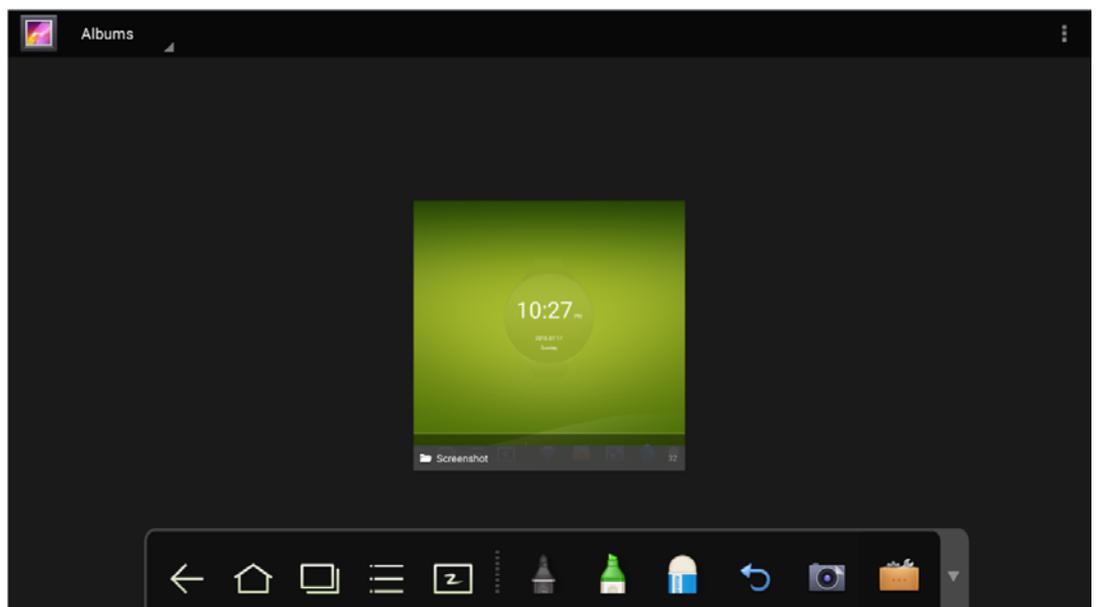
Click , **Print**, **Clear** and **Freeze screen** are displayed. Click **Print** to print current content on the whiteboard. Click **Clear** to clear all current content on the whiteboard. Click **Freeze screen** to capture the current screen and can do zoom in, zoom out, annotation on the freeze screen.



4.3 Gallery

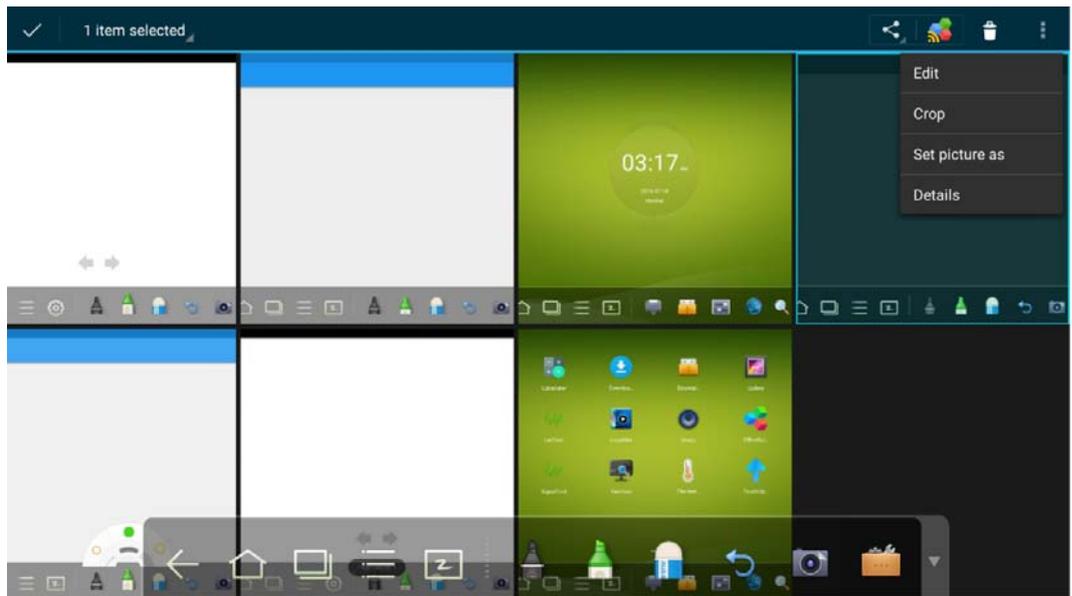
You can enter the gallery to view images one by one or play them as slides.

Click  in the application programs to enter the gallery. All folders containing images are displayed.

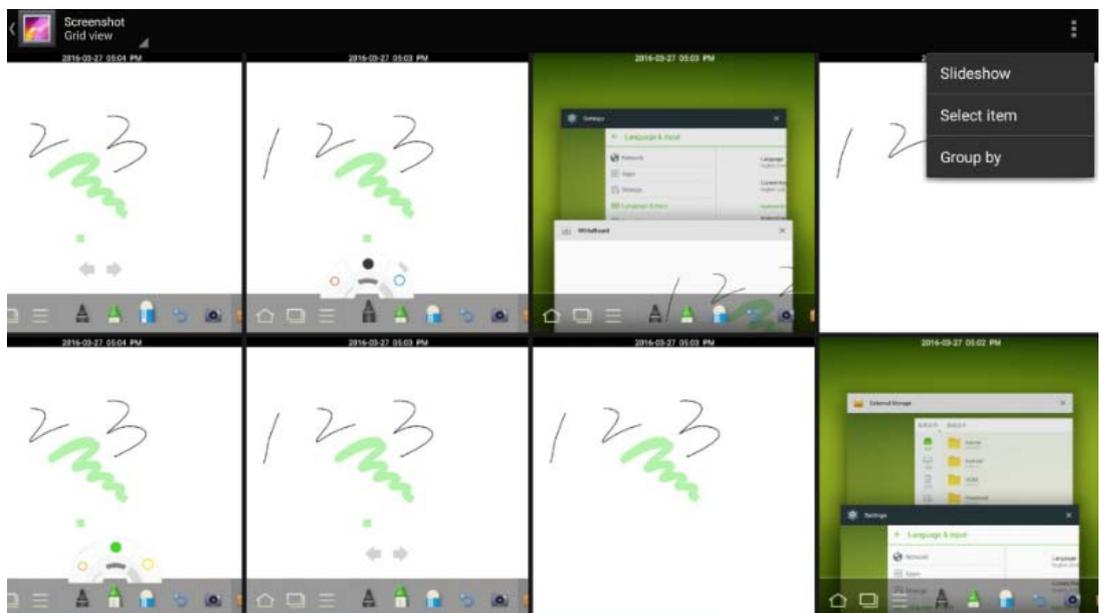


- Full preview

One full screen can maximum display eight images, you can preview other group image by your finger slipping left or right. Using long press on screen to select multiple images, and then you can click  icon on the upper right corner to print, share, delete, edit, set and view detail of selected images.

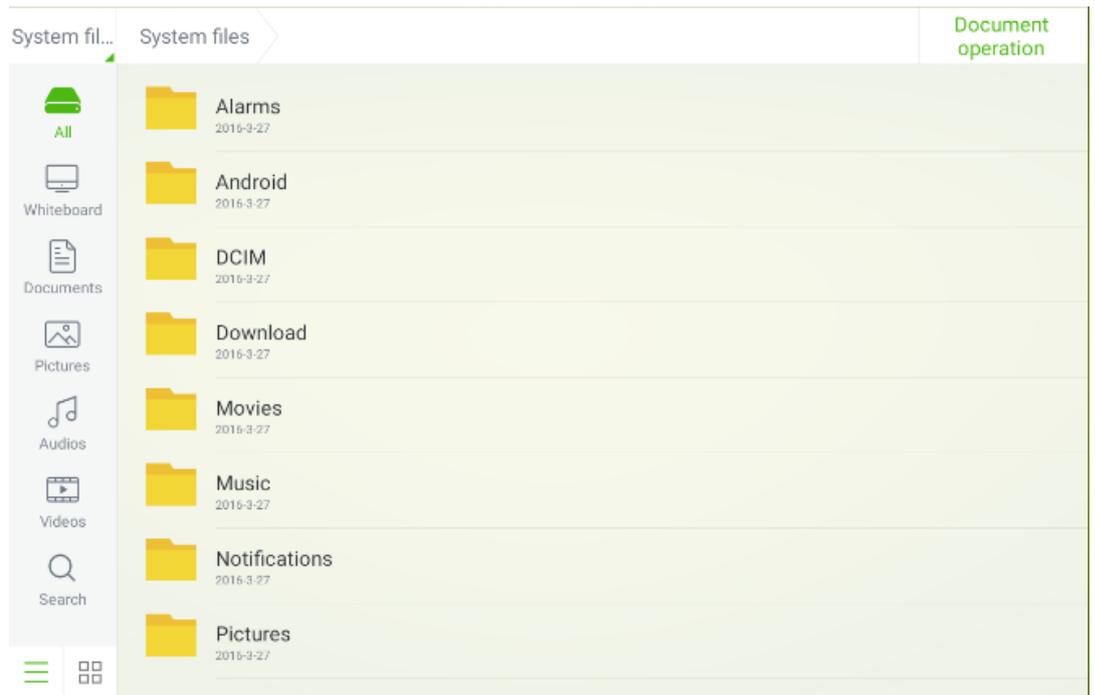


- View images one by one
Click one image in a folder. Scroll left to show the previous image and scroll right to show the next image.
- Play slides
Click  on the upper right corner of the folder and select **Slideshow** to play images as slides.



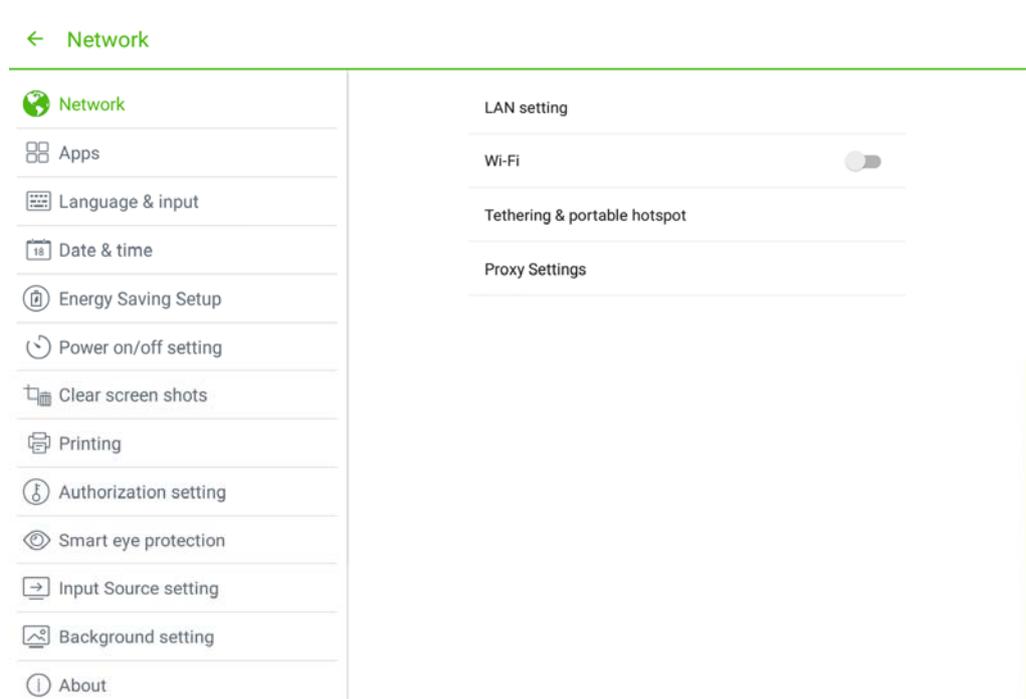
4.4 File Manager

Click  on the toolbar to enter the file manager interface. Current system files are displayed. External device files are also displayed, such as the files in the SD card and USB drive. The file manager provides various functions, such as preview, filter, search, select, copy and delete files.



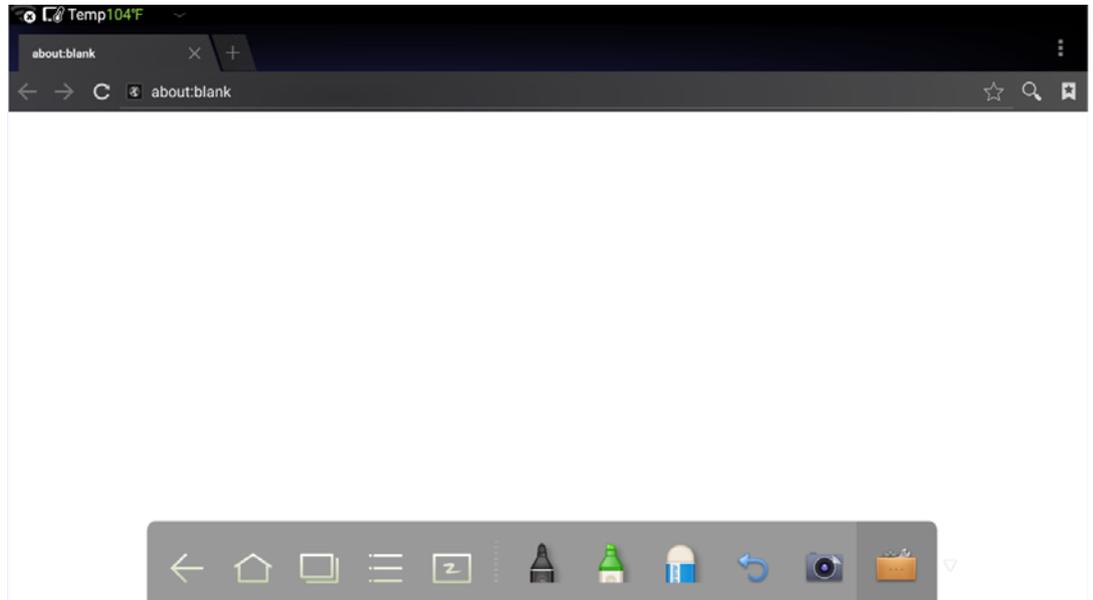
4.5 System Settings

Click  on the toolbar to enter the system settings interface. The **Network**, **Apps**, **Language & input**, **Date & time**, **Energy Saving Setup**, **Power on/off Settings**, **Clear screen shots**, **Printing**, **Authorization setting**, **Smart eye protection**, **Input Source setting**, **Background setting** and **About** are displayed on the screen. You can click the items to have your preferred system setting. Click the area outside of the system settings interface to exit.



4.6 Browser

Click  on the toolbar to open the web browser. Enter a website in the address bar and enter keywords in the search box by using the soft keyboard or remote controller.



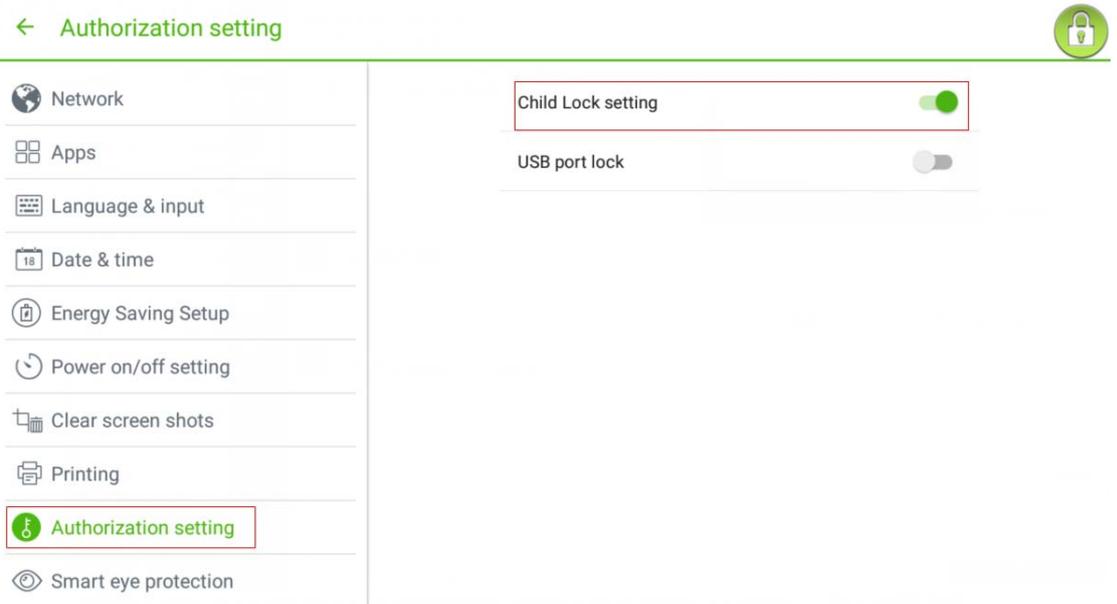
4.7 Audio Only

Press **AUDIO ONLY** on the remote controller to turn off the screen but keep audio on. To turn on screen again, touch any place on screen or click **AUDIO ONLY** again to return to normal operation mode.

4.8 Child Lock Setting

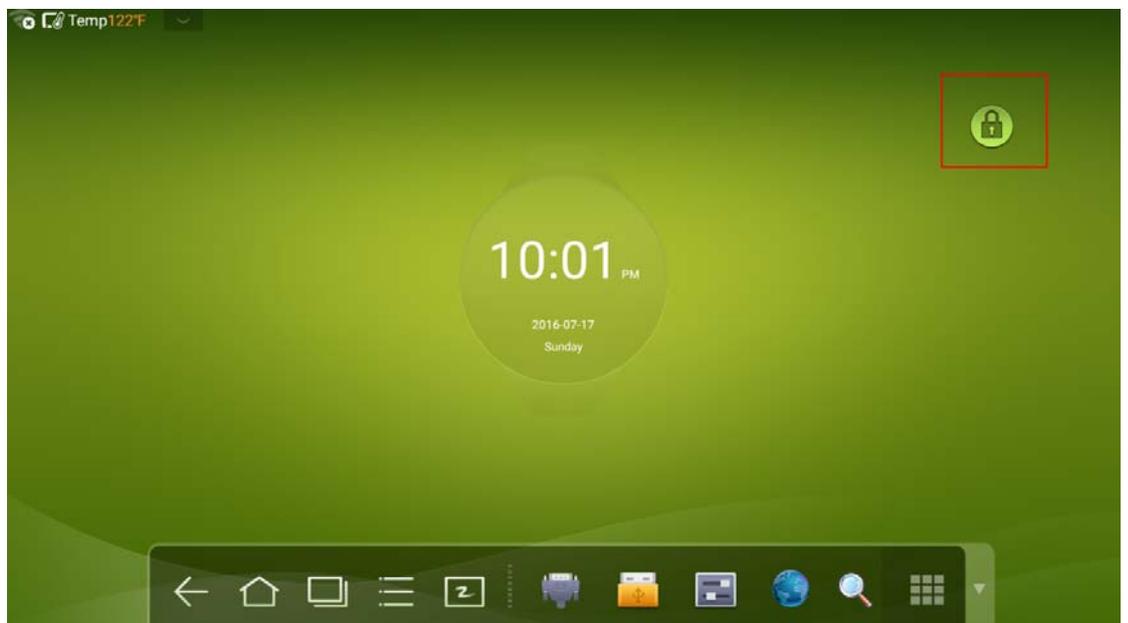
You can turn on/off **Child Lock Setting** function by three methods below:

- Click  on the toolbar to enter the system settings interface. You can click the **Authorization setting** item to turn on the Child Lock function.



- Press **ECO** button on the front panel for more than 5 seconds to enter Child Lock mode. Under Child Lock mode, press **ECO** for more than 5 seconds again to unlock.
- Press **ECO** button on the remote controller for more than 5 seconds to enter Child Lock mode. Under Child Lock mode, press **ECO** for more than 5 seconds again to unlock.

An icon will show on the top-right corner of the touch display, as seen in the following figure, if the device is under Child Lock mode.

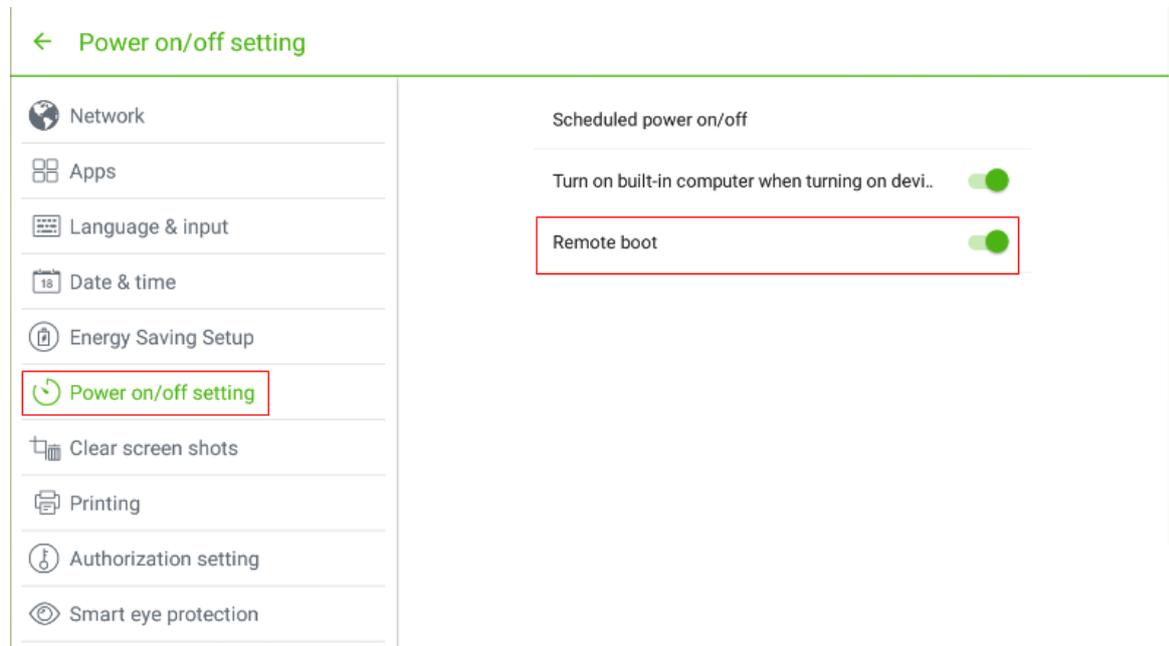


4.9 Remote Boot

Click  on the toolbar to enter the system settings interface. You can click the **Power on/off setting** item to turn on the remote boot function. The administrator of control

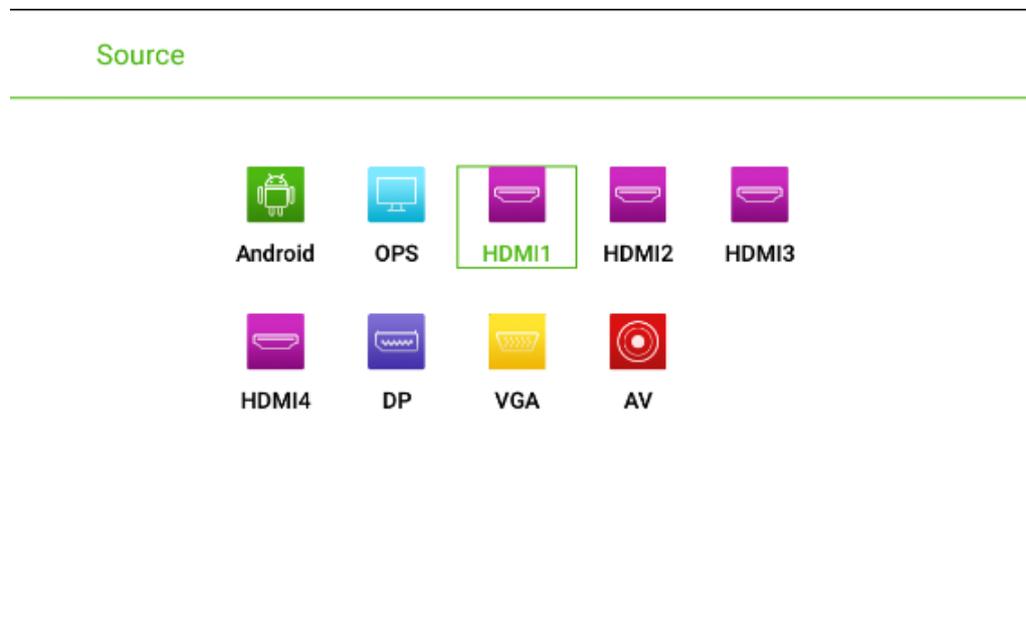
center can send requests via LAN using MAC address of touch display to power on touch display remotely.

To use the function successfully, touch display should be power off and connected to control center with LAN cable in the same network.



Steps of obtaining MAC address of touch display:

Step 1 Using “SOURCE” on the remote control or “Source” on the front control panel of touch display to enter **Source** page.



Step 2 Using remote control to enter number “2580” in input signal page to enter “**Design Menu**” page.

Design Menu

Factory Menu

Common function

Version information

Picture Mode

Non_linear

Non-standard options

SSC Adjust

PEQ

Mount Config

RO

PQ Table Update

Update

Ursa Test

Other Options

IP Enable Mapping

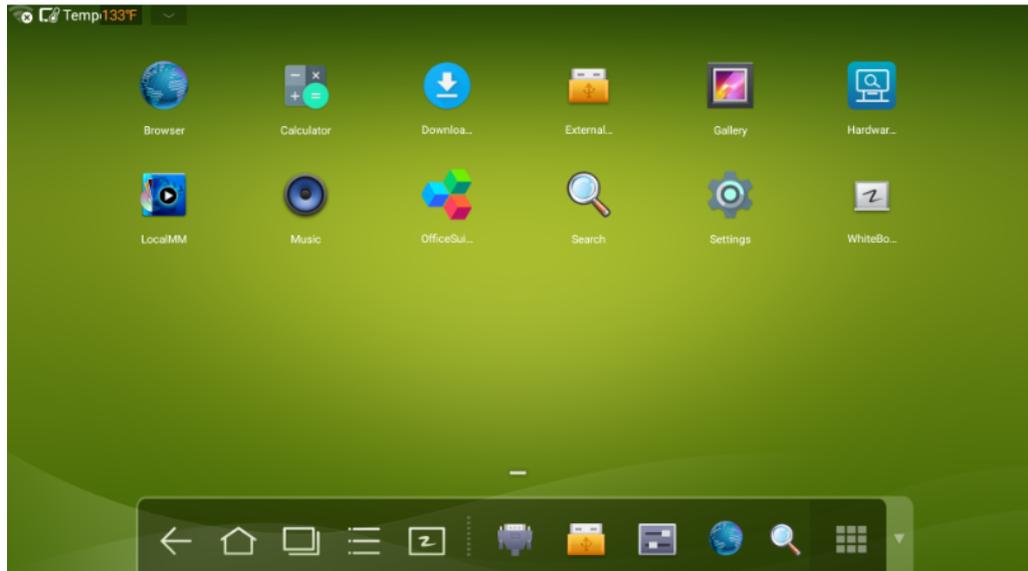
CI Factory Setting

Step 3 Click **“Version information”** in **“Design Menu”** page to enter **“Version information”** page and get **“WOL_MAC”** as MAC address of touch display.



4.10 Application Programs

Click  on the toolbar to enter the application program page. All application programs in the system are displayed. Scroll right and left to turn the page, as shown in the following figure:



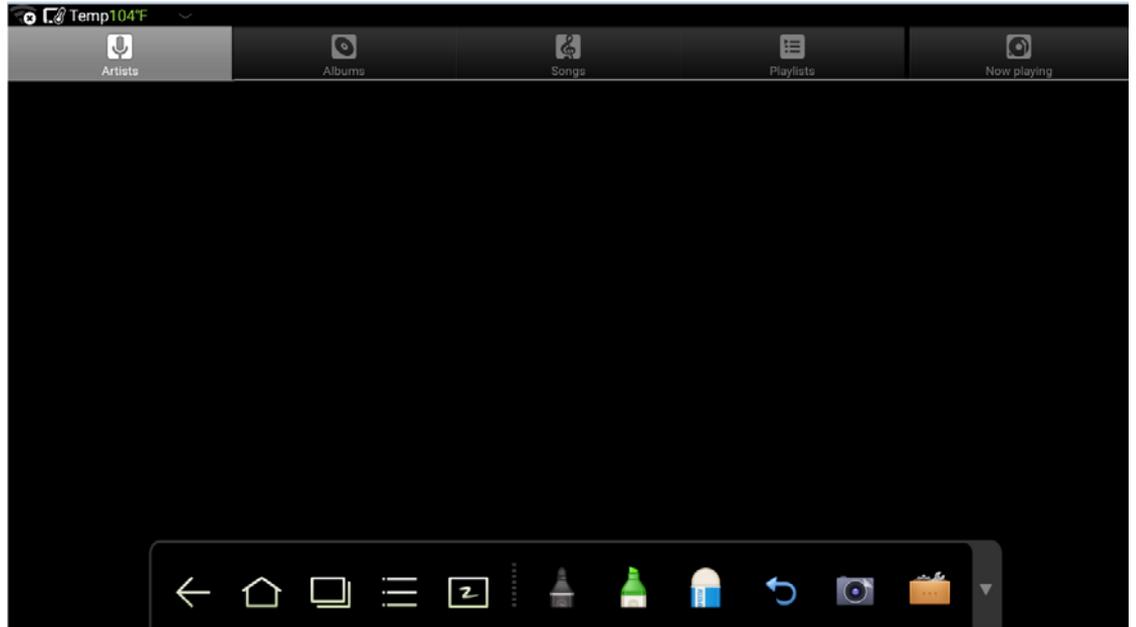
Calculator

Click  to enter the calculator application. Click digits and operators on the keyboard to perform calculation.



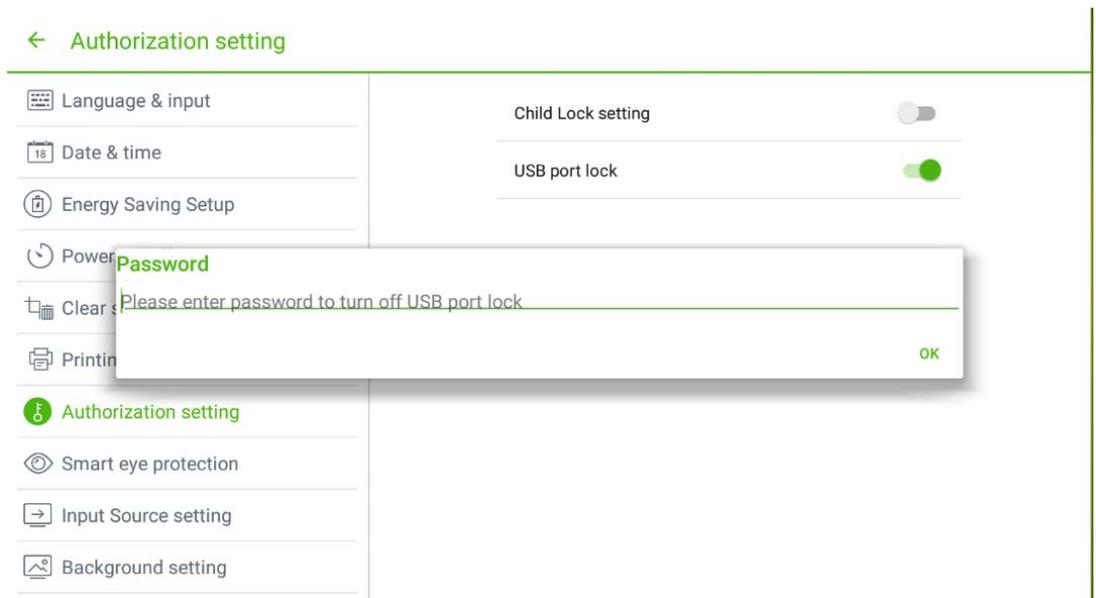
Music

Click  to start the music program. The music in the local disk is displayed by artists, albums, songs, playlist and playing status.



4.11 Disable Android USB Port

- Step 1** Click  on the toolbar to enter the system setting interface. You can click the **Authorization setting** item to turn on **USB port lock** function.
- Step 2** Once turn on this function, all the USB ports of Android will be disabled.
- Step 3** To turn off this function, enter pin code “888888”.



4.12 Temperature Reminder and Thermal Shutdown

Temperature Reminder

The real-time temperature of the interactive display is displayed on upper left corner of the home page. Click the temperature display area on the top-left corner of screen to switch between Celsius and Fahrenheit.

Thermal Shutdown

In the running status, the overall temperature of the display increases due to unfavorable ventilation environment and long working hours.

When the system detects the actual temperature higher than the defined temperature, the temperature protecting program will run automatically, the interactive display will turn to the standby mode. You shouldn't reboot the display within two minutes.

5 Signal Source Selection

The following three ways are used to select a signal source:

- Press **SOURCE** on the remote controller.
- Press **Source** on the control panel of the interactive display.
- At Main page or Whiteboard mode, click  for input **Source** selection page.
- In the signal source page, press **▲**, **▼**, **◀** or **▶** to select a channel and press **OK**. You can also select directly by clicking an icon, as shown in the following figure:

Source



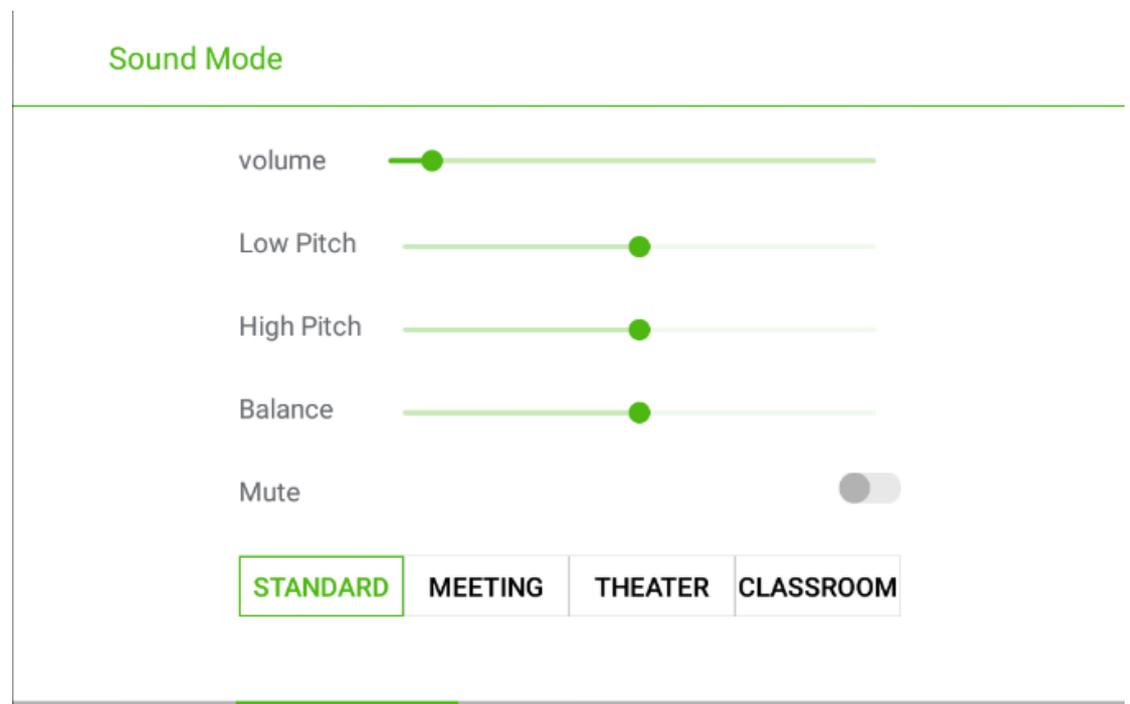
6 Menu

After switching to selected signal source, press **MENU** on the remote controller. A menu is displayed, including **Sound Mode**, **Screen Setting**, and **Display setting**. Scroll left and right on the screen or press ◀ or ▶ to switch between entries.

Sound Mode

The **Sound Mode** page displays options including **STANDARD**, **MEETING**, **THEATER** and **CLASSROOM**.

- Drag the **volume** key bar directly or press the ◀ or ▶ button to change volume.
- Press **Mute** for silence mode
- Press **RETURN** to exit the menu.



Screen Setting

The **Screen Setting** page displays options including **Auto**, **P2P**, **16:9** and **4:3**.

Two ways are used to set the options:

- Click an icon and set the option.
- Press ◀ or ▶ and press **OK** to modify the option. Press **RETURN** to exit the menu.

Under different input sources, the screen settings could be different.

- Under **OPS**, **HDMI 1-HDMI 4** and **DP** signal source.

Screen Setting



Auto	P2P	16 : 9	4 : 3
------	-----	--------	-------

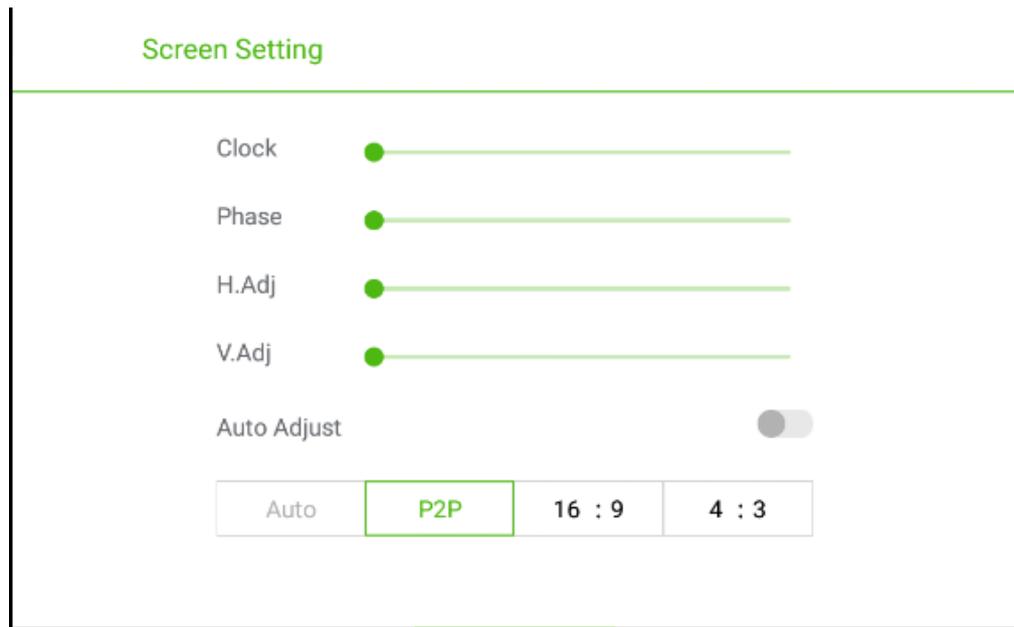
- Under **AV** signal source, the **P2P** mode cannot use.

Screen Setting



Auto	P2P	16 : 9	4 : 3
------	-----	--------	-------

- Under **VGA** signal source, **Auto** mode cannot use.

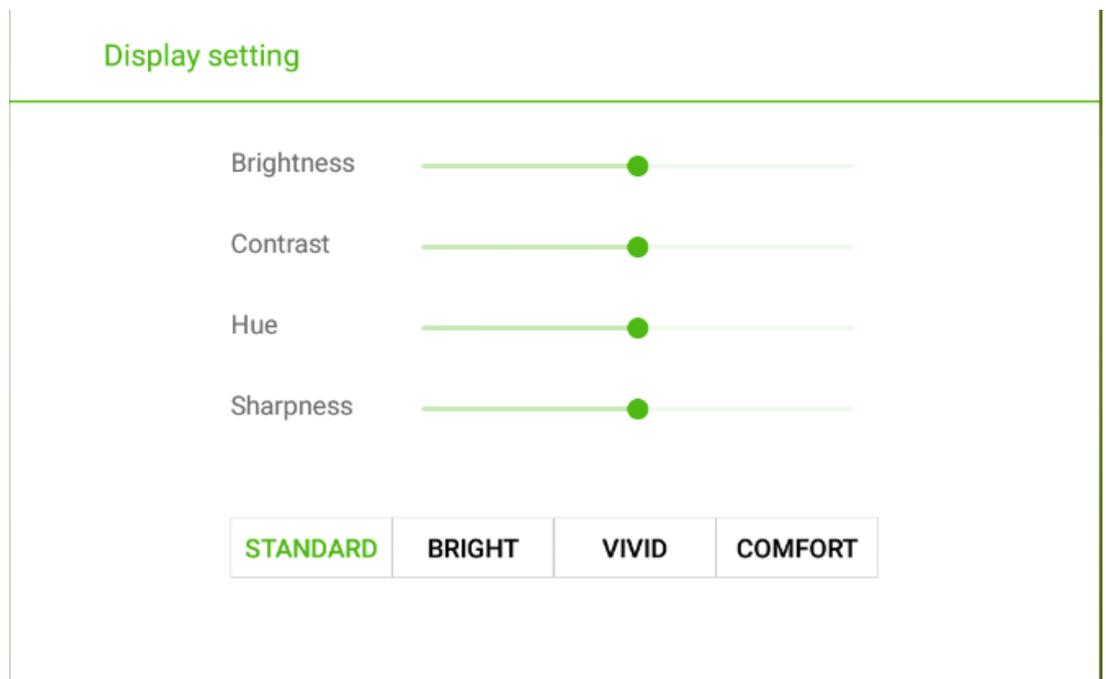


Display Setting

The **Display setting** page displays options including **STANDARD**, **BRIGHT**, **VIVID** and **COMFORT**.

Two ways are used to set the options:

- Click an icon and set the option.
- Press ◀ or ▶ and press **OK** to modify the option. Press **RETURN** to exit the menu.



7 ECO Mode



CAUTION

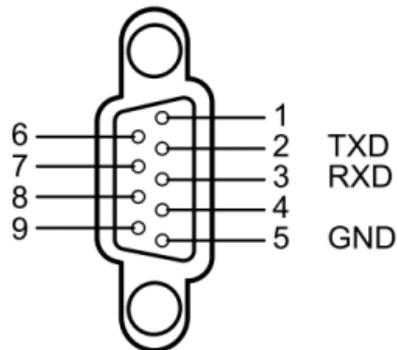
- *Please switch off the display when it is not used, and enable the function of Audio Only when you do not need to watch the display, helping to reduce power consumption and save energy.*
 - *On the premise of ensuring viewing effect, the energy consumption can be reduced by lowering display brightness.*
 - *To better save energy, the automatic power-off function is configured for the display and the default duration is 10 minutes. If no operation is performed in 10 minutes, the display is switched automatically to sleep mode (the same as power off) for reducing energy consumption.*
-

Press **ECO** on the remote controller to enter the backlight mode page. Press **ECO** to switch among **ECO**, **Auto** and **Standard**.

- In the **ECO** mode, the power output is reduced 50%.
- In the **Auto** mode, the display automatically adjusts the screen brightness according to the light in the environment. When the light is strong, the screen brightens. When the light is weak, the screen darkens.
- In the **Standard** mode, the screen brightness keeps the same.

8 Serial Port Control

The RS-232 port of the interactive display is defined as follows:



Connect RS-232 port to the PC or controlling device. Enable RS-232 serial port connection and complete the following configuration.

Port Number: COM 1 (Set the value according to the port number of the PC or controlling device.)			
Bit rate	19200	Odd/even check	None
Data bit	8	Stop bit	1

The following table lists button controlling codes. The buttons share same functions with corresponding buttons on the remote controller.

Function	Controlling Code	Function	Controlling Code
Power on	7F 08 99 A2 B3 C4 02 FF 01 00 CF	1	7F 08 99 A2 B3 C4 02 FF 01 21 CF
Power off	7F 08 99 A2 B3 C4 02 FF 01 01 CF	2	7F 08 99 A2 B3 C4 02 FF 01 22 CF
Mute	7F 08 99 A2 B3 C4 02 FF 01 02 CF	3	7F 08 99 A2 B3 C4 02 FF 01 23 CF
Sound mode	7F 08 99 A2 B3 C4 02 FF 01 05 CF	4	7F 08 99 A2 B3 C4 02 FF 01 24 CF
Signal source	7F 08 99 A2 B3 C4 02 FF 01 06 CF	5	7F 08 99 A2 B3 C4 02 FF 01 25 CF

Function	Controlling Code	Function	Controlling Code
One button start	7F 08 99 A2 B3 C4 02 FF 01 07 CF	6	7F 08 99 A2 B3 C4 02 FF 01 26 CF
Display status	7F 08 99 A2 B3 C4 02 FF 01 09 CF	7	7F 08 99 A2 B3 C4 02 FF 01 27 CF
HDMI 1	7F 08 99 A2 B3 C4 02 FF 01 0A CF	8	7F 08 99 A2 B3 C4 02 FF 01 28 CF
HDMI 2	7F 08 99 A2 B3 C4 02 FF 01 0B CF	9	7F 08 99 A2 B3 C4 02 FF 01 29 CF
HDMI 3	7F 08 99 A2 B3 C4 02 FF 01 0C CF	0	7F 08 99 A2 B3 C4 02 FF 01 2A CF
Internal PC(OPS)	7F 08 99 A2 B3 C4 02 FF 01 38 CF	OK	7F 08 99 A2 B3 C4 02 FF 01 2B CF
HDMI 4	7F 08 99 A2 B3 C4 02 FF 01 51 CF	←	7F 08 99 A2 B3 C4 02 FF 01 2C CF
DP	7F 08 99 A2 B3 C4 02 FF 01 56 CF	→	7F 08 99 A2 B3 C4 02 FF 01 2D CF
VGA	7F 08 99 A2 B3 C4 02 FF 01 0D CF	↑	7F 08 99 A2 B3 C4 02 FF 01 2E CF
AV	7F 08 99 A2 B3 C4 02 FF 01 11 CF	↓	7F 08 99 A2 B3 C4 02 FF 01 2F CF
Up	7F 08 99 A2 B3 C4 02 FF 01 13 CF	Menu	7F 08 99 A2 B3 C4 02 FF 01 1B CF
Down	7F 08 99 A2 B3 C4 02 FF 01 14 CF	Home page	7F 08 99 A2 B3 C4 02 FF 01 1C CF
Listen alone	7F 08 99 A2 B3 C4 02 FF 01 15 CF	Return (Exit)	7F 08 99 A2 B3 C4 02 FF 01 1D CF
ECO	7F 08 99 A2 B3 C4 02 FF 01 16 CF	Search	7F 08 99 A2 B3 C4 02 FF 01 1E CF
VOL -	7F 08 99 A2 B3 C4 02 FF 01 17 CF	Capture	7F 08 99 A2 B3 C4 02 FF 01 1F CF
VOL +	7F 08 99 A2 B3 C4 02 FF 01 18 CF	Auto ADJ	7F 08 99 A2 B3 C4 02 FF 01 20 CF
Freeze	7F 08 99 A2 B3 C4 02 FF 01 3B CF	Acoustic mode	7F 08 99 A2 B3 C4 02 FF 03 XX CF Note: XX indicate various mode: 00-Standard, 01-Music, 02-Film, 03-News, 04-User, 05-temporary 1, 06- temporary 2

Function	Controlling Code	Function	Controlling Code
volume setting	7F 08 99 A2 B3 C4 02 FF 05 XX CF	Energy saving mode	7F 08 99 A2 B3 C4 02 FF 06 XX CF Note: XX indicate various mode: 00-standard, 01-energy saving, 02-auto
Firmware version query	7F 08 99 A2 B3 C4 02 FF 01 3D CF	Backlight brightness increase	7F 08 99 A2 B3 C4 02 FF 01 47 CF
Backlight brightness decrease	7F 08 99 A2 B3 C4 02 FF 01 48 CF	Backlight brightness setting	7F 08 99 A2 B3 C4 02 FF 09 XX CF
Switch child lock	7F 08 99 A2 B3 C4 02 FF 01 57 CF	Child lock mode	7F 08 99 A2 B3 C4 02 FF 01 58 CF

9 VGA Signal Input

VGA (Video Graphics Array) is the computer display standard for analog signal. VGA port is the special port on the computer which uses the VGA standard for data input. The following table lists the specifications of various VGA signal input.



NOTE

The VGA signal input is available only when the display is in PC mode.

SN	Standard	Resolution	Refresh Rate (Hz)	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Horizontal/Vertical Sync Polarity (TTL)
1	VGA	640x480	60	31.5	60	N/N
2	VGA	640x480	72	37.9	72	N/N
3	VGA	640x480	75	37.5	75	N/N
4	VGA	800x600	56	35.1	56	P/P
5	VGA	800x600	60	37.9	60	P/P
6	VGA	800x600	72	48.1	72	P/P
7	VGA	800x600	75	46.9	75	P/P
8	VGA	1024x768	60	48.4	60	N/N
9	VGA	1024x768	70	56.5	70	N/N
10	VGA	1024x768	75	60	75	N/N
11	VGA	1280x960	60	60	60	N/N
12	VGA	1280x960	75	75.159	75	N/N
13	VGA	1280x1024	60	64	60	P/P
14	VGA	1280x1024	75	80	75	P/P
15	VGA	1600x1200	60	75	60	P/P
16	VGA	1920x1080	60	66.547	59.988	P/P

10 Multimedia Format Support

Media Type	File Format	File Extension
Image	JPEG, BMP, PNG	.jpg, .bmp, .png
Movie	MPEG1, MPEG2, MPEG4, H.264, H.265, RM, RMVB, MOV, MJPEG, VC1, DivX, FLV (Support 1080P, 4K HD Decoding)	.avi, mpg, .dat, .vob, .div, .mov, .mkv, .rm, .rmvb, .mp4, .ts, .trp, .asf, .flv
Music	MP3, M4A, (AAC)	.mp3, .m4a
Text	TXT	.txt

11 Common Faults and Solutions

Symptom	Possible Cause	Solution
The service program fails to be connected.	The drive program is not correctly installed.	Install the drive program correctly.
	The USB port (lead) is not connected or is faulty.	Change the USB lead or check if the USB port is faulty.
	The infrared tube is blocked.	Ensure that the surrounding infrared tubes are not blocked.
Repositioning is required every time the display is switched on.	The computer is equipped with a recovery card.	Disable computer protection and perform the positioning again.
The positioning is inaccurate.	The positioning is not performed properly.	Press AUTO on the remote controller to show the full screen, and use the pen provided with the display to perform positioning again.
The cursor of the pen is unstable when the pen is used.	The writing method is incorrect.	You are advised to use the pen rather than a finger to write. Hold the pen as far to the nib as possible. The angle between the pen and display needs to be greater than 60 degrees. Do not touch the display with your sleeve or wrist.
	Strong light or infrared interference exists.	Remove the interference source or change the using environment.
The handwriting is discontinuous. (Part of the handwriting cannot be displayed.)	The writing method is incorrect.	You are advised to use the pen rather than a finger to write. Hold the pen as far to the nib as possible. The angle between the pen and display needs to be greater than 60 degrees. Do not touch the display with your sleeve or wrist.

Symptom	Possible Cause	Solution
	The covering area of the nib does not meet the requirement or the nib is too small.	Change the nib or use a pen with larger covering area.
	The infrared tube is blocked.	Check if infrared tubes are blocked.
	Strong light or infrared interference exists.	Remove the interference source or change the using environment.
The handwriting cannot be shown or no touch signal is detected.	The color of the pen is the same as or similar to the background color.	Change the color of the pen.
	Your hand or other objects are on the display when you are writing.	You are advised to use the pen rather than a finger to write. Hold the pen as far to the nib as possible. The angle between the pen and display needs to be greater than 60 degrees. Do not touch the display with your sleeve or wrist.
	Strong light or infrared interference	Remove the interference source or change the using environment.
	The writing method is incorrect.	You are advised to use the pen rather than a finger to write. Hold the pen as far to the nib as possible. The angle between the pen and display needs to be greater than 60 degrees. Do not touch the display with your sleeve or wrist.
Not sound is played and no image is displayed.	<ul style="list-style-type: none"> • Check whether the power plug is inserted into the power socket and whether the display is powered on. • Check whether the rocker switch on the interactive display is switched on. • Check whether the Standby button on the remote controller is pressed. • Check whether the video and audio input cables are connected correctly. • Check whether the display is switched to the right signal source. • Check the settings on image brightness and contrast. • Check the volume. 	
Image is displayed properly, but no sound is played.	<ul style="list-style-type: none"> • Check the volume. • Check whether the Mute button on the remote controller is pressed. • Check whether the audio cable between the PC and interactive display is connected correctly. 	

Symptom	Possible Cause	Solution
No image is displayed or the image is black and white.	<ul style="list-style-type: none"> • Modify the color settings. • Check the color system. 	
The image or sound is interrupted.	<ul style="list-style-type: none"> • Find out the electric appliance that causes the interference and move it away from the interactive display. • Do not share the power socket of the display with the electric appliance that causes interference. 	
The remote controller fails.	<ul style="list-style-type: none"> • Change the batteries. • Clean the signal emitter at the top of the remote controller. (Check whether it is blocked.) • Check contacts of the batteries. 	
The PC cannot be started. (This scenario is applicable only to display models operating with the PC.)	<ul style="list-style-type: none"> • Check whether the PC adapter is correctly connected and whether the PC is powered on. • Check whether the PC is connected correctly to the interactive display. 	

The following symptoms are not faults:

- A very few of constantly bright or dark pixels, such as tiny red, blue, green or dark points, may exist on the LED. This symptom is not a fault and does not affect running functions of the display.
- Slight sound may occur due to the backlight adjustment or ventilation. This is a normal symptom.
- The image and sound are normal. However, you can sense static electricity when you touch the LED and metal back cover. This is a normal symptom.

12 Care and Maintenance

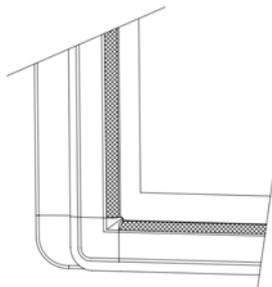
Maintenance Tips

- Do not put or install the product near a heat source or under direct sunlight, or in dusty or humid places, or somewhere the product may be hit or damaged by mechanical vibration. To maximize the performance, it needs to be put away from equipment such as grid, large metal objects and radar stations as far as possible.
- Do not wipe the display with any chemical reagent. Solvents may damage the enclosure or paint. If the display is stained by dust, cut off the power and then clean the display using a dried cloth with a little of warm water. Use a clean soft cloth to clean the LED of the display.
- Do not frequently switch on and off the product, which may shorten the product service life. After the display is switched off, wait for three minutes before switching it on again. If the product is not to be used for a long period of time, please power off the product and pull out the power plug.
- Do not maximize the brightness and contrast of the LED for a long period of time, which may shorten the LED service life.
- Do not use a hard object to write on the display, which may scratch the LED.

Clean the Infrared Tube

The interactive display uses the horizontal and vertical infrared matrix to detect and locate the user's touch. The screen is surrounded by an infrared tube (including the infrared acceptor and emitter), which forms an infrared net covering on the screen surface. When a user touches the screen, fingers or other opaque objects block the infrared rays that cross the touch point, which helps the controller detect the coordinate position of the touch point.

Dust is easily retained on the screen surface due to its long-term exposure in the air and causes ineffective touch or inaccurate positioning. Therefore, you need to clean the infrared tube around the screen regularly.



13 Technical Parameters

Specification	Parameter
Backlight Type	LED
Aspect Ratio	16:9
Physical Resolution	3840x2160 Pixel (4K_UHD Model) /1920x1080 (2K_FHD Model)
Viewing Angle	178°
Display Colors	10bit
LCD Brightness	370cd/m ²
Response Time (Typical)	8ms
Viewing Angle	178°
Life Time (working hours)	30,000 hours
Power Consumption	65,70 inch: Maximum <220W 75 inch: <350W 80, 86 inch: <450W Standby Mode: ≤0.5W
Working Voltage	AC 100V-240V, 50 Hz/60Hz
Input Current	65,70 inch: Max 2.5A 75 inch: Max 4.0A 80, 86 inch: Max 4.5A
Touch Surface Material	Tempered glass
Touch Surface Technology	Anti-Glare glass (New Generation Anti-Glare Glass optional)
Transparency	>88%
Sensing Method	Infrared Touch

Specification	Parameter
Touch Point	10 Points
Writing Method	Finger or pen
Cursor Speed	100Point/s
Positioning Accuracy	5mm
Communication Interface	USB-B
Front Interface Input Ports	Microphone(3.5mm) x 1, USB(Touch) x 1, USB(OPS) x 2, HDMI x 1, Display Port x 1, USB(Android) x 1
Rear side Ports	HDMI x 3, HDMI out x 1 USB(Touch) x 3, Microphone(3.5mm) x 1, VGA x 1, VGA Audio x 1, USB3.0 x 1, Mini SD Reader x 1
Bottom Ports	AV in x 1, LAN in x 1, LAN out x 1, RS232 x 1, SPDIF, Earphone x 1
Multimedia File Formats Support	Image: JPEG, BMP, PNG Video: MPEG1, MPEG2, MPEG4, H.264, H.265, RM, RMVB, MOV, MJPEG, VC1, DivX, FLV (Support 1080P, 4K HD Decoding) Audio: MP3, M4A, (AAC)
Speaker Position	Forward
Speaker Rated Impedance	8Ω
Speaker Freq. Response	90Hz (±20%) - 18kHz
Speaker Max. Power Output	15 W*2
Transmission Range	5m
Storage Temperature/Humidity	-20°C - 60°C, 20% - 90%
Working Temperature/Humidity	0°C - 40°C, 20% - 80%
Installation Method	Wall-mounted / Floor Stand
I/O Ports Remark (for 4K_UHD Model)	The HDMI 1, Display port and Rear side HDMI 4 can support 4K, 30Hz. The HDMI 2, HDMI 3, HDMI Out ports can support 4K, 60Hz. (Note: there is an exception that HDMI 1 & 4 ports can support 4k, 60Hz, when using YUV420 media player device)

* We may modify the user manual without prior notice.

* If you discover any unclear presentation, mistake or omission in this manual, please contact us immediately. We are not liable for any loss or damage if you fail to contact us.