ViewSonic®

IN04V Series

Commercial Touch Display
User Guide

IMPORTANT: Please read this User Guide to obtain important information on installing and using your product in a safe manner, as well as registering your product for future service. Warranty information contained in this User Guide will describe your limited coverage from ViewSonic® Corporation, which is also found on our web site at http://www.viewsonic.com in English, or in specific languages using the Regional selection box of our website.

Model No. VS21450 | VS21451 | VS21452
P/N: IN6504V-C | IN7504V-C | IN8604V-C | IN6504V-N | IN7504V-N | IN8604V-N

Thank you for choosing ViewSonic®

As a world-leading provider of visual solutions, ViewSonic® is dedicated to exceeding the world's expectations for technological evolution, innovation, and simplicity. At ViewSonic®, we believe that our products have the potential to make a positive impact in the world, and we are confident that the ViewSonic® product you have chosen will serve you well.

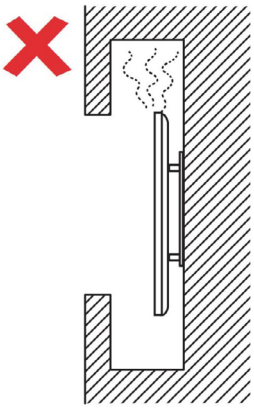
Once again, thank you for choosing ViewSonic®!

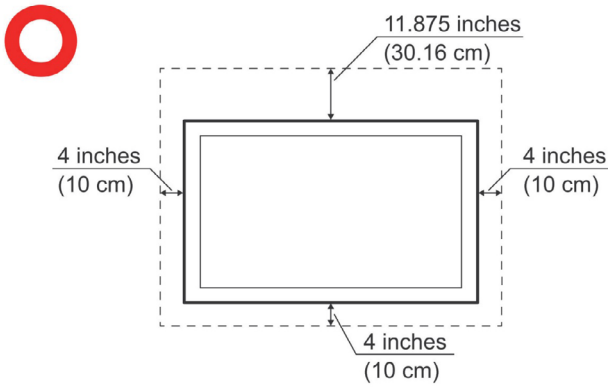
Safety Precautions

Please read the following **Safety Precautions** before you start using the device.

- Keep this user guide in a safe place for later reference.
- Read all warnings and follow all instructions.
- Do not use the device near water. To reduce the risk of fire or electric shock, do not expose the device to moisture.
- Never remove the rear cover. This display contains high-voltage parts. You may be seriously injured if you touch them.
- Avoid exposing the device to direct sunlight or other sources of sustained heat.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that may increase the temperature of the device to dangerous levels.
- Use a soft, dry cloth to clean the external housing. For more information, refer to the "Maintenance" section.
- When moving the device, be careful not to drop or bump the device on anything.
- Do not place the device on an uneven or unstable surface. The device may fall over resulting in an injury or a malfunction.
- Do not place any heavy objects on the device or connection cables.
- If smoke, an abnormal noise, or a strange odor is present, immediately turn the device off and call your dealer or ViewSonic®. It is dangerous to continue using the device.
- The device is a monitor with an LED backlight intended for general office use.
- Do not attempt to circumvent the safety provisions of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the plug does not fit into your outlet, obtain an adapter and do not attempt to force the plug into the outlet.
- When connecting to a power outlet, DO NOT remove the grounding prong. Please ensure grounding prongs are NEVER REMOVED.
- Protect the power cord from being treaded upon or pinched, particularly at the plug, and at the point where it emerges from the equipment. Ensure that the power outlet is located near the equipment so that it is easily accessible.
- Only use attachments/accessories specified by the manufacturer.
- When a cart is used, use with caution when moving the cart/equipment combination to avoid injury from tipping over.

- Disconnect the power plug from the AC outlet if the device is not being used for a long period of time.
- Place the device in a well-ventilated area. Do not place anything on the device that prevents heat dissipation.





- Refer all servicing to qualified service personnel. Service will be required when the unit has been damaged in any way, such as:
  - » if the power supply cord or plug is damaged
  - » if liquid is spilled onto or objects fall in the unit
  - » if the unit is exposed to moisture
  - » if the unit does not operate normally or has been dropped

Important

To ensure the optimal performance and longevity of your display, it is essential to follow the recommended handling, mounting, and storage procedures. Placing the display in a horizontal position can lead to a range of potential issues, including:

- Excessive stress on the display's structural components, resulting in the formation of cracks or distortions along the edges.
- Uneven weight distribution, which can cause the screen to warp, sustain internal damage, or crack over time.
- Thermal-related damage, as the internal components may not be able to dissipate heat as intended, leading to potential failure or permanent damage.

Furthermore, altering the display's form can also compromise the integrity of its internal components, including the sensitive LCD cells, which can result in a permanent degradation of the display's quality.

To prevent such issues and maintain the display's optimal condition, it is recommended to always mount, handle, transport, and store it in a vertical position. Failure to do so may void the warranty and compromise the display's performance and lifespan.

Note: Any damage resulting from the misuse or improper handling of the display is not covered under warranty.

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Introduction

Package Contents





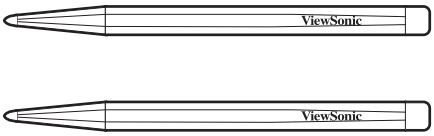
HDMI Cable

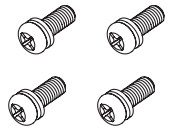


Touch USB Cable

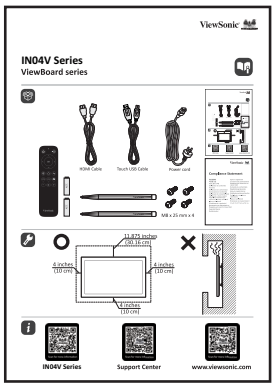


Power cord





M8 x 25 mm x 4





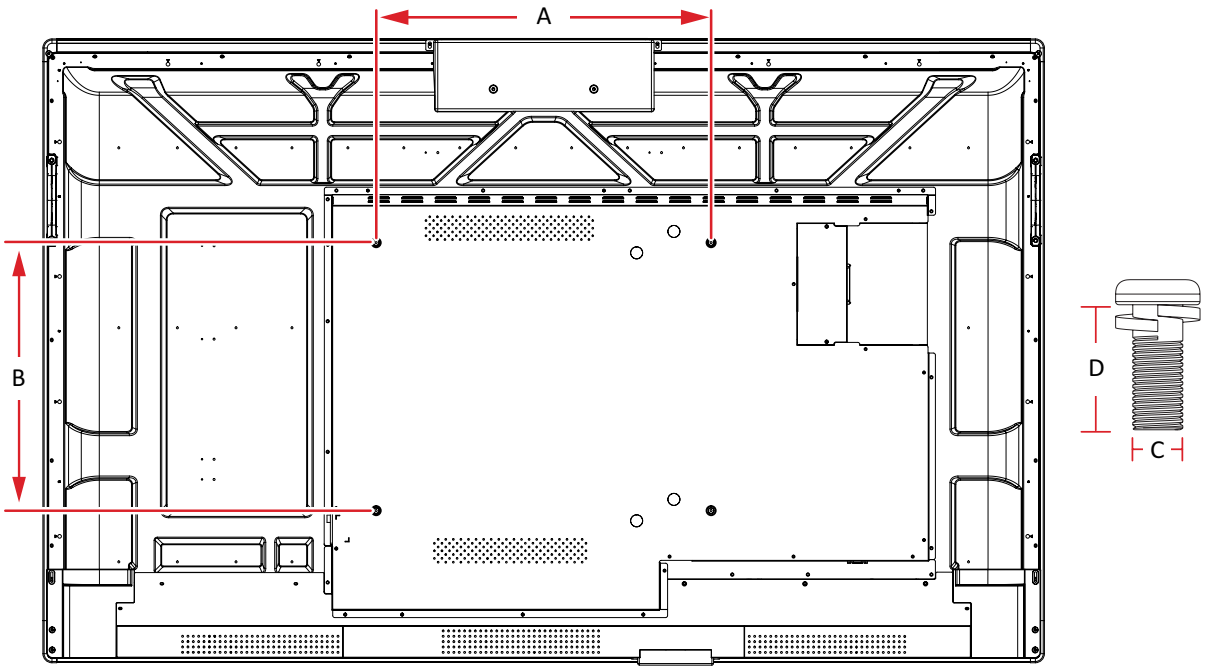
- AAA Battery
- Compliance Statement
- HDMI Cable (3 m)
- Power Cord (3 m)
- Quick Start Guide
- Remote Control
- 4 x Screws
- 2 x Touch Pens
- USB Touch Cable (3 m)

Note: The cables included in your package may vary depending on your country. Please contact your local reseller for more information.

Wall Mount Kit Specifications (VESA)

Note: Please follow the instructions in the wall mount installation guide to install your wall mount. If attaching to other building materials, please contact your nearest dealer.

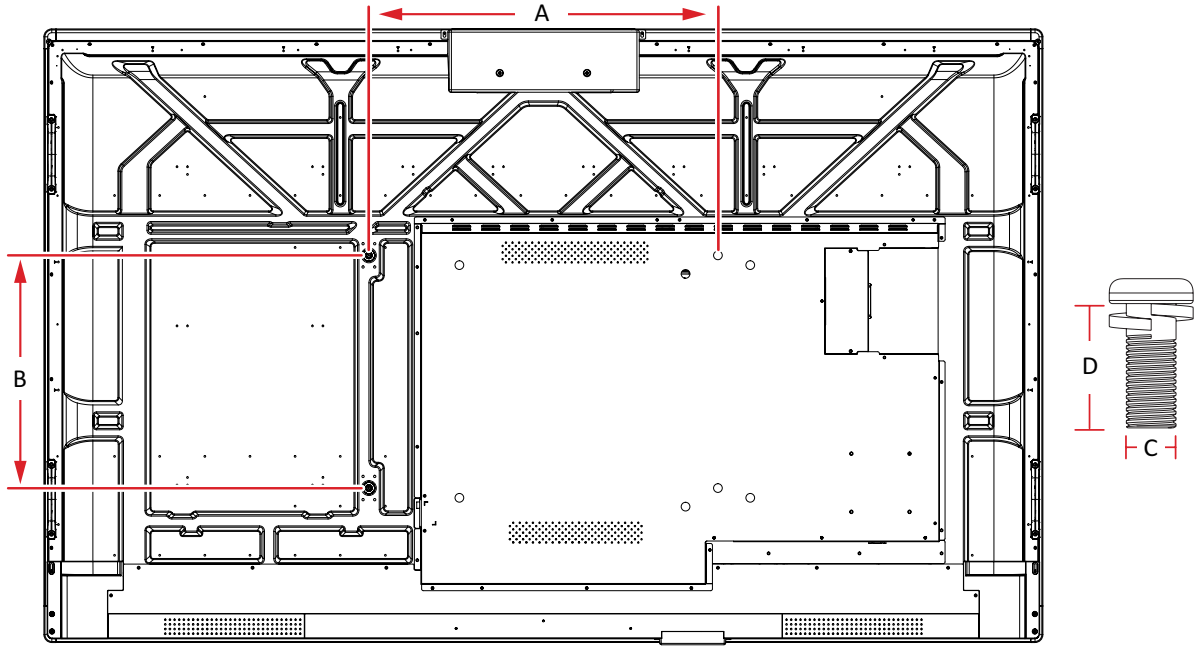
IN6504V



Model	VESA Spec. (A x B)	Standard Screw (C x D)	Quantity
IN6504V-C	500 x 400 mm	M8 x 25 mm	4
IN6504V-N			

Note: Do not use screws that are longer than the standard dimension, as they may cause damage to the inside of the display.

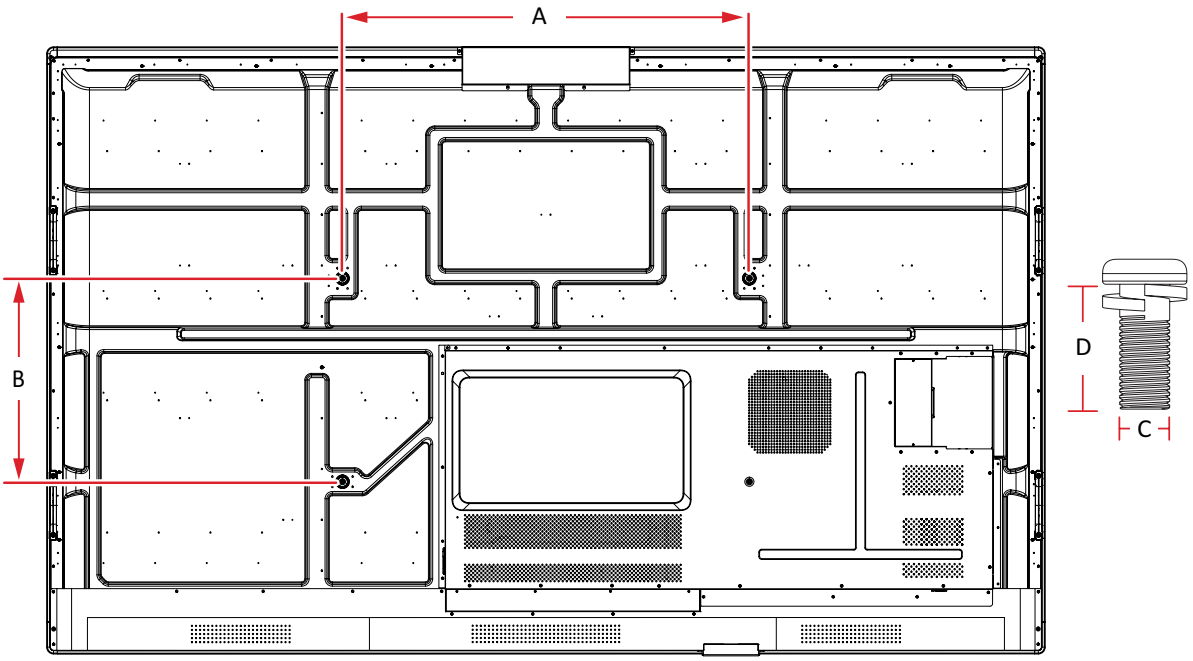
IN7504V



Model	VESA Spec. (A x B)	Standard Screw (C x D)	Quantity
IN7504V-C	600 x 400 mm	M8 x 25 mm	4
IN7504V-N			

Note: Do not use screws that are longer than the standard dimension, as they may cause damage to the inside of the display.

IN8604V



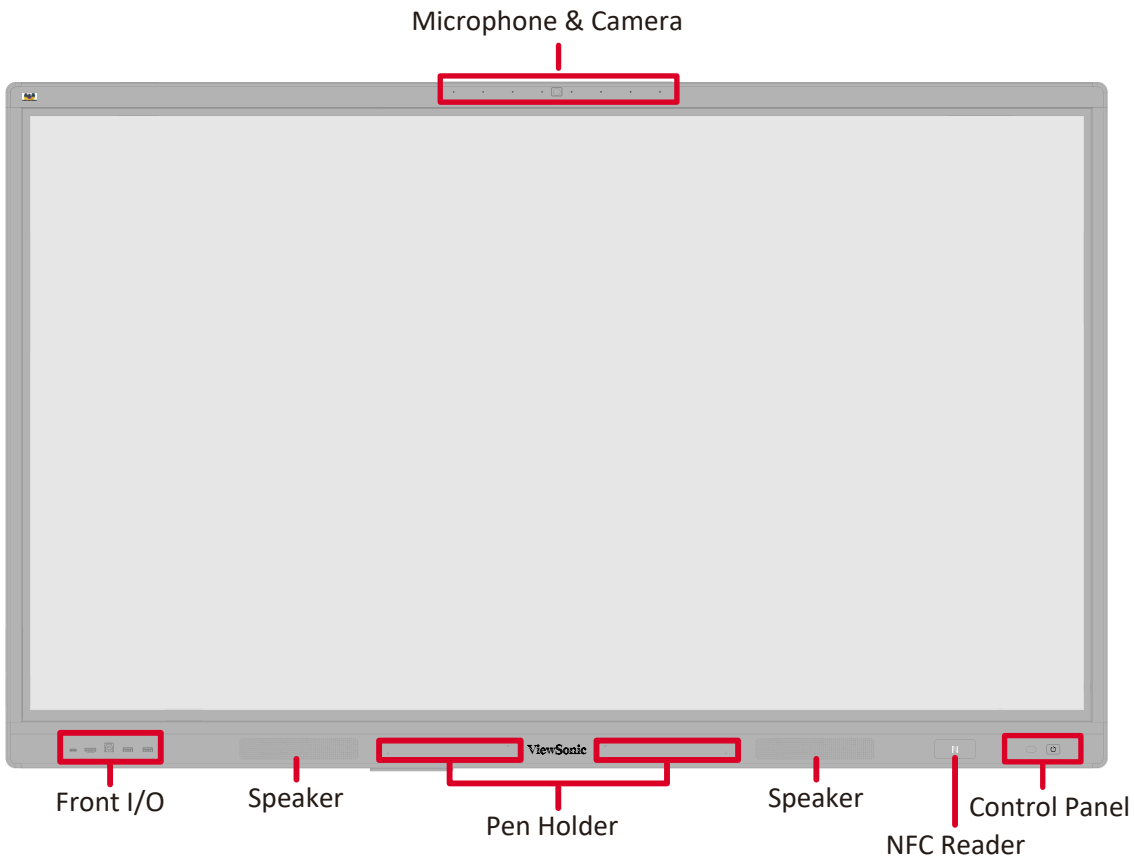
Model	VESA Spec. (A x B)	Standard Screw (C x D)	Quantity
IN8604V-C	800 x 400 mm	M8 x 25 mm	4
IN8604V-N			

Note: Do not use screws that are longer than the standard dimension, as they may cause damage to the inside of the display.

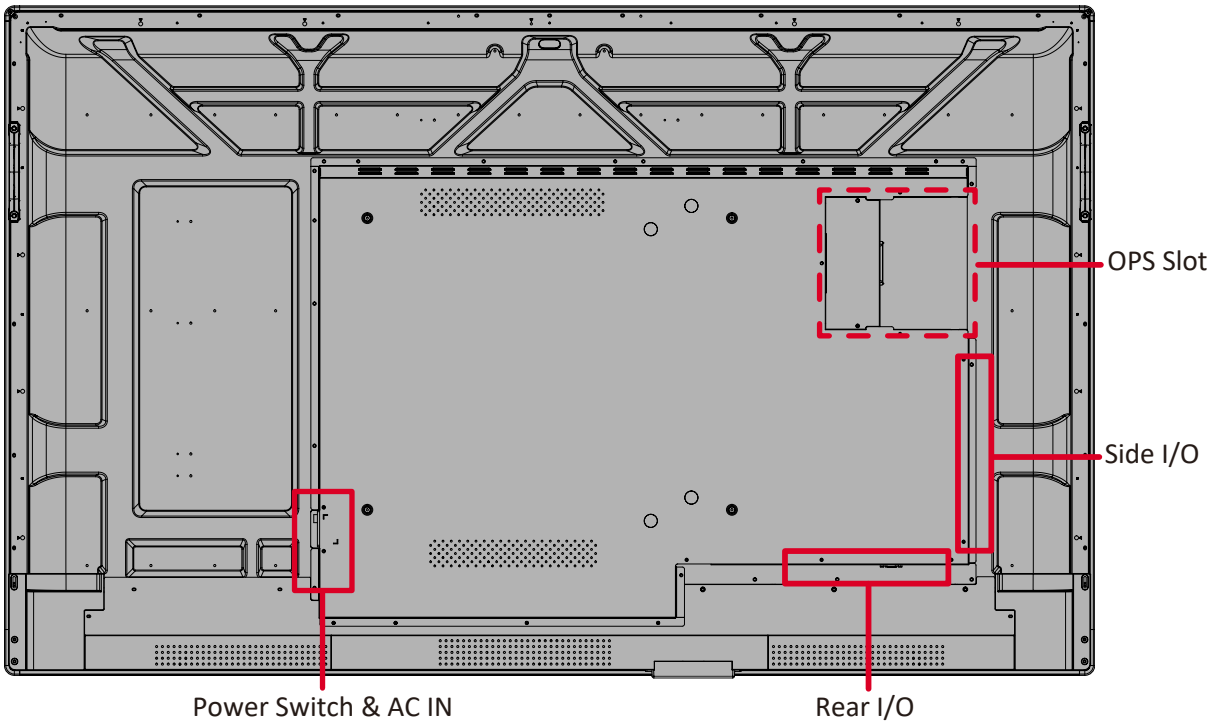
Product Overview

IN6504V

Front View

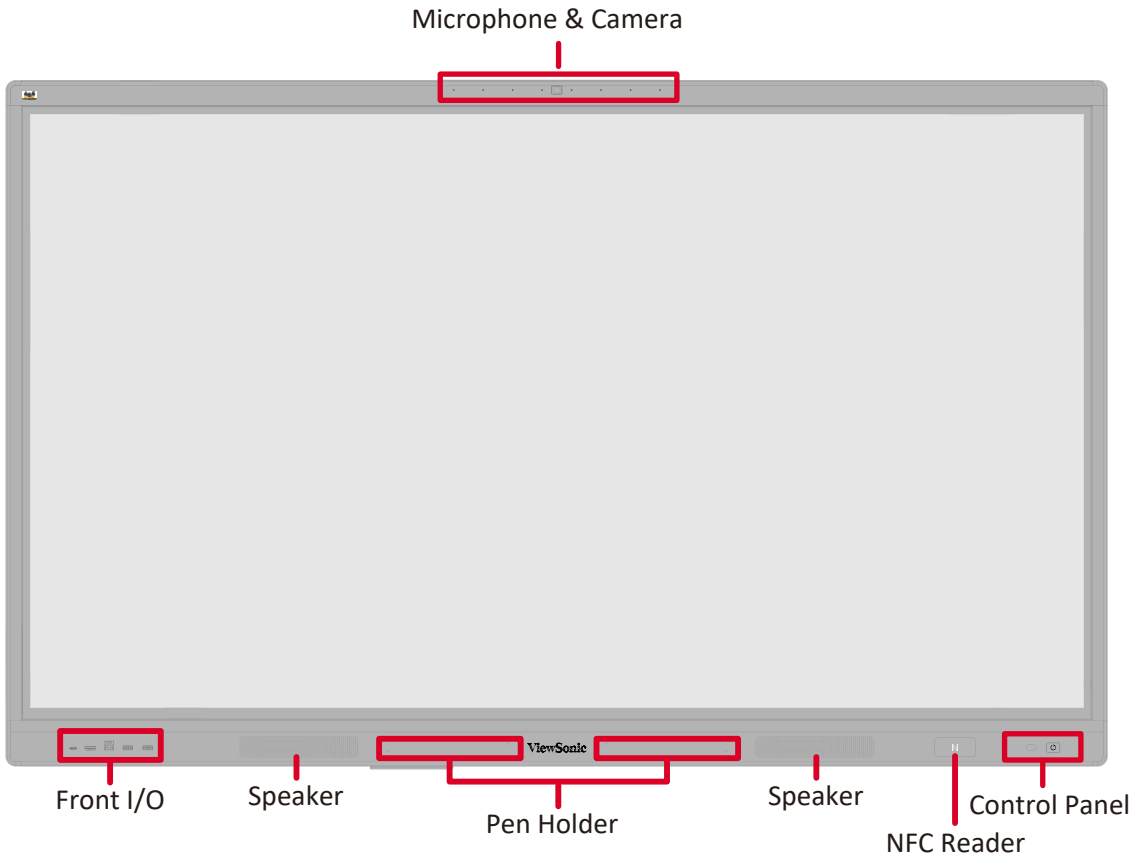


Rear View

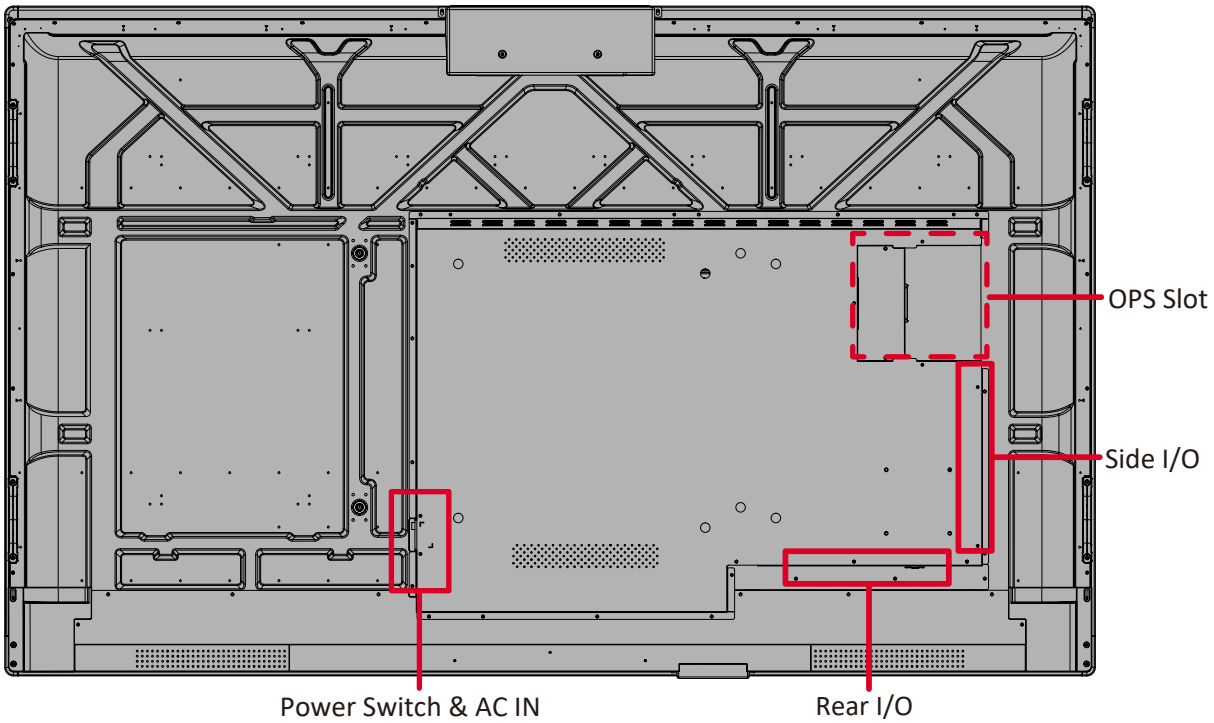


IN7504V

Front View

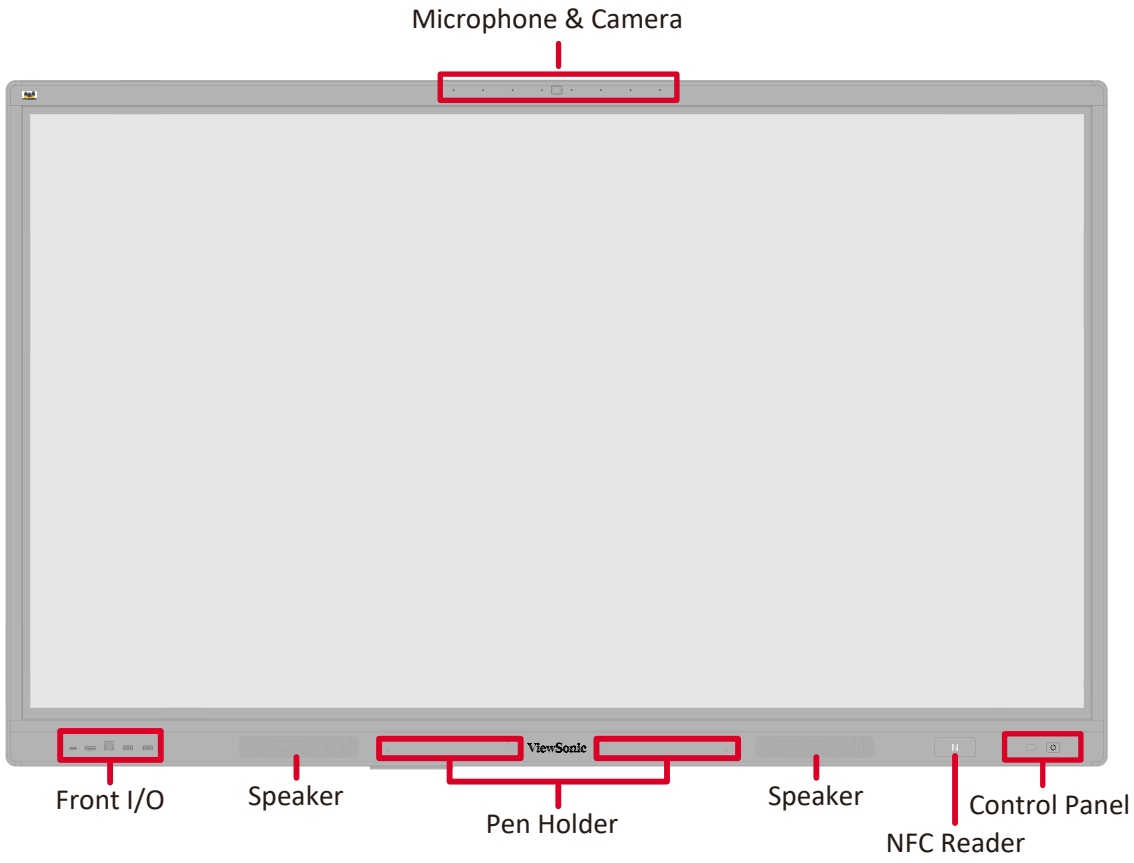


Rear View

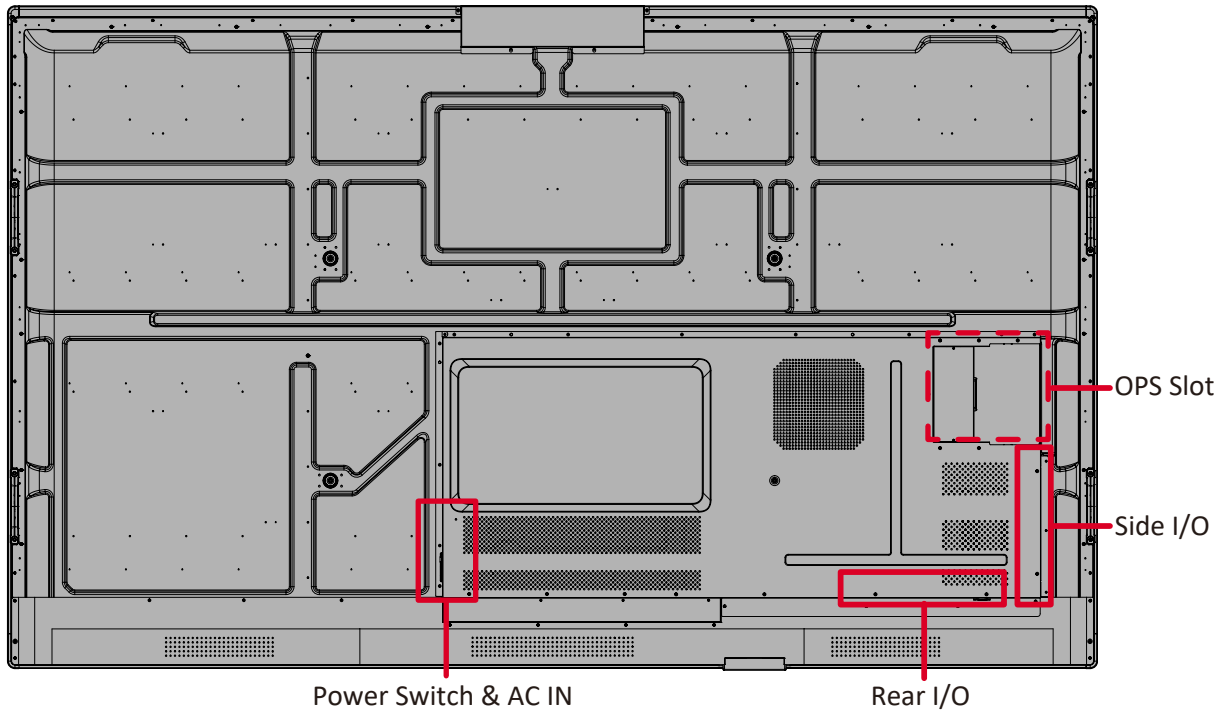


IN8604V

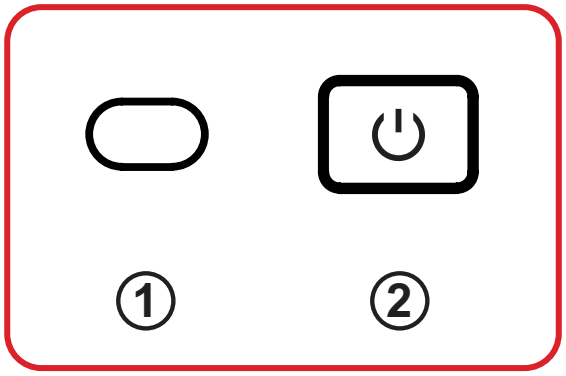
Front View



Rear View

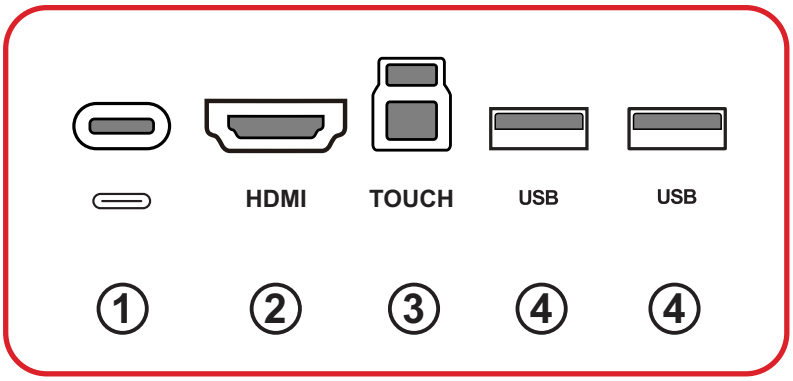


Control Panel



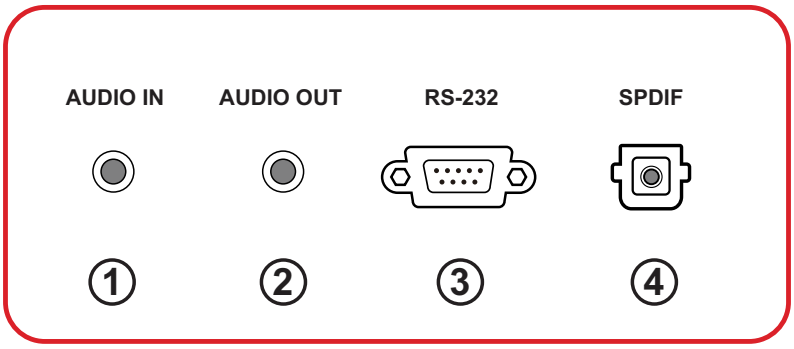
Item		Description
1	IR Receiver	Remote control IR receiver.
2	Power Button	• Power indicator light. • Press to turn on the display. • Once on, press again to turn on or off the backlight only. • Once on, press and hold to turn off the display.

Front I/O



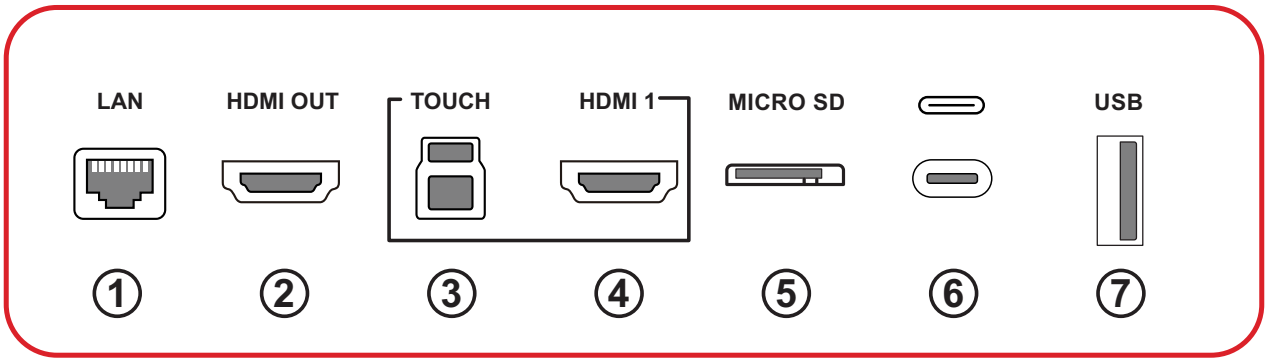
Item		Description
1		• USB Type C input. • USB 2.0 standard. • Connect USB devices such as hard disks, keyboard, mouse, etc.
2	**HDMI**	• HDMI input. • Connect to a computer with HDMI output, set-top box, or other video device. • Supports 4K display; HDMI v. 2.0.
3	**TOUCH**	• USB Type B. • USB 2.0 standard. • Touch signal output to external computer. • After connection (with an external computer), the device connected to the **USB** port can directly be used by the external computer. **Note:** Pairs with the **HDMI** port next to it.
4	**USB**	• USB Type A input. • USB 2.0/3.0 standard. • Connect USB devices such as hard disks, keyboard, mouse, etc.

Rear I/O



Item		Description
1	**AUDIO IN**	External computer audio input.
2	**AUDIO OUT**	Audio output to an external speaker/headset.
3	**RS-232**	Serial interface; used for mutual transfer of data between devices.
4	**SPDIF**	Multichannel sound via optical signals.

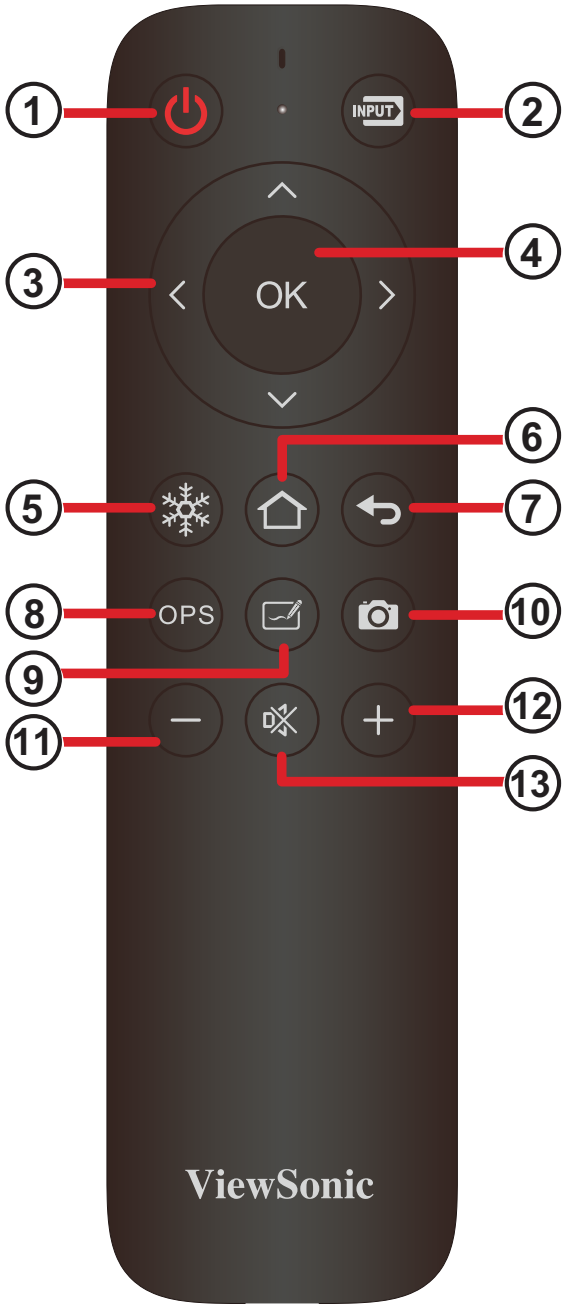
Side I/O



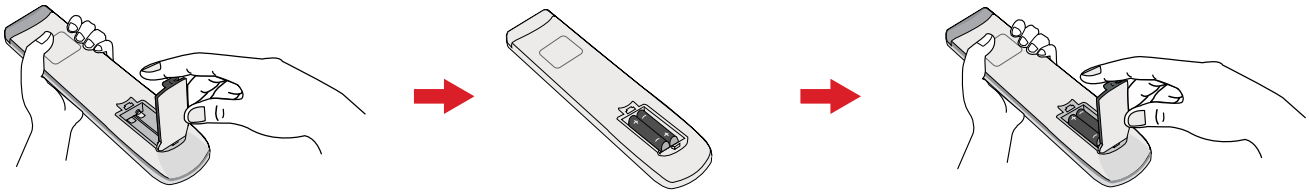
Item		Description
1	**LAN**	• Standard RJ45 (10M/100M/1000M) Internet connection interface. • Features hub support for network sharing.
2	**HDMI OUT**	• HDMI output. • Extend content out to another display device. • Supports 4K display; HDMI v. 2.0.
3	**TOUCH**	• USB Type B. • USB 2.0 standard. • Touch signal output to external computer. • After connection (with an external computer), the device connected to the **USB** port can directly be used by the external computer. **Note:** Pairs with the **HDMI 1** port next to it.
4	**HDMI 1**	• HDMI input. • Connect to a computer with HDMI output, set-top box, or other video device. • Supports 4K display; HDMI v. 2.0.
5	**MICRO SD**	Reads microSD storage cards. **Note:** Only for the ViewBoard input source.
6		• USB Type C input. • USB 2.0 standard. • Connect USB devices such as hard disks, keyboard, mouse, etc.
7	**USB**	• USB Type A input. • USB 2.0 standard. • Connect USB devices such as hard disks, keyboard, mouse, etc.

Remote Control

Number	Description
1	Turns the display on or off.
2	Opens the input source menu.
3	Selects an item or adjusts the value in the menu.
4	Confirms the selected item.
5	Holds the on-screen image.
6	Goes to the Home Screen.
7	Returns to the previous screen.
8	Switches to the OPS input source.
9	Opens the Whiteboard application.
10	Captures an image of the screen.
11	Decreases the volume level.
12	Increases the volume level.
13	Stops audio output.



Installing the Batteries

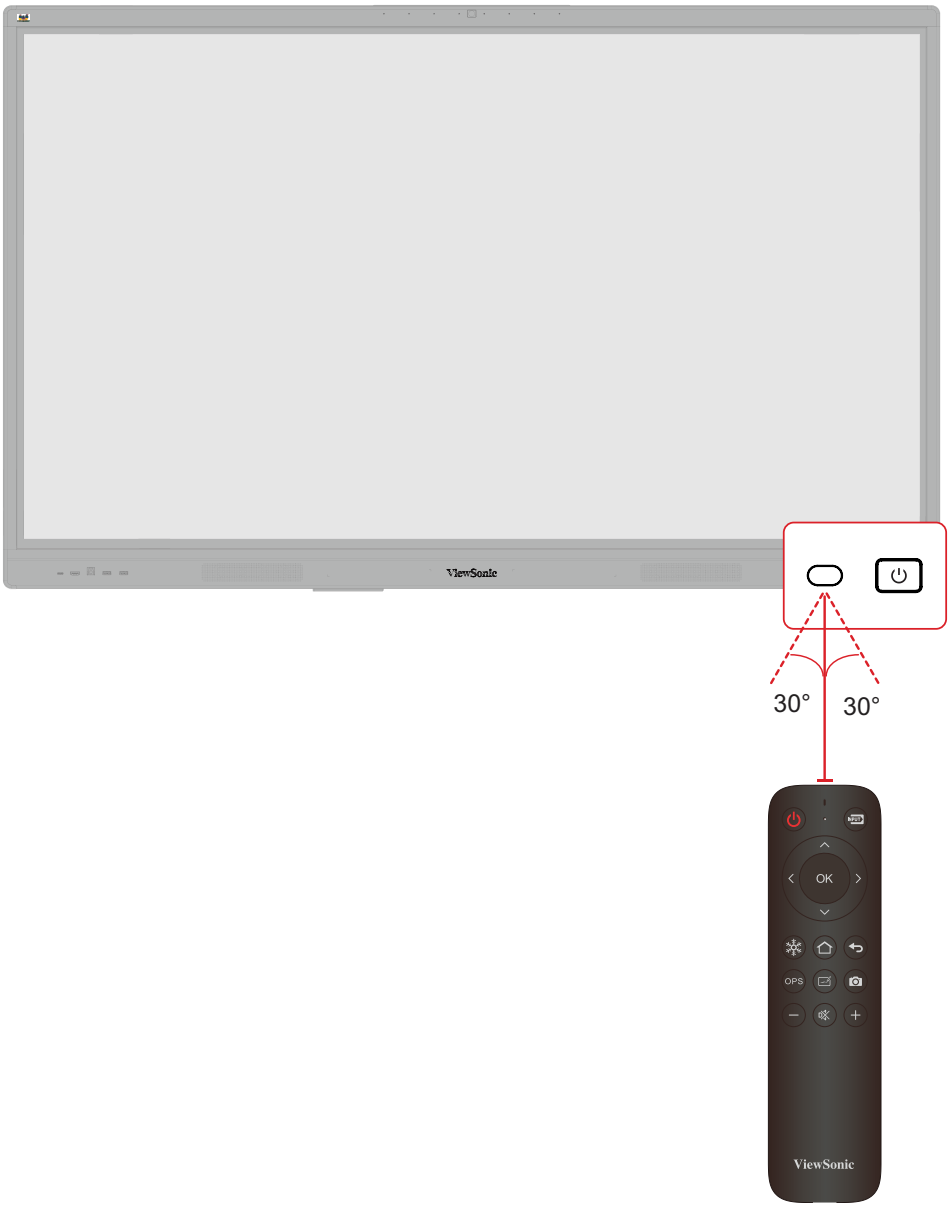


1. Open the battery compartment by removing the battery cover.
2. Insert two AAA batteries, ensuring correct polarity.
3. Replace the battery cover until it clicks into place.

Note:

- Store the remote control and batteries away from heat and humidity.
- Use only recommended battery types.
- Remove batteries when not in use for extended periods.
- Dispose of old batteries following the manufacturer’s instructions and local regulations.

Receiver Range



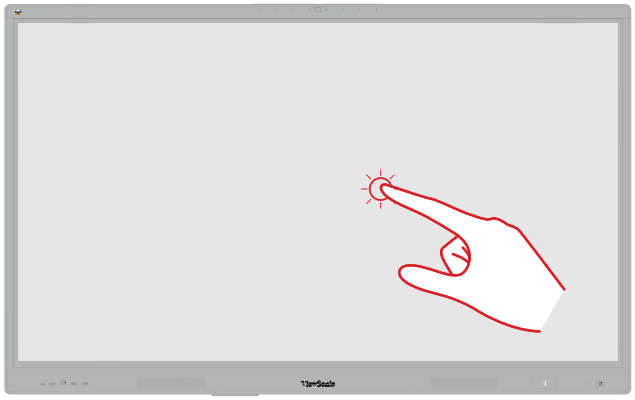
The working range of the remote control is shown here. It has an effective range of 8 m (26 ft) in a straight line, 30 degrees left and right. Ensure there is nothing obstructing the remote control's signal to the receiver.

Using Gestures

Touch gestures allow the user to use pre-determined commands without using a keyboard or mouse. Using gestures on the display, the user can select/deselect objects, change the location of an object, access settings, erase digital ink, and much more.

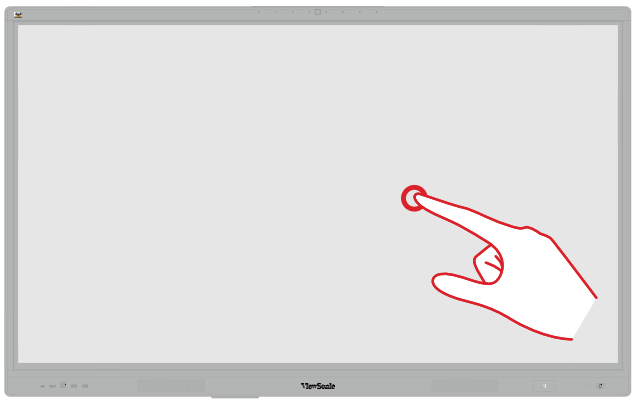
Select and Deselect an Object (Clicking)

Press and release the display to select/deselect options or objects. This is like a single, standard left mouse click.



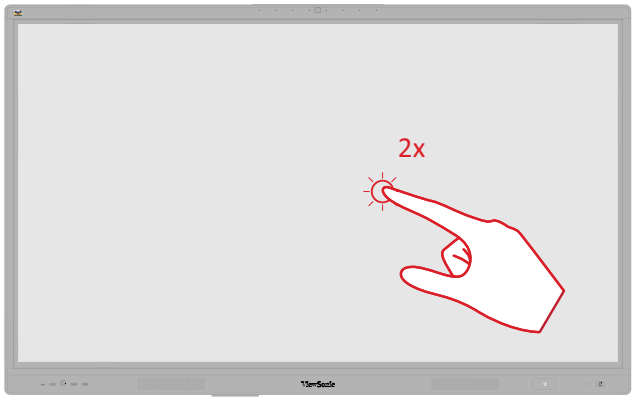
Display Menu Options (Right-Clicking)

Press and hold the display with your finger. This is like a single, standard right mouse click.



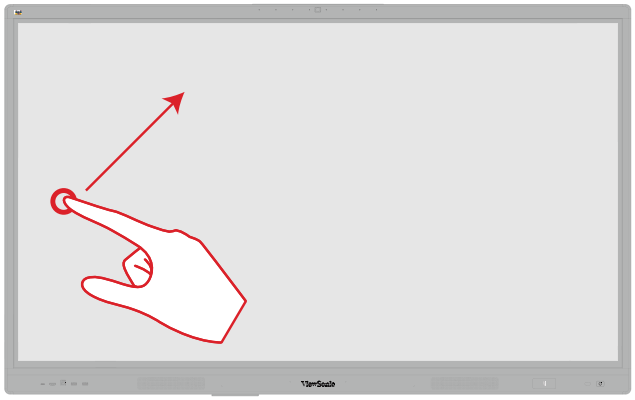
Double-Clicking

Quickly press and release twice in the same location on the display. This is like a double, standard left mouse click.



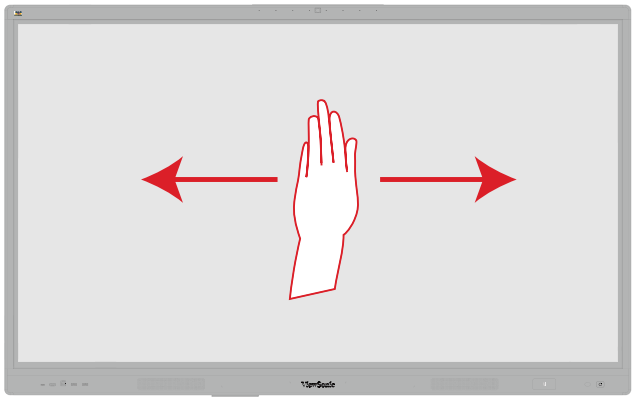
Moving an Object

Press and hold the object on the display and slowly drag it with your finger to your desired location.



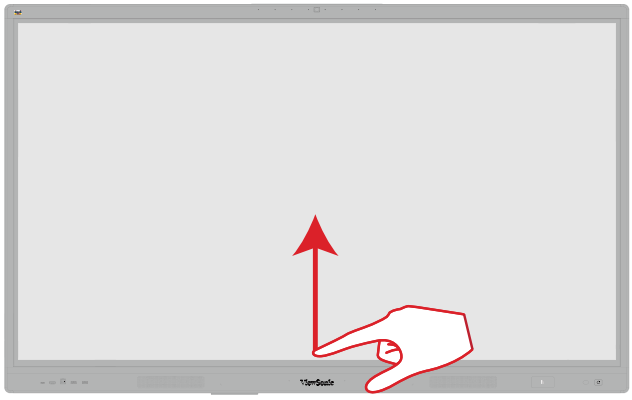
Erasing Digital Ink

Use your flattened hand, palm, or fist on the display and move your hand across the area which you wish to erase.



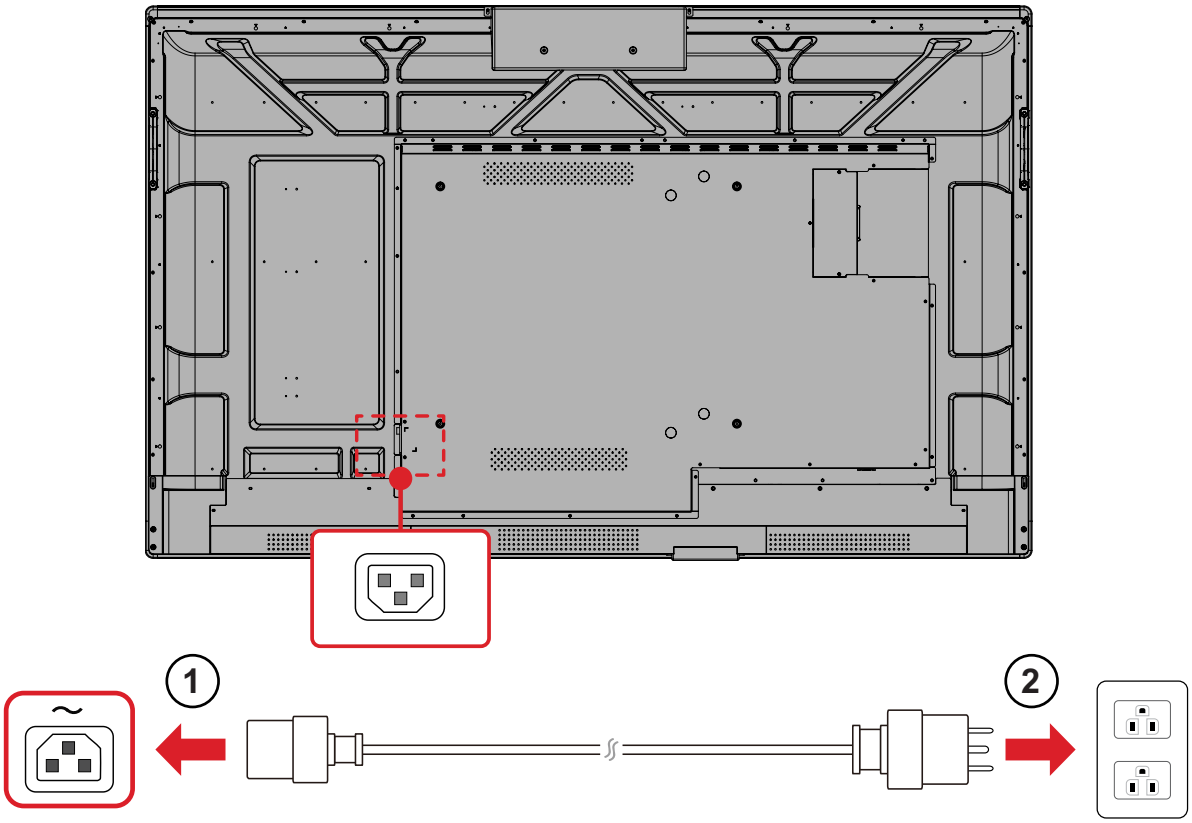
Swipe Up for Apps list

Swipe up from the bottom of the display to launch the Apps list.



Making Connections

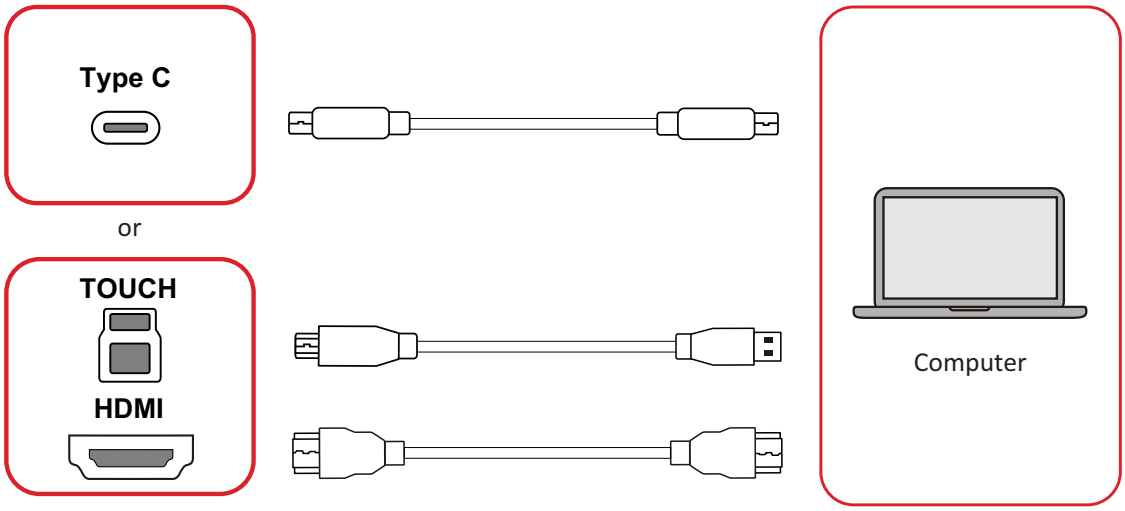
Connecting to Power



1. Connect the power cord to the **AC IN** jack at the rear of the display.

2. Plug the power cord plug into a power outlet.

Connecting to External Devices and Enabling Touch



Your external device(s) can be connected in any of the following configurations:

Note: The front **TOUCH** port is for the front **HDMI** port. The side **TOUCH** port is for the **HDMI 1**.

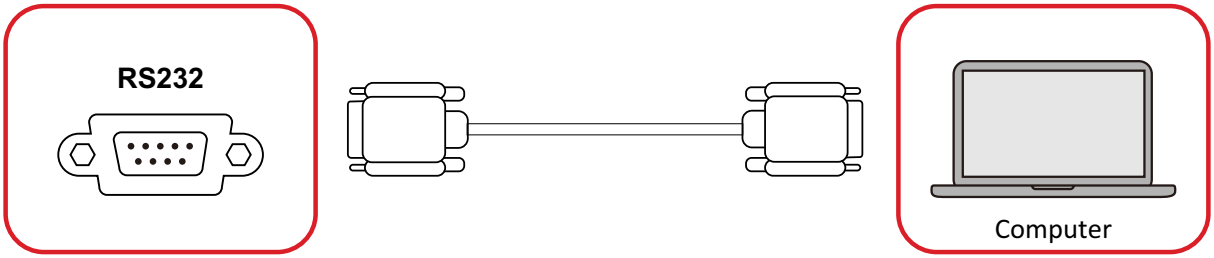
USB Type C Connection

Connect a USB Type C cable from your external device to the USB Type C port on the display.

HDMI Connection

1. Connect an HDMI cable from your external device to the **FRONT HDMI**/**HDMI 1**/**HDMI 2**/**HDMI 3** port on the ViewBoard.
2. Connect a USB Type B to A cable to your external device from the appropriate **TOUCH** port of the display.

RS-232 Connection

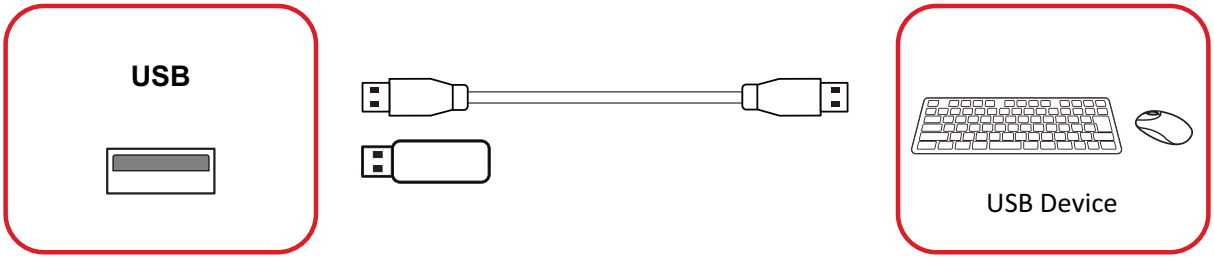


When you use a RS-232 serial cable to connect the display to an external computer or control system, certain functions can be controlled remotely such as: power on and off, volume adjustment, input select, brightness, and more.

USB Connection

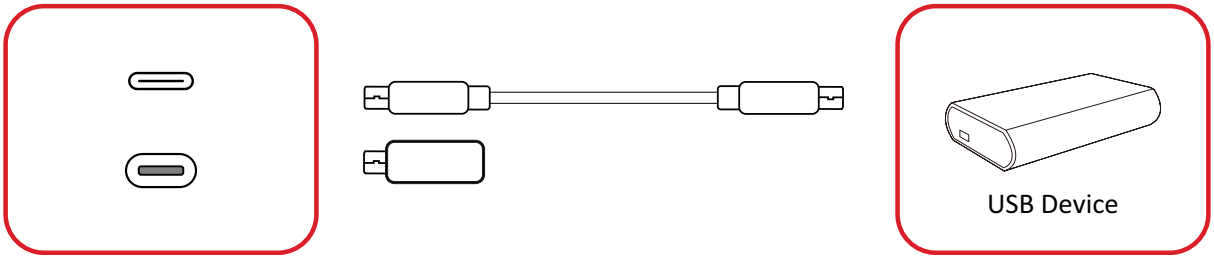
Just like any PC, it is easy to connect various USB devices and other peripherals to the display.

USB Type A



Plug the USB device or storage drive into a USB Type A port of the display.

USB Type C



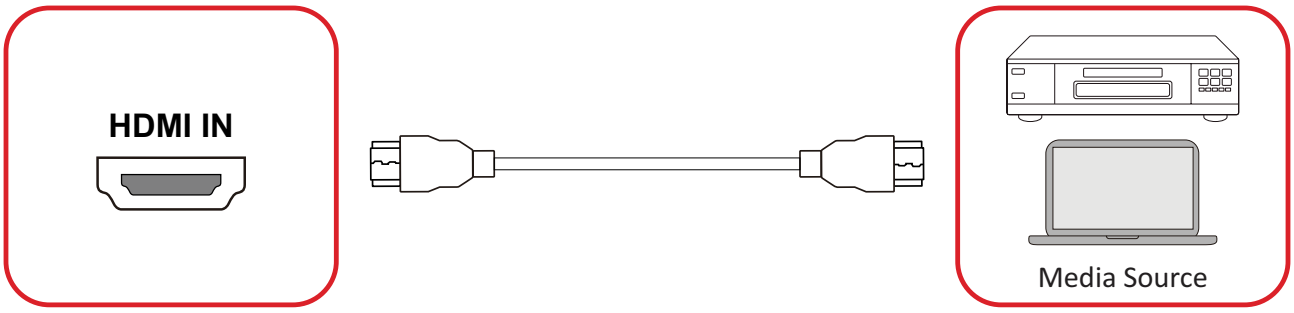
Plug the USB device or storage drive into the USB Type C port of the display.

Network Connection



To connect to a local network, connect an Ethernet cable to your network, then connect the other end to the **LAN** port of the display.

Media Connection



1. Connect an HDMI cable to an **HDMI** port on the display and peripheral device.
2. Press the **INPUT** button on the remote control and switch to the HDMI input source.

Video Output

HDMI Out



1. Connect an HDMI cable to the HDMI IN port of your display device, then connect the other end to the **HDMI OUT** port of the display.
2. Press the **INPUT** button on the remote control and switch to the HDMI IN input source.

Type C Out



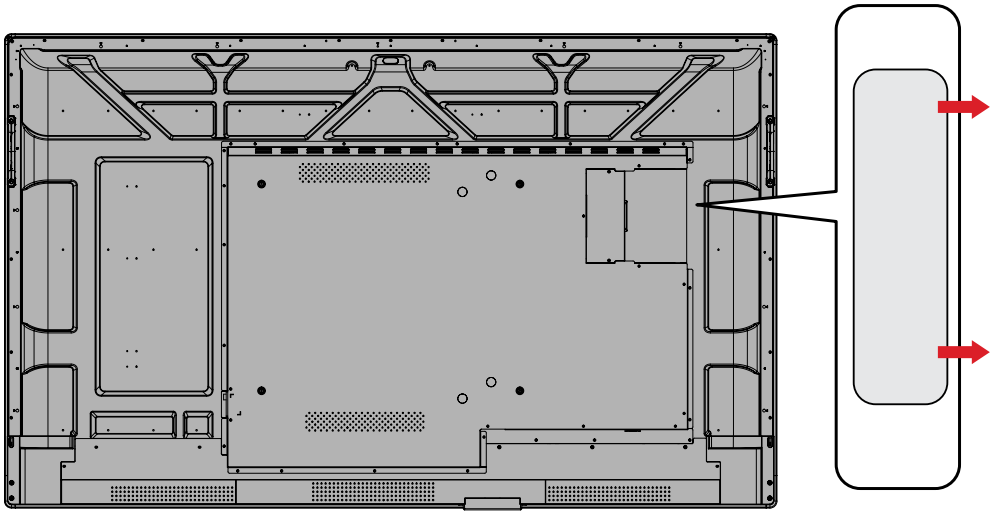
1. Connect a USB Type C cable to the **Type C IN** port of your display device, then connect the other end to the **Type C OUT** port of the display.
2. Press the **INPUT** button on the remote control and switch to the Type C IN input source.

Optional Connections

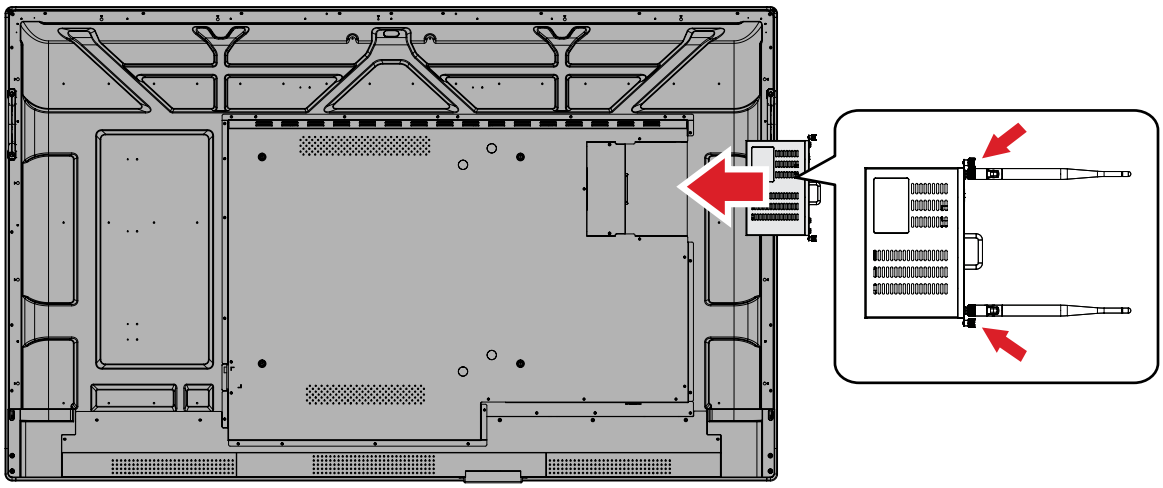
The display comes with an **OPS Slot** for optional add-ons such as a slot-in PC (e.g., VPC-25-O).

Slot-in PC (OPS Slot) Installation

1. Remove the **OPS Slot** cover of the display.



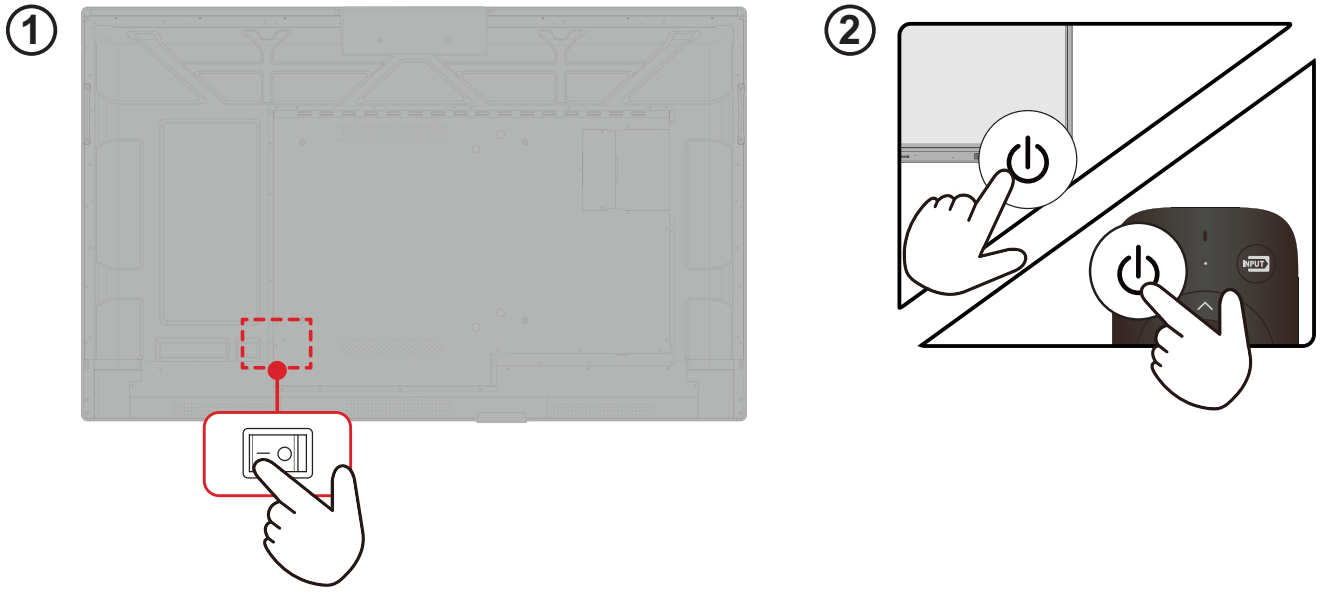
2. Carefully insert the slot-in PC into the **OPS Slot** of the display.



3. Secure the slot-in PC to the display.

Using the Display

Turning the Display On/Off

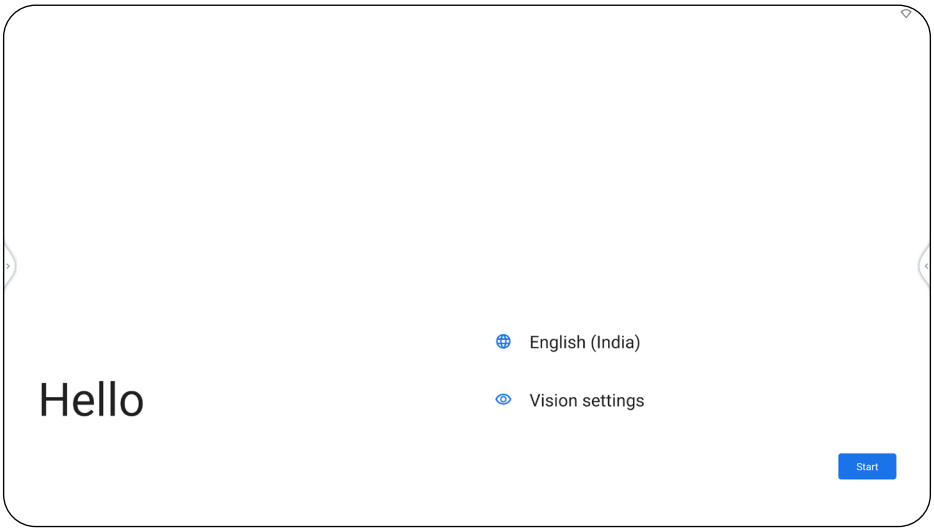


1. Make sure the power cord is connected, plugged into a power outlet, and the power switch is in the “on” position.
2. Press the **Power** button to turn on the display or remote control.
3. To turn the display off, press and hold the **Power** button.

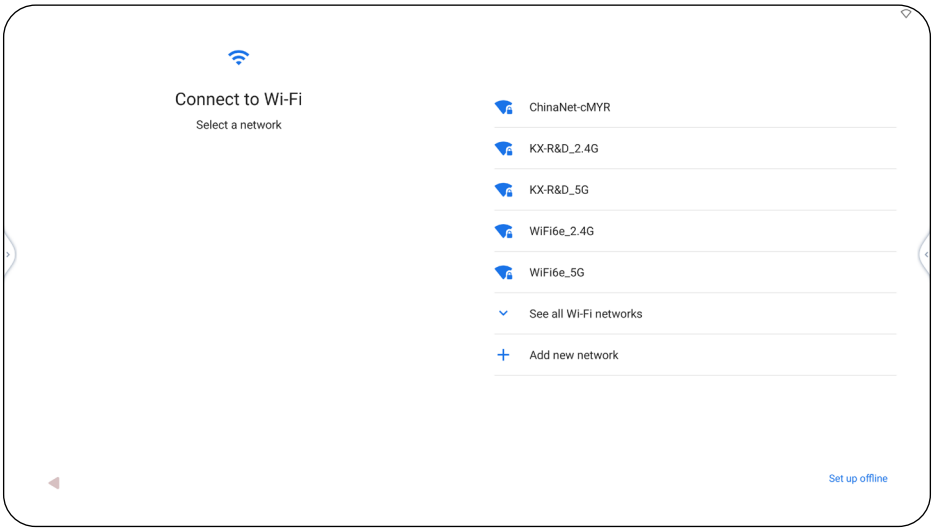
Initial Launch Setup

When you first turn on the display, an initial setup wizard will launch.

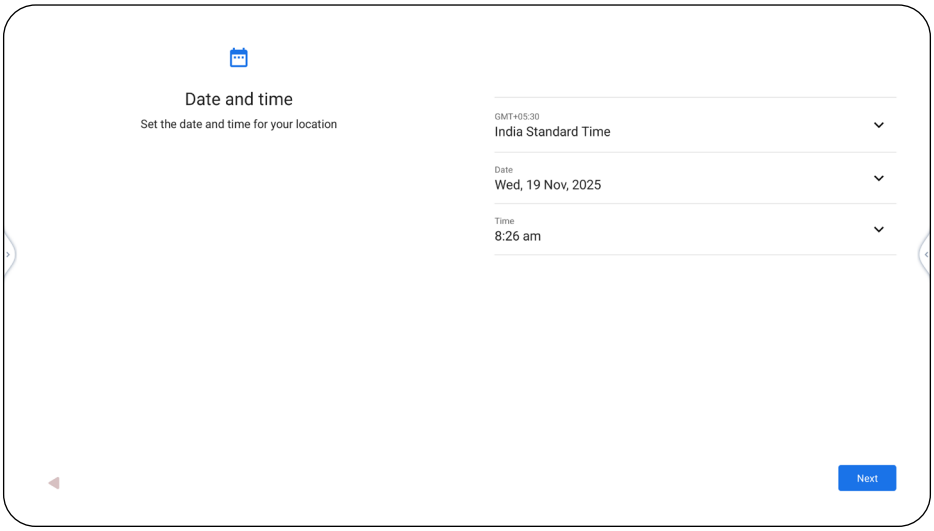
1. Choose your preferred Language.



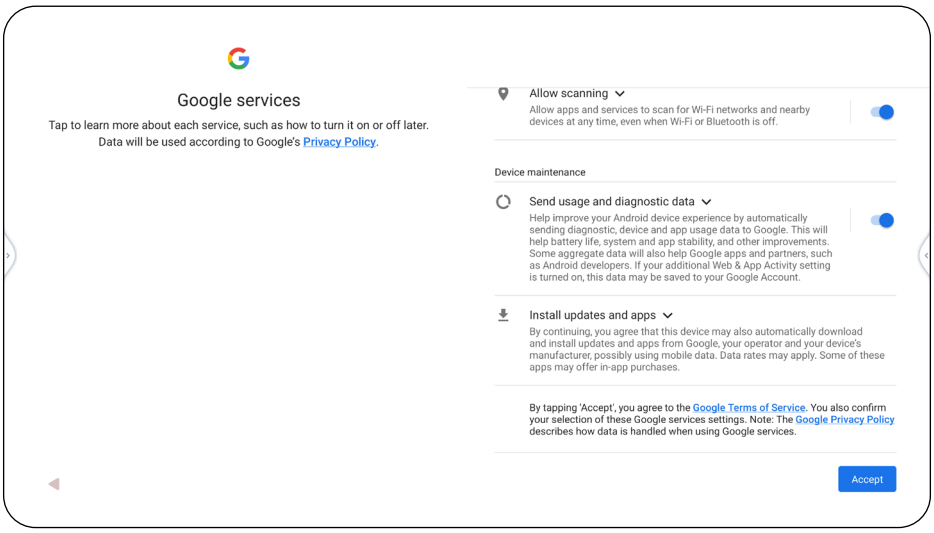
2. Setup and connect to a network.



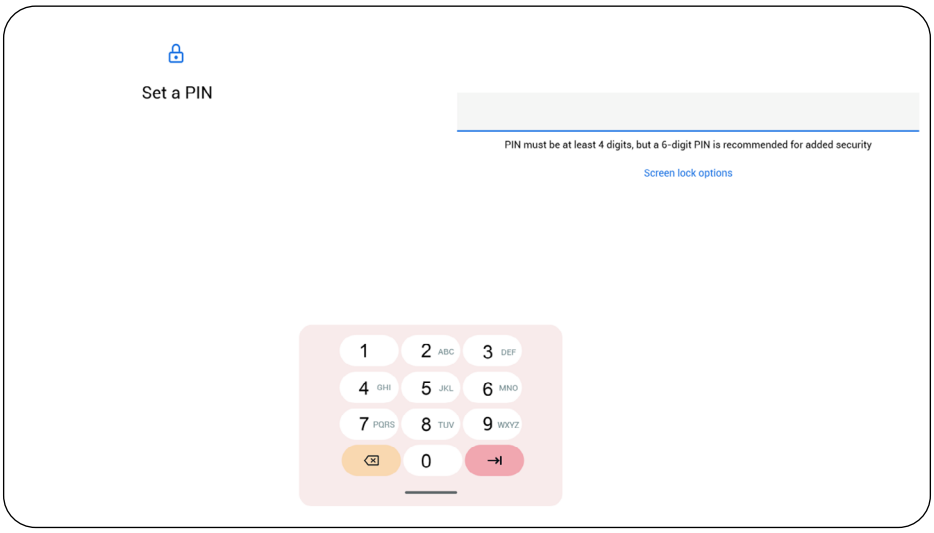
3. Set the date and time.



4. Accept or decline Google services.

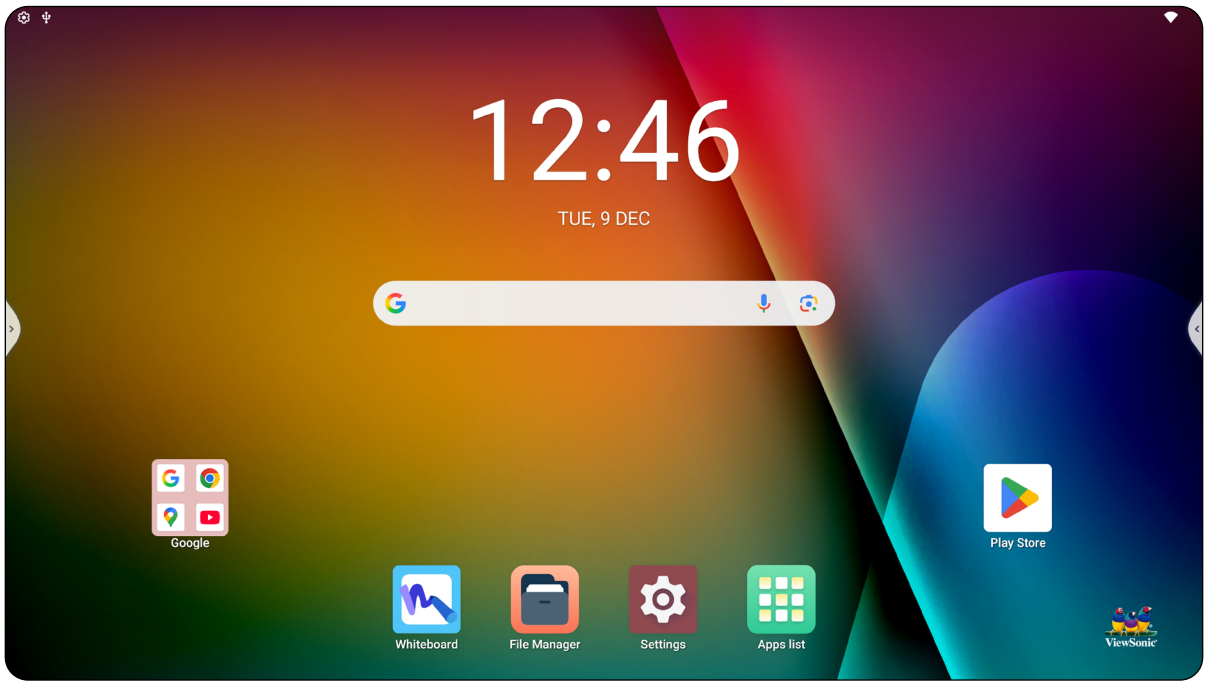


5. Set a PIN to setup a screen lock, or select **Skip** to continue without setting one.



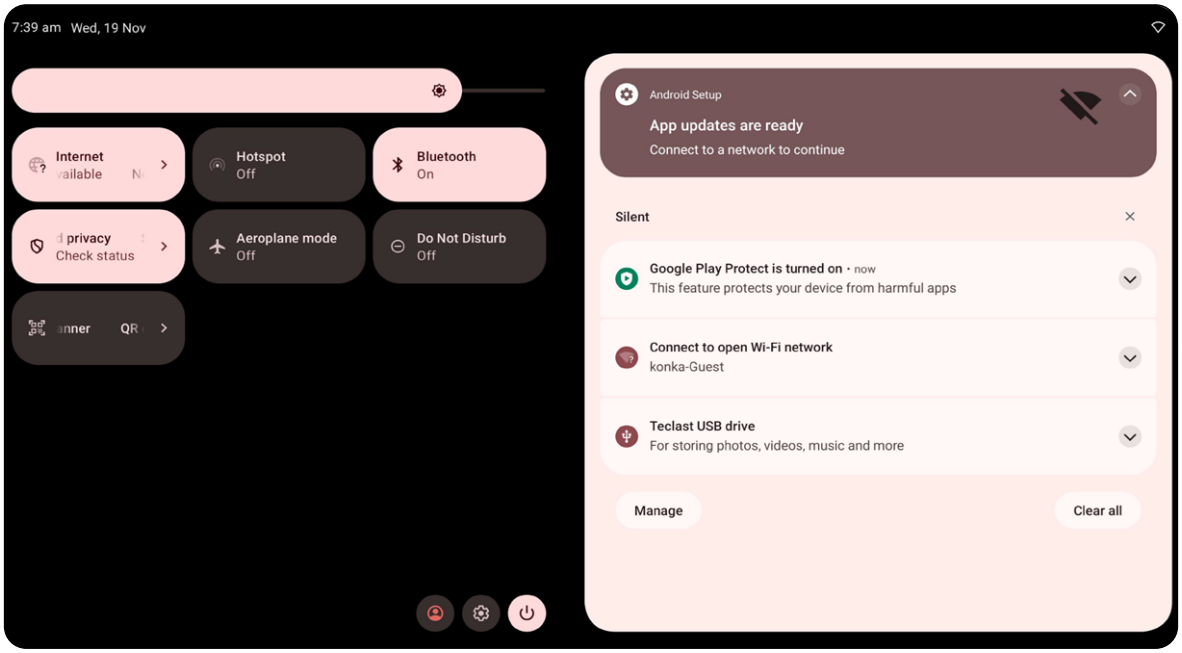
Home Screen

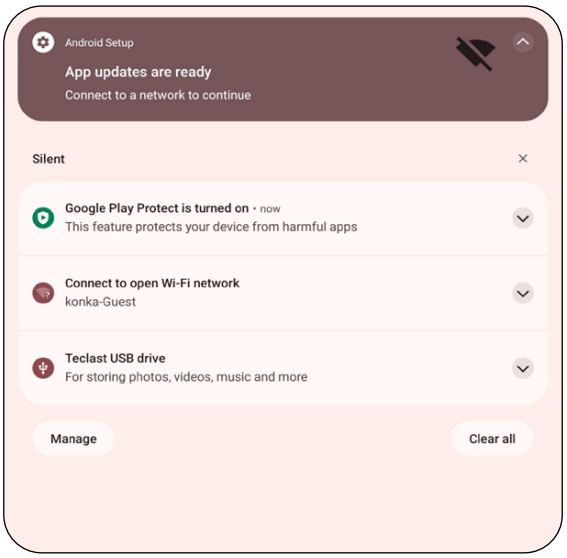
After the display is turned on and setup, the Home Screen will load.



Item		Description
	Whiteboard	Digital whiteboard application.
	File Manager	Takes you to the file explorer.
	Settings	Takes you to the system settings.
	Apps list	View all installed applications.
	Google	Google’s applications folder.
	Play Store	Google’s official online application store.

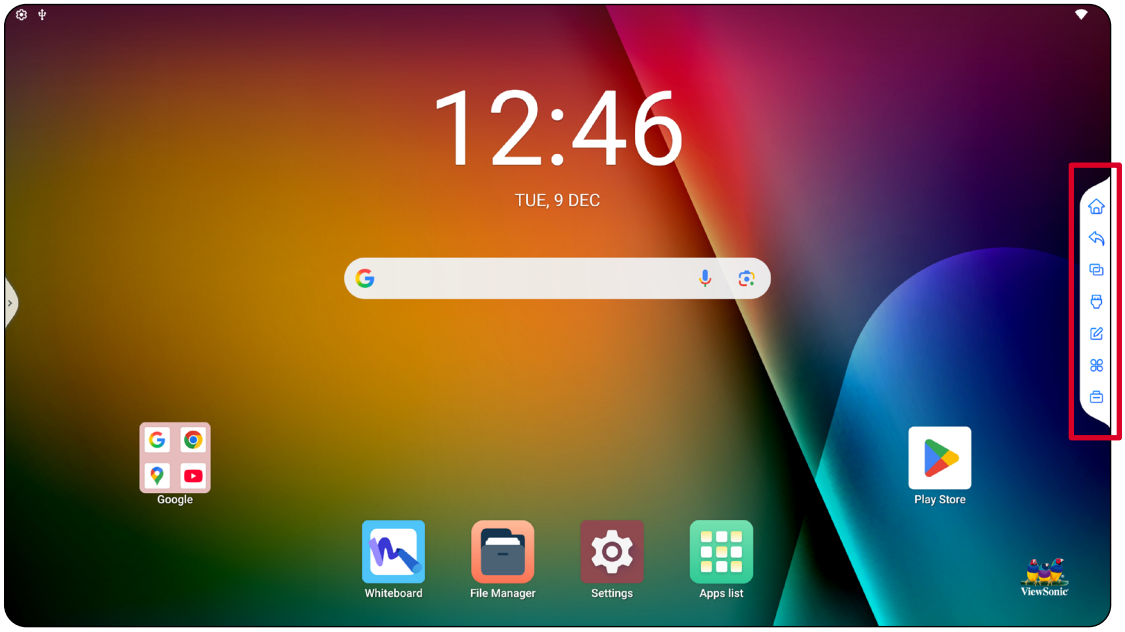
Control and Notification Panel



Item	Description
Control Panel	Access frequently used settings and tools.
Notification Panel	Receive and manage system and application notifications. 

Toolbar

The Toolbar is where your applications and tools can be found. Trigger icons are on the edge of the launcher for quick access.

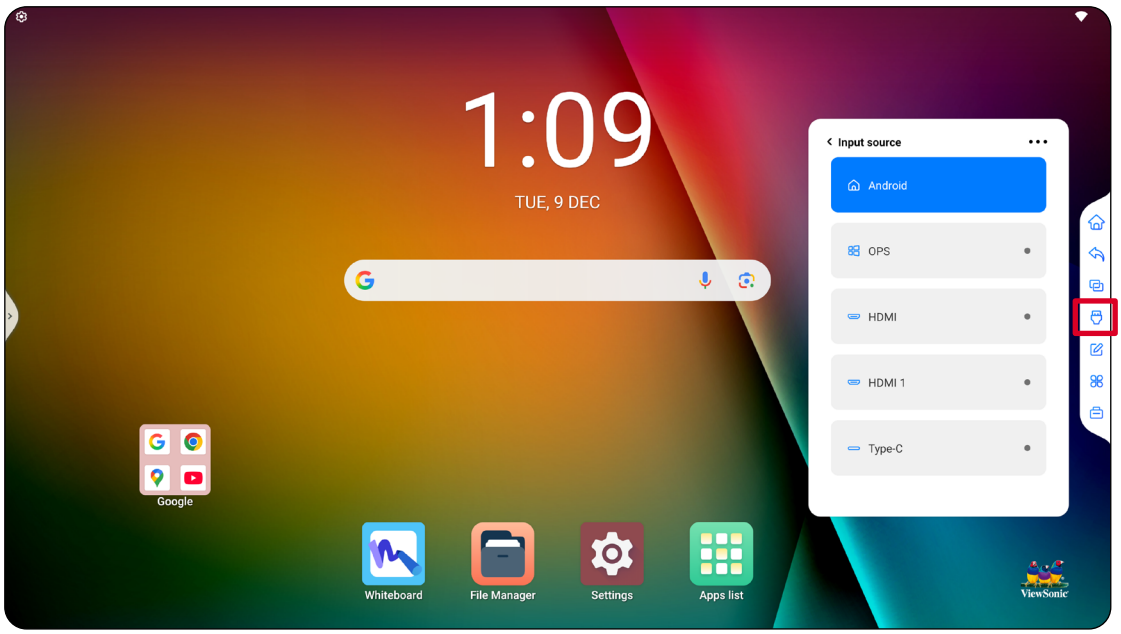


To launch an application or tool:

1. Select a Toolbar trigger icon.
2. Select the application or tool icon.

Item		Description
	Home	Return to the Home Screen.
	Return	Return to the previous operation screen. **Note:** Only for the ViewBoard source.
	Recent Task	Display all applications that are currently open.
	Source	Select and change the input source.
	Annotation	Open the whiteboard application. This application allows the user to perform basic annotation.
	Apps	View all installed applications.
	Tool Shortcuts	Access frequently used applications, settings, and tools.

Source

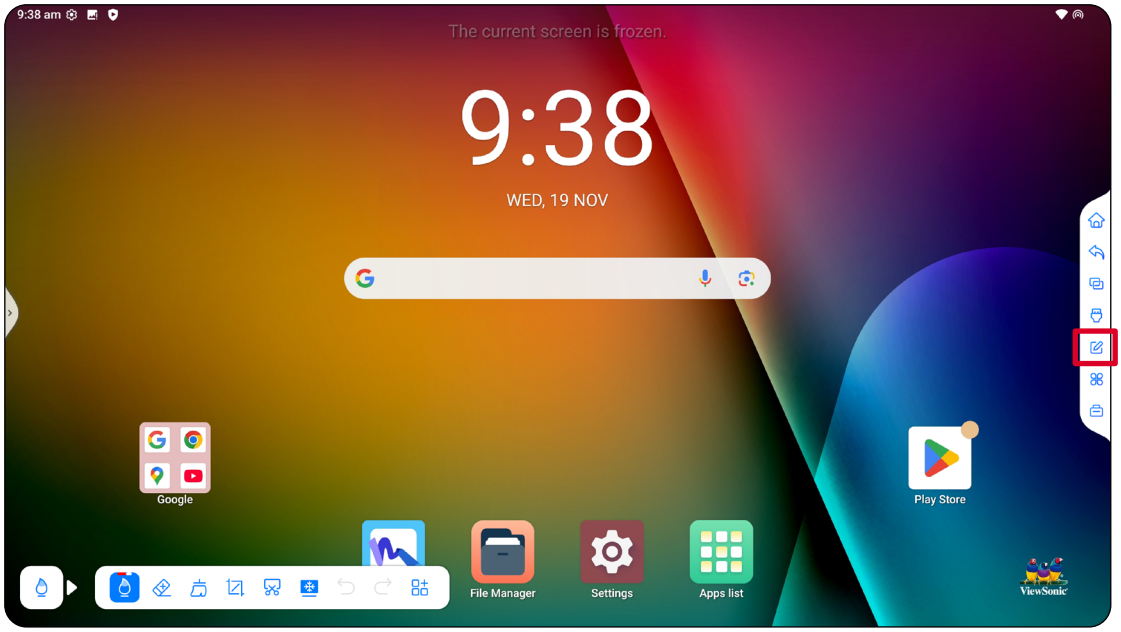


To select an input source:

1. Press **INPUT** on the remote control or tap the **Source** icon to display the input source menu.
2. Press the **Navigation** buttons (↑/↓/←/→) on the remote control to select the input source you want.

   Note: The OPS source will only be visible when a slot-in computer is installed.
3. Press **OK** on the remote control, or tap the desired input source.
4. Press **Return** on the remote control, or tap a blank area outside of the menu to exit.

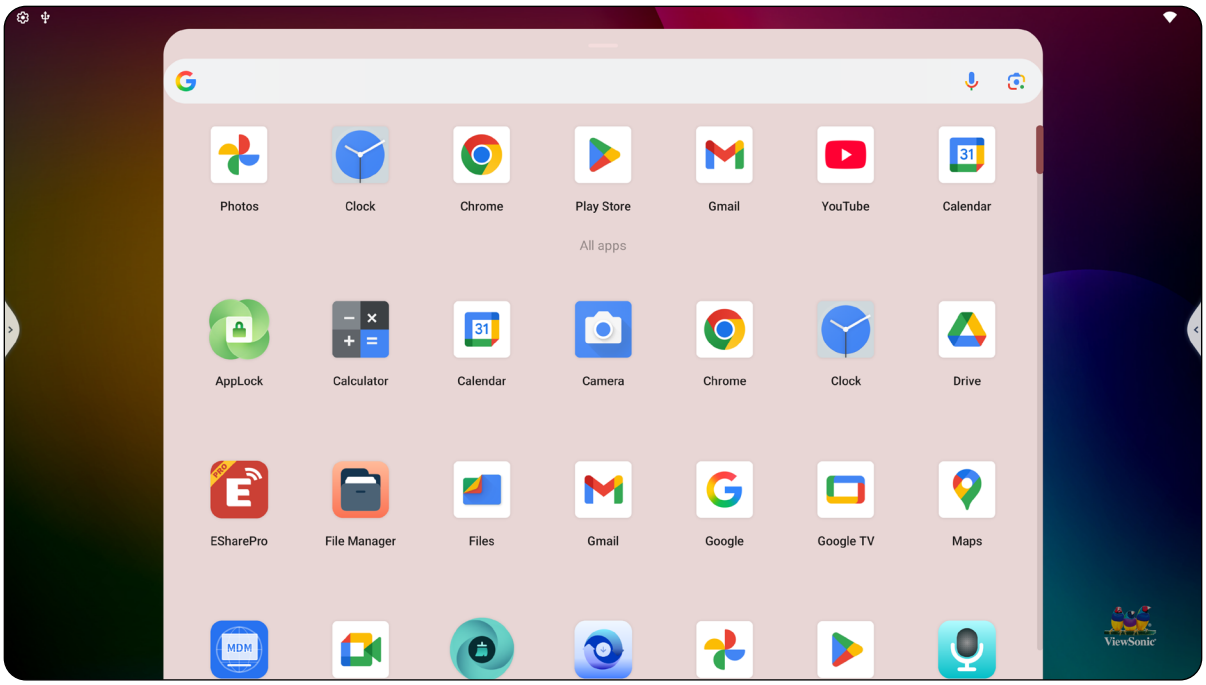
Annotation



Item		Description
	Pen	Customizable writing tools.
	Erase	Erase objects.
	Clear	Clear the canvas.
	Crop	Take a screenshot of the current screen and resize.
	Screenshot	Captures an image of the screen.
	Freeze	Holds the on-screen image.
	Undo	Undo the previous action.
	Redo	Redo the previous action.
	Menu	Create new, open, save, import and export files, and adjust other settings.

Applications

Much like any smart phone or tablet you can install several different applications.

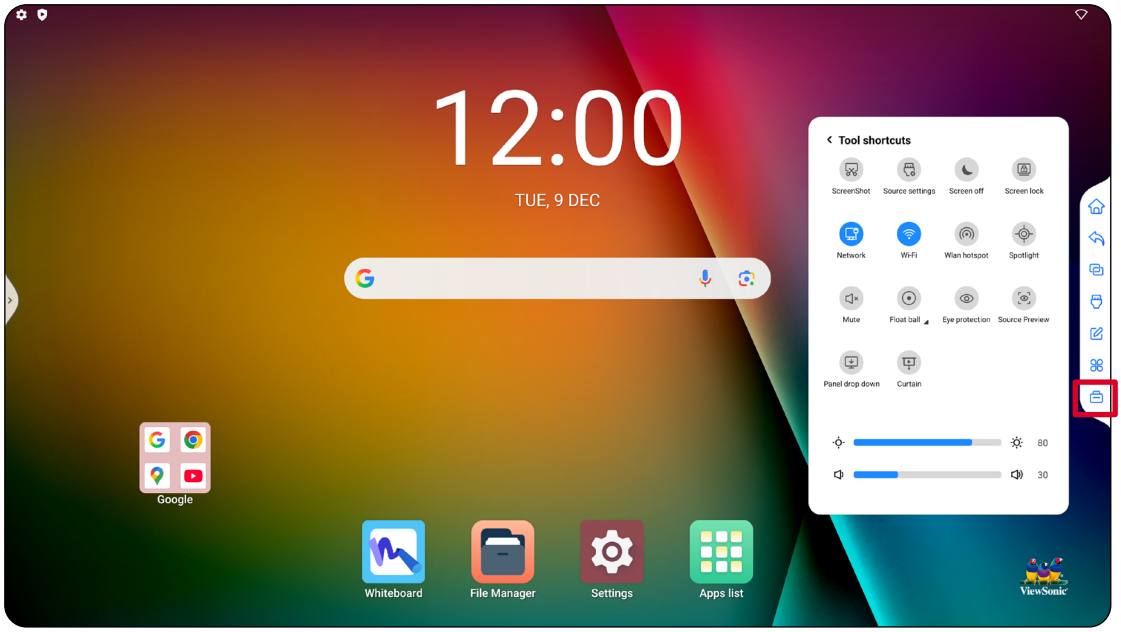


Applications can be accessed from the Toolbar, directly from the Home Screen, or by selecting the **Apps list** icon.

Note: The following included application descriptions are not a comprehensive list and will vary by the user.

Item		Description
	OTA Service	Upgrade the display.
	Vote	Set voting topics. **Note:** Vote requires a network connection.
	Welcome	Customize the welcome screen.
	Record	Voice recording.
	Record Screen	Capture everything that is displayed on screen in a video format.

Tool Shortcuts



Item		Description
	Screenshot	Captures an image of the screen.
	Source settings	Select and change the input source.
	Screen off	Turn off the screen's backlight.
	Screen lock	Lock the display's screen.
	Network	Set up and manage a wired connection as well as network preferences.
	Wi-Fi	Set up and manage a wireless connection as well as network preferences.
	Wlan hotspot	Set and share your internet connection with other devices.
	Spotlight	Forms a highlighted circle at any position to attract viewers' attention.
	Mute	Stop audio output.
	Float Ball	The float ball acts as a quick access method to select features and applications.

Item		Description
	**Eye protection**	Reduce the blue light emission of the screen.
	**Source Preview**	Preview the input source.
	**Panel drop down**	Move the upper half of the screen downward.
	**Curtain**	Hide the on-screen image.

Low Blue Light Filter and Eye Health

The low blue light filter blocks high-energy blue light for a more comfortable viewing experience.

Calculating Breaks

When viewing screens for extended periods, it is recommended to take periodic breaks from viewing. Short breaks of at least 10 minutes are recommended after one hour of continuous viewing.

Taking shorter, more frequent breaks are generally more beneficial than longer, less frequent breaks.

Focus Fatigue (20-20-20 Rule)

To reduce the risk of eye fatigue by constantly looking at the screen, look away from the screen at least every 20 minutes and gaze at a distant object (at least 20 feet away) for at least 20 seconds.

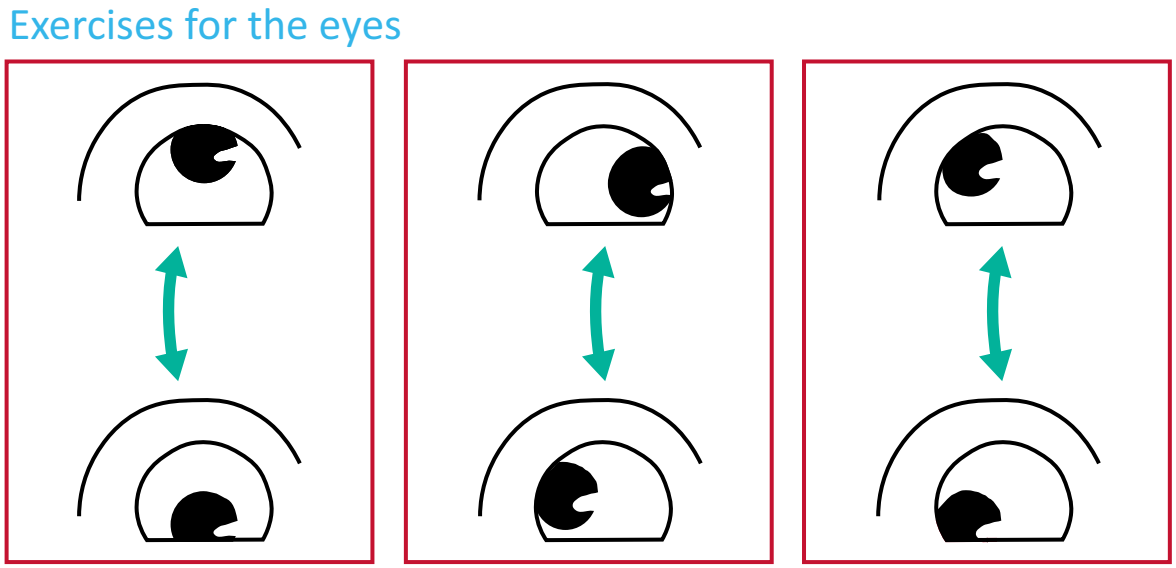
Looking at Distant Objects

While taking breaks, users can further reduce eye strain and dryness by focusing on objects that are further away from them for 10-15 seconds, then gaze at something up close for 10-15 seconds. Repeat this up to 10 times. This exercise reduces the risk of your eyes' focusing ability to "lock up" after prolonged computer work.

Eye and Neck Exercises

Eye Exercises

Eye exercises can help minimize eye strain. Slowly roll your eyes to the left, right, up, and down. Repeat as many times as needed.



(1) Keep the body and the head upright. Move the eyes up to look at the ceiling, then turn down to look at the floor.

(2) Move the eyes left and right slowly to look at objects on the two sides.

(3) Move the eyes to look at objects at the right upper direction and then right lower direction. Repeat for the left upper and left lower directions.

Neck Exercises

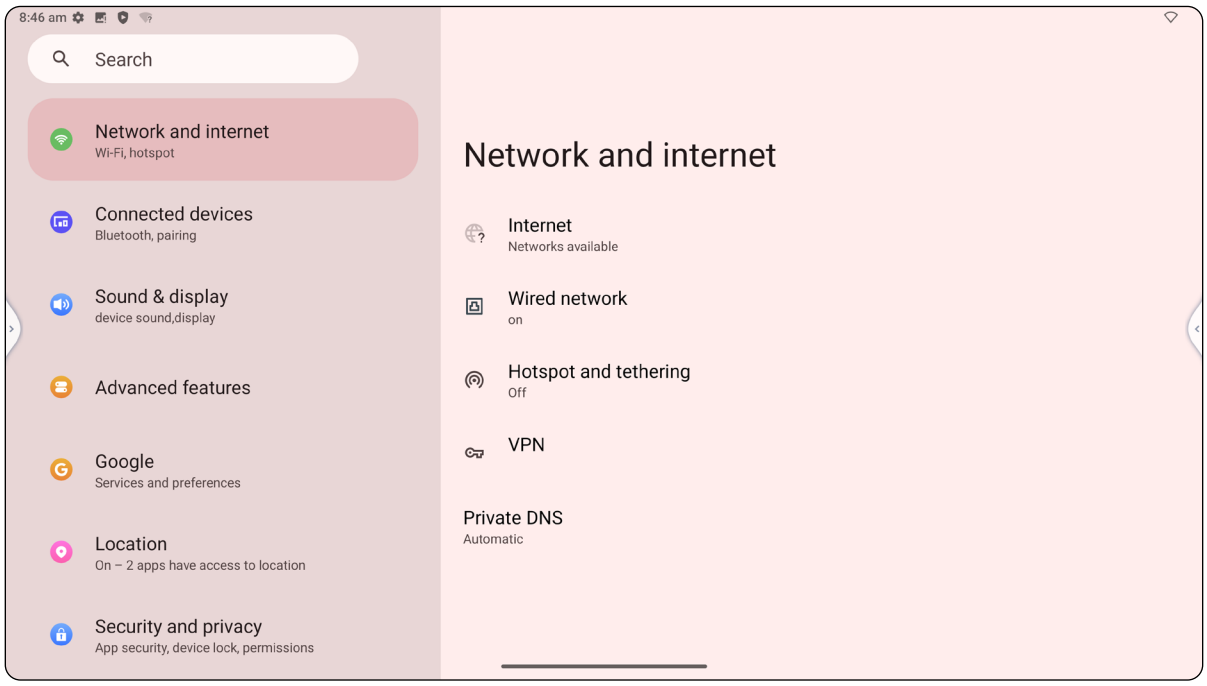
Neck exercises can also help minimize eye strain. Relax your arms and let them hang at your sides, bend forward slightly to stretch the neck, turn your head to the right and to the left. Repeat as many times as needed.

ViewBoard Settings

Android Launcher

Network and Internet

Check current connection status, set up and manage Wi-Fi, Wired network, Hotspot and tethering, Data Saver, VPN, and Private DNS settings.

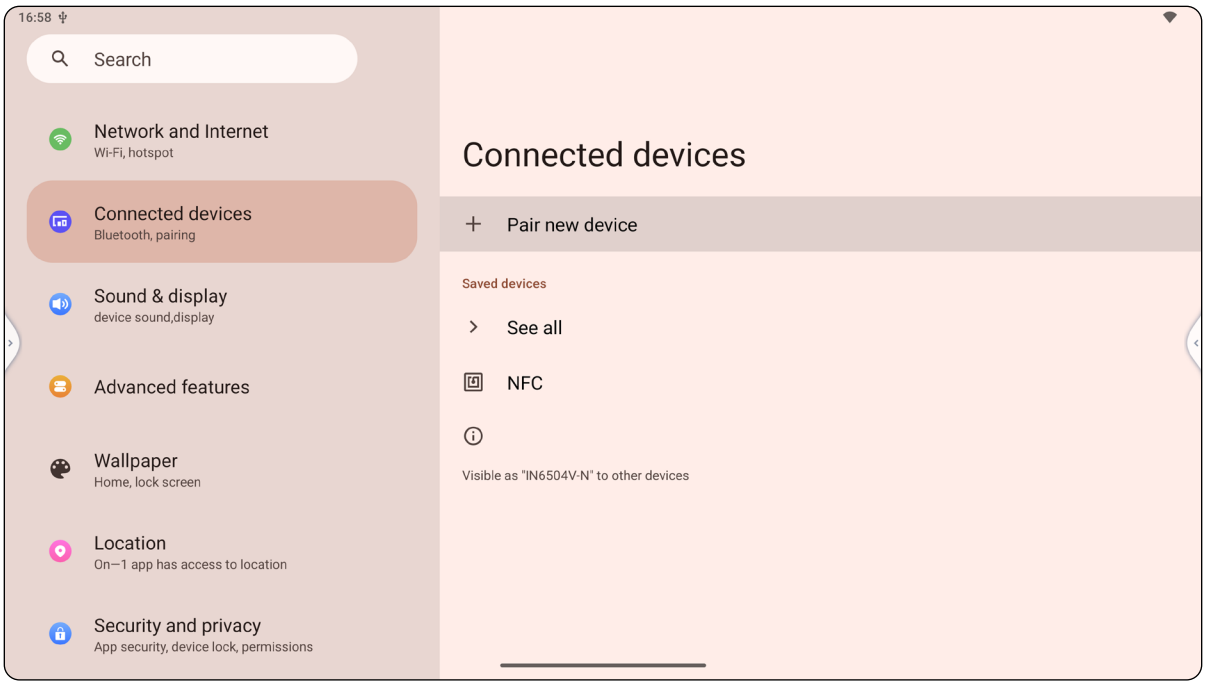


Item	Description
Internet	Set up and manage a Wi-Fi connection as well as network preferences.
Wired network	Set up and manage a wired connection as well as network preferences.
Hotspot and tethering	Set and share your internet connection with other devices.
Data Saver	When enabled, most apps and services will get background data via an internet connection. **Note:** Active apps will not be affected.
VPN	Set up and manage Virtual Private Networks.
Private DNS	Maintain an Automatic Private DNS or set one up manually for security and privacy.

Note: When Wi-Fi and a wired network are connected at the same time, the system will preferentially use the signal of the wired network, which will cause the Wi-Fi connection to be unavailable. It is recommended to turn on or off the corresponding network settings when using.

Connected Devices

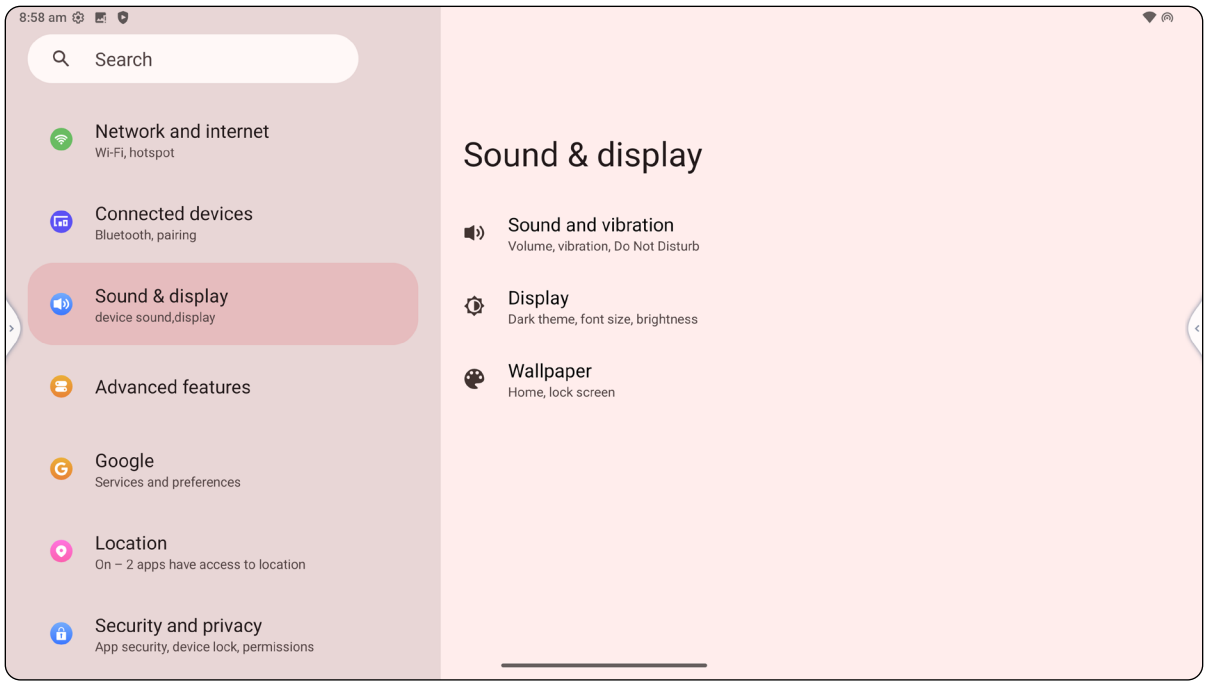
Set up and manage Bluetooth connections and saved devices.



Item	Description
Pair new device	Enable Bluetooth to search for and connect to a Bluetooth device.
See All	View all previously connected Bluetooth devices. **Note:** Bluetooth will turn on when a device is selected.
NFC	Touch the NFC card to the reader on the front panel to log in.

Sound and Display

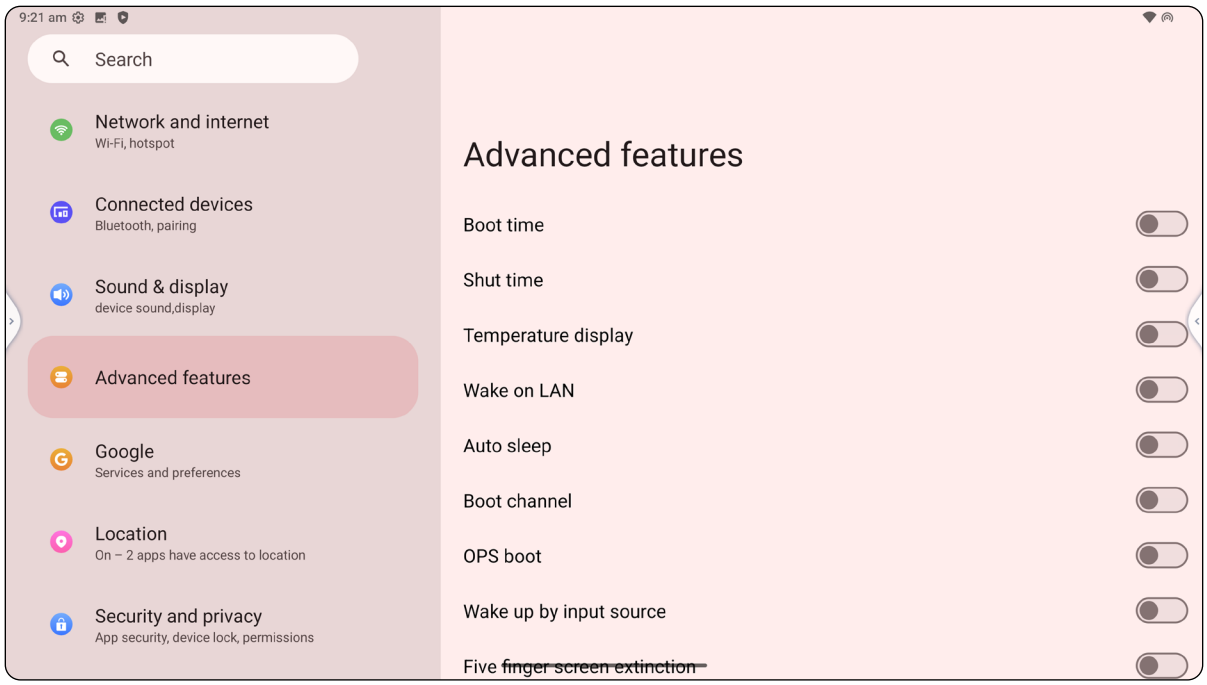
Adjust sound preferences and display-related settings.



Item	Description
Sound and vibration	Adjust the volume of Media , Ring , Notification, Alarm and others, and set whether to enable vibration or the Do Not Disturb mode.
Display	Adjust the screen brightness, and set whether to enable the dark theme or adjust the font size.
Wallpaper	Set the home screen wallpaper, and turn on the lock screen function.

Advanced Features

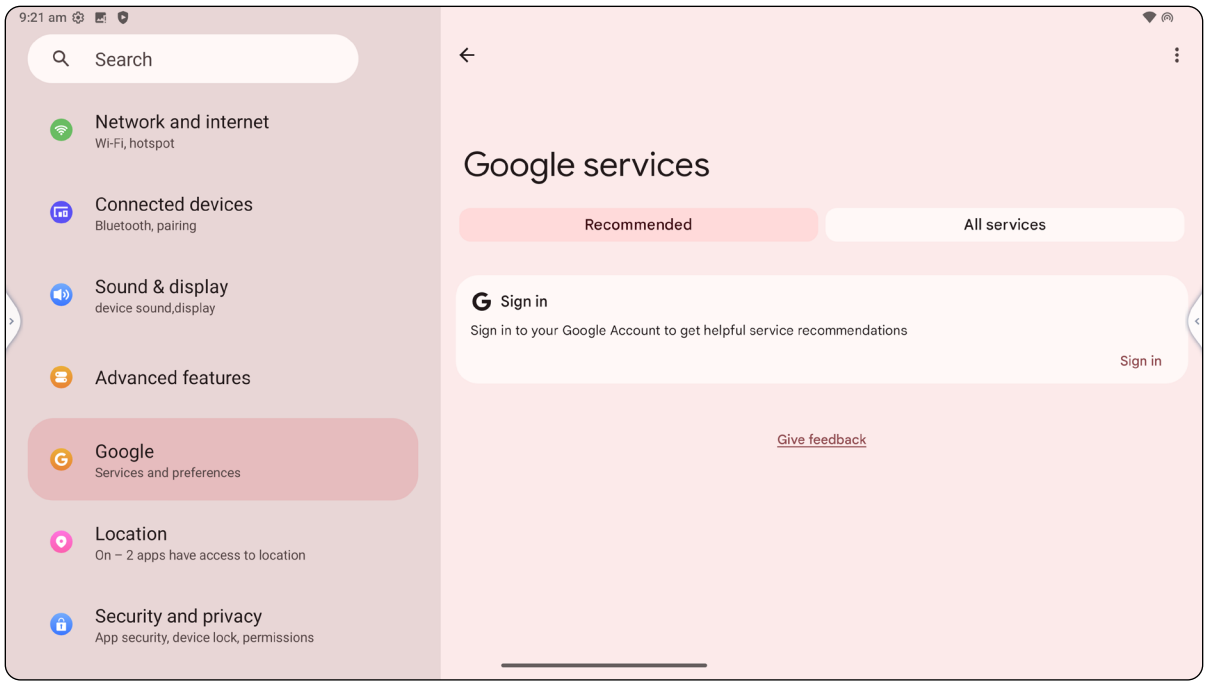
Set up a variety of functions.



Item	Description
Boot time	Set the boot time.
Shut time	Set the shutdown time.
Temperature display	Display the temperature on screen.
Wake on LAN	Turn on the Wake on LAN function.
Auto sleep	Set a time for the display to automatically enter sleep mode.
Boot channel	Select the input source when the display is turned on.
OPS boot	Set the OPS as the input source when the display is turned on.
Wake on HDMI	Wake the display from sleep mode when a device is connected to its HDMI port.
Five Finger Screen Extinction	Hold five fingers against the display to enter or leave sleep mode.

Google

Review Google services and set up preferences.

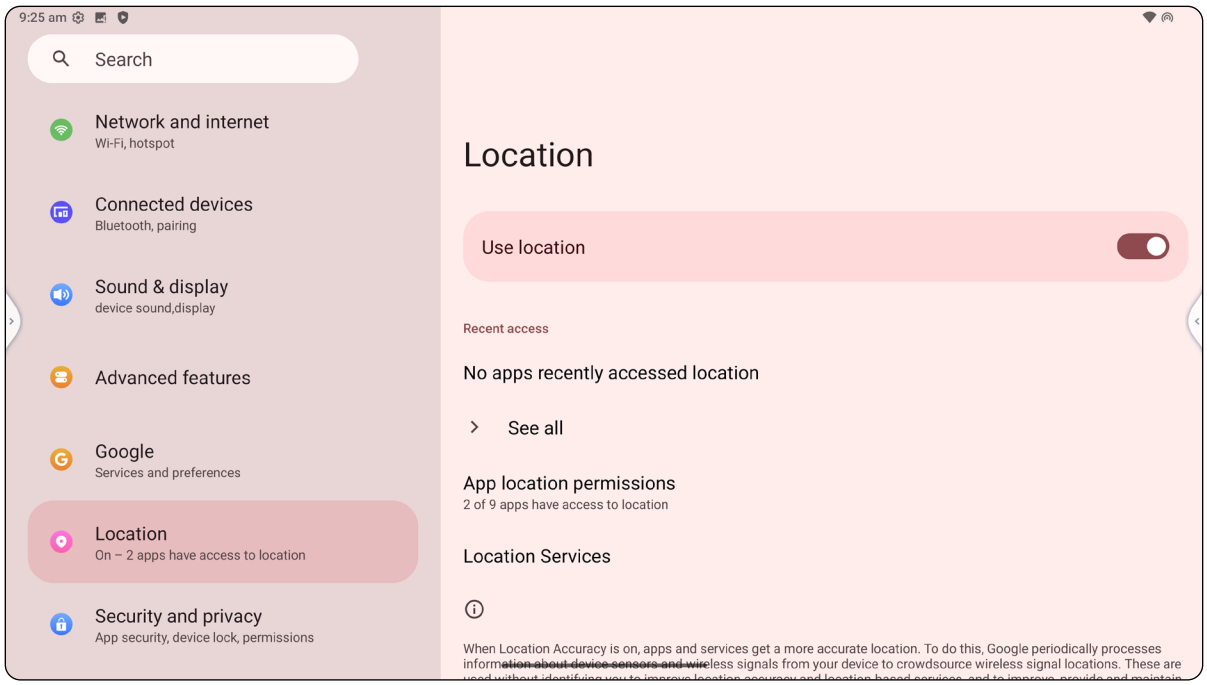


Item	Description
Settings for Google apps	Review settings for Google-specific applications.
Cast options	Prevent other devices from controlling media that's playing on a device that works with Google Cast.
Cross-device services	Other devices signed in to your Google Account will be able to find and share with you.
Devices	Scan for nearby devices.
Quick Share	Use Bluetooth scanning to find nearby devices.
Ads	Manage advertisement personalization.
Personalize using shared data	Allow or disallow Google to use the installed applications' data for diagnostics and recommendations.
Usage and diagnostics	Review screen time, number of notifications, and number of device unlocks.
Autofill with Google	With a Google account, passwords and other information can be filled in automatically.
Passkey-linked and devices	Use passkeys from other devices.
SMS verification codes	Allow the autofill service and default browser to enter verification codes from text messages.
Backup	Set up a backup method.

Item	Description
Set up nearby device	Set up a nearby device.
Parental controls	Set up parental controls with Google’s Family Link application.
Find My Device	Locate the display remotely.
Set up your work profile	Your work profile keeps your work apps separate and is managed by your organization.

Location

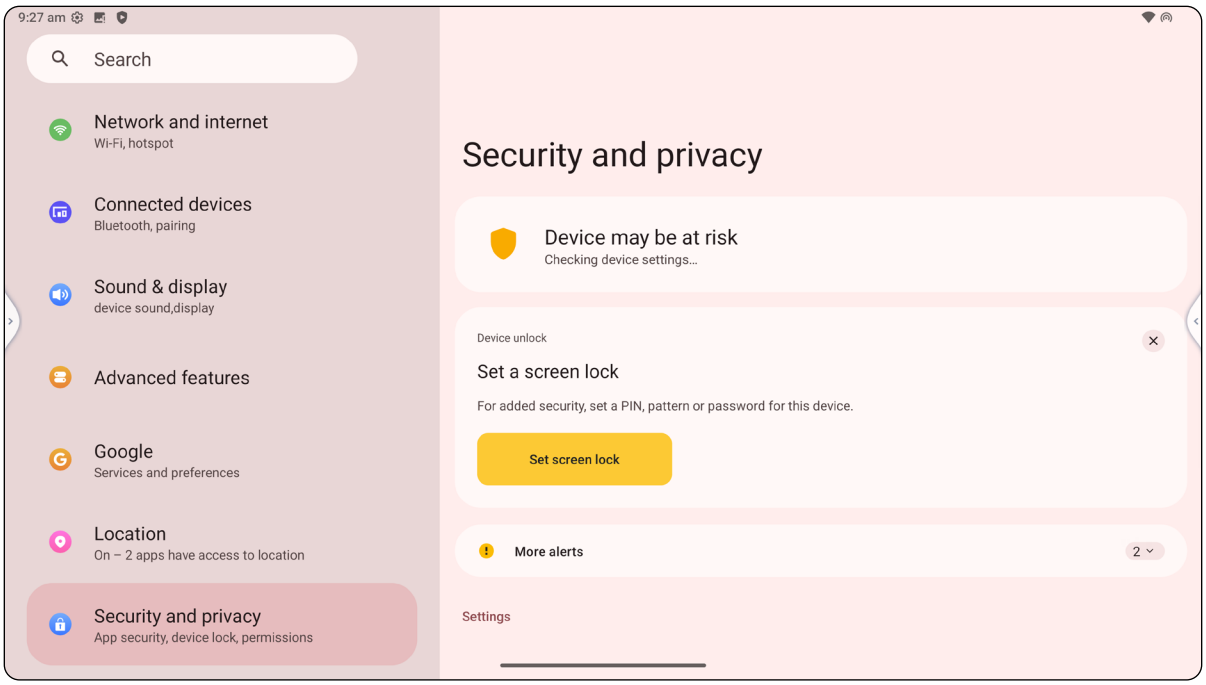
Review and manage location settings.



Item	Description
Use location	When turned on, the location of the device will be accessible to applications.
Recent access	Review which applications recently accessed the device's location.
App location permissions	Review which applications have permission to access the device's location.
Location services	Turn on or off various alerts, services, and scanning related to location and location accuracy.

Security

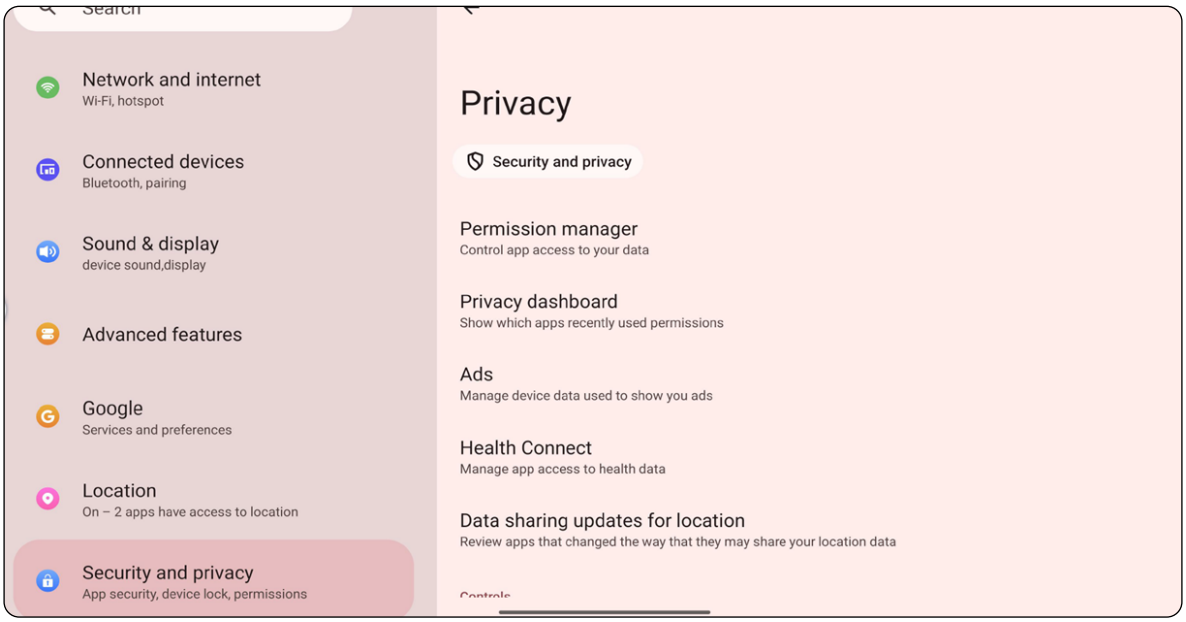
Review and adjust security settings.



Item	Description
Set a screen lock	For added security, set a PIN or password for this device.
More alerts	Add a Google account and check for security updates.
App security	Regularly check the installed applications and device for any harmful behavior.
Device unlock	Display whether the device is locked.
Device finders	Some settings, such as find my device and system updates, won’t work until you add a Google account.
System and updates	Check for system updates.
Privacy	View and adjust various privacy related settings.

Privacy

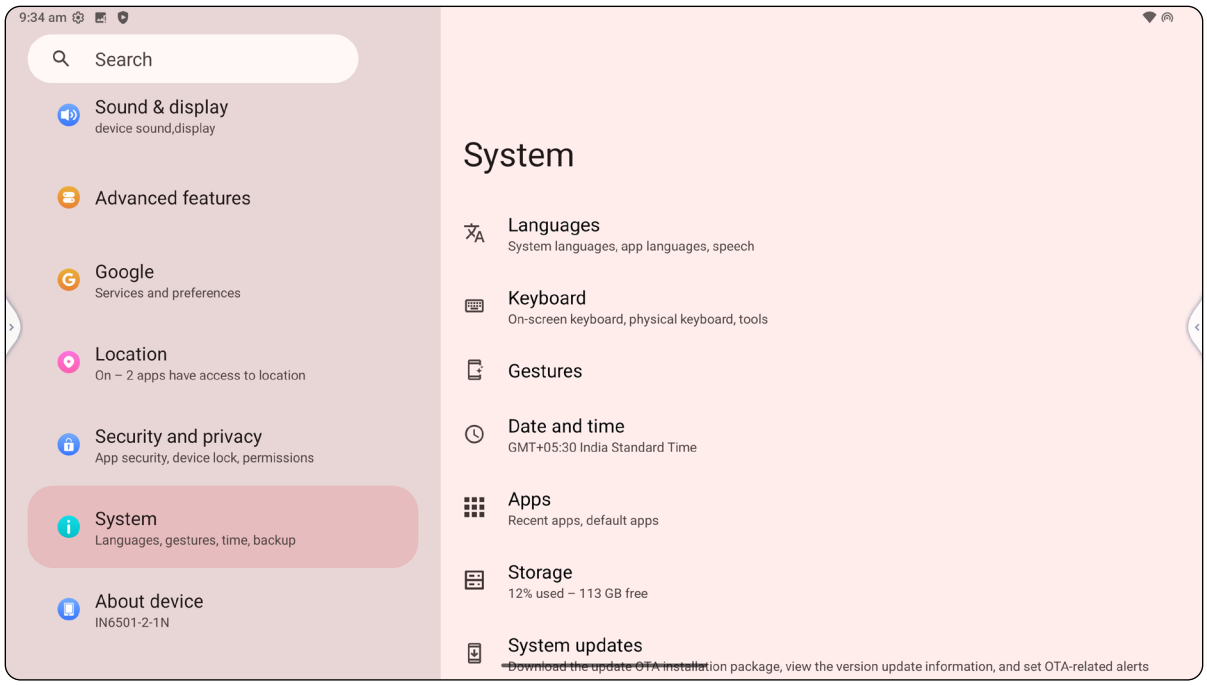
Review and manage privacy settings.



Item	Description
Permission manager	Control application access to your data.
Privacy dashboard	View which applications recently used permissions.
Ads	Manage advertisement personalization.
Health Connect	Manage app access to health data.
Data sharing updates for location	Review apps that changed the way that they may share your location data.
Camera access	Allow or disallow camera access for applications or services.
Microphone access	Allow or disallow microphone access for applications or services.
Show clipboard access	When turned on, a message will appear when applications access something (e.g., text, image, etc.) that has been copied.
Show passwords	When turned on, characters will be displayed briefly as a password is being inputted.
Location access	For apps and services.
Activity controls	Choose the activities and info that you allow Google to save.

System

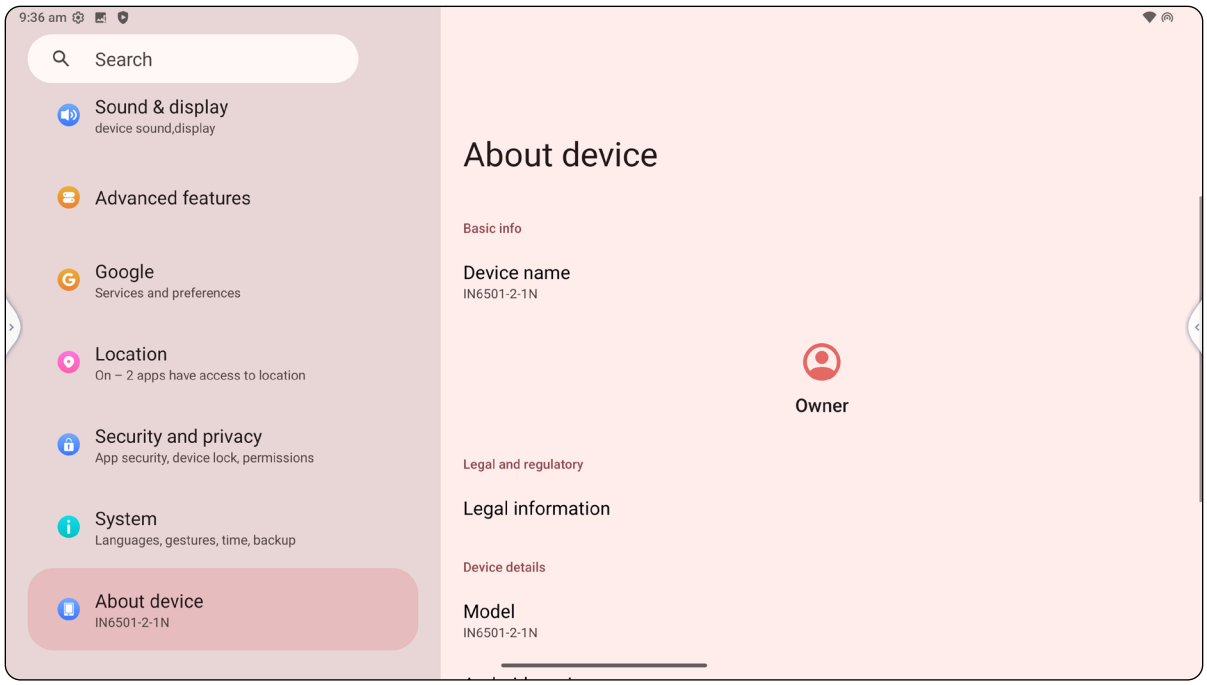
Manage system settings.



Item	Description
Languages	Choose the preferred language.
Keyboard	Set the keyboard.
Gestures	Adjust the side toolbar settings.
Date and time	Set the date and time.
Apps	View the apps which were opened recently.
Storage	Manage and free up space.
System updates	Check for system updates.
Multiple users	Allow multiple users.
Reset options	Reset the display to factory default settings.
More features	Set up Notifications, Passwords and accounts, Accessibility and Backup features.

About Device

Review display information.



Item	Description
Device name	View the name of the device.
Legal information	View the relevant legal information.
Model	View the model of the ViewBoard.
Android version	View the installed version of Android.
IP Address	View the IP Address.
Wi-Fi MAC address	View and choose from saved networks.
Device Wi-Fi MAC address	View the Device Wi-Fi MAC address.
Ethernet MAC address.	View the Ethernet MAC address.
Bluetooth address	View the Bluetooth address.
Uptime	View the current running time of the device.
Build number	View the version number of current software.

Android Settings Menu Tree

Menu	Sub-menu	Menu Option		
Network and internet	Internet	Wi-Fi		
	Wired Network	Ethernet State	Obtain IP address automatically	
			Set IP address manually	
	Hotspot & tethering	Wi-Fi hotspot	Wi-Fi hotspot	
			Hotspot name	
			Security	
			Hotspot password	
			Turn off hotspot automatically	
			Extend compatibility	
		USB tethering		
		Ethernet tethering		
	VPN			
	Private DNS	Select Private DNS Mode	Off	
			Automatic	
			Private DNS provider hostname	
Connected devices	Pair new device	Device name	Rename this device	
		Available devices		
	Saved devices	See all		
	NFC			

Menu	Sub-menu	Menu Option		
Sound & display	Sound and vibration	Media Volume		
		Do Not Disturb		
		Media	Pin media player	
			Show media on lock screen	
			Show media recommendations	
		Default notification sound		
		Default alarm sound		
		Screen locking sound		
		Tap and click sounds		
	Display	Brightness	Brightness level	
		Lock display	Lock screen	
			Screen timeout	
		Appearance	Dark theme	
			Display size and text	
		Color	Colors	
		Other Display controls	Screen saver	
			HDMI	
	Wallpaper	Change wallpaper	My photos	
			On-device wallpapers	
			Wallpapers	
		Dark theme		
		Themed icons		

<table>
<tr><th>Menu</th><th>Sub-menu</th><th colspan="3">Menu Option</th></tr>
<tr><td rowspan="9">Advanced features</td><td>Boot time</td><td colspan="3" rowspan="9"></td></tr>
<tr><td>Shut time</td></tr>
<tr><td>Temperature display</td></tr>
<tr><td>Wake on LAN</td></tr>
<tr><td>Auto sleep</td></tr>
<tr><td>Boot channel</td></tr>
<tr><td>OPS boot</td></tr>
<tr><td>Wake up by input source</td></tr>
<tr><td>Five Finger Extinction</td></tr>
<tr><td rowspan="10">Google</td><td>Recommended</td><td>Sign in</td><td></td><td rowspan="10"></td></tr>
<tr><td rowspan="9">All services</td><td>Settings for Google apps</td><td>Search, Assistant, and Voice</td></tr>
<tr><td rowspan="4">Connected devices and sharing</td><td>Cast options</td></tr>
<tr><td>Cross-device services</td></tr>
<tr><td>Devices</td></tr>
<tr><td>Quick Share</td></tr>
<tr><td rowspan="3">Privacy and security</td><td>Ads</td></tr>
<tr><td>Personalize using shared data</td></tr>
<tr><td>Usage and diagnostics</td></tr>
</table>

Menu	Sub-menu	Menu Option		
Google	All services	Autofill and passwords	Autofill with Google	
			Passkey-linked devices	
			SMS verification codes	
		Backup and restore	Backup	
			Set up nearby device	
		Children and family	Parental controls	
		Personal and device safety	Find My Device	
		Device policy	Set up your work profile	
Location	Use location			
	Recent access	No apps recently accessed location		
		See all		
		App location permissions	Allowed all the time	
			Allowed only while in use	
			Not allowed	
		Location Services	Earthquake alerts	
			Emergency Location Service	
			Google Location History	
			Google Location Sharing	
			Location Accuracy	
			Wi-Fi scanning	
			Bluetooth scanning	

Menu	Sub-menu	Menu Option		
Security and privacy	Device unlock	Set a screen lock		
	More alerts	Add Google Account		
	Settings	App security	Google Play Protect	
		Device unlock	Set a screen lock	
			Screen lock	
		Account security	Add Google Account	
			Google Security Check-up	
			Password Check-up	
		Device finders	Add Google Account	
			Find My Device	
		System and updates	Add Google Account	
			More alerts	Check for security updates
			Security update	

Menu	Sub-menu	Menu Option		
Security and privacy	Settings	Privacy	Permission manager	
			Privacy dashboard	
			Ads	
			Health Connect	
			Data sharing updates for location	
			Controls	Camera access
				Microphone access
				Show clipboard access
				Show passwords
				Location access
				Activity controls
	More security and privacy	Privacy	Notification on lock screen	
			Show media on lock screen	
			App content	
			Android System Intelligence	Device learning
				Keyboard
				Clear data
			Autofill service from Google	Use Autofill with Google
				Google Account
			Usage and diagnostics	

Menu	Sub-menu	Menu Option		
Security and privacy	More security and privacy	Security	Extend Unlock	
			Android Safe Browsing	Supported apps
				Use live threat detection
			Device admin apps	
			Encryption and credentials	Encrypt device
				Trusted credentials
				User credentials
				Install a certificate
				Clear credentials
				Certificate management app
			Trust agents	
			App pinning	
System	Languages	Preferred language	System languages	
			App languages	
		Speech	Voice input	
			On-device recognition	Add a language
				Auto update languages
				Advanced
			Text-to-speech output	

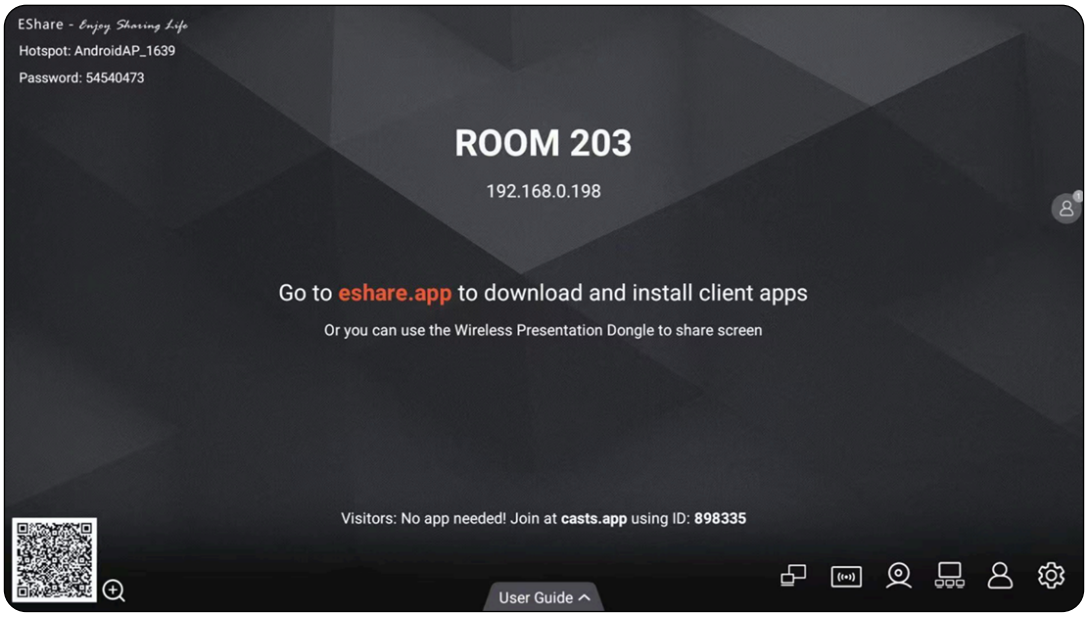
Menu	Sub-menu	Menu Option		
System	Keyboard	On-screen keyboard		
		Tools	Spell checker	Use spell checker
				Languages
				Default spell checker
			Personal dictionary	
			Pointer speed	
	Gestures	Navigation mode	Gesture navigation	
			3-button navigation	
		Prevent ringing		
	Date and time	Set time automatically		
		Date		
		Time		
		Time zone	Set automatically	
			Time zone	
		Time format	Use locale default	
			Use 24-hour format	
	Apps	Recently opened apps		
		General	Default apps	
			Screen time	
			Unused apps	
			Special app access	
	Storage			
	System updates			

Menu	Sub-menu	Menu Option
About device	Device name	
	Legal information	
	Mode	
	Android version	
	IP address	
	Wi-Fi MAC Address	
	Device Wi-Fi MAC Address	
	Ethernet MAC Address	
	Bluetooth Address	
	Uptime	
	Build Number	

Pre-installed Applications and Settings

EShare Pro

EShare is a full-featured multi-screen interactive software designed for casting, wireless display, and remote control between mobile devices (e.g., phones, tablets, laptops, etc.) and large format displays.



Key Features

Item	Description
Universal Mirroring	Instantly share your screen and audio from any Windows, macOS, iOS, Android ChromeOS, or Linux device. Includes reverse touch for controlling your device from the display.
Multi-Source Split-Screen	View up to 16 devices on one screen simultaneously. EShare automatically arranges the layout for optimal viewing and comparison.
Moderator Panel	Approve, deny, and manage who can share, ensuring a smooth, focused, and productive session.
BYOM	Connect your laptop's Teams, Zoom, or Meet video calls to professional cameras and microphones for an elevated meeting experience.
App-Free Integration	Cast using their device's native protocols: AirPlay, Miracast, and Google Cast.
Web & Cloud Casting	Enable secure, zero-installation casting for guests (WebCast), or broadcast your screen to remote viewers (Cloud Broadcast).
Interactive Toolkit	Use your device as an advanced remote, annotate over any content in real-time, and view the main display on your personal device with reverse mirroring.
Hardware Extension	Plug-and-play simplicity with the EShare Wireless Presentation Dongle. Simply plug it in and tap the button to mirror your screen instantly.

Network Requirements

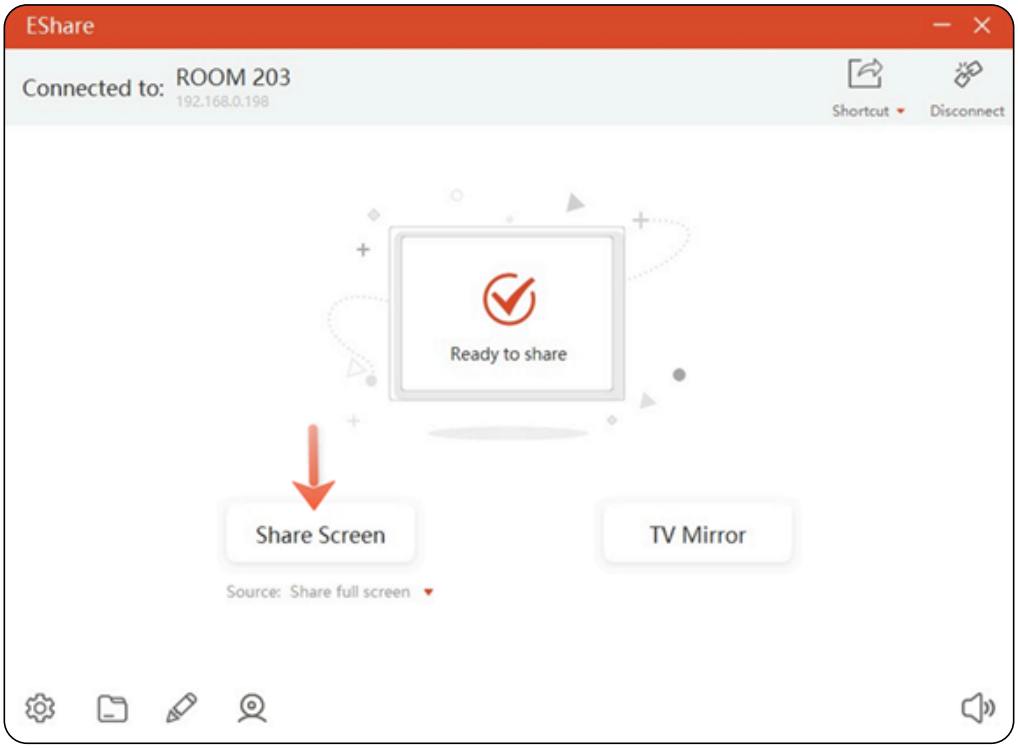
When using EShare on your network, please use the below ports.

Port	Type	Service or Protocol	Used By
80/443	TCP	Hypertext Transfer Protocol (HTTP, HTTPS) **Destination:** casts.app gw.casts.app h1.ee-share.com	WebCast
1900	UDP	Simple Service Discovery Protocol (SSDP)	Bonjour
51010-51060	TCP	EShare Proprietary	EShare Apps, AirPlay
8121, 57395, 8080, 52025, 8600	TCP	EShare Proprietary	EShare Apps
48689	UDP	Device Discovery	EShare Apps
5353	UDP	Multicast DNS (MDNS)	Bonjour, AirPlay
10000-65535	UDP	DTLS **Destination:** DNS: *.casts.app IPV4: 3.124.195.37 54.169.2.51 64.64.232.232 119.28.92.194 106.55.235.101	WebCast
8008, 8009	TCP	GoogleCast Proprietary	ChromeCast

Bandwidth Requirements

Item	Description
Mirroring (from laptop or phone to display)	The maximum bit rate can be as high as 30 Mbps, but average bit rates will be significantly lower. For best results, it is recommended to use an Ethernet connection with the display and a 5 GHz Wi-Fi connection for laptops/phones.
TV Mirror and Display Group	The average bit rates of TV Mirror and Display Group are 4 Mbps. Please reserve bandwidth accordingly. For example, if there are 40 tablets or laptops in the classroom using TV Mirror, the required bandwidth could be calculated as 40 x 4 Mbps = 160 Mbps.
WebCast	The average bit rates of each WebCast connection are 4~5 Mbps. It's recommended to reserve a steady 5 Mbps bandwidth for each WebCast.

Quick Connect

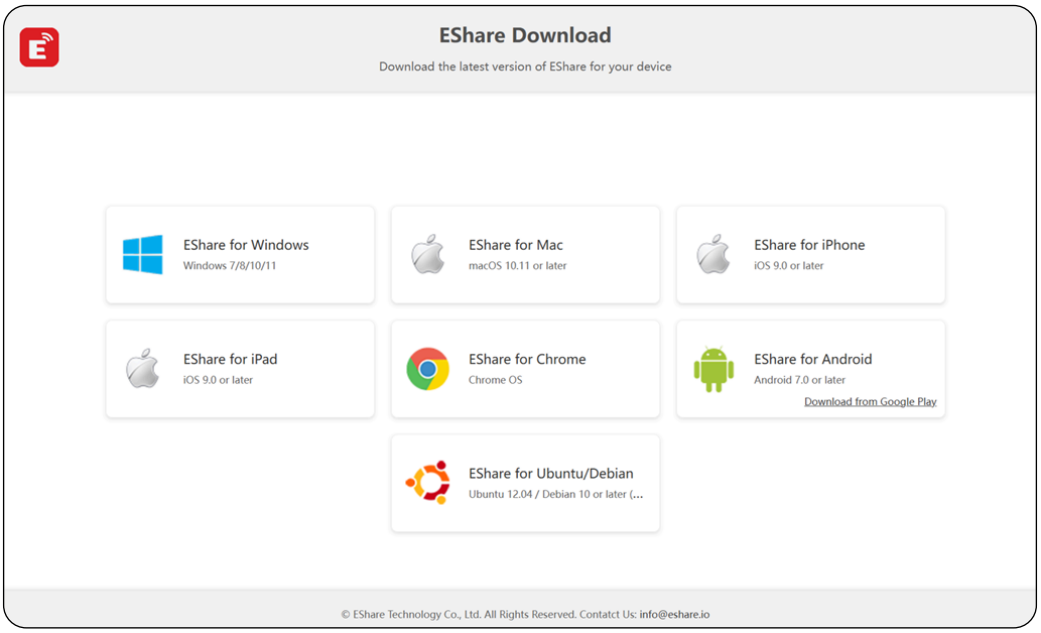


1. Open a web browser and go to eshare.app or open the EShare application (if installed).
2. EShare will automatically discover the display on the network.
3. Select **Share Screen** to share your device's screen.

EShare Application

Download the EShare Application

Note: Please make sure the client device (e.g., phone, laptop, etc.) is connected to the same network as the display.



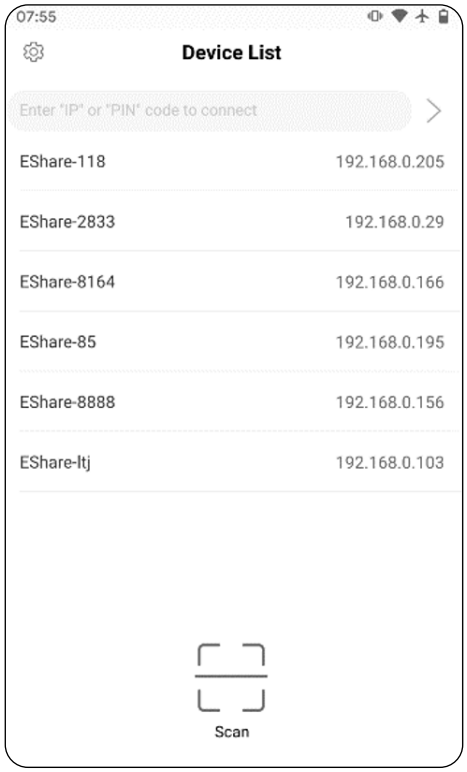
1. On the display, launch the ESharePro application.
2. On the client device, scan the QR code or go to: eshare.app.
3. Download and install the Eshare application onto the client device.

Connect to the Display

There are four ways to connect the client device to the display.

For Android/iOS Devices

Note: Please make sure the client device (e.g., phone) is connected to the same network as the display.

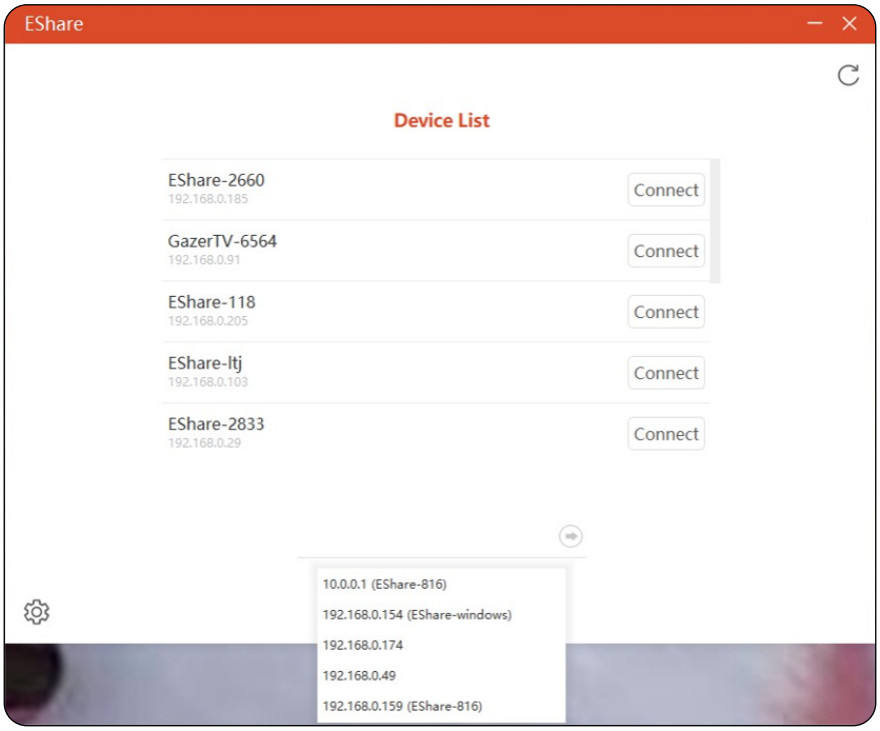


Connection Method	Description
Device Name	Select the display's name from the Device List.
PIN Code	Enter the PIN code found on the display.
Enter IP Address	Enter the IP address found on the display.
Scan QR Code	Scan the QR code found on the display.

Note: To use PIN connection, first enable it in EShare Pro settings. 6-digit PINs are for local network connections. 8-digit PINs allow for secure connections across different network subnets.

For Windows/macOS/ChromeOS/Linux Devices

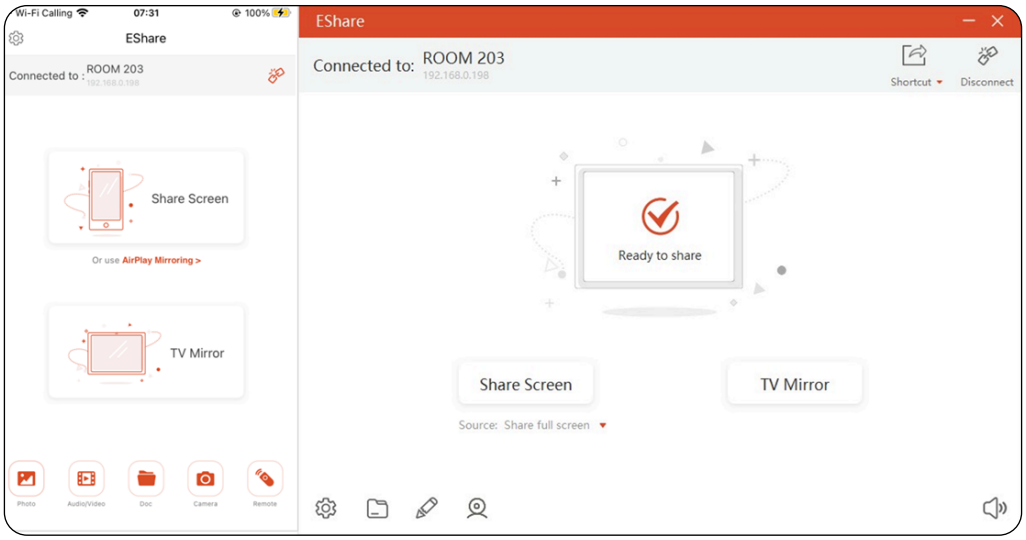
Note: Please make sure the client device (e.g., laptop) is connected to the same network as the display.



Connection Method	Description
Device Name	Select the display's name from the Device List.
PIN Code	Enter the PIN code found on the display.
Enter IP Address	Enter the IP address found on the display.
Select the Device in the History List	Click the input box "Enter IP or PIN code to connect" and a history list will appear (if applicable). Select the display to connect to.

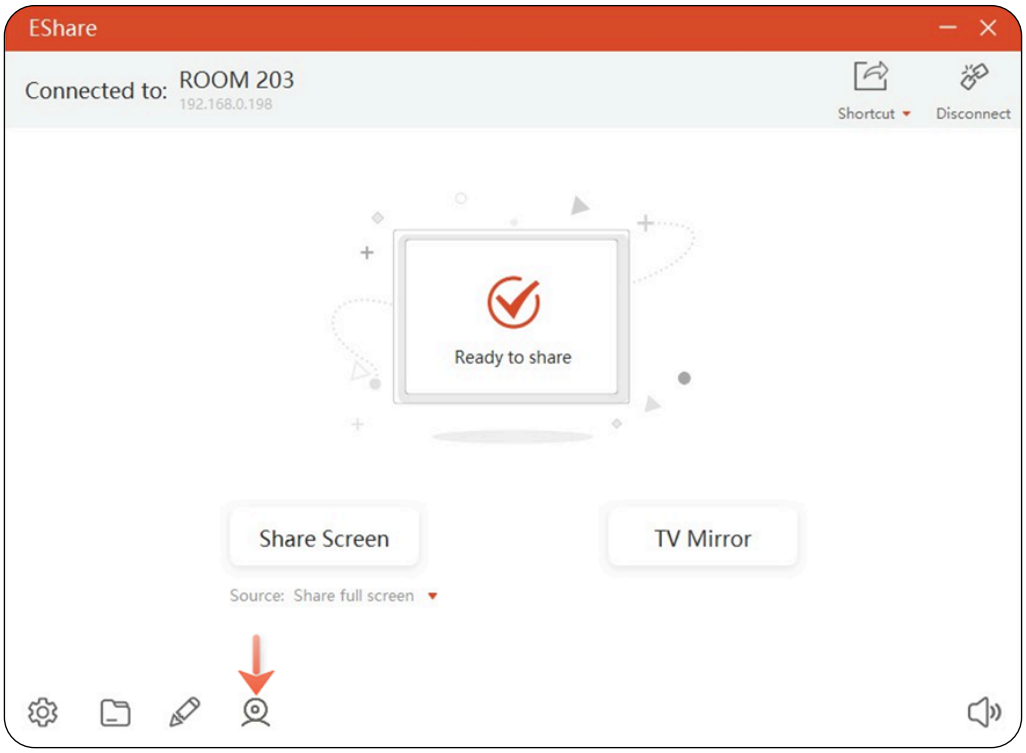
Note: To use PIN connection, first enable it in EShare Pro settings. 6-digit PINs are for local network connections. 8-digit PINs allow for secure connections across different network subnets.

Core Features



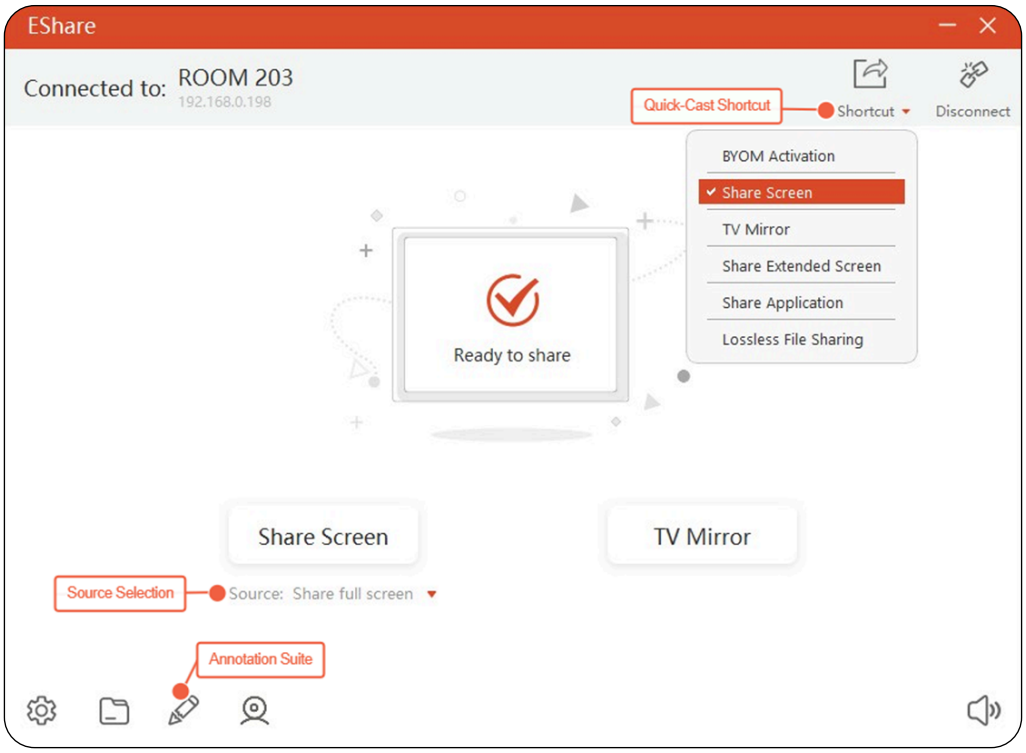
Item	Description
Screen Sharing	Share the device's entire screen, a specific application window, or use the receiver as an extended wireless display.
File Sharing	Cast photos, videos, and documents directly in original, lossless quality.
Remote Control	Use the client device as a wireless mouse, remote control, keyboard, etc.
Camera	Share photos or audio from your client device's camera or microphone to the display in real-time.
Touch Feedback	Control the casting device from the receiver's touchscreen.
Share Files from Other Applications to the Display	In email, browser, file manager, and other applications, you can share files to the display through the EShare application or you can share files to the display with other applications.

Advanced Features



Item	Description
Bring Your Own Meeting (BYOM)	Use the camera and microphone connected to the EShare receiver for your video calls.
TV Mirror (Reverse Mirroring)	Mirror the screen of the display to the client device and control it.
Annotations	After selecting **TV Mirror**, select the pen icon to start wireless annotation on the display.
Full Screen	If two or more client devices are sharing the display's screen, selecting Full-Screen will display a single client device's screen only.

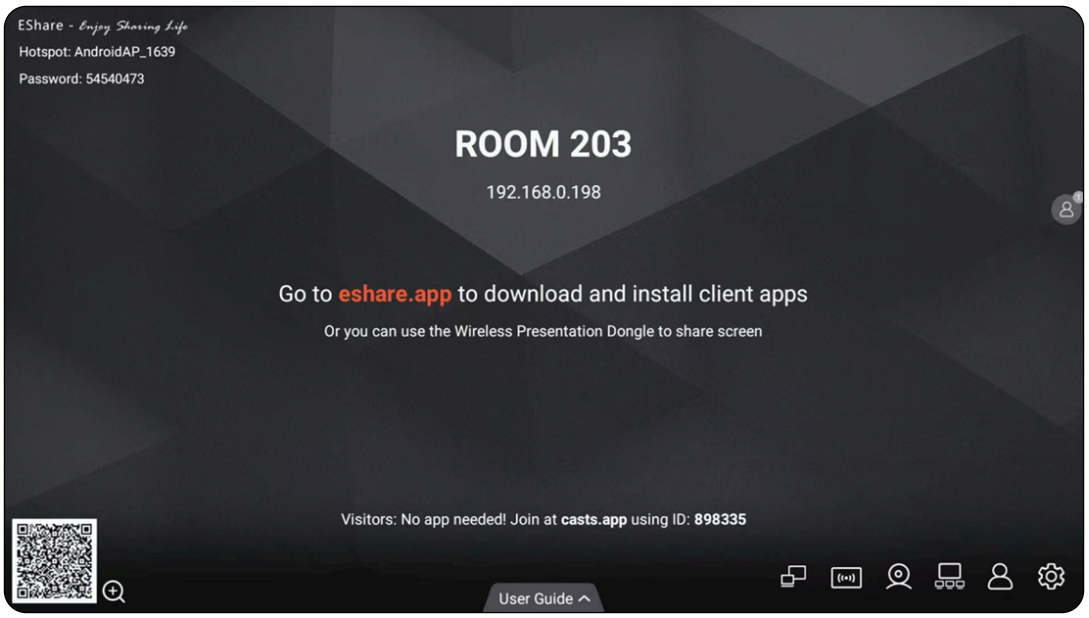
Desktop-only Features



Item	Description
Quick-Cast Shortcut	Create a desktop shortcut for any receiver. In the future, just double-click to connect and cast instantly.
Source Selection	Choose to share your device's entire screen, a specific application window, or an individual monitor. Perfect for focused presentations.
Annotation Suite	Access comprehensive annotation tools and save annotated content directly to your device for future reference.

EShare Receiver

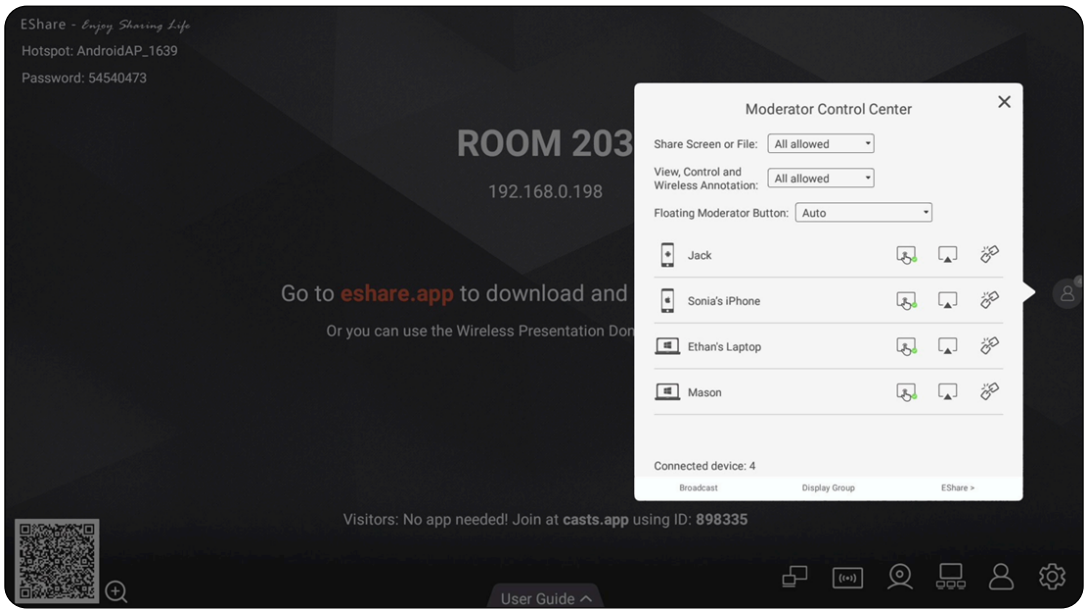
The main page of EShare Receiver will show the network name, QR code, device name, IP address, and user guide. In the bottom right are the Web Cast, Cloud Broadcast, BYOM, Display Group, Moderator Control Center, and Settings.



Item	Description
Web Cast	Share screens through a web browser without installing any applications when enabled.
Cloud Broadcast	Share screen content with remote viewers.
Bring Your Own Meeting (BYOM)	Configure Bring Your Own Meeting functionality.
Display Group	Duplicate the main display or the casting screen to all grouped displays.
Moderator Control Center	Access advanced session management.
Settings	Configure receiver preferences and security options.

Moderator Control Center

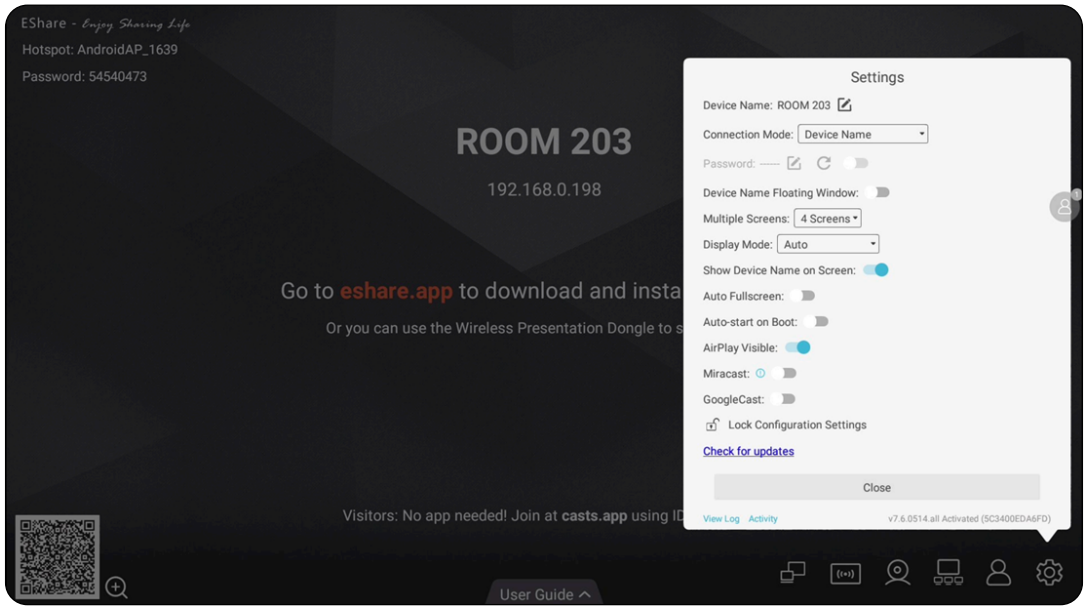
Click the Moderator button to launch your control center. This gives you complete control of your presentation.



Item	Description
Approve/ Deny Sharing Requests	Content is shared only when you allow it.
Invite to Cast	Select a user and invite them to share their screen.
Manage Permissions	Grant or revoke control and annotation rights for any user.
Disconnect Users	End a user’s session.
Screen Broadcast	Instantly share the main display’s content with all connected devices.
Settings	Configure receiver preferences and security options.

Settings

Adjust settings to your specific security and usability needs.

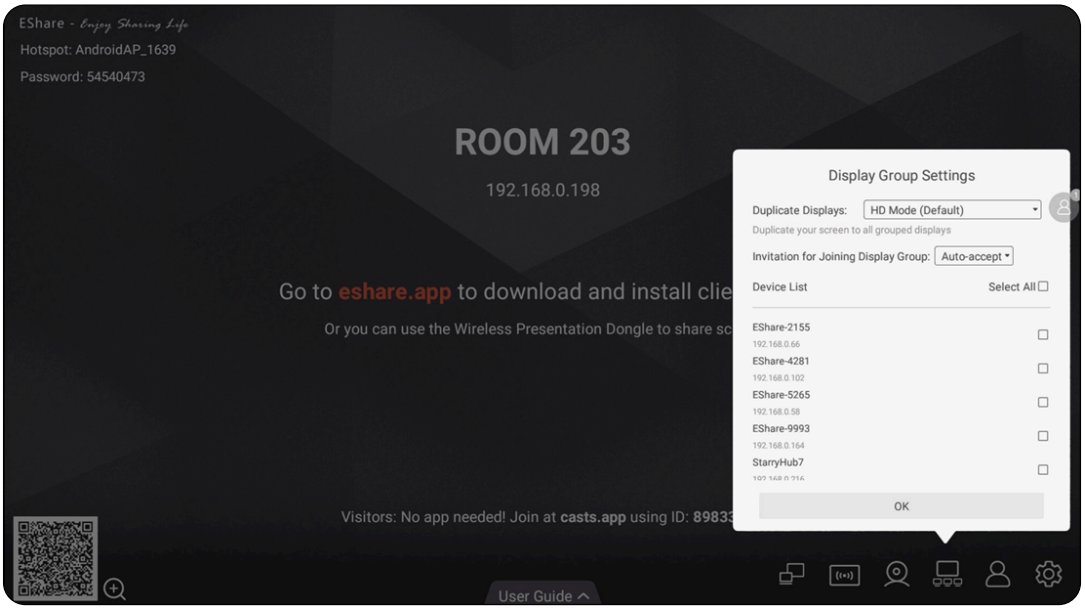


Item	Description
Device Name	Edit the display's name.
Connection Mode	Set the security level.
Password	Add a password to prevent unauthorized changes to the settings menu.
Device Name Floating Window	Show the device's name in the corner of the screen.
Multiple Screens	Set the maximum number of simultaneous casters.
Display Mode	Select the rendering mode.
Show Device Name on Screen	Show the casting device's name during screen sharing.
Auto Full Screen	Automatically start EShare in full screen mode.
Auto-Start on Boot	Automatically start EShare when the display is turned on.
AirPlay	Enable or disable Airplay.
Miracast	Enable or disable Miracast.
Google Cast	Enable or disable Google Cast.
Lock Configuration Settings	Lock the settings menu.

Display Group

The main screen can be duplicated to multiple displays simultaneously, and the client device can also be mirrored to multiple receiver displays.

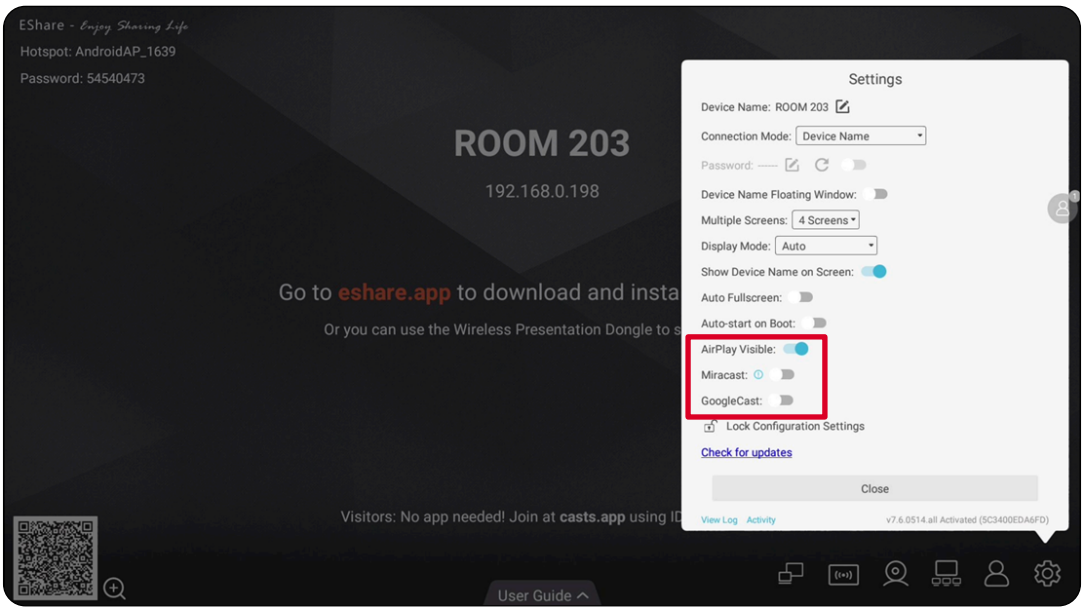
Note: EShare Pro must be installed and activated and the devices are on the same Local Area Network (LAN).



Item	Description
Enable	Other EShare Pro pre-installed displays in the same network (if any) will be listed. Select a display to add to the display group, then select **OK** to apply the settings.
Only valid in client screen sharing	Only when the sender is casting a screen, will the devices in the display group be synchronized to the display.
Disable	Disable the Display Group feature.

Casting without EShare

If the AirPlay, Miracast, or Google Cast applications are installed on the display, you can find the corresponding switches on the EShare Pro settings page to enable them.



AirPlay

Apple devices (e.g., iPhone, iPad, MacBook, iMac) can wirelessly cast content to the display.

- Swipe and select Screen Mirroring, then choose the display device.

Miracast

Windows and Android devices can wirelessly cast content to the display.

For Windows

- Press the ‘Windows key’ and ‘K’ simultaneously, and select the display device from the available display devices.

For Android

- If your Android device supports screen mirroring, directly select the display device.

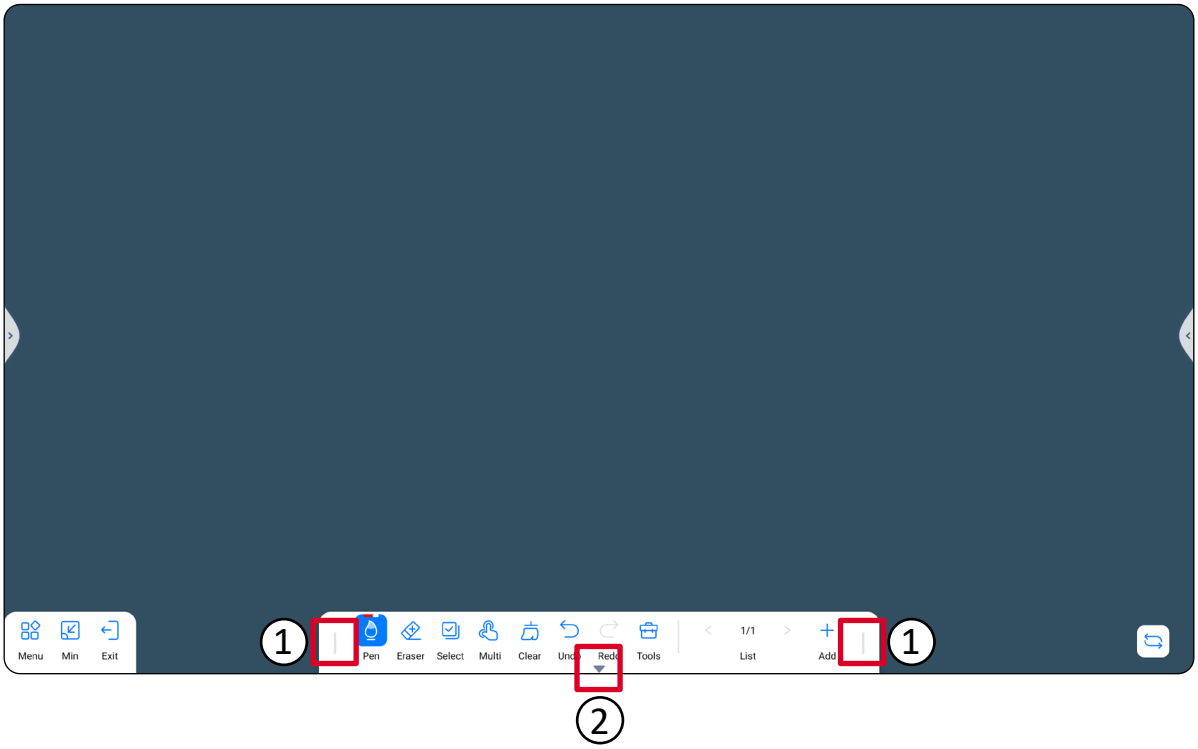
Google Cast

Wirelessly cast content from the Chrome browser and ChromeOS.

- Open the Chrome browser and select the Cast icon, then select the display device from the available display devices.

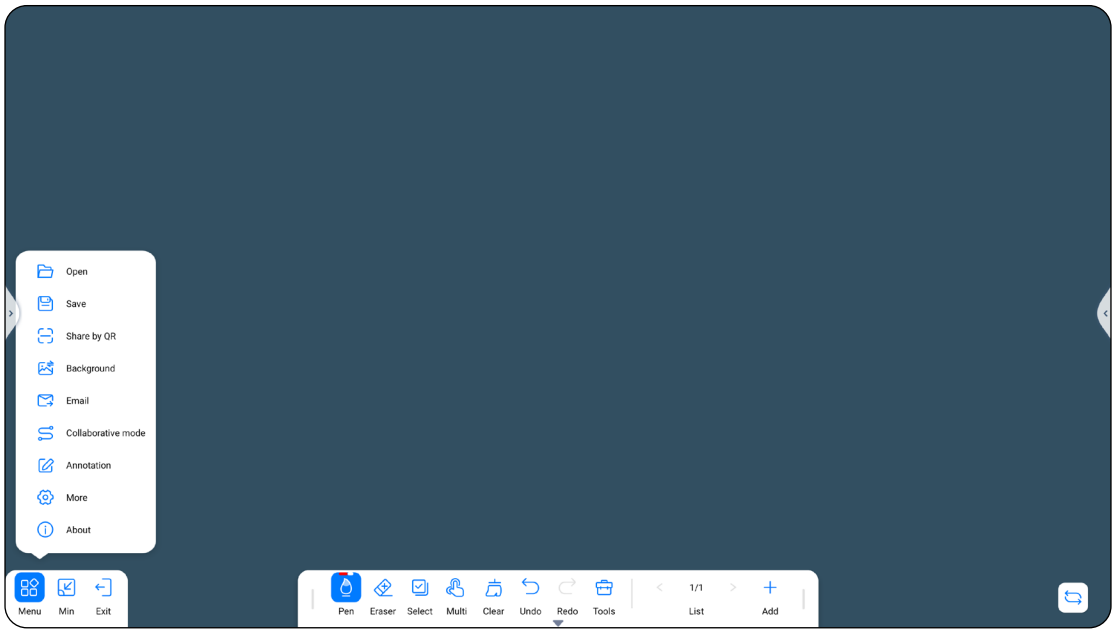
Whiteboard

A digital whiteboarding application.

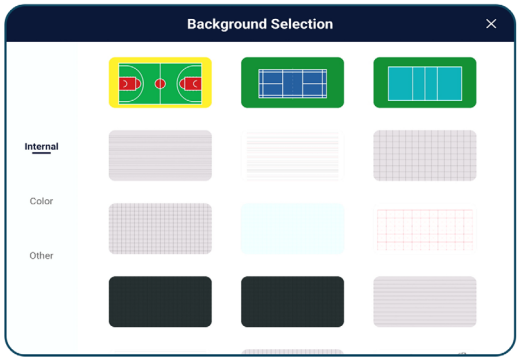
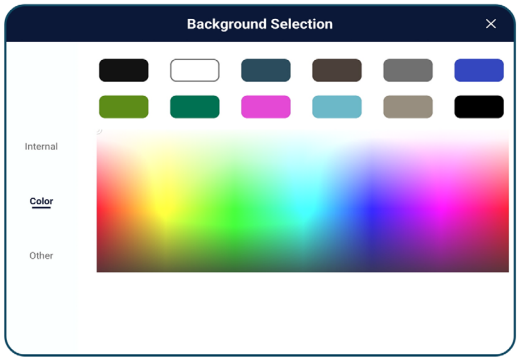
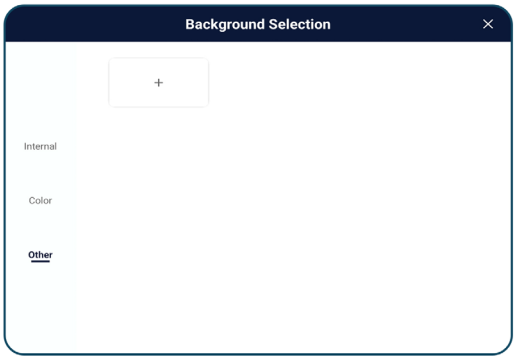


Number	Description
1	Selecting the icon will move the toolbar to the left or right side of the screen.
2	Selecting the icon will hide the toolbar.

Menu

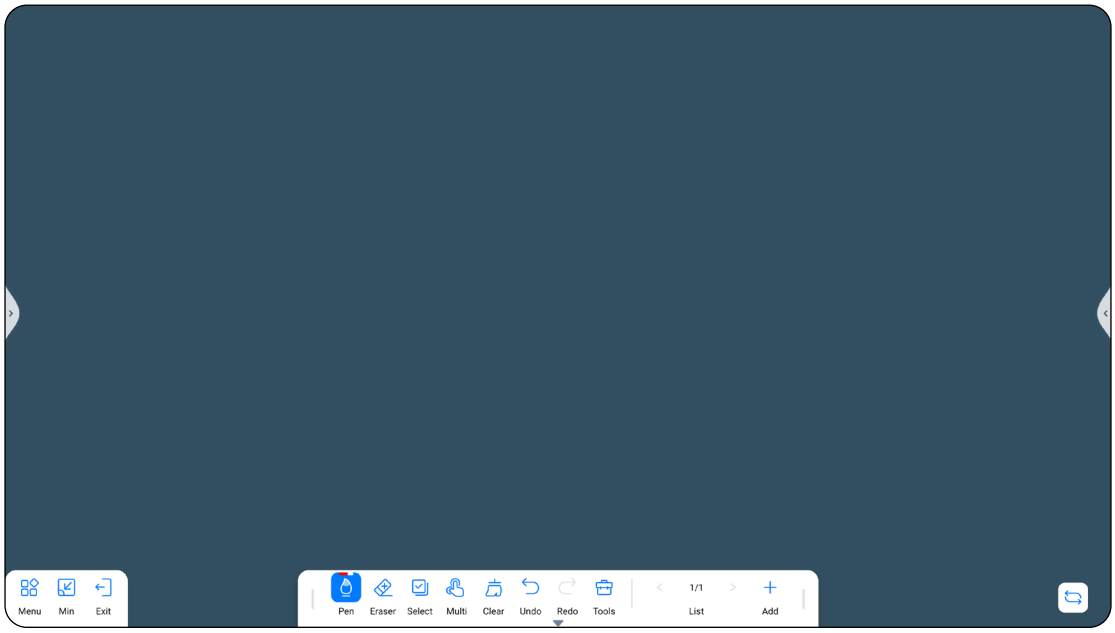


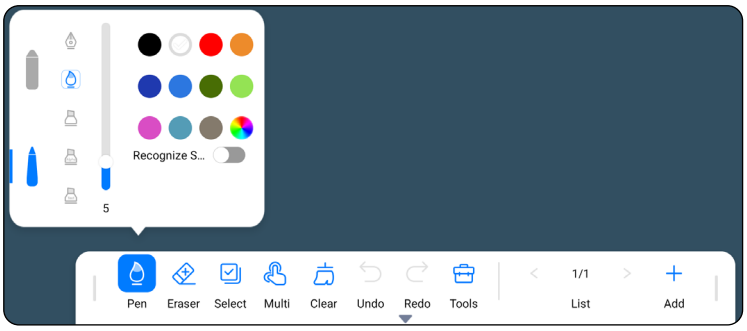
Item		Description
	Open	Open or import a file.
	Save	Saves the file to a specified location.
	Share by QR	Share the page via QR code.  **Note:** Click on the encryption below the QR code to generate a digital password. You will need to enter the password to get the content after scanning the code.

Item		Description	
	Background	Change the whiteboard background.	
		Built-in	 Choose from 15 built-in backgrounds.
		Color	 Set solid backgrounds or customize colors.
		Other	 Import images from storage.

Item		Description	
	E-mail	Send the current page to a specific email address.	
			Authorization code instruction.
			Save the sender/receiver.
			Configure the email address.
			Open the contact list.
	Collaborative Mode	Work together on two different displays connected to the same local network.	
	Annotation	Writing tools and customization options.	
	More	Open more menu items.	
	About	Display the library and whiteboard version number.	

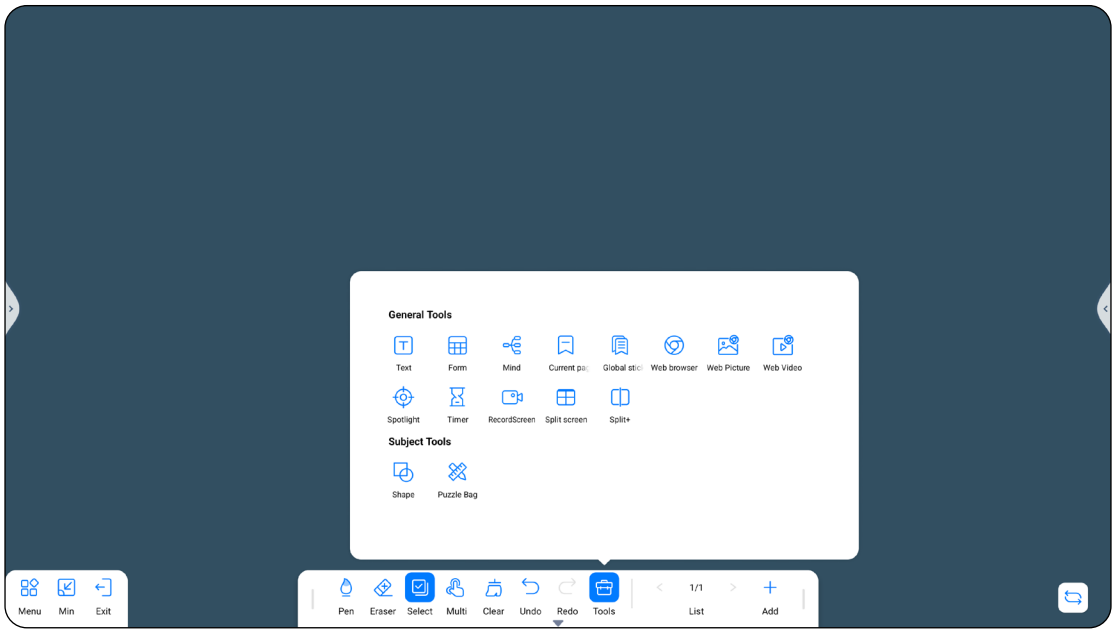
Toolbar



Item		Description
	Menu	Create new, open, save, import and export files, and adjust other settings.
	Min	Minimize the Whiteboard application.
	Exit	Close the Whiteboard application.
	Pen	Customizable writing tools. 
		Regular pen
		Brush
		Ink pen
		Mark pen
		Text recognition pen

Item		Description
	**Eraser**	Erase objects.
	**Select**	Select objects, text, and other elements on the canvas.
	**Multi**	Choose between single-point and multiple-point (up to 20 points) input.
	**Clear**	Clear the canvas.
	**Undo**	Undo the previous action.
	**Redo**	Redo the previous action.
	**Tools**	Open more tool applications.
1/1	**List**	Indicates the page number.
	**Add**	Add a new page.

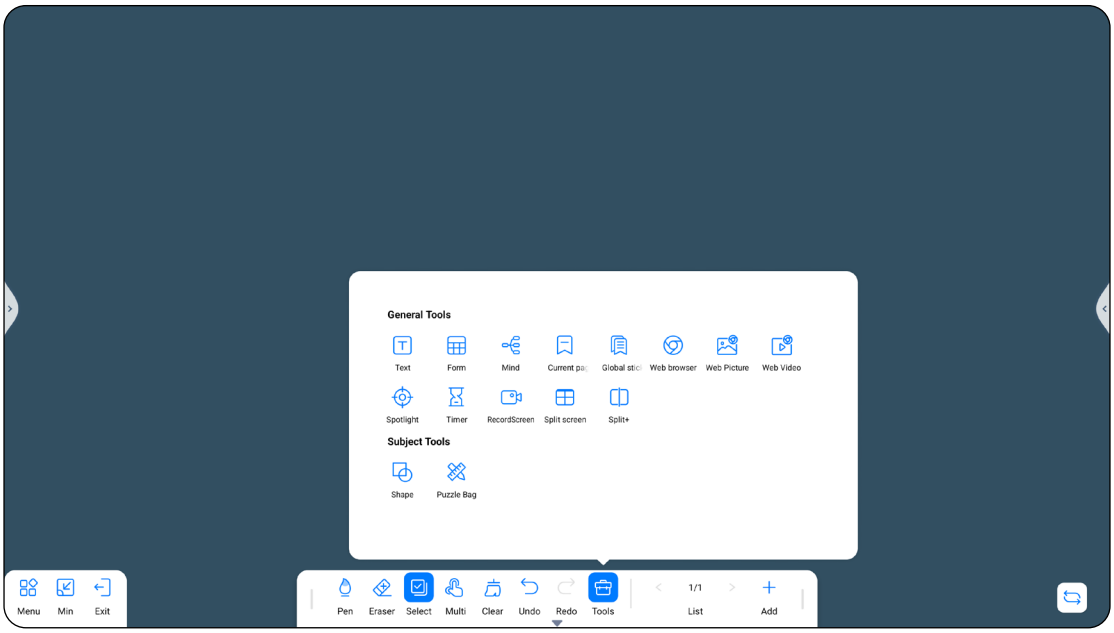
Tools



Item		Description
	Text	Input text.
	Form	Create a table and set the quantity of columns and rows.
	Mind	Create a mind map.
	Current Page	Identifies what to focus on in the current page and is only displayed on the current whiteboard page.
	Global Sticky	Create a note.
	Web Browser	Open a web browser directly on the whiteboard.
	Web Picture	Search for pictures on PX.
	Web Video	Search for videos on YouTube.
	Spotlight	Forms a highlighted circle at any position to attract viewers' attention.

Item		Description
	**Timer**	Set a countdown timer as either a widget or full screen item.
	**Record Screen**	Capture everything that is displayed on screen in a video format.
	**Split Screen**	The split screen function evenly divides the main screen into two to four independent small split screens, supporting multiple users to use the main screen at the same time for simple operations (e.g., writing, erasing and clearing the screen).
	**Split+**	Split+ only supports two split screens, but retains the functionality and both sides of the whiteboard operate independently without affecting each other.

Page



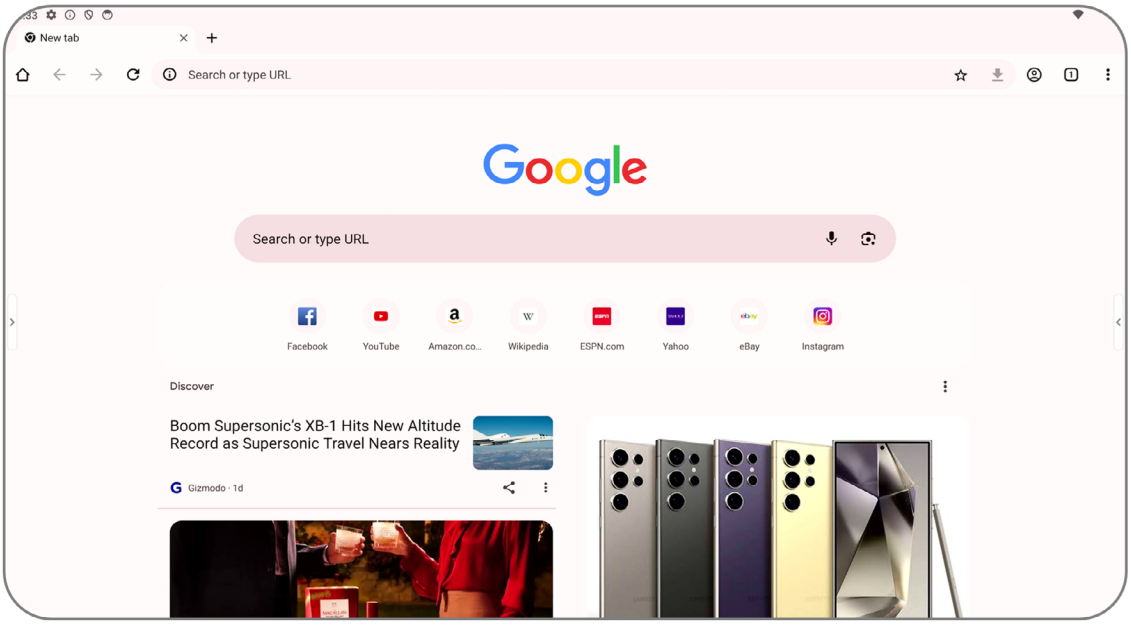
Item		Description
<	**Previous Page**	Go to the previous page[1].
>	**Next Page**	Go to the next page[1].
+	**Add**	Add a new page.
	Switch	Change the toolbar's position.

1 - The canvas must have more than one page.

Other Default Applications

Browser

Web browser for surfing the Internet.



RS-232 Protocol

This document describes the hardware interface and software protocols of RS-232 interface communication between the ViewSonic LED Display and computers or other control units with RS-232 protocol.

The protocol contains three command sections:

- Set-Function
- Get-Function
- Remote control pass-through mode

Note: Below, “PC” represents all the control units that can send or receive the RS-232 protocol command.

Description

RS-232 Hardware Specification

ViewSonic LFD communication port on the rear side:

1. Connector type: DSUB 9-Pin Male
2. Use of straight-through (null modem) cable for connection
3. Pin Assignment:

Male DSUB 9-Pin



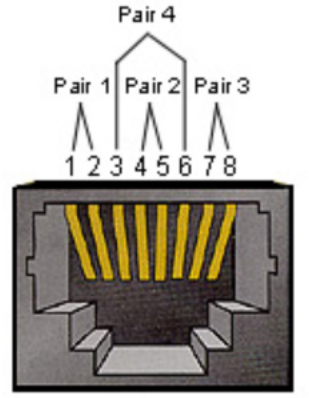
Pin #	Signal	Remark
1	NC	
2	RXD	Input to Display
3	TXD	Output from Display
4	NC	
5	GND	
6	NC	
7	NC	
8	NC	
9	NC	
frame	GND	

LAN Hardware Specification

ViewSonic LFD communication port on the rear side:

1. Connector type: 8P8C RJ45

2. Pin Assignment:



Pin #	Signal	Remark
1	TX+	Output from Display
2	TX-	Output from Display
3	RX+	Input to Display
4	BI_D3+	For 1G case
5	BI_D3-	For 1G case
6	RX-	Input to Display
7	BI_D4+	For 1G case
8	BI_D4-	For 1G case
frame	GND	

RS-232 Communication Setting

- Baud Rate Select: 38400 bps (fixed)
- Data bits: 8 bits (fixed)
- Parity: None (fixed)
- Stop Bits: 1 (fixed)

LAN Communication Setting

Type:	Ethernet
Protocol:	TCP/IP
Port:	5000 (fixed)
WOL Port:	9 (fixed) for UDP*3.2.0
Cross subnet:	No
Logon Credentials:	No

Command Message Reference

PC sends to LFD command packet followed by “CR”. Every time PC sends control command to Display, the Display shall respond as follows:

1. If the message is received correctly it will send “+” (02Bh) followed by “CR” (00Dh)
2. If the message is received incorrectly it will send “-” (02Dh) followed by “CR” (00Dh)

Protocol

Set-Function Listing

The PC can control the Display for specific actions. The Set-Function command allows you to control the Display behavior at a remote site through the RS-232 port. The Set-Function packet format consists of 9 bytes.

Item	Description	
Communication Configuration	Communication interface	RS-232
	Communication protocol	Uart
	Baud rate	38400
	Data bits	8
	Stop bits	1
	Parity check	None
Packet Description	Packet byte encoding	Hexadecimal
	Is there a maximum limit on the package length	No
	Whether there is package verification	No

Set-Function Table (Basic Function)

Description	Command Code	Response Code	Return Code Description
Power On	55 00 8E 00 E3	null	
Power Off	55 00 8E 0F F2	55 00 8E 0F F2	
Get Device Status	55 00 45 00 9A	55 00 45 XX XX	02 9C: Standby 01 9B: Power on
Signal Source	55 00 80 00 D5	55 00 80 00 D5	
Get Current Source	55 00 81 00 D6	55 00 81 XX XX	00 D6: Android 0B E1: OPS 05 DB: VGA 11 E7: HDMI 08 DE: HDMI1
Up	55 00 00 01 56	55 00 00 01 56	
Down	55 00 00 02 57	55 00 00 02 57	
Left	55 00 00 03 58	55 00 00 03 58	
Right	55 00 00 04 59	55 00 00 04 59	
OK	55 00 00 00 55	55 00 00 00 55	
Menu	55 00 14 00 69	55 00 14 00 69	
Exit	55 00 16 00 6B	55 00 16 00 6B	
Info	55 00 18 00 6D	55 00 18 00 6D	
Mute	55 00 1A 00 6F	55 00 1A 00 6F	
Sleep Mode	55 00 20 00 75 (15 minutes)	55 00 20 00 75	
	55 00 20 01 76 (30 minutes)	55 00 20 01 76	
	55 00 20 02 77 (45 minutes)	55 00 20 02 77	
	55 00 20 03 78 (60 minutes)	55 00 20 03 78	
	55 00 20 04 79 (Off)	55 00 20 04 79	
Sound Mode	55 00 22 00 77 (Standard)	55 00 22 00 77	
	55 00 22 02 79 (Sports)	55 00 22 02 79	
	55 00 22 03 7A (User)	55 00 22 03 7A	

Description	Command Code	Response Code	Return Code Description
Set Bass	55 00 3A 00 8F (Bass 0)	55 00 3A 00 8F	
	55 00 3A 32 C1 (Bass 50)	55 00 3A 32 C1	
	55 00 3A 64 F3 (Bass 100)	55 00 3A 64 F3	
Set Treble	55 00 3C 00 91 (Treble 0)	55 00 3C 00 91	
	55 00 3C 32 C3 (Treble 50)	55 00 3C 32 C3	
	55 00 3C 64 F5 (Treble 100)	55 00 3C 64 F5	
Set Balance	55 00 3E 00 93 (Balance 0)	55 00 3E 00 93	
	55 00 3E 32 C5 (Balance 50)	55 00 3E 32 C5	
Picture Mode	55 00 28 00 7D (Standard)	55 00 28 00 7D	
	55 00 28 01 7E (Soft)	55 00 28 01 7E	
	55 00 28 02 7F (Bright)	55 00 28 02 7F	
	55 00 28 03 80 (User)	55 00 28 03 80	
Set Contrast (0~100)	55 00 2A 00 7F (Contrast 0)	55 00 2A 00 7F	
	55 00 2A 32 B1 (Contrast 50)	55 00 2A 32 B1	
	55 00 2A 64 E3 (Contrast 100)	55 00 2A 64 E3	
Set Brightness (0~100)	55 00 2C 00 81 (Brightness 0)	55 00 2C 00 81	
	55 00 2C 32 B3 (Brightness 50)	55 00 2C 32 B3	
	55 00 2C 64 E5 (Brightness 100)	55 00 2C 64 E5	

Description	Command Code	Response Code	Return Code Description
Set Saturation (0~100)	55 00 2E 00 83 (Saturation 0)	55 00 2E 00 83	
	55 00 2E 32 B5 (Saturation 50)	55 00 2E 32 B5	
	55 00 2E 64 E7 (Saturation 100)	55 00 2E 64 E7	
Set Hue (0~100)	55 00 30 00 85 (HUE 0)	55 00 30 00 85	
	55 00 30 64 E9 (HUE 100)	55 00 30 64 E9	
Set Sharpness (0~100)	55 00 32 00 87 (Sharpness 0)	55 00 32 00 87	
	55 00 32 32 B9 (Sharpness 50)	55 00 32 32 B9	
	55 00 32 64 EB (Sharpness 100)	55 00 32 64 EB	
Set Color Temp	55 00 34 00 89 (Cool)	55 00 34 00 89	
	55 00 34 01 8A (Standard)	55 00 34 01 8A	
	55 00 34 02 8B (Warm)	55 00 34 02 8B	
Aspect	55 00 4C 00 A1 (4:3)	55 00 4C 00 A1	
	55 00 4C 01 A2 (point to point)	55 00 4C 01 A2	
	55 00 4C 02 A3 (16:9)	55 00 4C 02 A3	
Volume plus +	55 00 0C 00 61	55 00 0C 00 61	
Volume plus -	55 00 0E 00 63	55 00 0E 00 63	
Set Volume (0~100)	55 00 0F 00 64 (Volume 0)	55 00 0F 00 64	
	55 00 0F 32 96 (Volume 50)	55 00 0F 32 96	
	55 00 0F 64 C8 (Volume 100)	55 00 0F 64 C8	
Return	55 00 0A 00 5F	55 00 0A 00 5F	

Description	Command Code	Response Code	Return Code Description
Switch to VGA 1	55 00 80 05 DA	55 00 80 05 DA	
Switch to HDMI 1	55 00 80 08 DD	55 00 80 08 DD	
Switch to OPS	55 00 80 0B E0	55 00 80 0B E0	
Switch to Front HDMI	55 00 80 0A DF	55 00 80 0A DF	
Switch to English	55 00 42 02 99 (English)	55 00 42 02 99	
Factory Reset	55 00 84 00 D9	55 00 84 00 D9	
Backlight Mode	55 00 88 00 DD (Customize)	55 00 88 00 DD	
	55 00 88 01 DE (Auto)	55 00 88 01 DE	
	55 00 88 02 DF (Energy Saving)	55 00 88 02 DF	
Set Backlight (0~100)	55 00 89 00 DE (Backlight 0)	55 00 89 00 DE	
	55 00 89 32 10 (Backlight 50)	55 00 89 32 10	
	55 00 89 64 42 (Backlight 100)	55 00 89 64 42	
Screen shot	55 00 8A 00 DF	55 00 8A 00 DF	
Home	55 00 91 00 E6	55 00 91 00 E6	
WhiteBoard	55 00 93 00 E8	55 00 93 00 E8	
Audio Only	55 00 97 00 EC	55 00 97 00 EC	
File Manager App	55 00 98 00 ED	55 00 98 00 ED	
Setting App	55 00 99 00 EE	55 00 99 00 EE	

Appendix

Resolution and Timings

HDMI

Resolution	Refresh Rate
640 x 480	60 Hz
720 x 480	60 Hz
720 x 576	50 Hz
800 x 600	60 Hz
1280 x 720	50, 60 Hz
1360 x 768	60 Hz
1366 x 768	60 Hz
1920 x 1080	23, 24, 30, 60 Hz
2560 x 1440	60 Hz
3840 x 2160	24, 25, 30, 50, 60 Hz
4096 x 2160	24, 50, 60 Hz

Troubleshooting

This section describes some common problems that you may experience when using the ViewBoard.

Problem or Issue	Possible Solutions
Remote Control is not working	**1.** Check whether something is obstructing the display's remote control receiver. **2.** Check whether the batteries in the remote control are installed correctly. **3.** Check whether the batteries need to be replaced.
The unit turns off unexpectedly	**1.** Check whether Sleep mode is enabled. **2.** Check if there is a power outage in your area. **3.** Turn on the display and see if the problem is with the signal and control system.

PC Mode

Problem or Issue	Possible Solutions
No PC signal	**1.** Check the display settings. **2.** Check the display resolution. **3.** Adjust the Hs &Vs (synchronization) settings using the OSD menu.
Background streaking	**1.** Choose auto adjust. **2.** Adjust clock and phase.
Unsupported format	**1.** Choose auto adjust. **2.** Adjust clock and phase settings.

Touch Function

Problem or Issue	Possible Solutions
Touch function does not work	**1.** Check that drivers are installed correctly. **2.** Reinstall driver(s). **3.** Check setup and align it. **4.** Check whether the touch pen is working properly.

Video Not Working Properly

Problem or Issue	Possible Solutions
No picture/ No sound	**1.** Check the Power status. **2.** Check the signal cable. **3.** Check that the internal PC is installed correctly.
Picture is unclear or cuts in and out	**1.** Check the signal cable. **2.** Check if other electronics are interrupting the signal.
Poor picture	**1.** Adjust chroma, brightness, and contrast settings in the menu. **2.** Check the signal cable.

Audio Not Working Properly

Problem or Issue	Possible Solutions
No sound	**1.** Press the Mute/Unmute button. **2.** Adjust the volume. **3.** Check the audio cable.
One speaker only	**1.** Adjust the sound balance in the menu. **2.** Check the sound control panel settings of the computer. **3.** Check the audio cable.

Maintenance

General Precautions

- Make sure the device is turned off and the power cable is unplugged from the power outlet.
- Never spray or pour any liquid directly onto the screen or case.
- Handle the device with care, as a darker-colored device, if scuffed, may show marks more clearly than a lighter-colored device.
- Do not use the system continuously for long periods of time.

Cleaning the Screen

- Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
- If the screen is still not clean, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth; then wipe the screen.

Cleaning the Case

- Use a soft, dry cloth.
- If the case is still not clean, apply a small amount of non-ammonia, non-alcohol based, mild non-abrasive detergent onto a clean, soft, lint-free cloth, then wipe the surface.

Disclaimer

- ViewSonic® does not recommend the use of any ammonia or alcohol-based cleaners on the display screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the device.
- ViewSonic® will not be liable for damage resulting from use of any ammonia or alcohol-based cleaners.

Note: If condensation appears between the glass and the panel, keep the display turned on until the moisture disappears.

Regulatory and Service Information

Compliance Information

This section addresses all connected requirements and statements regarding regulations. Confirmed corresponding applications shall refer to nameplate labels and relevant markings on the unit.

Declaration of RoHS2 Compliance

This product has been designed and manufactured in compliance with Directive 2011/65/EU of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS2 Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:

Substance	Proposed Maximum Concentration	Actual Concentration
Lead (Pb)	0.1%	< 0.1%
Mercury (Hg)	0.1%	< 0.1%
Cadmium (Cd)	0.01%	< 0.01%
Hexavalent Chromium ($Cr6^{+}$)	0.1%	< 0.1%
Polybrominated biphenyls (PBB)	0.1%	< 0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%
Bis (2-ethylhexyl) phthalate (DEHP)	0.1%	< 0.1%
Butyl benzyl phthalate (BBP)	0.1%	< 0.1%
Dibutyl phthalate (DBP)	0.1%	< 0.1%
Diisobutyl phthalate (DIBP)	0.1%	< 0.1%

Certain components of products as stated above are exempted under the Annex III of the RoHS2 Directives as noted below:

- Copper alloy containing up to 4% lead by weight.
- Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
- Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.
- Lead in dielectric ceramic in capacitors for a rated voltage of 125V AC or 250V DC or higher.

Indian Restriction of Hazardous Substances

Restriction on Hazardous Substances statement (India). This product complies with the “India E-waste Rule 2011” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 weight % and 0.01 weight % for cadmium, except for the exemptions set in Schedule 2 of the Rule.

Product Disposal at End of Product Life

ViewSonic® respects the environment and is committed to working and living green. Thank you for being part of Smarter, Greener Computing. Please visit the ViewSonic® website to learn more.

USA & Canada:

https://www.viewsonic.com/us/go-green-with-viewsonic

Europe:

https://www.viewsonic.com/eu/environmental-social-governance/recycle

Taiwan:

https://recycle.moenv.gov.tw/

For EU users, please contact us for any safety/accident issue experienced with this product:

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https://www.viewsonic.com/eu/

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Customer Service

For technical support or product service, see the table below or contact your reseller.

Note: You will need the product's serial number.

Country/ Region	Website	Country/ Region	Website
Asia Pacific & Africa			
Australia	www.viewsonic.com/au/	Bangladesh	www.viewsonic.com/bd/
中国 (China)	www.viewsonic.com.cn	香港 (繁體中文)	www.viewsonic.com/hk/
Hong Kong (English)	www.viewsonic.com/hk-en/	India	www.viewsonic.com/in/
Indonesia	www.viewsonic.com/id/	Israel	www.viewsonic.com/il/
日本 (Japan)	www.viewsonic.com/jp/	Korea	www.viewsonic.com/kr/
Malaysia	www.viewsonic.com/my/	Middle East	www.viewsonic.com/me/
Myanmar	www.viewsonic.com/mm/	Nepal	www.viewsonic.com/np/
New Zealand	www.viewsonic.com/nz/	Pakistan	www.viewsonic.com/pk/
Philippines	www.viewsonic.com/ph/	Singapore	www.viewsonic.com/sg/
臺灣 (Taiwan)	www.viewsonic.com/tw/	ประเทศไทย	www.viewsonic.com/th/
Việt Nam	www.viewsonic.com/vn/	South Africa & Mauritius	www.viewsonic.com/za/
Americas			
United States	www.viewsonic.com/us	Canada	www.viewsonic.com/us
Latin America	www.viewsonic.com/la		
Europe			
Europe	www.viewsonic.com/eu/	France	www.viewsonic.com/fr/
Deutschland	www.viewsonic.com/de/	Қазақстан	www.viewsonic.com/kz/
Россия	www.viewsonic.com/ru/	España	www.viewsonic.com/es/
Türkiye	www.viewsonic.com/tr/	Україна	www.viewsonic.com/ua/
United Kingdom	www.viewsonic.com/uk/		

Limited Warranty

ViewSonic® Smart White Board

What the warranty covers:

ViewSonic® warrants its products to be free from defects in material and workmanship during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, ViewSonic® will, at its sole option, and as your sole remedy, repair or replace the product with a similar product. Replacement Product or parts may include remanufactured or refurbished parts or components. The repair or replacement unit or parts or components will be covered by the balance of the time remaining on the customer's original limited warranty and the warranty period will not be extended. ViewSonic® provides no warranty for any third-party software whether included with the product or installed by the customer, installation of any unauthorized hardware parts or components (e.g. Projector Lamps). (Please refer to: "What the warranty excludes and does not cover" section).

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty excludes and does not cover:

- Any product on which the serial number has been defaced, modified, or removed.
- Damage, deterioration, or malfunction resulting from:
  - » Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - » Repair or attempted repair by anyone not authorized by ViewSonic®.
  - » Damage to or loss of any programs, data, or removable storage media.
  - » Normal wear and tear.
  - » Removal or installation of the product.
- Software or data loss occurring during repair or replacement.
- Any damage of the product due to shipment.
- Causes external to the product, such as electric power fluctuations or failure.
- Use of supplies or parts not meeting ViewSonic's specifications.
- Failure of owner to perform periodic product maintenance as stated in the User Guide.
- Any other cause which does not relate to a product defect.

- Damage caused by static (non-moving) images displayed for lengthy periods of time (also referred to as image burn-in).
- Software - Any third-party software included with the product or installed by the customer.
- Hardware/Accessories/Parts/Components – Installation of any unauthorized hardware, accessories, consumable parts or components (e.g. Projector Lamps).
- Damage to, or abuse of, the coating on the surface of the display through inappropriate cleaning as described in the product User Guide.
- Removal, installation, and set-up service charges, including wall-mounting of the product.

How to get service:

- For information about receiving service under warranty, contact ViewSonic® Customer Support (Please refer to the "Customer Service" page). You will need to provide your product's serial number.
- To obtain warranty service, you will be required to provide: (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
- Take or ship the product, freight prepaid, in the original container to an authorized ViewSonic® service center or ViewSonic®.
- For additional information or the name of the nearest ViewSonic® service center, contact ViewSonic®.

Limitation of implied warranties:

There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

Exclusion of damages:

ViewSonic's liability is limited to the cost of repair or replacement of the product. ViewSonic® shall not be liable for:

- Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
- Any other damages, whether incidental, consequential or otherwise.
- Any claim against the customer by any other party.
- Repair or attempted repair by anyone not authorized by ViewSonic®.

Effect of state law:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

Sales outside the U.S.A. and Canada:

For warranty information and service on ViewSonic® products sold outside of the U.S.A. and Canada, contact ViewSonic® or your local ViewSonic® dealer.

The warranty period for this product in mainland China (Hong Kong, Macao, and Taiwan Excluded) is subject to the terms and conditions of the Maintenance Guarantee Card.

For users in Europe and Russia, full details of warranty provided can be found at: http://www.viewsonic.com/eu/ under "Support/Warranty Information".

Mexico Limited Warranty

ViewSonic® Smart White Board

What the warranty covers:

ViewSonic® warrants its products to be free from defects in material and workmanship, under normal use, during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, ViewSonic® will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components & accessories.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty excludes and does not cover:

- Any product on which the serial number has been defaced, modified or removed.
- Damage, deterioration, or malfunction resulting from:
  - » Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, unauthorized attempted repair, or failure to follow instructions supplied with the product.
  - » Causes external to the product, such as electrical power fluctuations or failure.
  - » Use of supplies or parts not meeting ViewSonic®'s specifications.
  - » Normal wear and tear.
  - » Any other cause which does not relate to a product defect.
- Any product exhibiting a condition commonly known as "image burn-in" which results when a static image is displayed on the product for an extended period of time.
- Removal, installation, insurance, and set-up service charges.

How to get service:

For information about receiving service under warranty, contact ViewSonic® Customer Support (Please refer to the attached "Customer Service" page). You will need to provide your product's serial number, so please record the product information in the space provided below on your purchase for your future use. Please retain your receipt of proof of purchase to support your warranty claim.

For Your Records

Product Name: _____ Model Number: _____

Document Number: _____ Serial Number: _____

Purchase Date: _____ Extended Warranty Purchase? _____(Y/N)

If so, what date does warranty expire? _____

- To obtain warranty service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
- Take or ship the product, in the original container packaging, to an authorized ViewSonic® service center.
- Round trip transportation costs for in-warranty products will be paid by ViewSonic®.

Limitation of implied warranties:

There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

Exclusion of damages:

ViewSonic®'s liability is limited to the cost of repair or replacement of the product. ViewSonic® shall not be liable for:

- Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
- Any other damages, whether incidental, consequential or otherwise.
- Any claim against the customer by any other party.
- Repair or attempted repair by anyone not authorized by ViewSonic®.

Contact Information for Sales & Authorized Service (Centro Autorizado de Servicio) within Mexico:	
Name, address, of manufacturer and importers: México, Av. de la Palma #8 Piso 2 Despacho 203, Corporativo Interpalmas, Col. San Fernando Huixquilucan, Estado de México Tel: (55) 3605-1099 http://www.viewsonic.com/la/soporte/index.htm	
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