ViewSonic®

CDE9800

Commercial 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 in the upper right corner of our website. “Antes de operar su equipo lea cu idadosamente las instrucciones en este manual”

Model No. VS17774
P/N: CDE9800

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

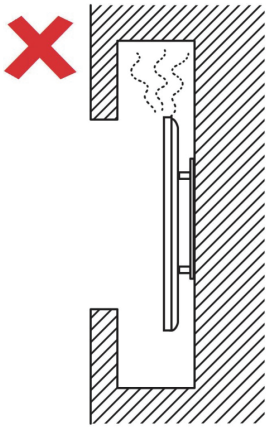
Please read the following **Safety Precautions** before you start using the device.

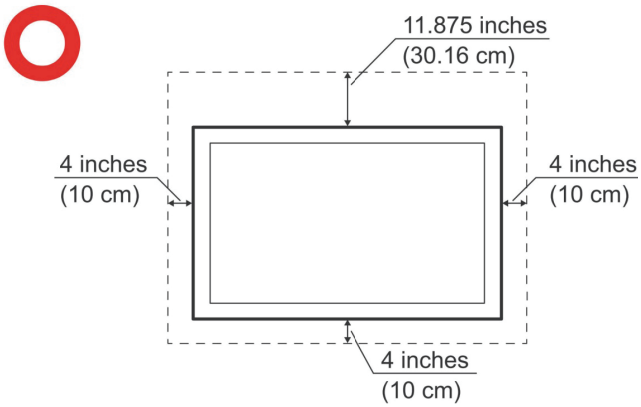
- Keep this user guide in a safe place for later reference.
- Read all warnings and follow all instructions.
- Do not use the device near water. To reduce the risk of fire or electric shock, do not expose the device to moisture.
- Never remove the rear cover. This display contains high-voltage parts. 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 on page 84.
- 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

Contents

Safety Precautions 3

Introduction 9

Package Contents 9
Wall Mount Kit Specifications (VESA) 10
Product Overview 11
Control Panel 11
I/O Panel 12
Remote Control 13

Making Connections 17

Connecting External Devices 17
DisplayPort Connection 17
HDMI Connection 17
VGA Connection 17
RS-232 Connection 18
USB and Networking Connections 19
Media Player Connection 20
SPDIF Connection 21
Video Output Connection 22

Using Your CDE9800 23

Powering On/Off your Display 23
Initial Launch Setup 24
vLauncher - Customized Welcome Screen 26
On-Screen Display (OSD) Menu 27
General Settings 28
Additional Settings 30
Picture 30
Sound 31
Setting 32
Embed Player Advanced Settings 33
Wireless & Networks 33
Wi-Fi 34
Ethernet 35
Wi-Fi Hotspot 36
Share 37
Device 38
Display 38
Wallpaper 38
ECO mode 39
HDMI EDID 40
HDMI OUT Resolution Setting 41
Burn-in Protection Interval 41
Sound 42
Languages & Input 43
Keyboard and Input Method 43
Android Keyboard 43
Language 45
Boot Setting 46
Startup Channel 46
Built-in PC startup option 46
Standby after Startup 47
Power On/Off Timer 47
No Signal Power Off 48
HDMI CEC 48
Channel Setting 49
Input Channel Alias Switch 49
Power On by Active Source 49

Signal Auto Search 49
Auto Switch to new Source 49
System 50
Date & Time 50
About Device 53
System Update 53
Advanced 56
Mode 56
App Info 56
Unknown Source 57
Reset 57

Embedded Applications and Settings 58

CDE9800 Cast 58
Cast Sender from Windows-based Devices, Macbook, and Chrome devices. 59
Cast Sender from Mobile Devices: iOS-based (iPhone, iPad) and Android OS based phone/tablet. 60
Cast Out from a Mobile Device that Supports Annotation 61
vSweeper 62
Chromium 63
WPS Office 63
Folders 64

RS-232 Protocol 65

Description 65
RS-232 Hardware Specification 65
LAN Hardware Specification 66
RS-232 Communication Setting 66
LAN Communication Setting 66
Command Message Reference 66
Protocol 67
Set-Function Listing 67
Get-Function Listing 71
Remote Control Pass-through Mode 76

Appendix 79
Specifications 79
Display Modes 80
VGA Mode 80
HDMI 1 and 2/OPS/SDM Mode 80
DisplayPort (DP) Mode 81
Troubleshooting 82
Maintenance 84
General Precautions 84
Cleaning the Screen 84
Cleaning the Case 84
Regulatory and Service Information 85
Compliance Information 85
FCC Compliance Statement 85
CE Conformity for European Countries 85
Declaration of RoHS2 Compliance 86
Indian Restriction of Hazardous Substances 87
Product Disposal at End of Product Life 87
Copyright Information 88
Customer Service 89
Limited Warranty 90
Mexico Limited Warranty 93

> Introduction

Package Contents

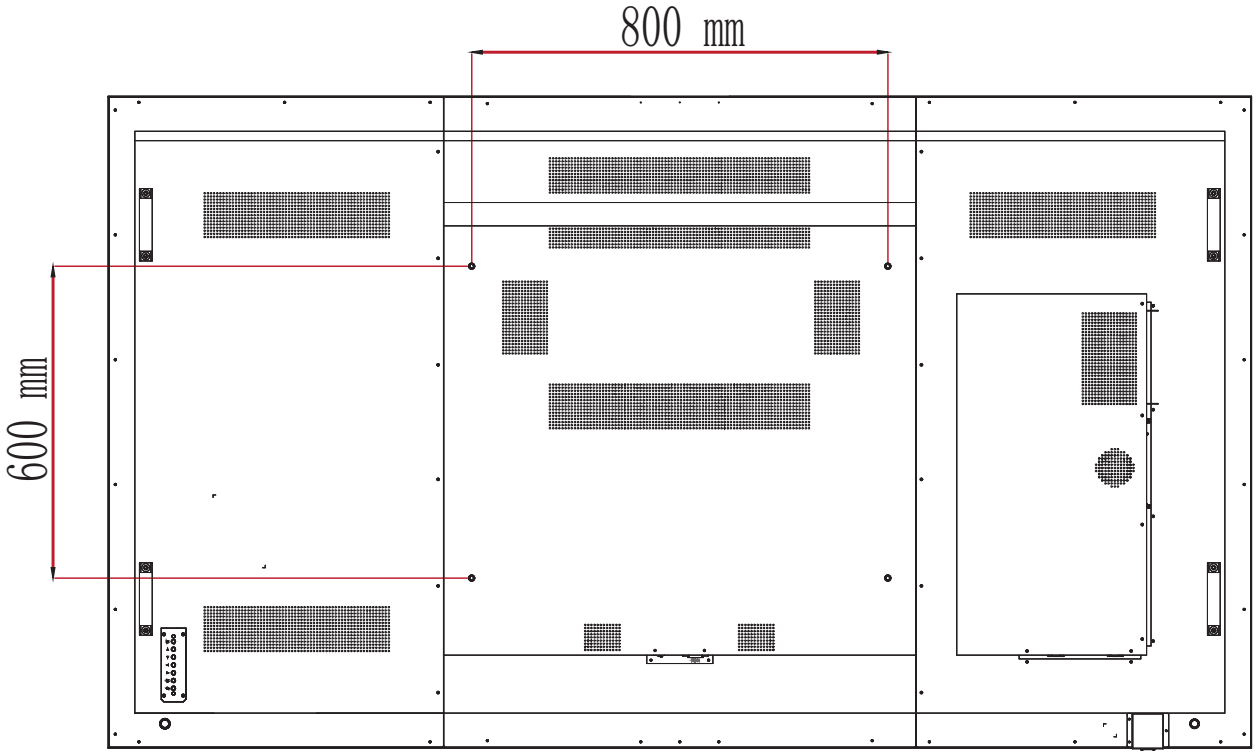
- HDMI cable
- Power cable x 4
- Remote control
- AAA battery x 2
- Quick Start Guide
- Camera Plate with screws
- Wall Mount screws x 4



NOTE: The power cord and video 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 or mobile mount bracket. If attaching to other building materials, please contact your nearest dealer.

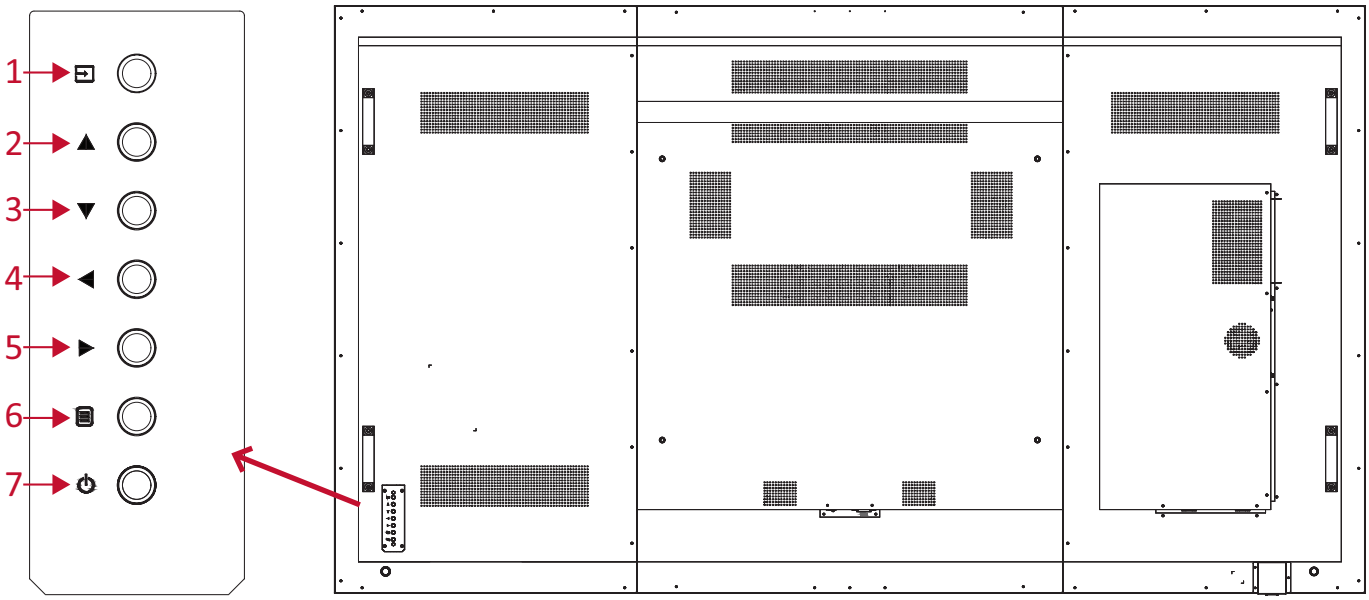


Model	VESA Spec.	Standard Screw	Quantity
CDE9800	800 x 600 mm	M8 x 20 mm	4

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

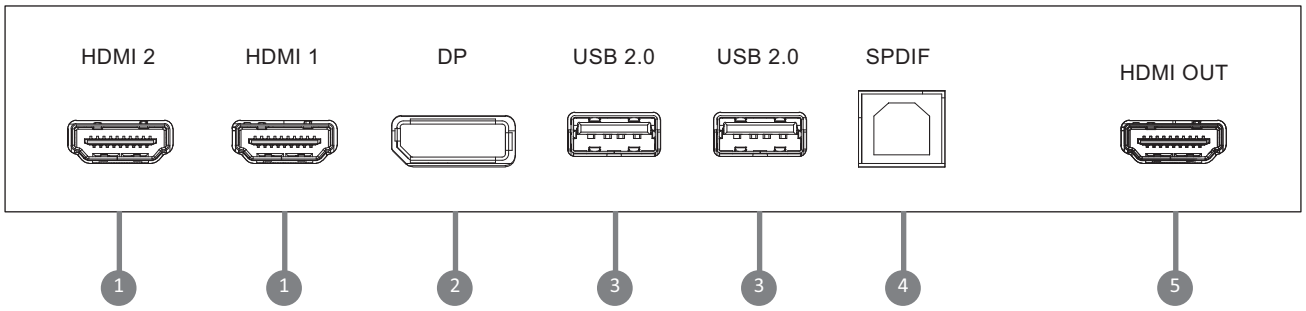
Control Panel



Number	Item	Description
1		Input Source selection
2		Up key
3		Down key
4		Left key / Volume Down
5		Right key / Volume Up
6		Activate the Screen Freeze function
7		Power key

I/O Panel

Left Side



Bottom Left



Number	Port	Description
1	HDMI IN	High definition input; connect to PC with HDMI output, set-top box, or other video device.
2	DisplayPort	Connect to devices with DisplayPort output function.
3	USB 2.0	Connect USB devices such as hard disks, keyboard, mouse, etc.
4	SPDIF	Multichannel sound via optical signals
5	HDMI OUT	Extend content out to another display device
6	LAN	Standard RJ45 (10M/100M) Internet connection interface.
7	RS-232	Serial interface; used for mutual transfer of data between devices
8	AUDIO OUT	Audio output to an external speaker
9	PC AUDIO	External computer audio input
10	VGA	External computer image input

Remote Control



Number	Item	Description
1	⏻	Power on/off
2	P.MODE	Image adjustment menu for DP/HDMI/VGA
3	INPUT	Input source selection
4	S.MODE	Audio adjustment menu for DP/HDMI/VGA
5		Numeric input buttons
6	ASPECT	Adjust aspect ratio for DP/HDMI/VGA
7	SLEEP	Blank the screen. Press again to resume the screen
8	VOL+ / VOL-	Increase/Decrease volume
9	Brightness.+ Brightness.-	Brightness +/- 1
10	🔇	Mute/Unmute
11	MENU	Setting menu
12	HOME	Back to Embed player Home screen
13	▲/◀/▶/▼	Scroll up, left, right, down
14	OK	Confirm selection
15	INFO	Channel information
16	RETURN	Return to previous page
17		Media control
18	F1	Screen capture[1]
19	F2	Screen freeze

NOTE: All computer-related function keys are not available without a built-in computer.

1. The files will be saved in the embedded player under: System\Picture\Screenshots. When a USB is connected to a rear slot, pictures will save to the USB disk.

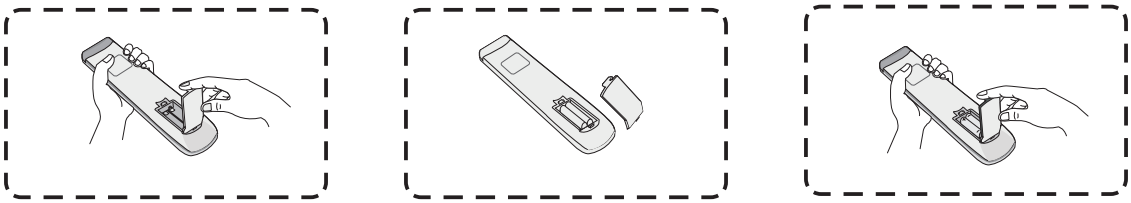
Inserting Remote Control Batteries

To insert batteries into the remote control:

1. Remove the cover on the rear of the remote control.

2. Insert two “AAA” batteries, ensuring the “+” symbol on the battery matches the “+” on the battery post.

3. Replace the cover by aligning it with the slot on the remote control and snapping the latch shut.



（1） （2） （3）

WARNING: There is a risk of explosion if batteries are replaced with the incorrect type.

NOTE:

- It is recommended that you do not mix battery types.
- Always dispose of old batteries in an environmentally friendly way. Contact your local government for more information on how to dispose of batteries safely.

Remote Control Receiver Range

The working range of the remote control is shown here. It has an effective range of 7 meters, 30° degrees left and right. Ensure there is nothing obstructing the remote control's signal to the receiver.



Making Connections

Connecting External Devices

DisplayPort Connection

To connect via DisplayPort:

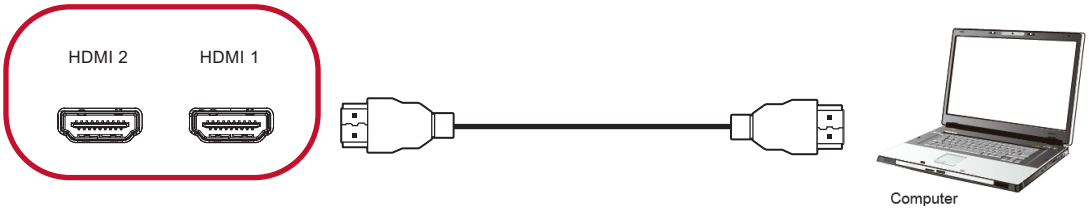
- Connect a DisplayPort cable from your external device to the **DisplayPort** port on the display.



HDMI Connection

To connect via HDMI:

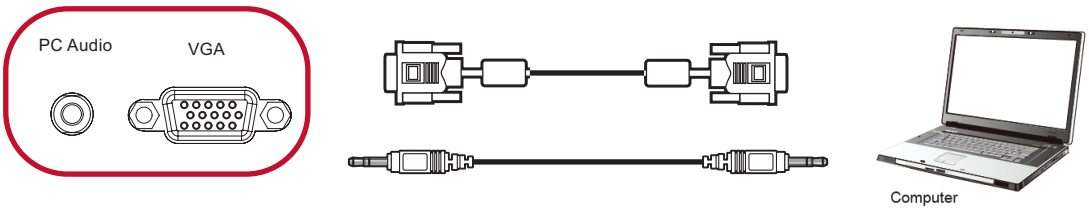
- Connect an HDMI cable from your external device to one of the **HDMI IN** ports on the display.



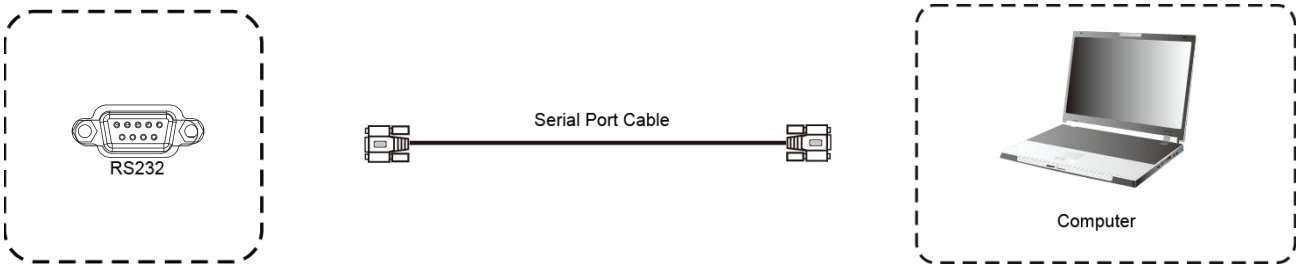
VGA Connection

To connect via VGA:

1. Connect a VGA cable from your external device to the **VGA** port on the display.
2. For audio, connect an audio cable from the external device to the **PC Audio** port of the display.



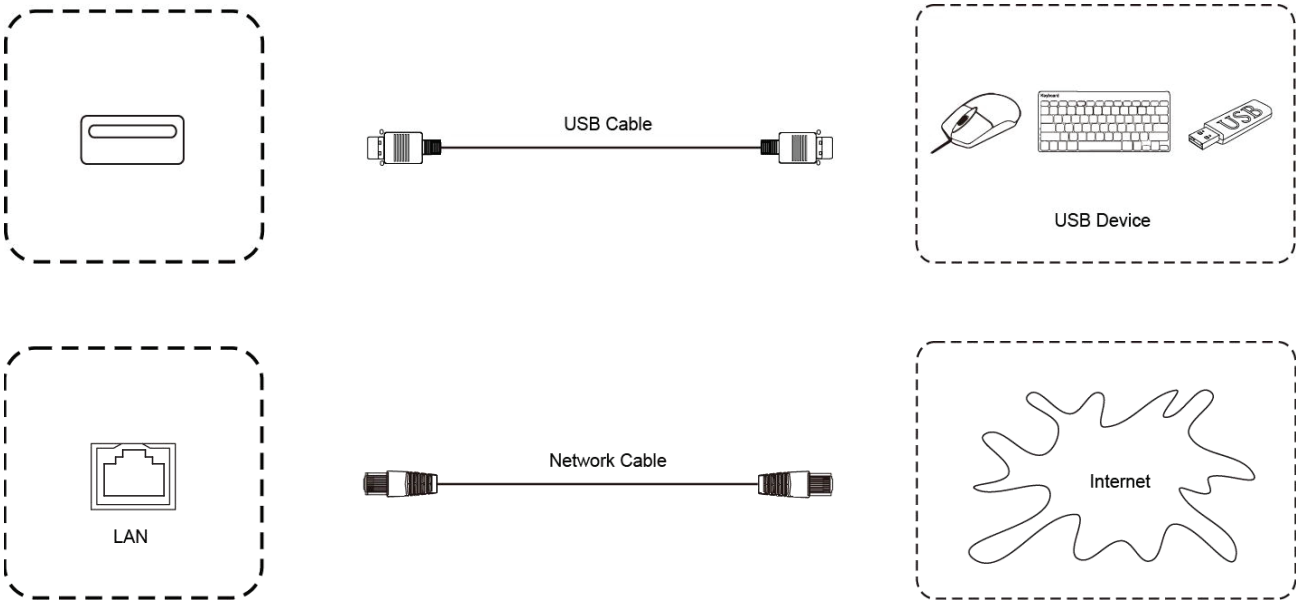
RS-232 Connection



When you use a RS-232 serial port cable to connect your display to an external computer certain functions can be controlled remotely by the PC, including Power On/Off, Volume adjustment, Input select, Brightness, and more.

USB and Networking Connections

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



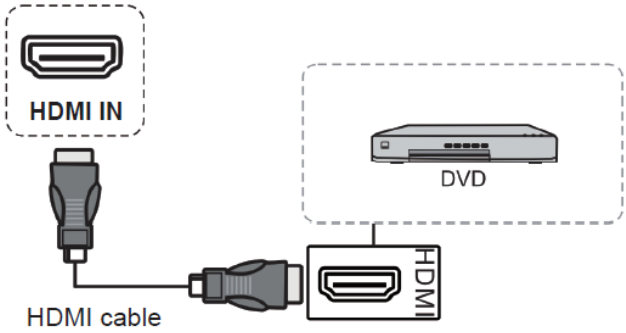
USB Peripherals

Plug the USB device cable into the **USB** port.

Networking and Modem cables

Plug the router cable into the **LAN** port.

Media Player Connection



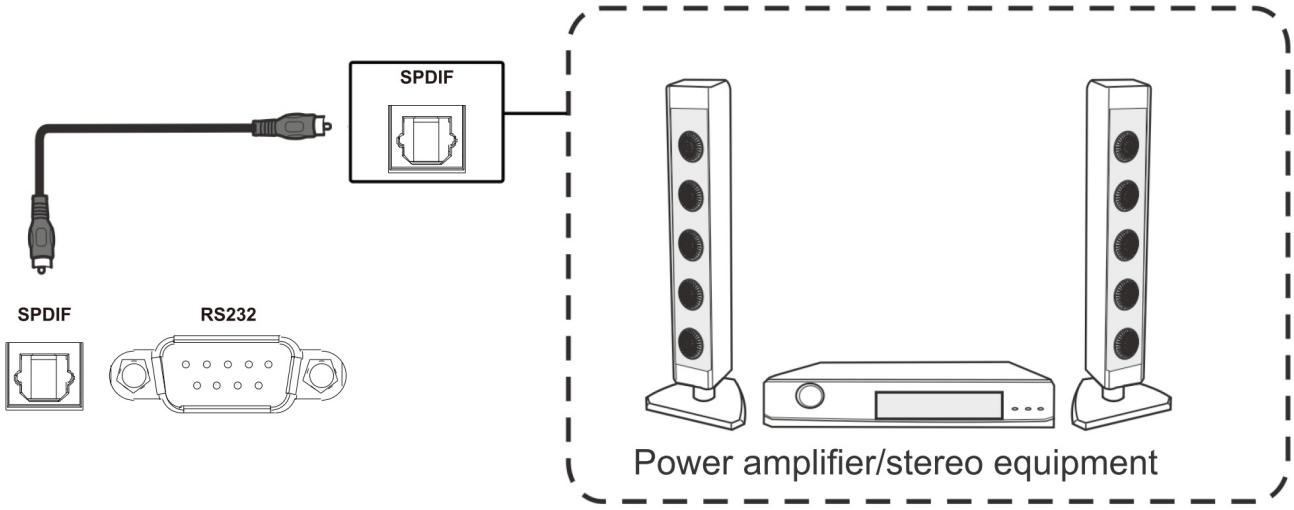
To connect to a media player:

1. Connect an HDMI cable to the **HDMI** ports (or connect a DisplayPort cable to the **DisplayPort** port) on your display and peripheral device.
2. Plug in the power cord of your display, and turn on the power supply switch.
3. Press the ⏻ **Power** button to turn on the display.
4. Press the **INPUT** button on the remote control and switch to the “HDMI” input source.

NOTE:

- HDR is not supported on the IFP30 series.
- **HDMI 1/2** supports up to 3840 x 2160 @ 60Hz
- **DisplayPort** supports up to 3840 x 2160 @ 60Hz

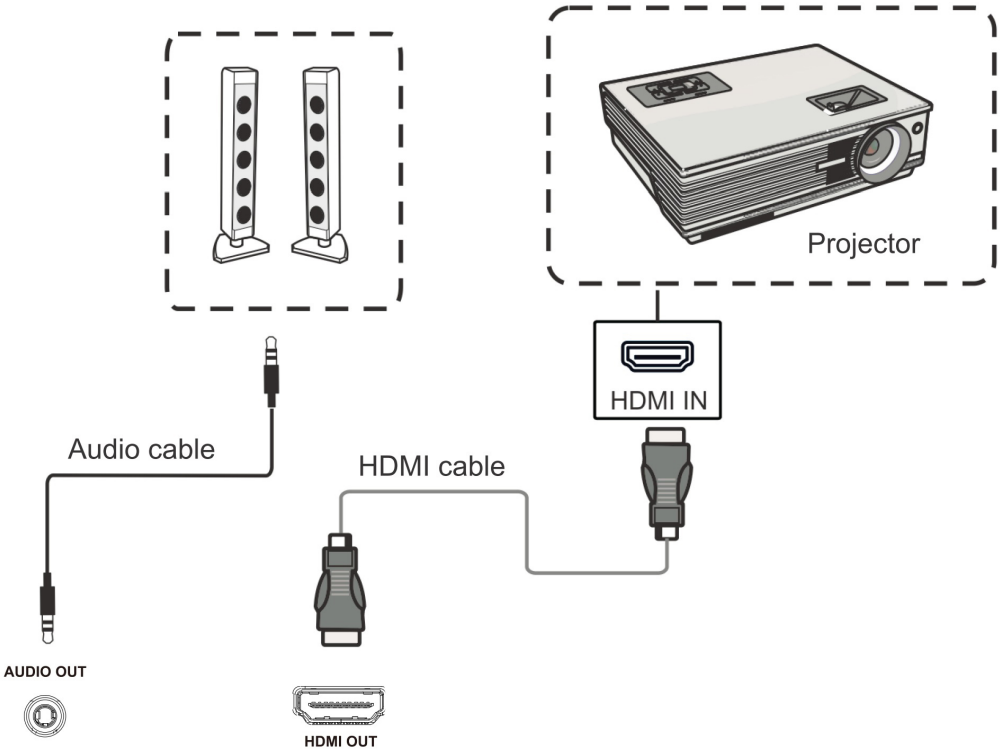
SPDIF Connection



To connect to an external sound system:

1. Connect an optical cable from the **SPDIF** port to your sound system's optical connector.
2. Plug in the power cord of your display, and turn on the power supply switch.
3. Press the ⏻ **Power** button to turn on the display.

Video Output Connection



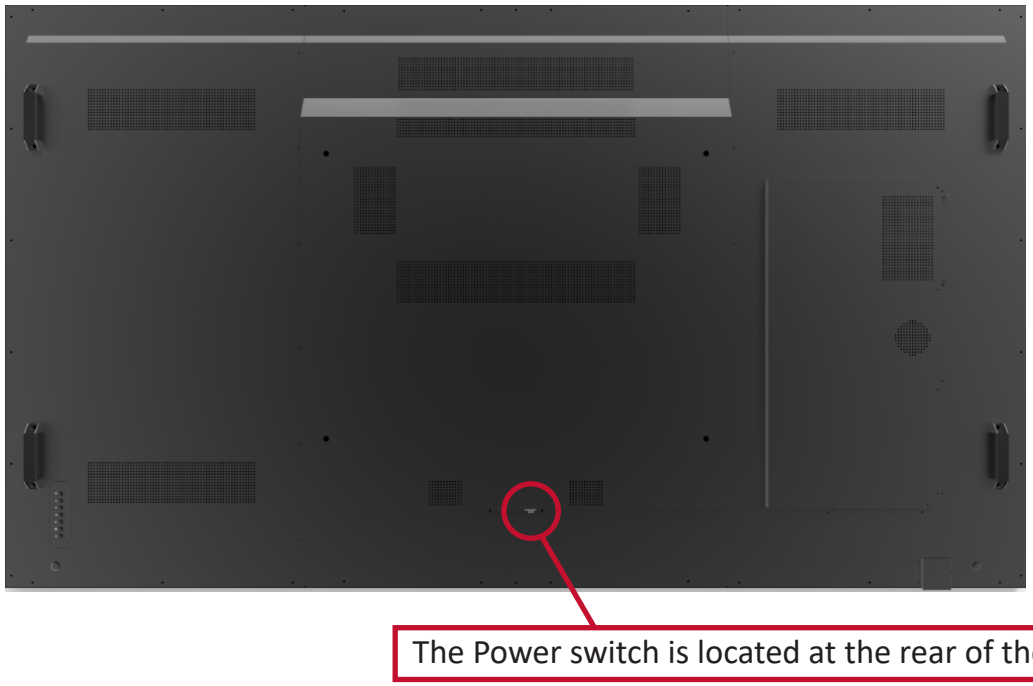
To output video via a display device:

1. Connect an HDMI cable to the **HDMI IN** port of your external display device, i.e. projector, and the other end to the **HDMI OUT** port of your display.
2. For audio, connect one end of an audio cable to your display's **AUDIO OUT** port (or **SPDIF**) and the other end to your speakers.
3. Plug in the power cord of your display, and turn on the power supply switch.
4. Press the ⏻ **Power** button to turn on the display.

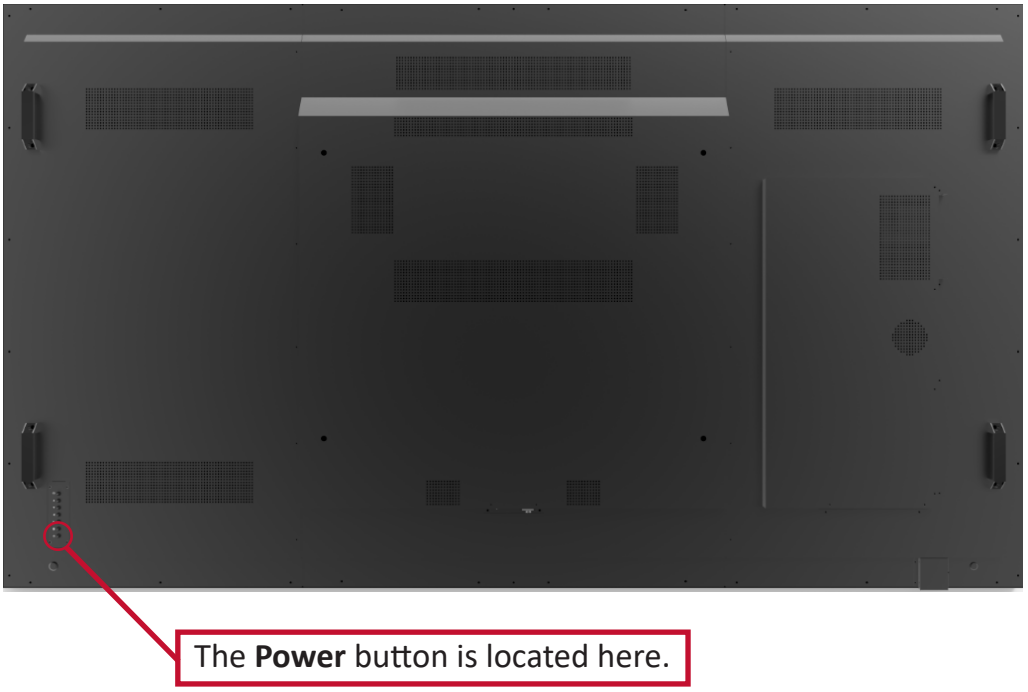
Using Your CDE9800

Powering On/Off your Display

1. Ensure 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.

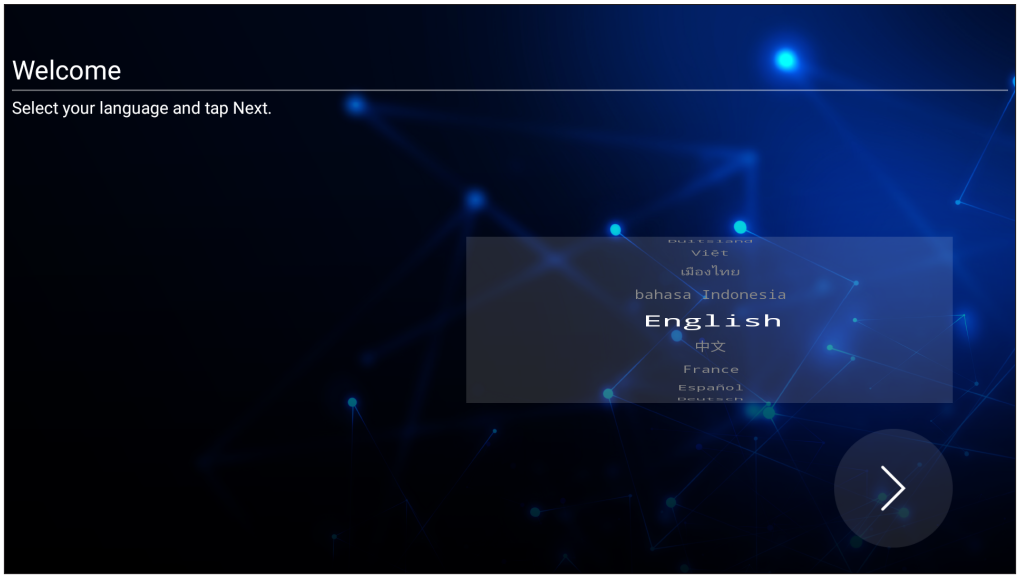


3. To turn the display off, press and hold the ⏻ **Power** button on the device or press the ⏻ **Power** button on the remote control.

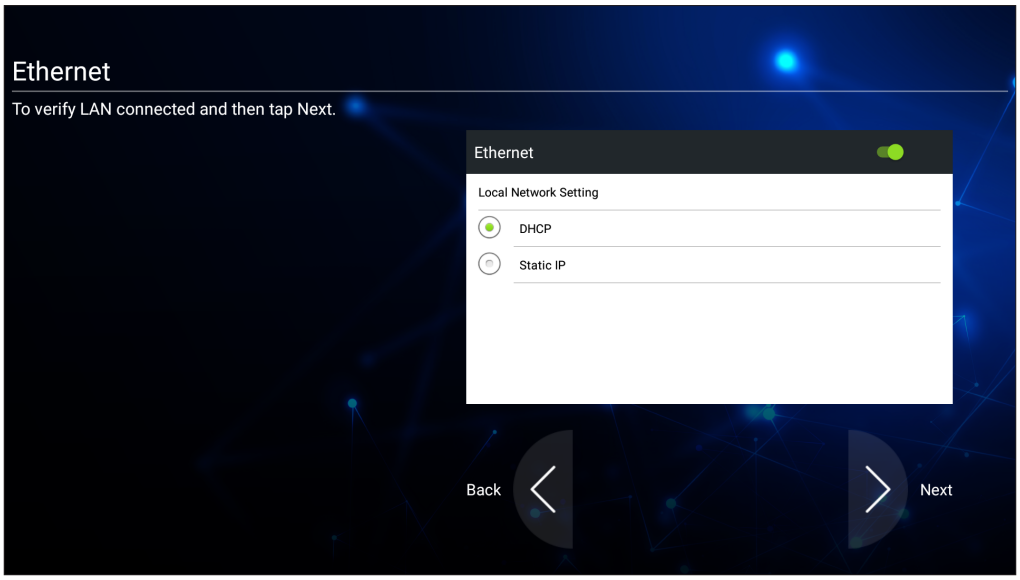
Initial Launch Setup

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

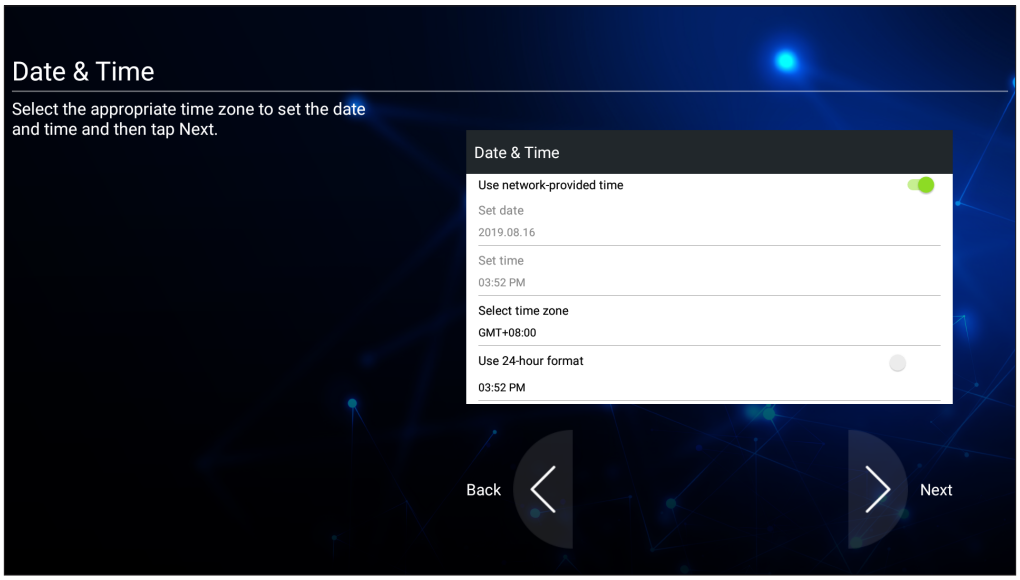
1. Select your Language:



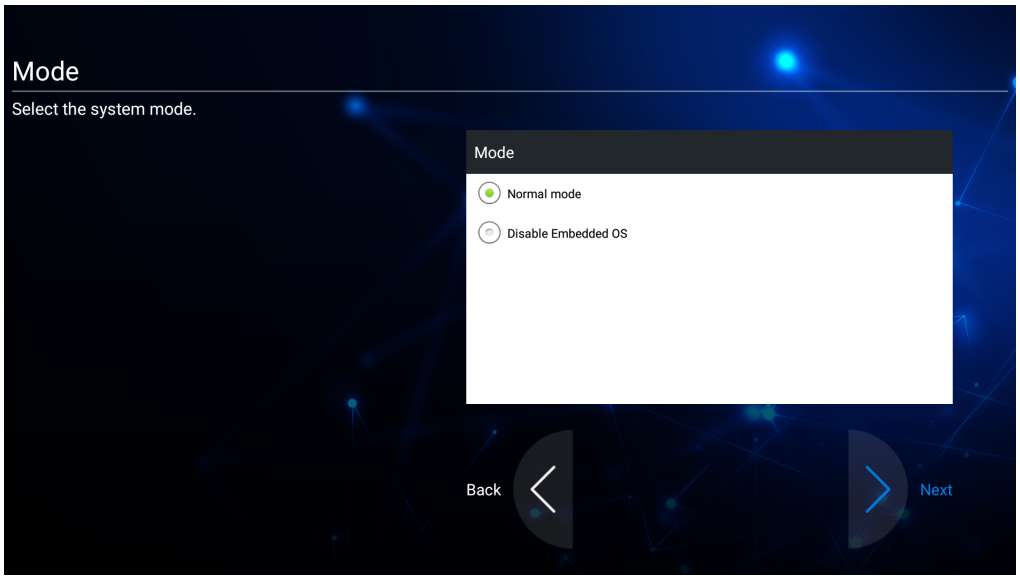
2. Setup and verify your LAN connection. DHCP is for regular network connection. Static IP is for a specific network environment.



3. Select your Time Zone to set the Date and Time:

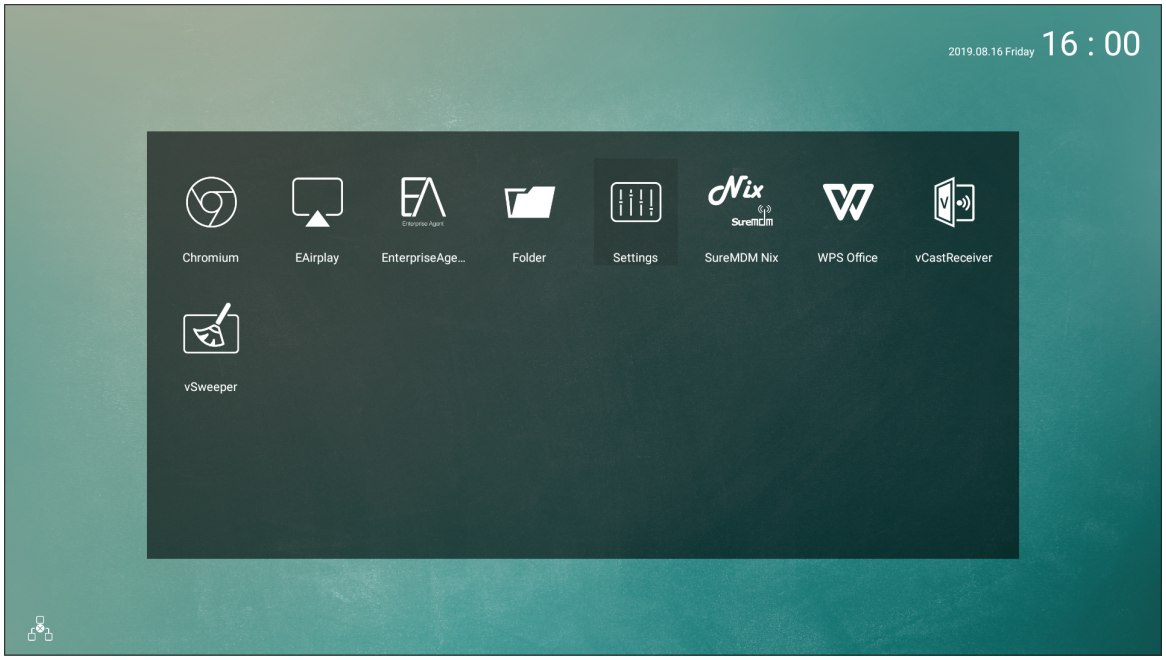


4. Select your preferred System Mode:



NOTE: For more information see page 56.

vLauncher - Customized Welcome Screen



Icon	Name	Description
	Chromium	Web browser
	EAirplay	AirPlay mirroring
	Enterprise Agent	Device management
	Folder	File explorer
	Settings	View and adjust settings
	SureMDM Nix	Secure, monitor, and manage devices
	WPS Office	Create documents, spreadsheets, presentations.
	vCastReceiver	Casting software
	vSweeper	Clear up storage space

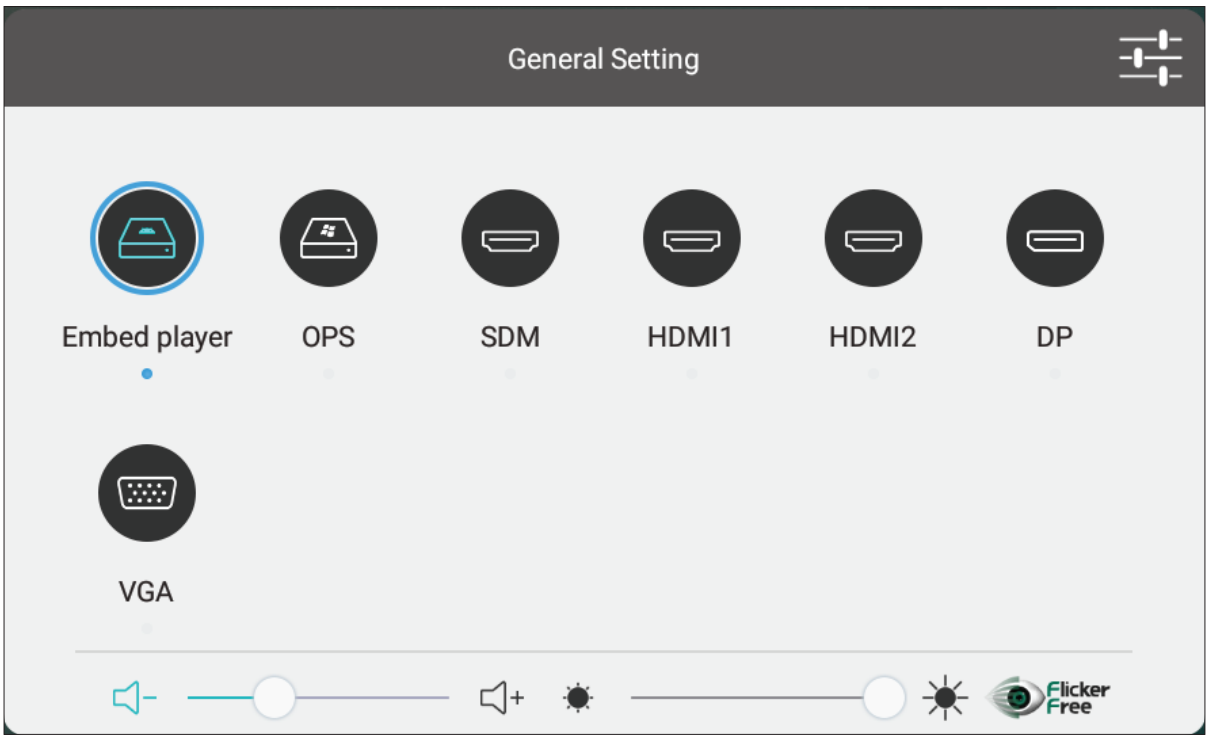
On-Screen Display (OSD) Menu

To open the OSD Menu:

Press the **INPUT** button on the remote control.



General Settings



To select an Input Source:

1. Press **INPUT** on the remote control to display the **General Setting** menu.
2. Press ▼/▲/◀/▶ on the remote control to select the input source you want.
3. Press **ENTER** on the remote control to confirm the input source.
4. Press **BACK** on the remote control to exit.

NOTE: PC source will only display when the slot-in computer is connected.



To adjust the Backlight and enable/disable Flicker-Free:

1. Press **INPUT** on the remote control to display the **General Setting** menu.
2. Adjust the brightness level by using the remote control's directional arrows to select increase/decrease brightness and pressing **ENTER**.
3. To enable/disable Flicker-Free, select it with the remote control's directional arrows and press **ENTER**.

   NOTE: When the backlight is 100%, Flicker-Free will be turned on.
4. Press **BACK** on the remote control to exit.



To adjust the Volume:

1. Press **INPUT** on the remote control to display the **General Setting** menu.
2. Adjust the volume level by using the remote control's directional arrows to select increase/decrease volume and pressing **ENTER**.
3. Press **(Mute)** on the remote control to enable or disable the mute function.
4. Press **BACK** on the remote control to exit.

Additional Settings

Press **MENU** on the remote control or select the icon on the **General Setting** menu to launch the Additional Settings menu. Additional Settings include: **Picture**, **Sound**, and **Setting**.

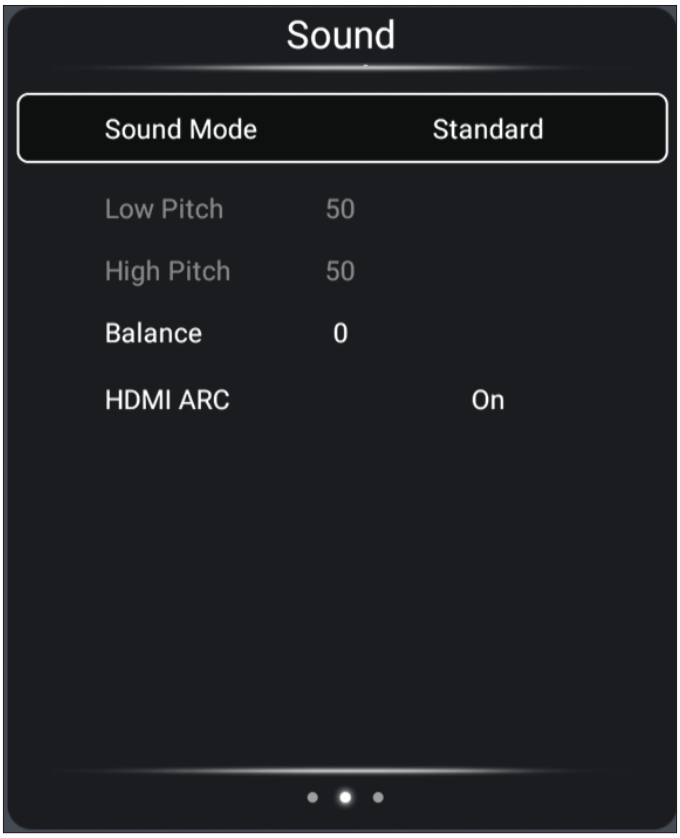
NOTE: Only available when the input source is not *Embed Player*.

Picture



1. Press ▶ on the remote control and select the **Picture** menu.
2. Press ▼/▲/◀/▶ on the remote control to select the option.
3. Adjust the Color Temperature, Filter, Picture Mode, Brightness, Contrast, Hue, Sharpness, Zoom Mode, and HDMI Color range with the remote control by pressing **ENTER** and using ◀/▶ to adjust the option.
4. Press **BACK** on the remote control to exit.

Sound



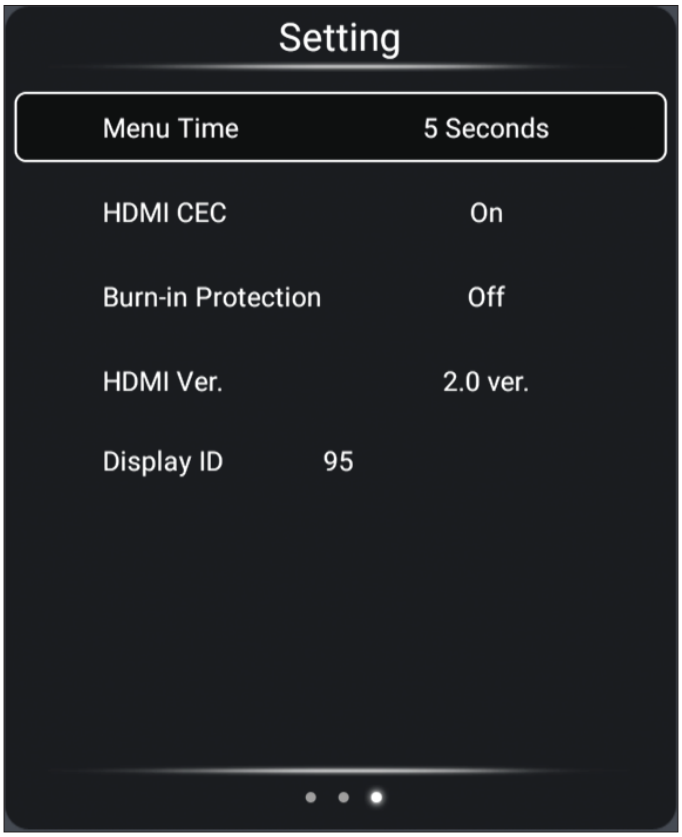
1. Press ▶ on the remote control and select the **Sound** menu.

2. Press ▼/▲/◀/▶ on the remote control to select the option.

3. Adjust your preferences with the remote control by pressing **ENTER** and using ◀/▶ to adjust the option.

4. Press **BACK** on the remote control to exit.

Setting



1. Press ▶ on the remote control and select the **Setting** menu.

2. Press ▼/▲/◀/▶ on the remote control to select the option.

3. Adjust your preferences with the remote control by pressing **ENTER** and using ◀/▶ to adjust the option.

4. Press **BACK** on the remote control to exit.

NOTE:

- **Burn-in (Image Sticking) Protection**

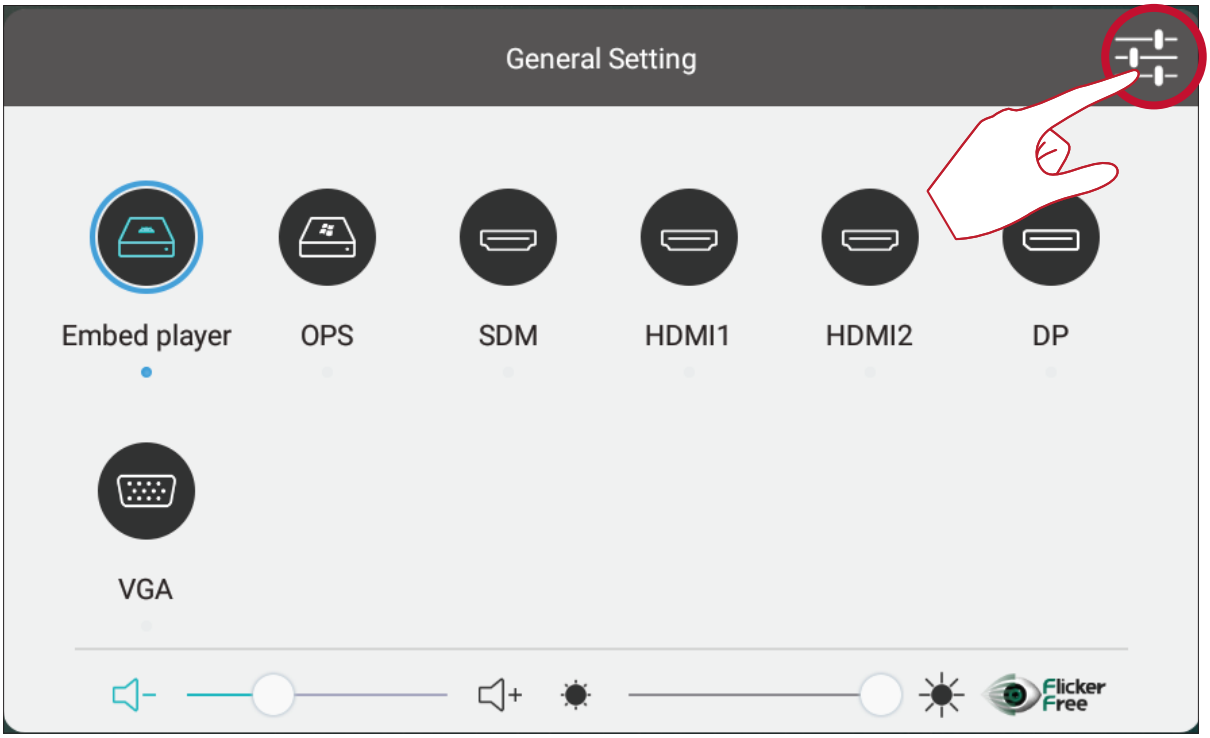
To reduce the possibility of screen burn-in, this unit is equipped with image sticking protection technology.

If the screen displays a still image for a certain period of time you define, the device activates a screen saver to prevent the formation of burnt in ghost images on the screen.

Image sticking protection moves the picture slightly on the screen. The image sticking protection time setting allows you to program the time between movements of the picture in minutes.

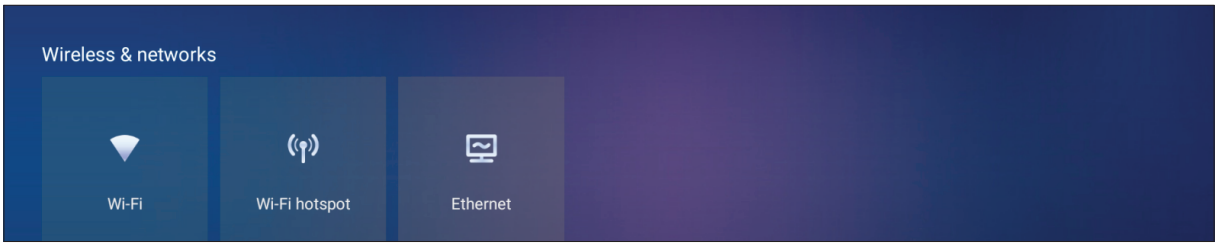
Embed Player Advanced Settings

When the display is in the Embed Player source, selecting the icon in the On-Screen Display (OSD) Menu, or pressing **MENU** on the remote control will enter the Embed Player Advanced Settings Menu.



Wireless & Networks

Check current network connection status, Wi-Fi, and establish a Wireless hotspot.



NOTE:

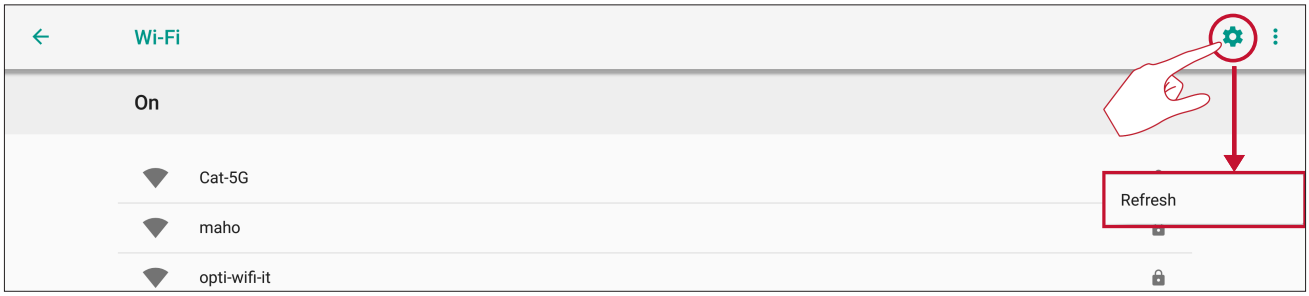
- Wi-Fi and Wireless hotspot settings will appear when a compatible wireless adapter has been installed.
- Ethernet will disable automatically when Wi-Fi is enabled. Wi-Fi will disable automatically when Ethernet is enabled. Wi-Fi will disable when Wireless hotspot is enabled.
- The device cannot connect to the Internet when Wireless hotspot is enabled.

Wi-Fi

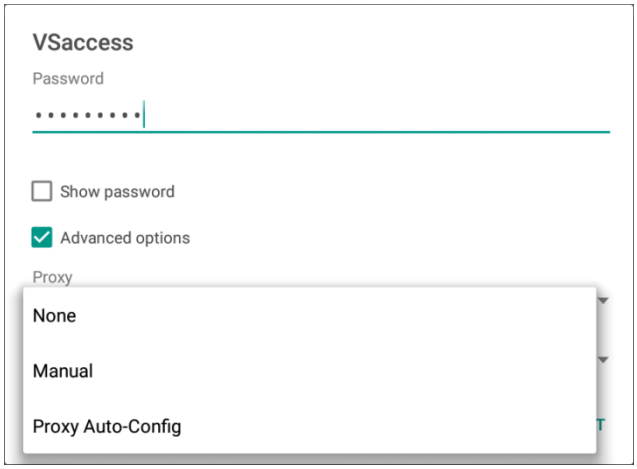
Select **On** to toggle Wi-Fi on or off.

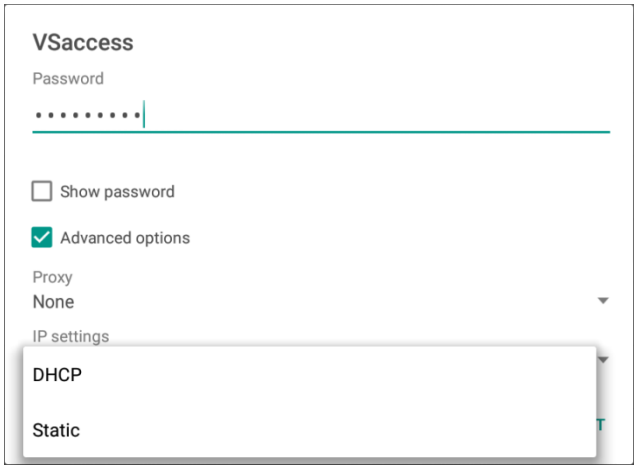


Select the settings icon to: Add Network, view Saved Networks, Refresh the network list, or view Advanced settings.



In Advanced settings, you can set Proxy and IP settings.





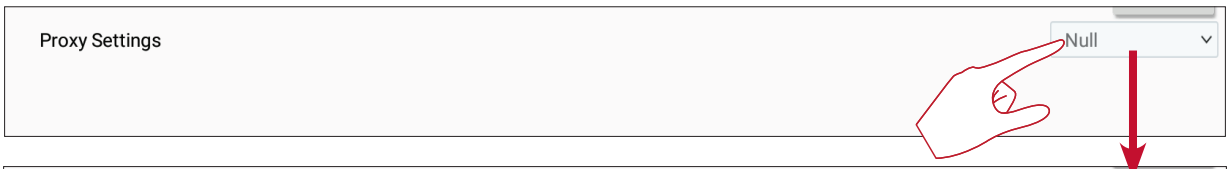
Ethernet

Select **Connect** to toggle Ethernet on or off.



You can adjust Static IP and Proxy settings as well.

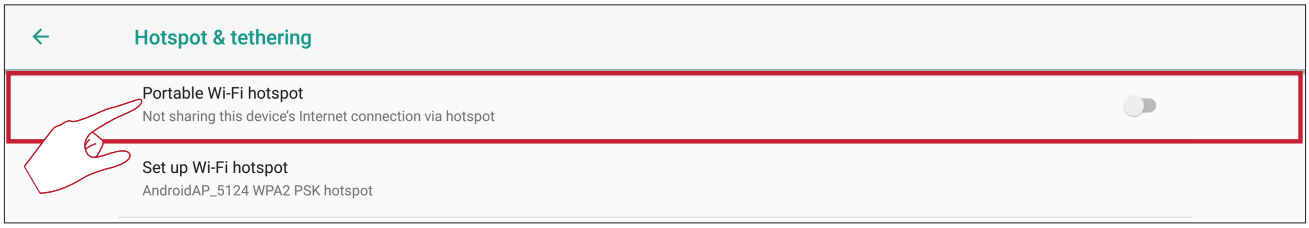




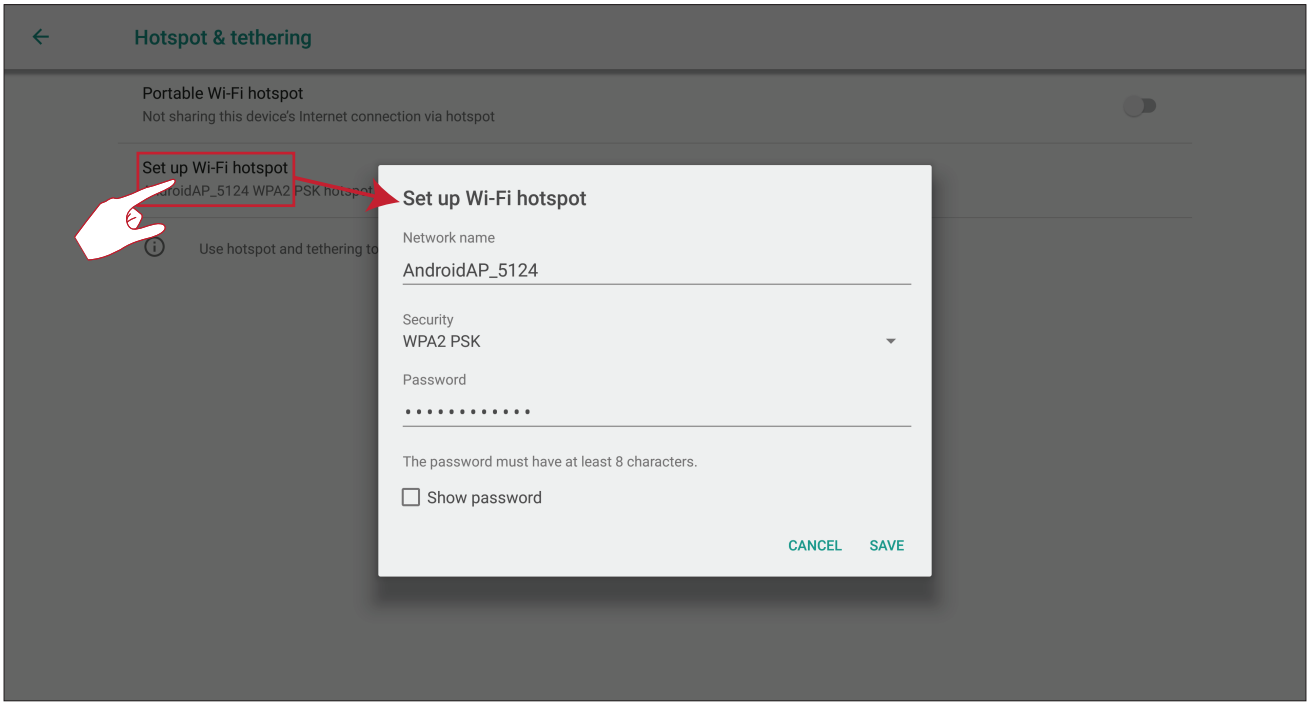


Wi-Fi Hotspot

Select **Portable Wi-Fi hotspot** to turn it on or off.

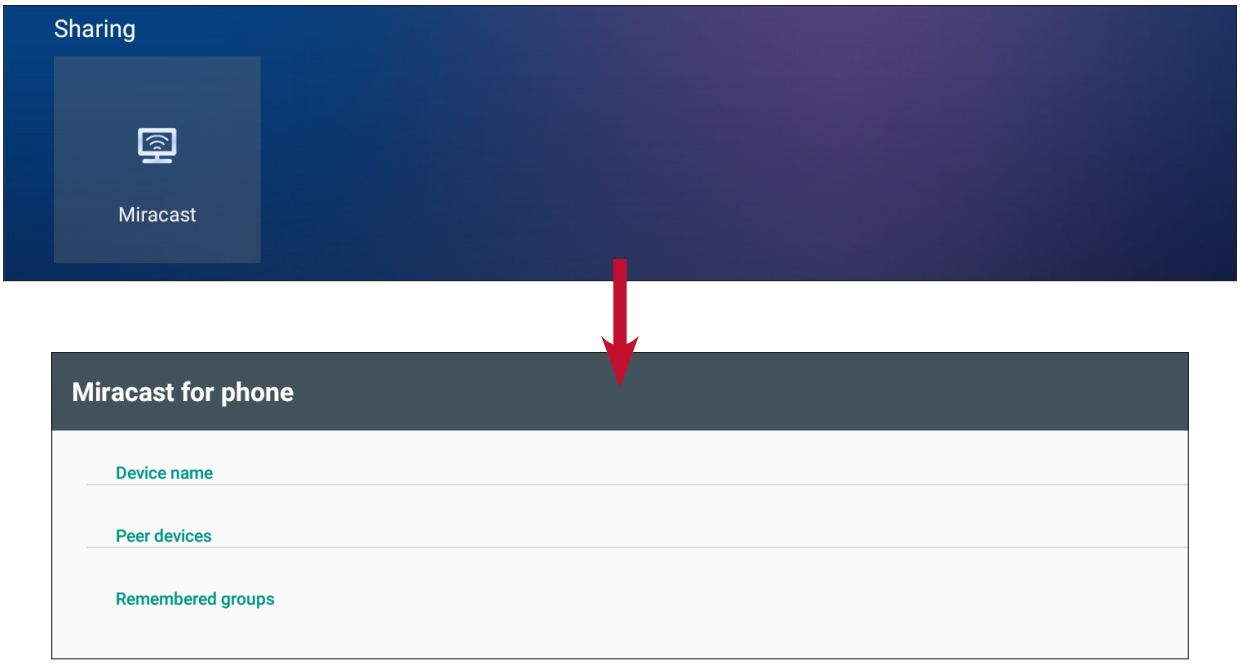


Select **Set up Wi-Fi hotspot** to set Network name, Security, and Password.



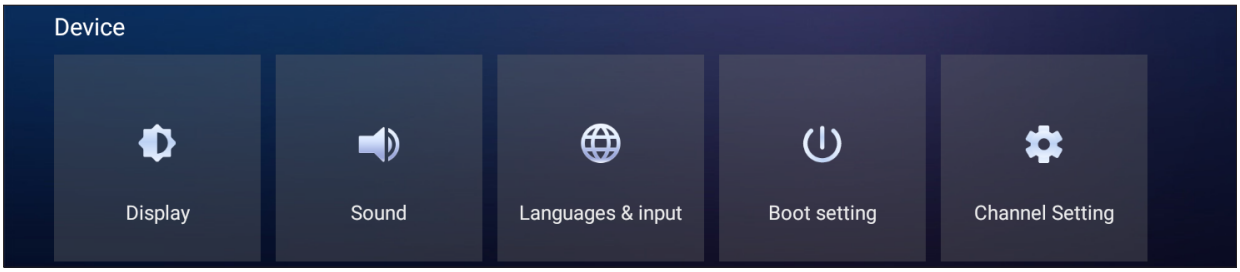
Share

Miracast allows for wireless sharing of multimedia and screens of connected devices, i.e. phone. To access, go to: **Settings** > **Sharing** > **Miracast**.



Device

Adjust the Display, Sound, Security, Language & Input, Boot Setting and Channel settings.



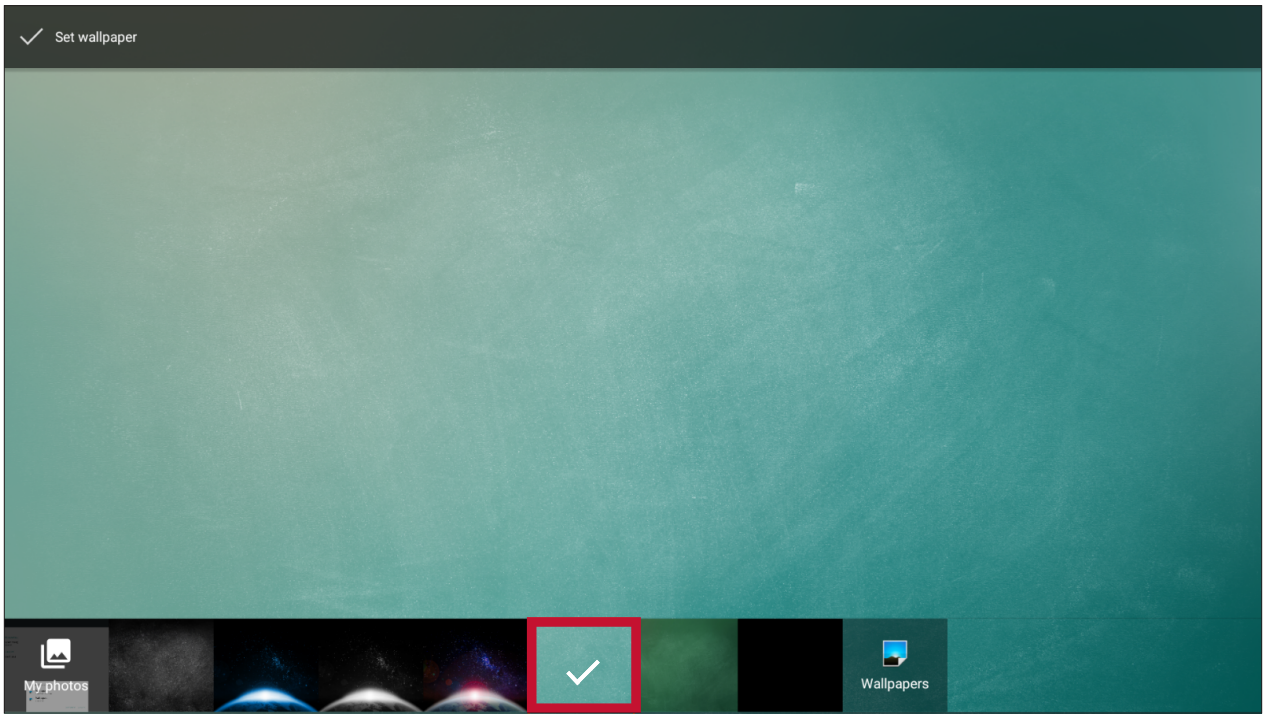
Display

Adjust the Wallpaper, ECO mode, HDMI EDID, HDMI Out Resolution, and Burn-in Protection Interval.

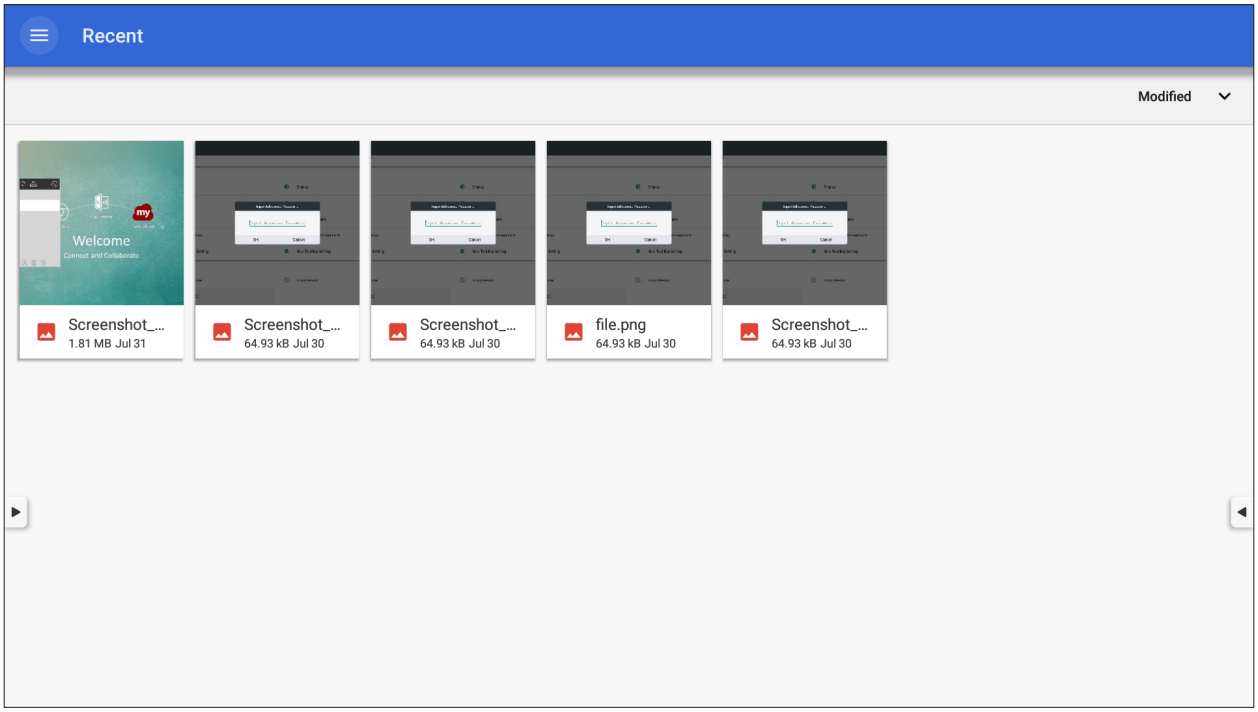


Wallpaper

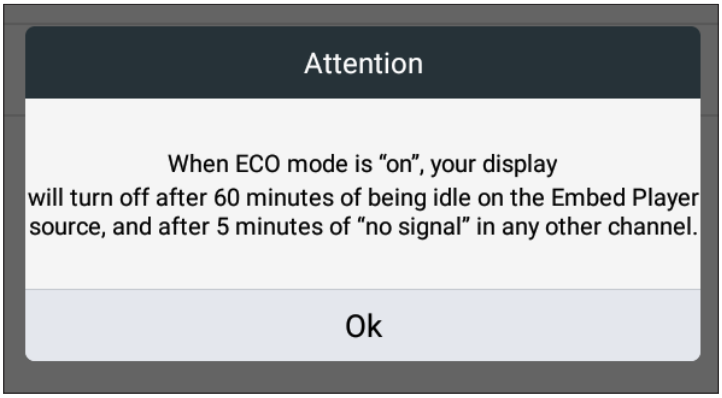
Users can change their wallpaper with default images, or



use their own by choosing **My photos** and selecting the image file.


Recent
Modified
Welcome
Connect and Collaborate
Screenshot_...
1.81 MB Jul 31
Screenshot_...
64.93 kB Jul 30
Screenshot_...
64.93 kB Jul 30
file.png
64.93 kB Jul 30
Screenshot_...
64.93 kB Jul 30

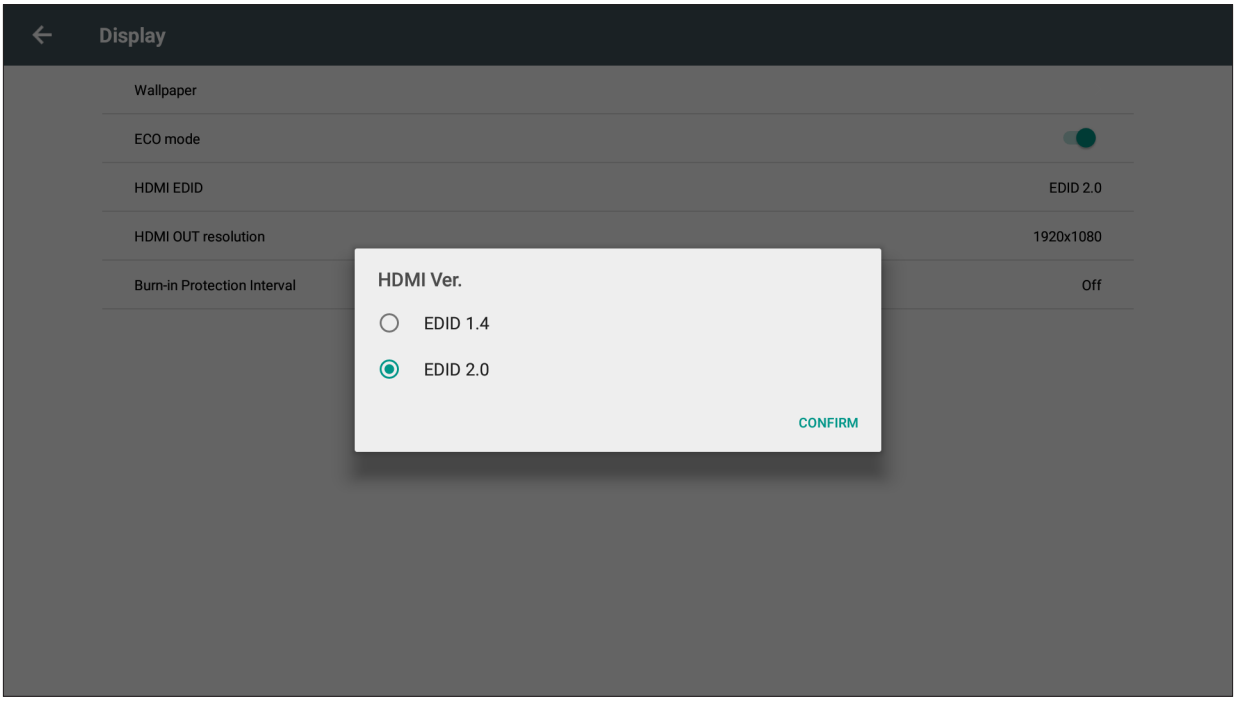
ECO mode


Attention
When ECO mode is “on”, your display
will turn off after 60 minutes of being idle on the Embed Player
source, and after 5 minutes of “no signal” in any other channel.
Ok

HDMI EDID

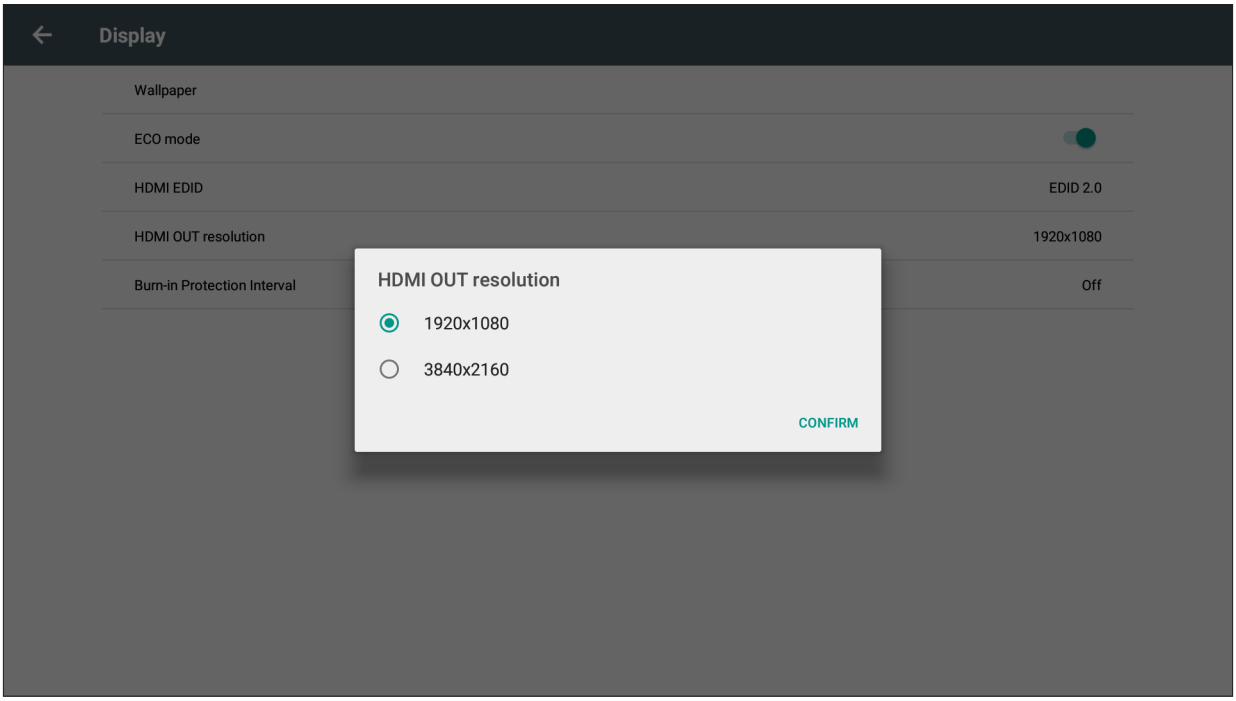
Choose between EDID 1.4 or 2.0 for your HDMI Extended Display Identification Data.

- EDID 1.4: supports up to 3840 x 2160 @ 30Hz
- EDID 2.0: supports up to 3840 x 2160 @ 60Hz



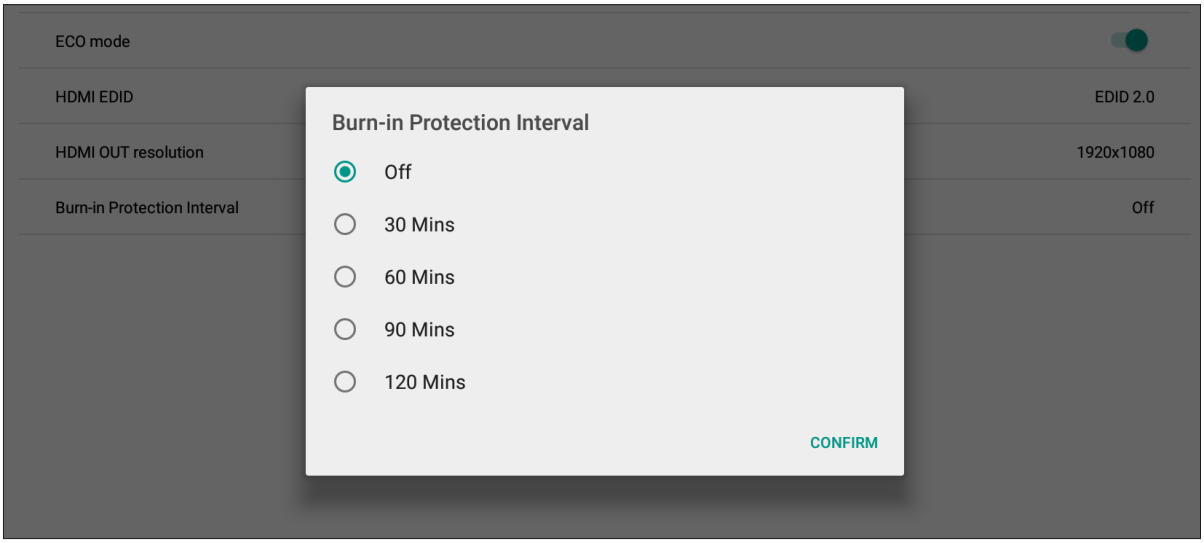
HDMI OUT Resolution Setting

Users can adjust their HDMI Out resolution preference.



Burn-in Protection Interval

This setting allows the user to program the time between movements of the picture in minutes.



Sound

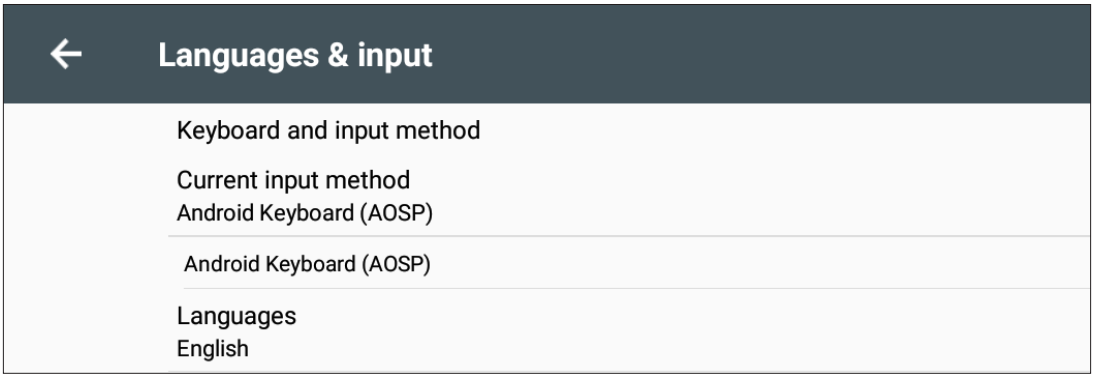
Users can enable/disable clicking sounds, and adjust output settings.



NOTE: Connect the display and amplifier through an HDMI cable for audio output. Only **HDMI 2** supports ARC.

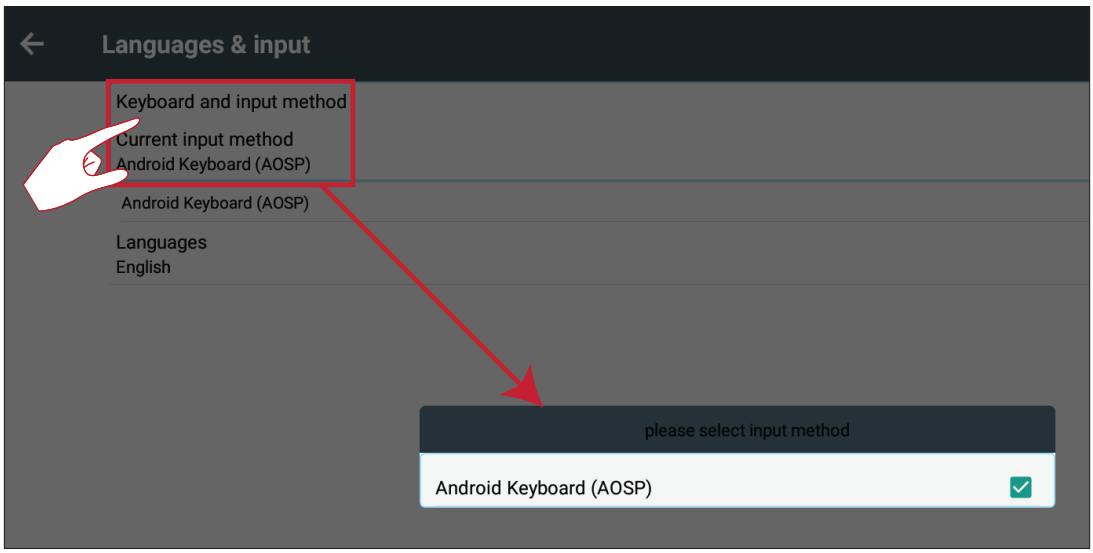
Languages & Input

Adjust the Language and Input method of the Embedded Player.



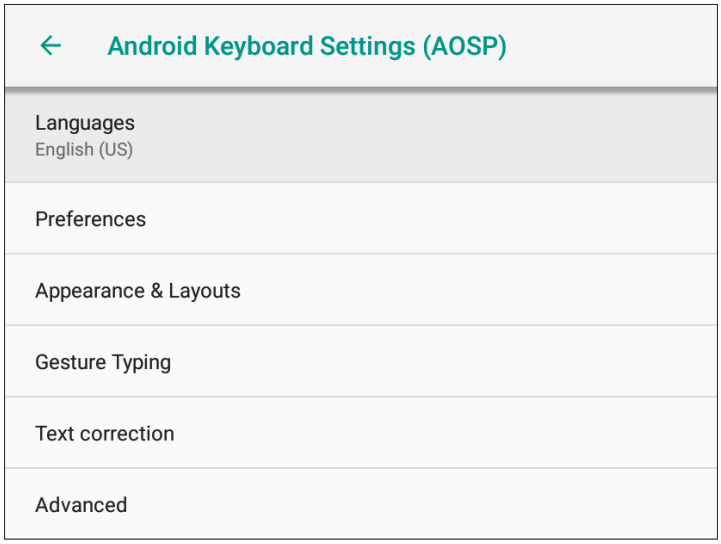
Keyboard and Input Method

Choose the preferred keyboard and input method.



Android Keyboard

View and adjust entry settings: Languages, Preferences, Appearance & Layout, Gesture Typing, Text Correction, and Advanced.



Preferences

Adjust: auto-capitalization, double-space period, and sound on keypress.



Appearance and Layout

Personalize the theme, input style, and enable/disable split keyboard.



Gesture Typing

Enable/disable gesture typing and adjust related settings.



Text Correction

Choose your preferred dictionary, block offensive words, and enable/disable various suggestions.



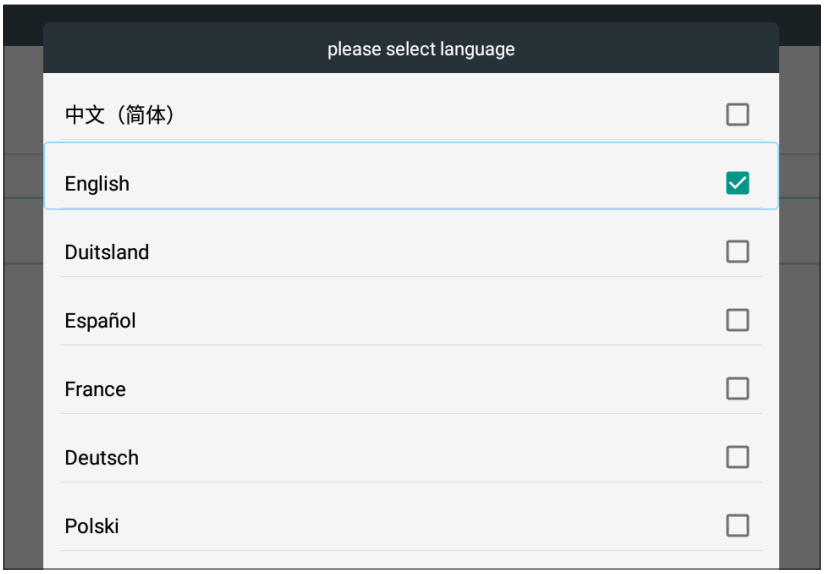
Advanced

Adjust additional options and preferences.



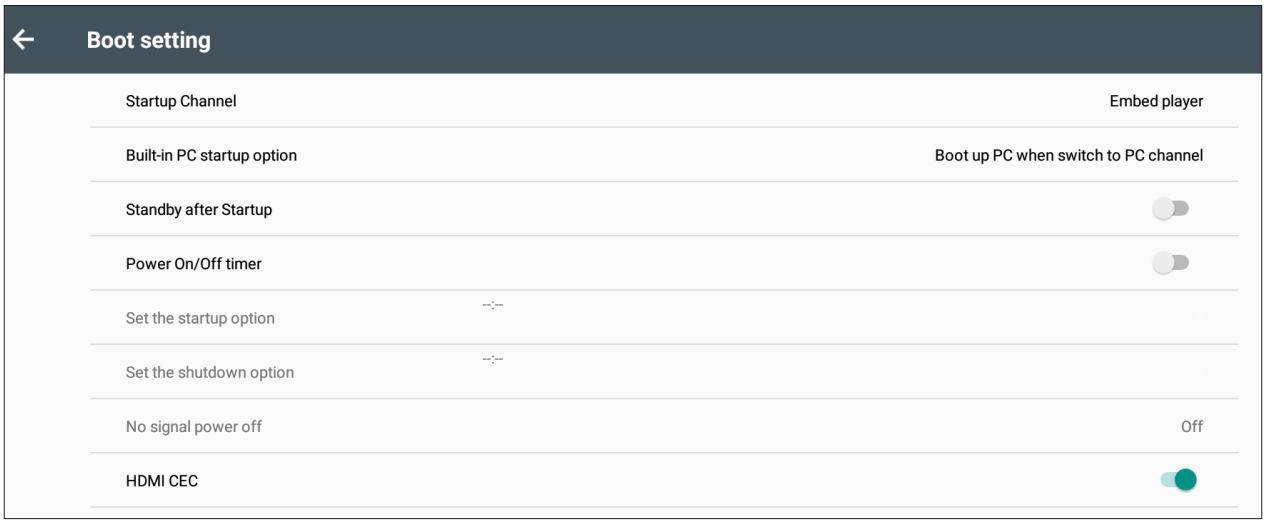
Language

Choose from the available languages.



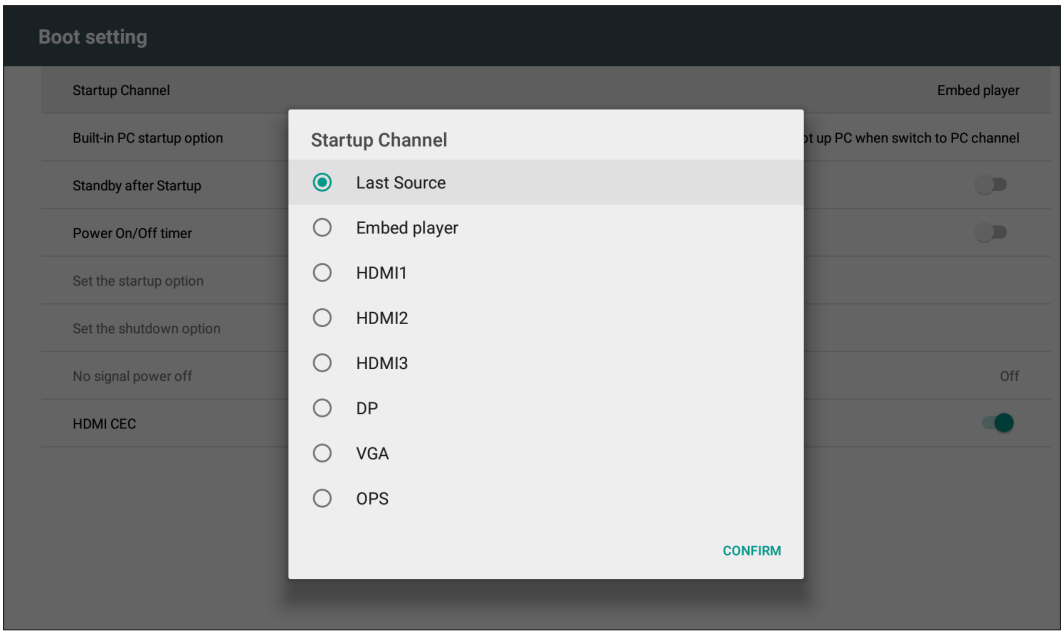
Boot Setting

Set the Startup channel, Built-in PC startup option, Standby after Startup, Power On/Off timer, and HDMI CEC.



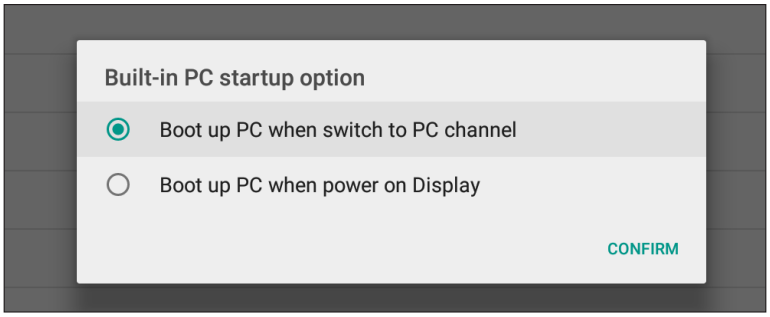
Startup Channel

Set the boot up channel from the last shutdown channel or a specific source.



Built-in PC startup option

Set the PC module boot up options. The default setting is to boot up the PC when the source is changed to OPS.



Standby after Startup

The display will turn off the backlight automatically after booting up from Standby mode. To wake the display, press the ⏻ **Power** button.

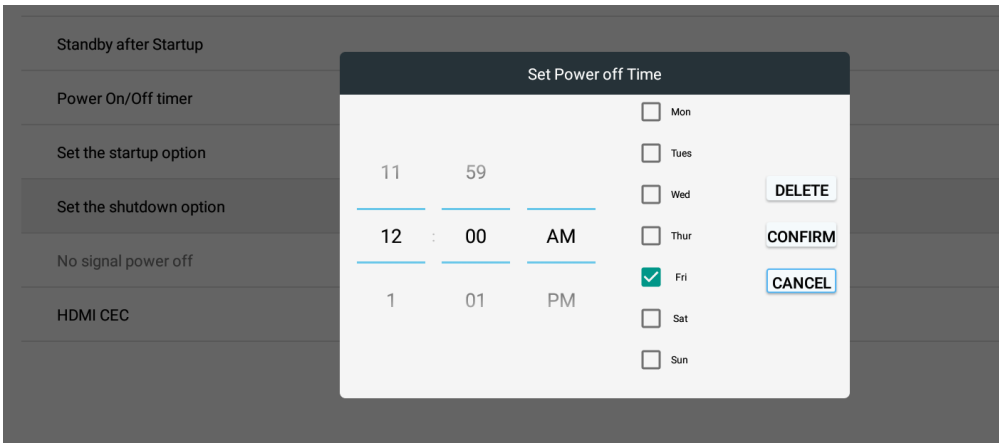
Power On/Off Timer

Set a power on and power off time for the display. To setup:

1. Enable the feature by selecting “Power On/Off timer”.



2. Then select a startup and shutdown time.



3. After selecting both times, the feature is ready to use.



No Signal Power Off

When there is no signal for a specific amount of time the display will turn off. By default the time is set to 10 minutes.

HDMI CEC

Supported by all **HDMI** ports, when the function is enabled the display can be controlled On/Off by an HDMI CEC device.

NOTE:

- "Player off then display off" and "Display on then player on" are not standard CEC commands. The display may not be compatible with all players.
- *Sleep Mode* does not support the HDMI CEC function.

Channel Setting

Enable/disable Input Alias Switch, Power On by Active Source, Signal Auto Switch, and Auto Switch to a New Source.

Input Channel Alias Switch

Once enabled, the user can edit input aliases and when the **Display** button is pressed the source information (located in the upper left side) will also be changed.



Power On by Active Source

The display will detect active signals in Standby mode. If there is a signal output, the display will power on automatically.

NOTE:

- Only supports **HDMI 2** and **VGA**.
- The feature may not be compatible with every device due to different power saving designs. Some devices may keep sending a 5V signal even under *Sleep Mode*. The CDE9800 will be unable to trigger power on by active source under this condition.

Signal Auto Search

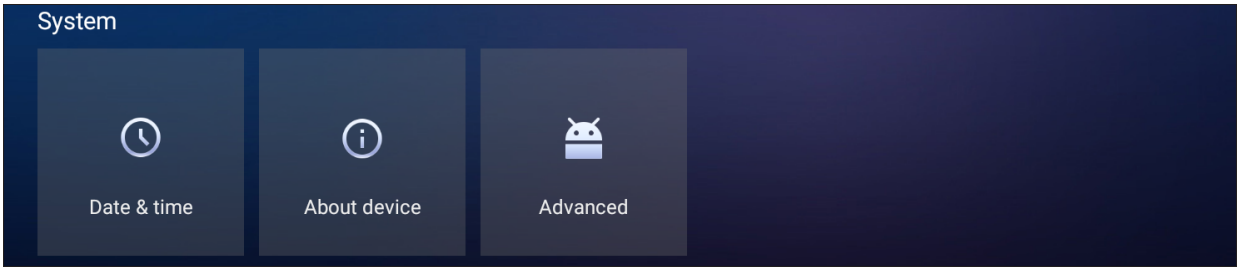
When enabled, if the display loses its current input source signal, it will search for another input source automatically.

Auto Switch to new Source

When enabled, if the display detects a new signal input it will switch the input source automatically.

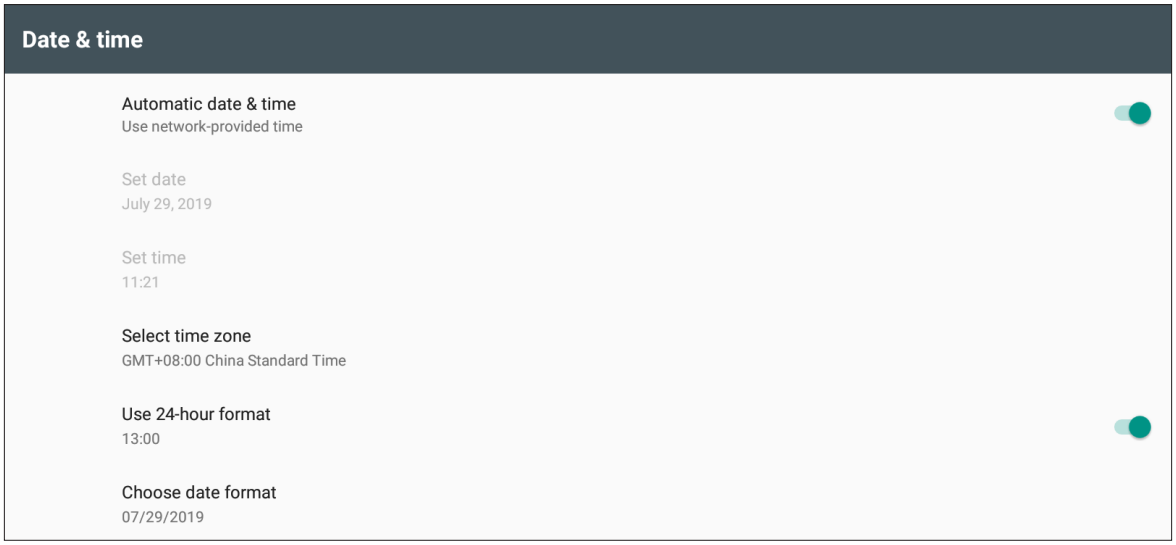
System

View and adjust Date & Time, About Device, and Advanced Settings.



Date & Time

Set the system time and format.



Automatic Date & Time

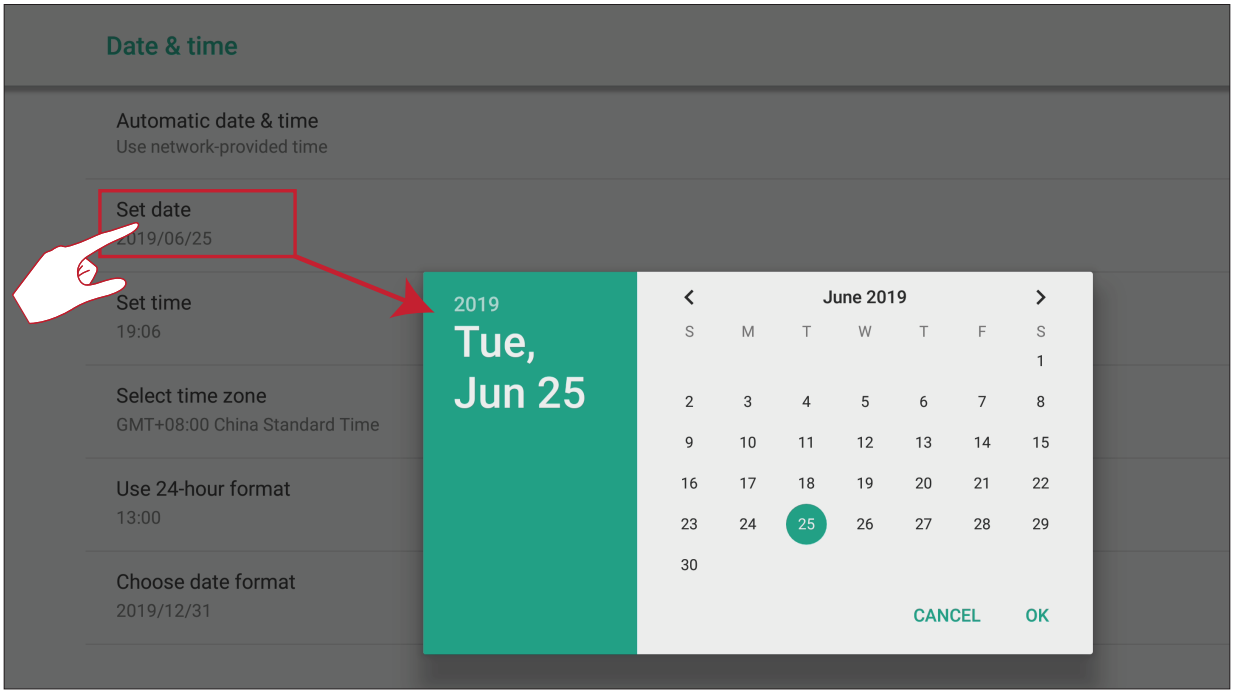
When enabled, the ViewBoard will automatically synchronize the date and time via the Internet.



NOTE: Ethernet or Wi-Fi connection is needed.

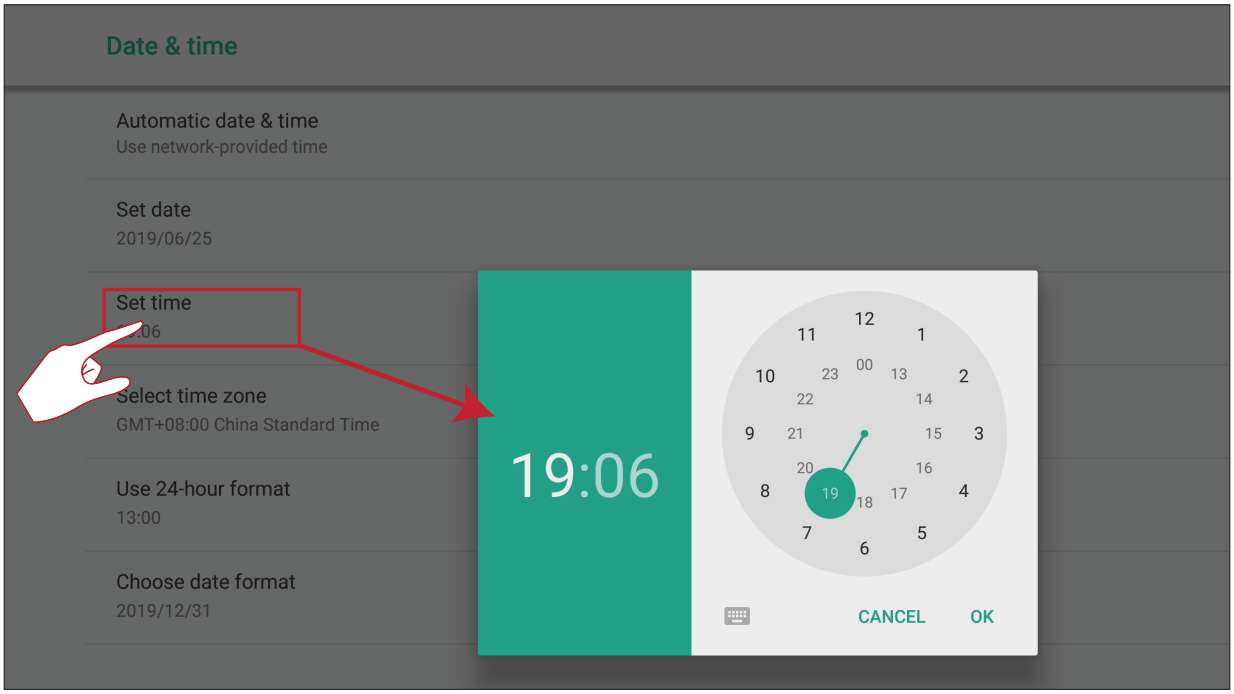
Set Date

Adjust the values, then select **OK** when finished.



Set Time

Adjust the values, then select **OK** when finished.



NOTE: Automatic Date & Time must be disabled to manually adjust the date and time.

Select Time Zone

Choose from the available time zones.



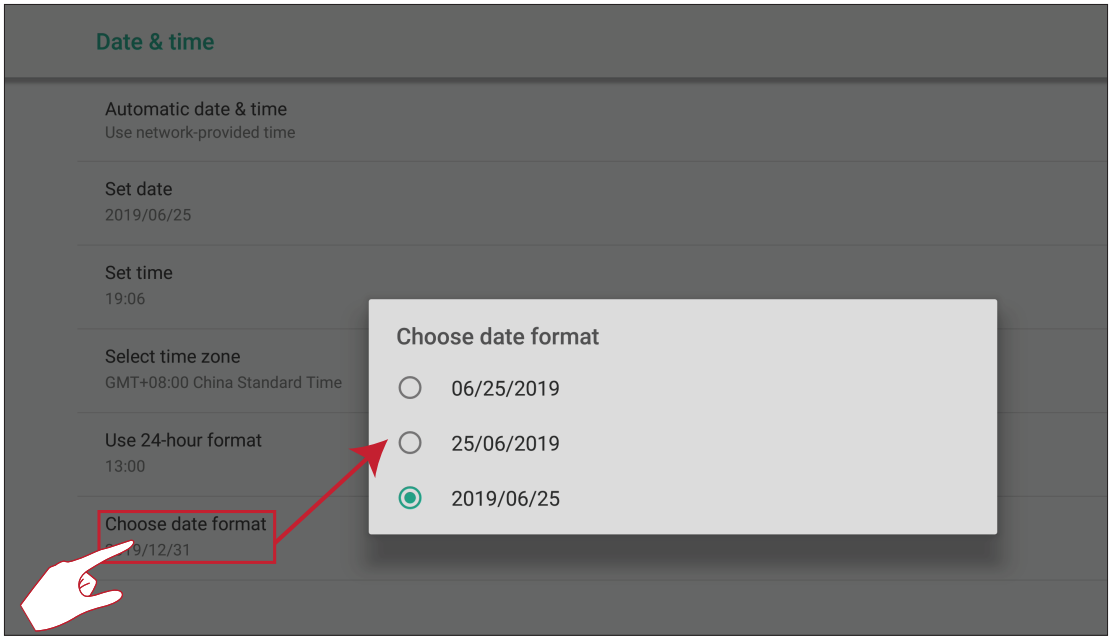
Select Time Format

Choose from 12 hour and 24 hour time format. Toggle 24-hour format on/off.



Choose Date Format

Select from the available date formats.



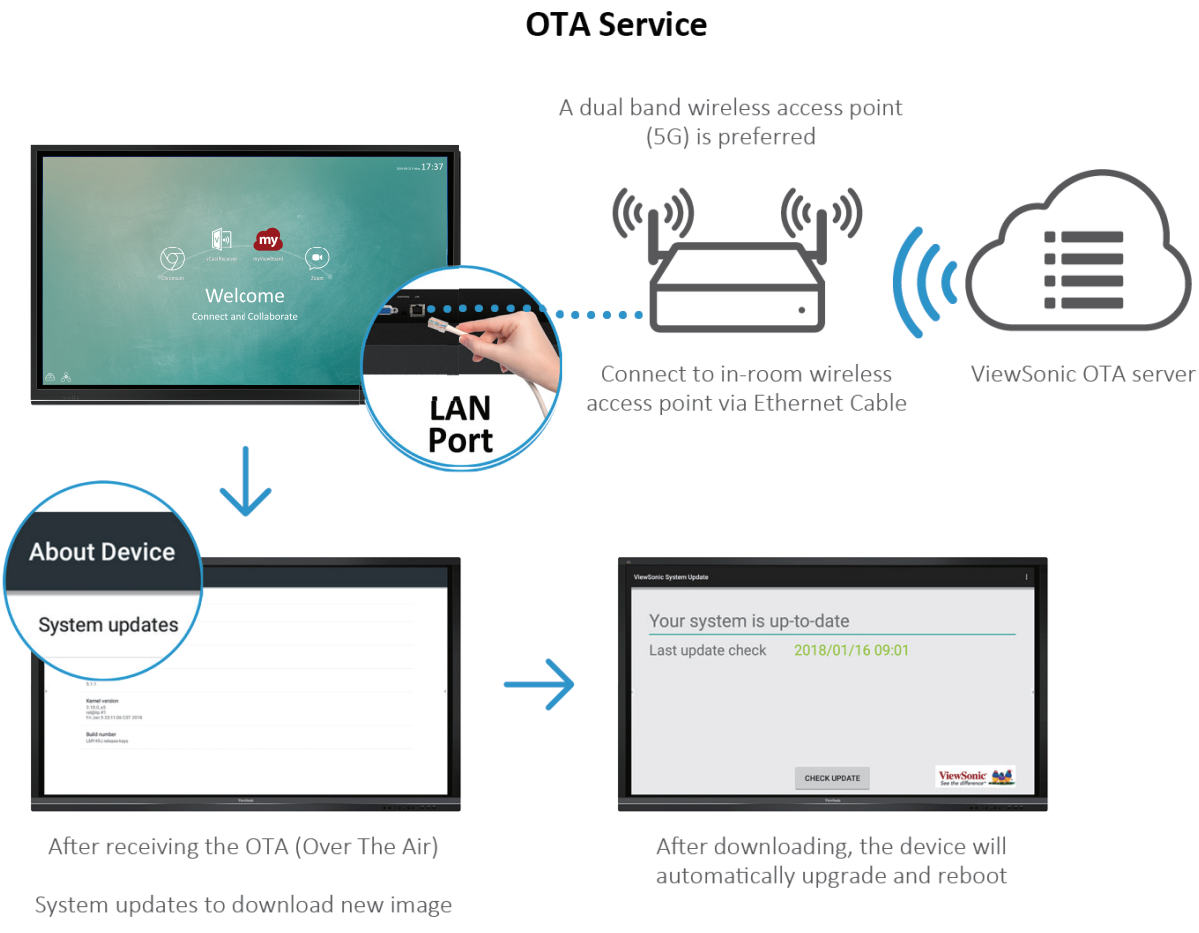
About Device

Display Embedded Player information, System Updates, Display ID Setting, and Asset Tag.



System Update

The display automatically searches for software updates whenever connected to the Internet (OTA).

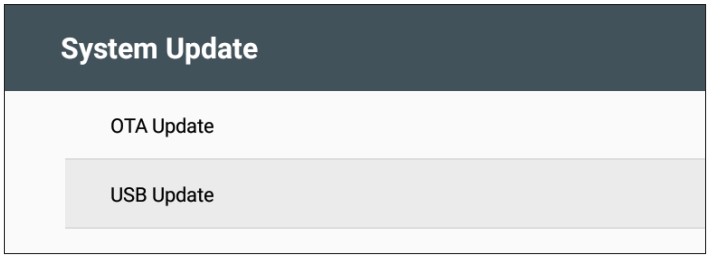


Update by USB

When an update BIN file is available on the ViewSonic website, users are able to download and update the system via USB.

To update via USB:

1. Download the upgrade package and unzip the file. You may get a file named “MstarUpgrade_848.bin”.
2. Copy the file to a FAT32 USB, then plug the USB into the rear USB port of the display.
3. Proceed to update the system via USB: **Settings** > **System** > **About Device** > **System Update** > **USB Update**.

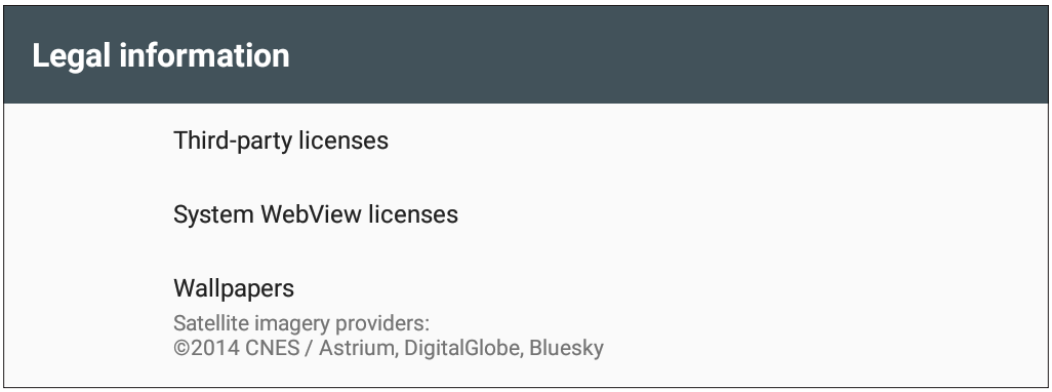


4. During the updating process do not power off the display. The display will automatically reboot after the updating process has completed.

NOTE: User data will be removed when updating the system by USB. The data in OPS/SDM will not be removed.

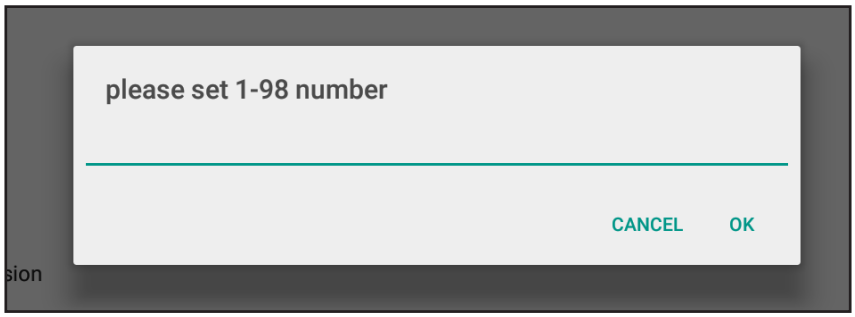
Legal Information

Check open source and System WebView licenses.



Display ID

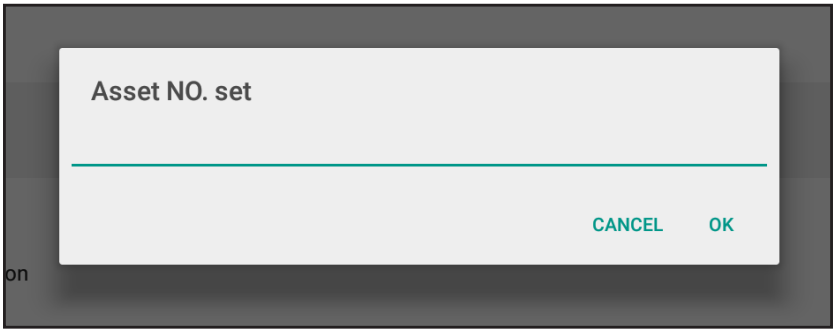
Change the Display ID.



NOTE: The Display ID is for RS-232 users and LAN control, and the range is 01~98.

Asset Tag

Key in the asset information.



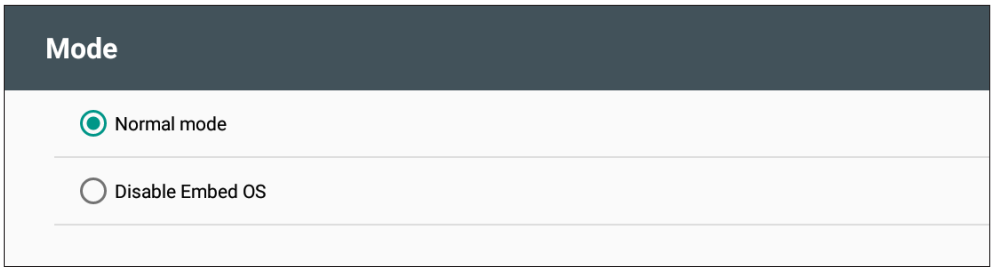
Advanced

Adjust the Mode, review Application information, allow unknown source installation, or Factory Reset the device.



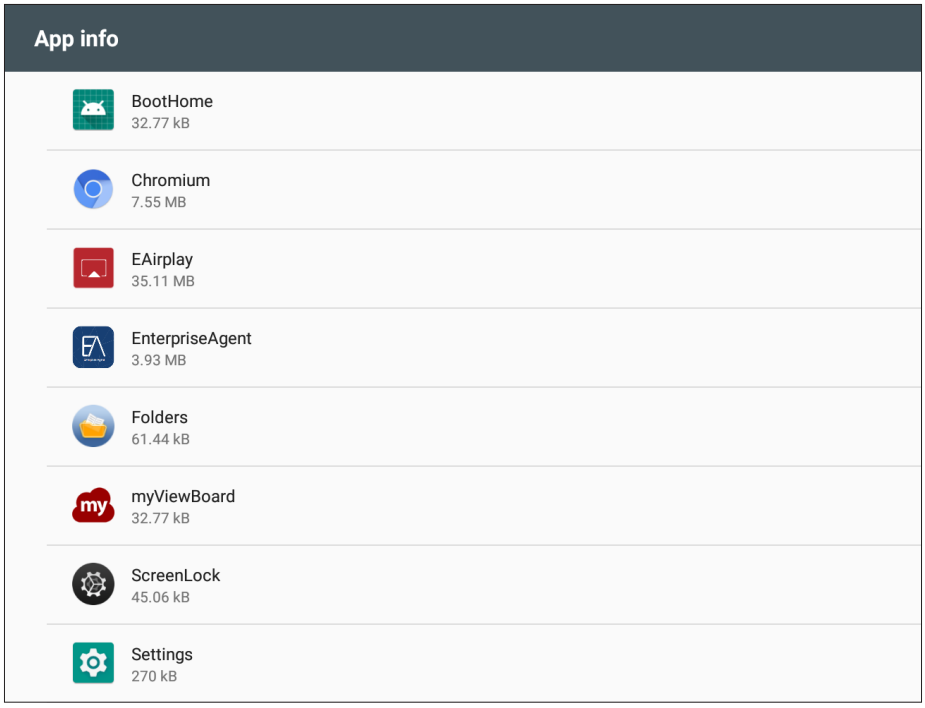
Mode

- **Normal Mode**: The embedded screen sharing apps will run normally.
- **Disable Embed OS**: The system will automatically reboot, and then the Embed OS will not appear.



App Info

The user can view App information, force stop, and clear data, cache, and defaults.

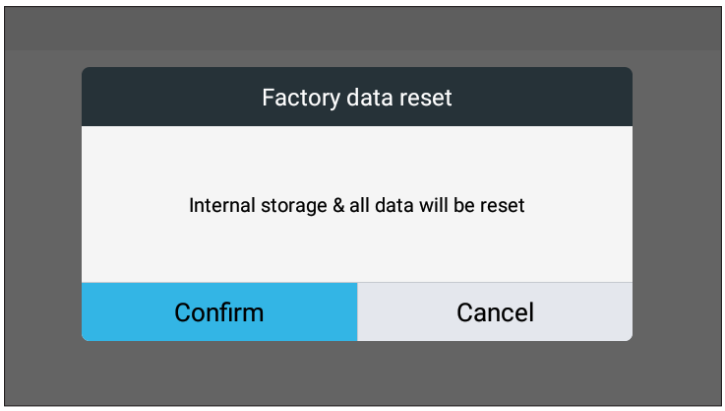


Unknown Source

Toggle On/Off to allow the installation of unknown source files.

Reset

Perform a Factory Data Reset.

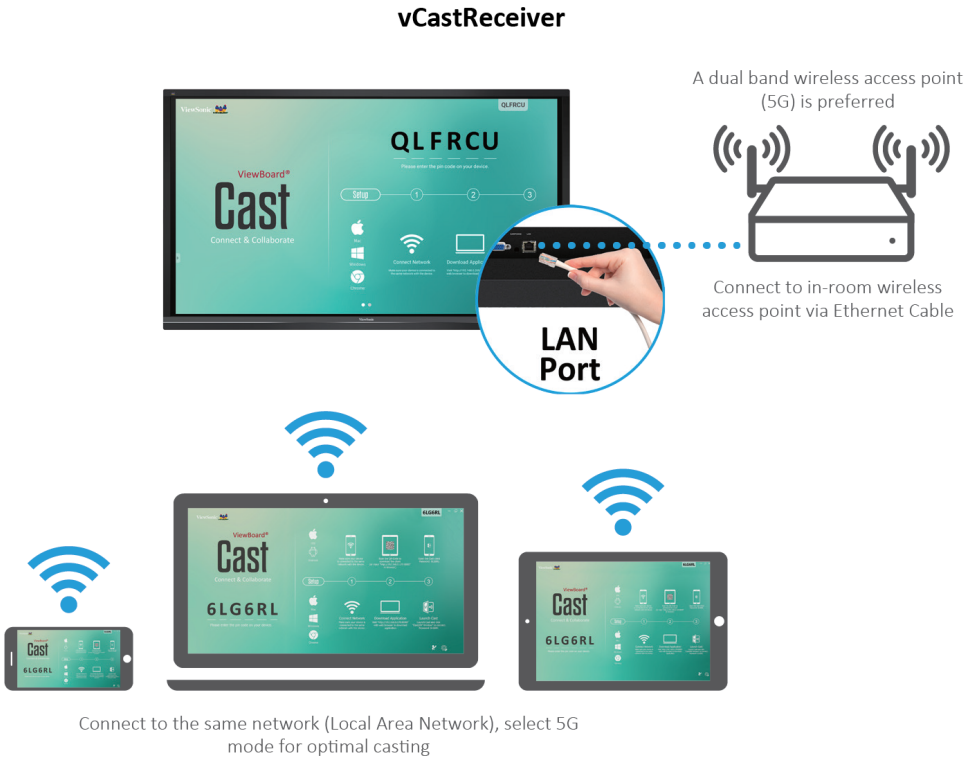


NOTE: All locally stored data will be deleted.

Embedded Applications and Settings

CDE9800 Cast

CDE9800 Cast is the built-in wireless screen sharing receiver app that allows users to cast in their presentation content, including mirroring screen content, images, videos, and audio. Before using the CDE9800 Cast function, please note that a proper network infrastructure setting is required.



Network Information

- CDE9800 Cast software, laptops, and mobile devices can connect to both the same subnet and across the subnet network.
- Connected devices will show up under “Device List” on the same subnet connection.
- If the device does not show up under “Device List”, users will need to key-in the on-screen PIN-code.

CDE9800 Cast is a wireless peer to peer data communication, therefore the below port settings are required:

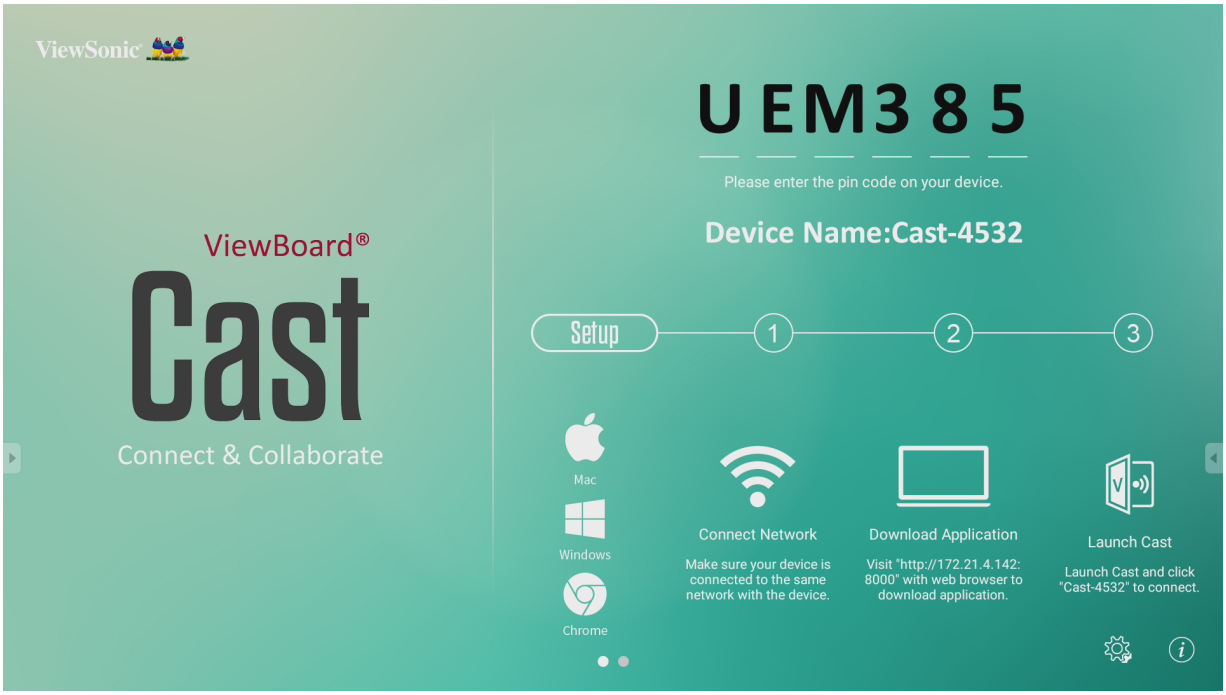
Ports:

- CP: 56789, 25123, 8121, and 8000
- UDP: 48689 and 25123

Port and DNS activation:

- Port: 8001

Cast Sender from Windows-based Devices, Macbook, and Chrome devices.

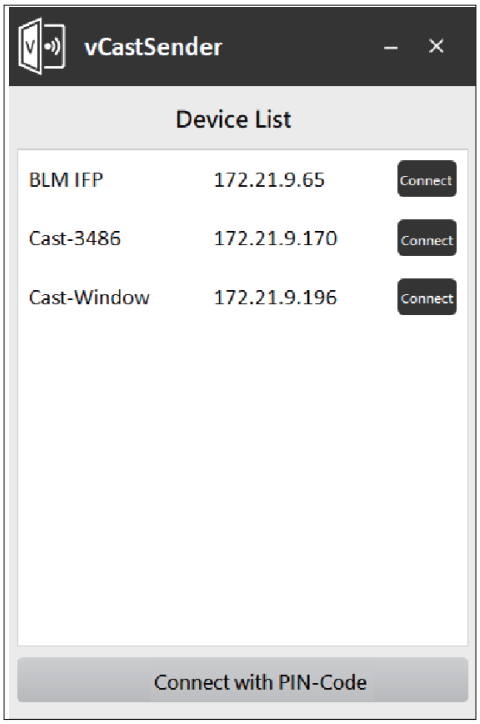


Mac, Windows, Chrome Devices:

1. Make sure your device is connected to the same network as the CDE9800.

2. Visit the address that is shown on the CDE9800 to download the application.

3. Launch the application and click the **Connect** button next to the Device Name.



NOTE: If the device is not listed, click **Connect with PIN-Code** and input the pin-code displayed on the CDE9800.

Cast Sender from Mobile Devices: iOS-based (iPhone, iPad) and Android OS based phone/tablet.



Android:

1. Make sure your device is connected to the same network as the CDE9800.
2. Scan the QR Code that is shown on the CDE9800, or key in the web address provided, to download the application.
3. Launch the application and select the correct Device Name and input the pin to connect. You can also directly input the pin-code displayed on the CDE9800 to connect.

iOS:

1. Make sure your device is connected to the same network as the CDE9800.
2. Directly open AirPlay and select the Device Name to connect. Or,
3. Scan the QR Code that is shown on the CDE9800, or key in the web address provided, to download the application.
4. Launch the application and select the correct Device Name and input the pin to connect. You can also directly input the pin-code displayed on the CDE9800 to connect.

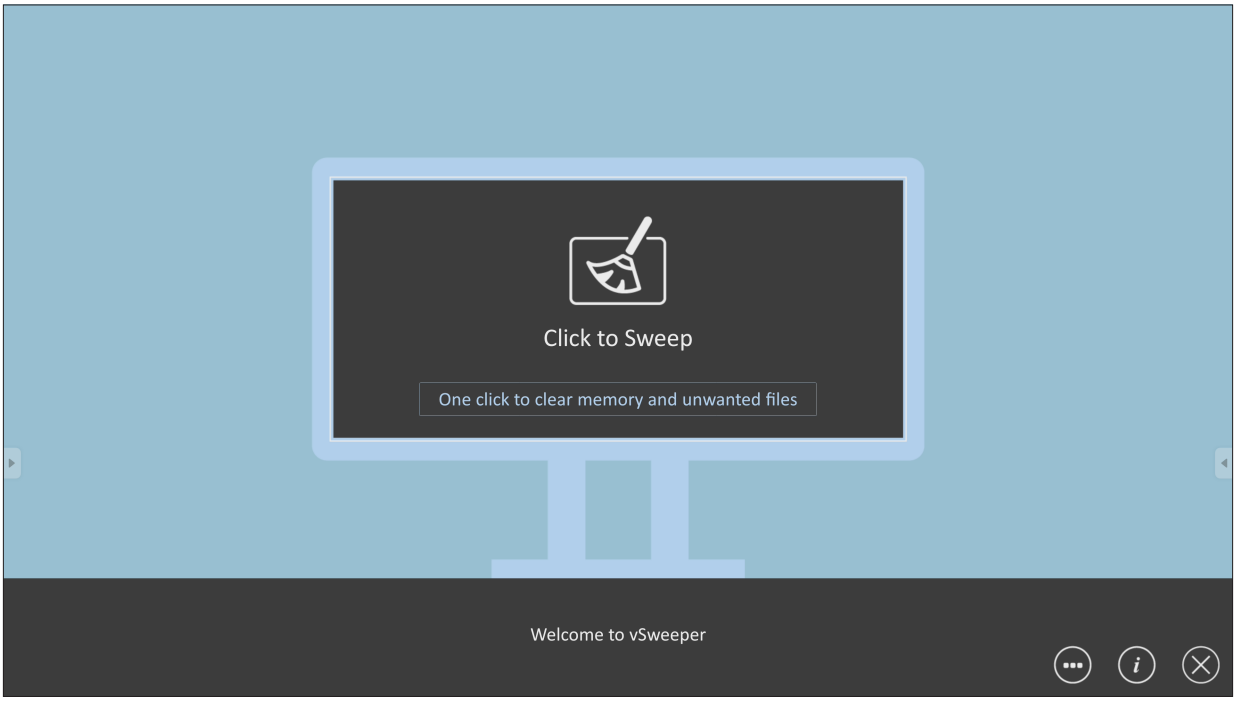
Cast Out from a Mobile Device that Supports Annotation



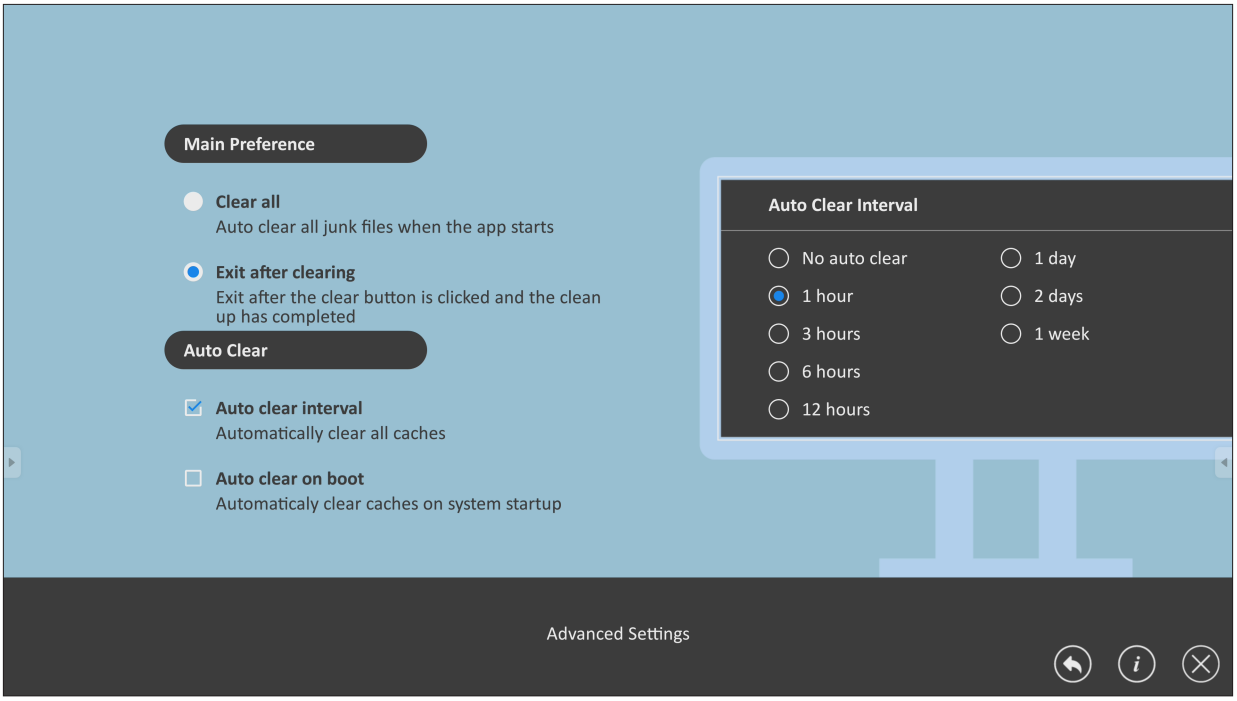
Item		Description
	Toggle	Click to hide or display tool bar
	Home	Click to return to home interface
	Return	Click to return to previous operation interface
	Folder	Click to view or open mobile device internal file
	Screen sharing	Click to share screen (Android 5.0 above supported)
	Touch	Click to change to touch mode
	Pen	Click to make annotation in the picture Click to change color or thickness
	Clear	Click to clean all the elements
	Camera	Click to use camera then send the image to IFP50

vSweeper

Select the  icon to clear unnecessary data and unwanted files.

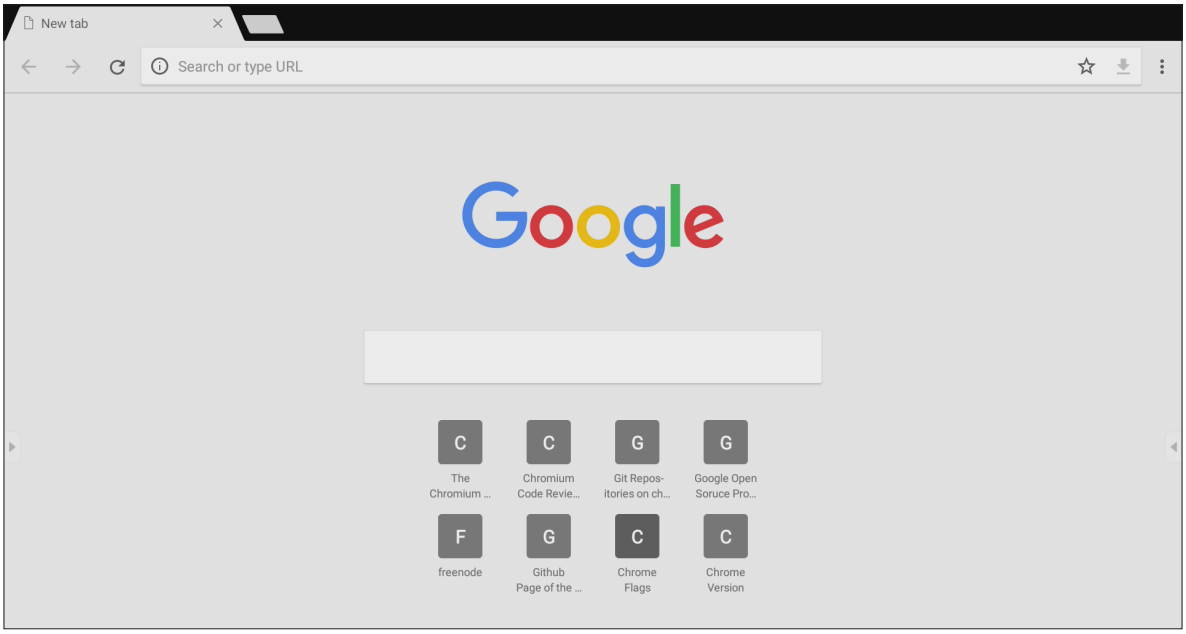


Advanced Settings can also be customized to the user's needs.



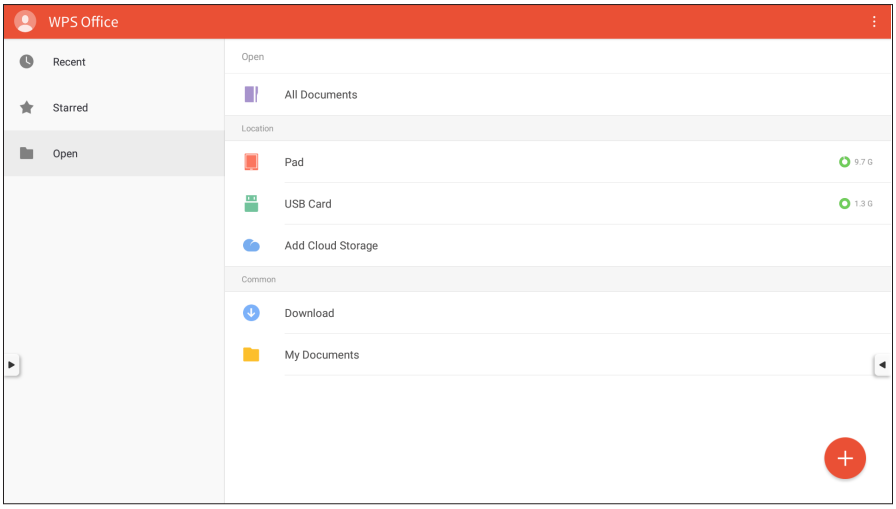
Chromium

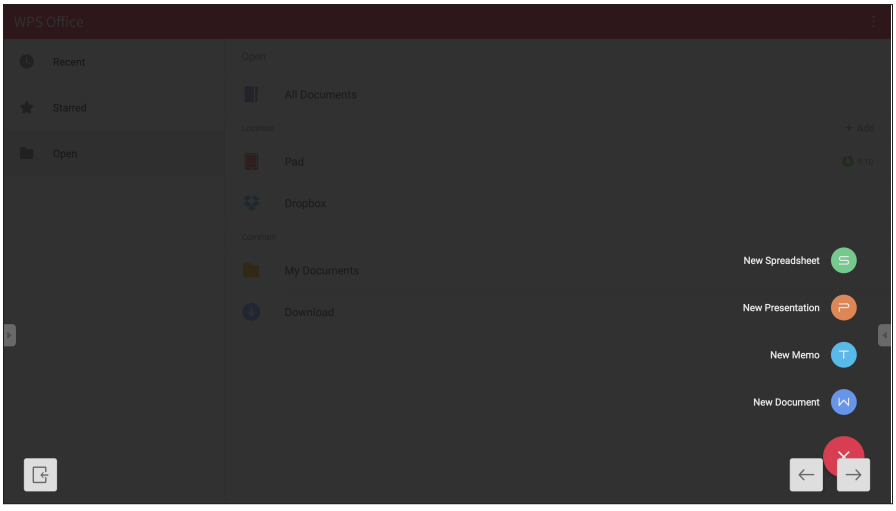
Web browser for surfing the Internet.



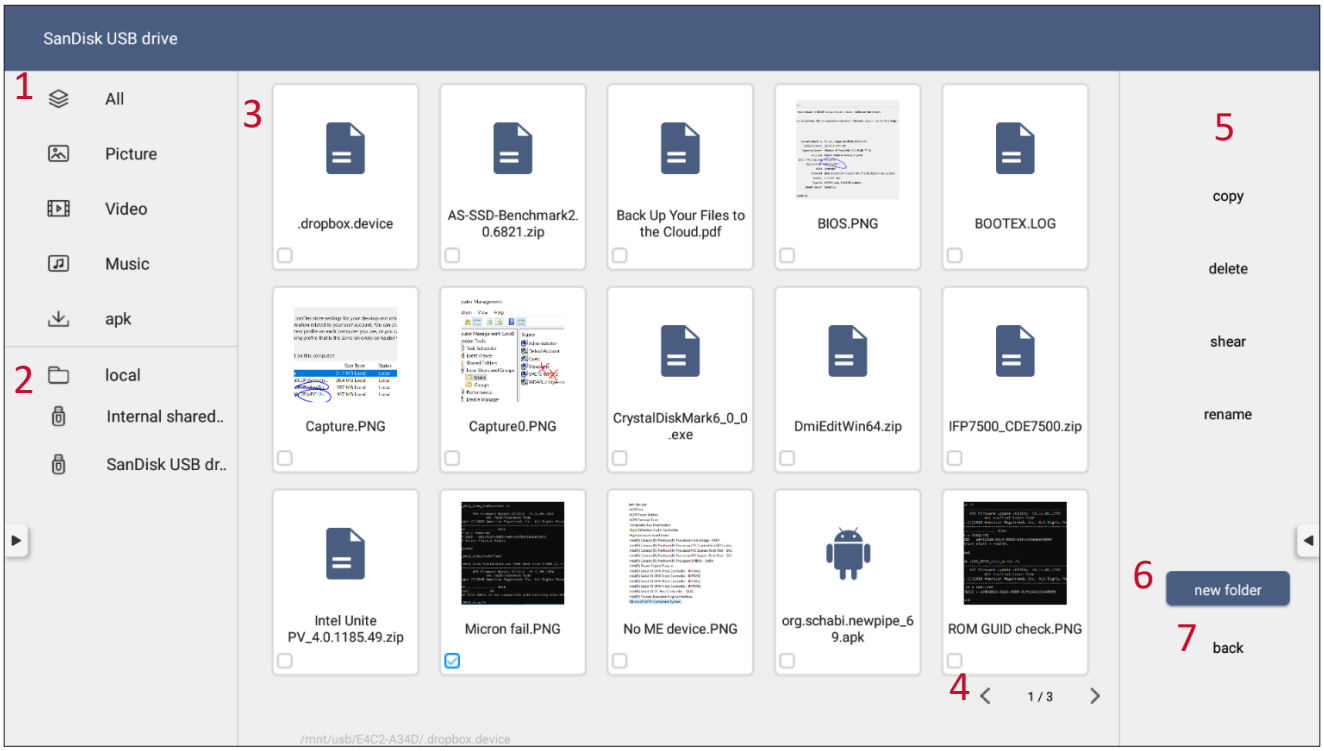
WPS Office

Create, edit, and view Documents, Memos, Presentations, and Spreadsheets.





Folders



1. File Type Filter

2. Storage Location

3. File Browser

4. Next Page

5. Long press on a file or folder to: copy, delete, cut, or rename it.

6. Add a new folder

7. Exit the file manager.

> RS-232 Protocol

This document describes the hardware interface spec and software protocols of RS-232 interface communication between ViewSonic LFD and PC 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

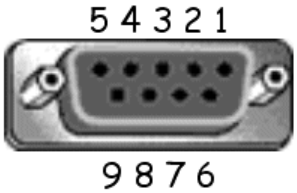
ViewSonic LFD communication port on the rear side:

1. Connector type: DSUB 9-Pin Male (or 3.5 mm barrel connector)

2. Use of crossover (null modem) cable for connection

3. Pin Assignment:

Female DSUB 9-Pin



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	Provide +5V/2A power for external specific dongle *3.0
frame	GND	

3.5 mm barrel connector (alternative for limited space)



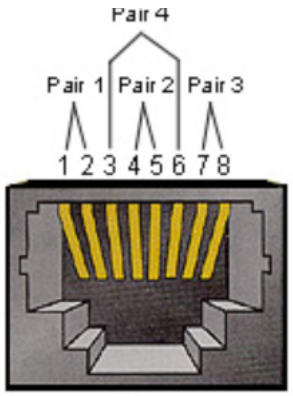
Item	Signal	Remark
Tip	TXD	Output from Display
Ring	RXD	Input to Display
Sleeve	GND	

LAN Hardware Specification

ViewSonic LFD communcation 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: 9600bps (fixed)
- Data bits: 8 bits (fixed)
- Parity: None (fixed)
- Stop Bits: 1(fixed)

LAN Communication Setting

- Type: Ethernet
- Protocol: TCP/IP
- Port: 5000 (fixed)
- 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.

Set-Function Description:

Length: Total Byte of Message excluding "CR"

LFD ID Identification for each of Display (01~98; default is 01)
ID "99" means to apply the set command for all connected displays. Under such circumstances, only ID#1 display has to reply.
The LFD ID can be set via the OSD menu for each Display.

Command Type Identify command type,
"s" (0x73h): Set Command
"+" (0x2Bh): Valid command Reply
"-" (0x2Dh): Invalid command Reply

Command: Function command code: One byte ASCII code.

Value[1~3]: Three bytes ASCII that defines the value.

CR 0x0D

Set-Function Format

Send: (Command Type="s")

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Byte Count	1 Byte	2 Byte	1 Byte	1 Byte	1 Byte	1 Byte	1 Byte	1 Byte
Bytes order	1	2~3	4	5	6	7	8	9

Reply: (Command Type="+" or "-")

Name	Length	ID	Command Type	CR
Byte Count	1 Byte	2 Byte	1 Byte	1 Byte
Bytes order	1	2~3	4	5

NOTE: When PC applies command to all displays (ID=99), only the #1 set needs to reply by the name of ID=1.

Example 1: Set Brightness as 76 for Display (#02) and this command is valid

Send (Hex Format)

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Hex	0x38	0x30 0x32	0x73	0x24	0x30	0x37	0x36	0x0D

Reply (Hex Format)

Name	Length	ID	Command Type	CR
Hex	0x34	0x30 0x32	0x2B	0x0D

Example 2: Set Brightness as 75 for Display (#02) and this command is NOT valid

Send (Hex Format)

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Hex	0x38	0x30 0x32	0x73	0x24	0x30	0x37	0x35	0x0D

Reply (Hex Format)

Name	Length	ID	Command Type	CR
Hex	0x34	0x30 0x32	0x2D	0x0D

Set-Function Table

A. Basic Function

Set Function	Length	ID	Command	Command		Value Range	Comments
			Type (ASCII)	Code (ASCII)	Code (Hex)	(Three ASCII bytes)	
Power on/ off (standby)	8		s	!	21	000: STBY 001: ON	1. The Power-on via LAN control may works only under specific mode. To see display UG for details. *3.1.1 2. “WOL by MAC address” may available as alternative.*3.2.1
Input Select	8		s	“	22	000: TV 001: AV 002: S-Video 003: YPbPr 004: HDMI1 014: HDMI2 024: HDMI3 034: HDMI4 005: DVI 006: VGA1 016: VGA2 026: VGA3 007: Slot-in PC (OPS/SDM)/HDBT 008: Internal memory 009: DP 00A: Embedded/ Main (Android)	1. No need for USB 2. For the case of two more same sources, the 2nd digital is used to indicate the extension. 3. The HEX of 00A is 30 30 41.
Brightness	8		s	$	24	000 ~ 100 900: Bright down (-1) 901: Bright up (+1) *3.1.1	
Backlight*3.2.0	8		A	B	42	000 ~ 100	1. For Android platform whose main mode is controlled by backlight and the other sources are controlled by brightness. 2. Derived from Color calibration. *3.2.0
Power lock	8		s	4	34	000: Unlock 001: Lock	*See note in details
Volume	8		s	5	35	000 ~ 100 900: Volume down(-1) 901:Volume up(+1)	
Mute	8		s	6	36	000: OFF 001: ON (mute)	

Button lock	8		s	8	38	000: Unlock 001: Lock	*See note in details
Menu lock	8		s	>	3E	000: Unlock 001: Lock	*See note in details
Number *3.1.1	8		s	@	40	000~009	
Key Pad *3.1.1	8		s	A	41	000: UP 001: DOWN 002: LEFT 003: RIGHT 004: ENTER 005: INPUT 006: MENU/(EXIT) 007: EXIT	
Remote Control	8		s	B	42	000: Disable 001: Enable 002: Pass through	**Disable**: RCU will be no function **Enabled**: RCU controls normally **Pass through**: Display will bypass the RC code to connected device via the RS-232 port, but not react itself.
Restore default	8		s	~	7E	000	Recover to factory setting

NOTE:

1. Behavior at Lock Modes

Lock Mode	Behavior
Button Lock	1. Lock all buttons on the front panel and RCU, except for “Power” 2. All the SET functions should be workable via RS-232, even the ones with according hot key in RCU like Mute,…etc.
MENU Lock	1. Lock “MENU’ key of front panel and RCU 2. The Factory and Hospitality modes should not be blocked for the model using MENU-combined key to enter these two modes. Alternative approach will be indicated separately if any limitation by model.
POWER Lock	1. Lock “POWER” key on the front and RCU. 2. The SET_POWER on/off should be workable via RS-232, but does not mean the POWER lock will be released under this case. 3. Can not be unlocked by reset in OSD setting 4. Will auto AC power-on in power-lock 5. Under power-lock, the set will not enter power saving when no PC signal and neither not turn off when no other video signals after 15 minutes.
Remote control disable	Lock the RCU keys, but keep the front panel buttons workable.

2. Wake-on-LAN by MAC address as alternative for SET Power on

(Length=126 Bytes)

6 Bytes	6 Bytes (#1)	6 Bytes (#2)	...	6 Bytes (#16)	24 Bytes
0xFF FF ... FF	MAC address	MAC address	...	MAC address	0x00 00 ... 00

Get-Function Listing

The PC can interrogate the LFD for specific information. The Get-Function packet format consists of 9 bytes which is similar to the Set-Function packet structure. Note that the “Value” byte is always = 000.

Get-Function Description:

Length: Total Byte of Message excluding “CR”.

TV/DS ID Identification for each of TV/DS (01~98; default is 01).

Command Type Identify command type,
“g” (0x67h) : Get Command
“r” (0x72h) : Valid command Reply
“-“ (0x2Dh) : Invalid command Reply

Command: Function command code: One byte ASCII code.

Value[1~3]: Three bytes ASCII that defines the value.

CR 0x0D

Get-Function Format

Send: (Command Type=“g”)

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Byte Count	1 Byte	2 Byte	1 Byte	1 Byte	1 Byte	1 Byte	1 Byte	1 Byte
Bytes order	1	2~3	4	5	6	7	8	9

Reply: (Command Type=“r” or “-”)

If the Command is valid, Command Type = “r”

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Byte Count	1 Byte	2 Byte	1 Byte	1 Byte	1 Byte	1 Byte	1 Byte	1 Byte
Bytes order	1	2~3	4	5	6	7	8	9

If the Command is NOT valid, Command Type = “-”

Name	Length	ID	Command Type	CR
Byte Count	1 Byte	2 Byte	1 Byte	1 Byte
Bytes order	1	2~3	4	5

Example 1: Get Brightness from TV-05 and this command is valid. The Brightness value is 67.

Send (Hex Format)

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Hex	0x38	0x30 0x35	0x67	0x62	0x30	0x30	0x30	0x0D

Reply (Hex Format)

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Hex	0x38	0x30 0x35	0x72	0x62	0x30	0x36	0x37	0x0D

Example 2: Get Color from Display (#05), but the Color command is not supported by this model.

Send (Hex Format)

Name	Length	ID	Command Type	Command	Value1	Value2	Value3	CR
Hex	0x38	0x30 0x35	0x67	0x26	0x30	0x30	0x30	0x0D

Reply (Hex Format)

Name	Length	ID	Command Type	CR
Hex	0x34	0x30 0x35	0x2D	0x0D

Get-Function Table

A. Basic Function

Get Function	Length	ID	Command	Command		Response Range	Comments
			Type (ASCII)	Code (ASCII)	Code (Hex)	(Three ASCII bytes)	
Get-Brightness	8		g	b	62	000 ~ 100	
Get-Backlight*3.2.0	8		a	B	42	000 ~ 100	1. For Android platform whose main mode is controlled by backlight and the other sources are controlled by bright-ness. 2. Derived from Color calibration. *3.2.0
Get-Volume	8		g	f	66	000 ~ 100	
Get-Mute	8		g	g	67	000: Off 001: On (muted)	
Get-Input select	8		g	j	6A	000~ 100~	1. 1st digit for signal detection: 0 means “no signal”; 1 means “signal detected” 2. 2nd &3rd digit: See Set-function table
Get-Power status: ON/ STBY	8		g	l	6C	001: ON 000: STBY	
Get-Remote control	S		g	n	6E	000: Disable 001: Enable 002: Pass through	Get RCU mode status
Get-Power lock	8		g	o	6F	000: Unlock 001: Lock	
Get-Button lock	8		g	p	70	000: Unlock 001: Lock	
Get-Menu lock	8		g	l	6C	000: Unlock 001: Lock	
Get-ACK	8		g	z	7A	000	This command is used to test the com-munication link
Get-Thermal	8		g	0	30	000~100: 0~+100 deg C -01~-99: -1~-99 deg C	
Get-Operation time*3.2.0	8		g	1	31	000	1. Accumulated hours in 6-digit integer (000,001~ 999,999)*3.2.0 2. Can not be reset when FW update and Factory initiation*3.2.2 3. Reply in new 32-byte format*3.2.0
Get-Device name	8		g	4	34	000	Reply in new 32-byte format *3.2.0

Get-MAC address	8		g	5	35	000	(for the model with LAN) Reply in new 32-byte format*3.2.0
Get-IP address *3.2.0	8		g	6	36	000	(for the model with LAN) Reply in new 32-byte format*3.2.0
Get-Serial number *3.2.0	8		g	7	37	000	Reply in new 32-byte format *3.2.0
Get-FW version *3.2.0	8		g	8	38	000	Reply in new 32-byte format *3.2.0

NOTE:

1. Get Operation Hour example

Assumed the accumulated operation hour is 123,456 hrs

Send: 0x 38 30 31 67 31 30 30 30 0D (Get Operation hour)

Reply: 0x 32 30 31 72 31 31 32 33 34 35 36 00 00 … 00 00 0D

2. Get Device Name example

Assumed the device name is CDE-5500

Send: 0x 38 30 31 67 34 30 30 30 0D (Get Device Name)

Reply: 0x 32 30 31 72 34 43 44 45 2D 35 35 30 30 00 00 … 00 00 0D

Assumed the device name is “NMP-302#1”

Send: 0x 38 30 31 67 34 30 30 30 0D (Get Device Name)

Reply: 0x 32 30 31 72 34 4E 4D 50 2D 33 30 32 23 31 00 00 …00 00 0D

3. Get MAC address example

Assumed the MAC address is 00:11:22:aa:bb:cc

Send: 0x 38 30 31 67 35 30 30 30 0D (Get MAC add)

Reply: 0x 32 30 31 72 35 30 30 31 31 32 32 61 61 62 62 63 63 00 00…00 00 0D

4. Get IP address example

Assumed the IP address is 192.168.100.2

Send: 0x 38 30 31 67 36 30 30 30 0D (Get IP address)

Reply: 0x 32 30 31 72 36 31 39 32 2E 31 36 38 2E 31 30 30 2E 32 00 00…00 00 0D

5. Get Serial number example

Assumed the Serial number is ABC180212345

Send: 0x 38 30 31 67 37 30 30 30 0D (Get Serial number)

Reply: 0x 32 30 31 72 37 41 42 43 31 38 30 32 31 32 33 34 35 00 00…00 00 0D

6. Get FW version example

Assumed the FW version is 3.02.001

Send: 0x 38 30 31 67 38 30 30 30 0D (Get FW version)

Reply: 0x 32 30 31 72 38 33 2E 30 32 2E 30 30 31 00 00…00 00 0D

Remote Control Pass-through Mode

When the PC sets the Display to Remote Control Pass through mode, the Display shall send a 7-byte packet (followed by “CR”) in response to remote control unit (RCU) button activation. In this mode the remote control shall have no effect on the Display function. For example: “Volume+” will not change the volume of the Display, but instead only sends the “Volume+” code to the PC over the RS-232 port.

IR Pass Through-Function format

Reply: (Command Type=“p”)

Name	Length	ID	Command Type	RCU Code1 (MSB)	RCU Code2 (LSB)	CR
Byte Count	1 Byte	2 Byte	1 Byte	1 Byte	1 Byte	1 Byte
Bytes order	1	2~3	4	5	6	7

Example 1: Remote Control Pass-through when “VOL+” key is pressed for Display (#5)

Send (Hex Format)

Name	Length	ID	Command Type	RCU Code1 (MSB)	RCU Code2 (LSB)	CR
Hex	0x36	0x30 0x35	0x70	0x31	0x30	0x0D

Key	Code (HEX)	Basic *3.1.1	Optional *3.1.1
1	01	V	
2	02	V	
3	03	V	
4	04	V	
5	05	V	
6	06	V	
7	07	V	
8	08	V	
9	09	V	
0	0A	V	
-	0B		V
RECALL (LAST)	0C		V
INFO (DISPLAY)	0D		V
	0E		
ASPECT (ZOOM, SIZE)	0F		V
VOLUME UP (+)	10	V	

VOLUME DOWN (-)	11	V	
MUTE	12	V	
CHANNEL/PAGE UP (+)/ BRIGHTNESS+	13		V
CHANNEL/PAGE DOWN (-)/ BRIGHTNESS-	14		V
POWER	15	V	
SOURCES (INPUTS)	16	V	
	17		
	18		
SLEEP	19		V
MENU	1A	V	
UP	1B	V	
DOWN	1C	V	
LEFT (-)	1D	V	
RIGHT (+)	1E	V	
OK (ENTER, SET)	1F	V	
EXIT	20	V	
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	2A		
	2B		
RED ■ (F1)	2C		
GREEN ■ (F2)	2D		

NOTE:

1. This IR-pass-through code is different from the RCU key code.
2. Special control sequence for POWER key under IR-pass through mode.

2-1. When Display is OFF and receives the IR POWER code: Display will turn itself on, then forward the POWER code to the host via RS-232.

2-2. When Display is ON and receives the IR POWER code: Display will forward the POWER code to the host via RS-232, then turn off itself.

2-3. When SET-POWER LOCK is enabled, the Display will not respond to POWER key pressing.

3. The VOLUME UP and VOLUME DOWN code will repeatedly output when you press and hold the keys.

> Appendix

Specifications

Item	Category	Specifications
Model		CDE9800
Screen Size		98”
Input Signal		1 x VGA 2 x HDMI 2.0 (4K@60Hz) 1 x DisplayPort 1.2 1 x PC audio 1 x RJ45
Output Signal		1 x HDMI 2.0 (1920 x 1080/3840 x 2160) 1 x Earphone Out 1 x SPDIF
Speaker Output		16W x 2
RS-232		RS-232 Communication
Power	Voltage	100V-240V AC 50/60Hz
Operating Conditions	Temperature	32° F to 104° F (0° C to 40° C)
	Humidity	20%~80% non-condensing
	Altitude	≤ 2,000 m
Storage Conditions	Temperature	-4° F to 140° F (-20° C to 60° C)
	Humidity	10%~90% non-condensing
	Altitude	≤ 2,000 m
Dimensions	Physical (mm)	2525 x 435 x 1750
Weight	Physical (kg)	104.5
Power Consumption	On	385W
	Off	<0.5W

NOTE: Product specifications are subject to change without notice.

Display Modes

VGA Mode

Resolution	Refresh Rate (@)
640 x 480	60Hz, 72Hz, 75Hz
720 x 400	70Hz
800 x 600	56Hz, 60Hz, 72Hz, 75Hz
1024 x 768	60Hz, 70Hz, 75Hz
1152 x 864	60Hz, 75Hz
1280 x 768	60Hz, 75Hz
1280 x 960	60Hz
1280 x 1024	60Hz, 75Hz
1360 x 768	60Hz
1366 x 768	60Hz
1400 x 1050	60Hz
1440 x 900	60Hz
1600 x 1200	60Hz
1680 x 1050	60Hz
1920 x 1080	60Hz
1920 x 1200	60Hz

HDMI 1 and 2/OPS/SDM Mode

Resolution	Refresh Rate (@)
640 x 480	60Hz, 72Hz
720 x 400	70Hz
800 x 600	60Hz, 72Hz
1024 x 768	60Hz, 70Hz, 75Hz
1280 x 800	60Hz
1280 x 1024	60Hz
1360 x 768	60Hz
1440 x 900	60Hz
1680 x 1050	60Hz
1920 x 1080	60Hz
3840 x 2160	30Hz (HDMI 1/SDM)
3840 x 2160	60Hz (HDMI 2/3/OPS)
480i	60Hz
480p	59Hz, 60Hz
576i	50Hz
576p	50Hz
720p	50Hz, 60Hz
1080i	50Hz, 60Hz
1080p	50Hz, 60Hz

DisplayPort (DP) Mode

Resolution	Refresh Rate (@)
640 x 480	60Hz, 72Hz
720 x 400	70Hz
800 x 600	60Hz, 72Hz
1024 x 768	60Hz, 70Hz, 75Hz
1280 x 800	60Hz
1280 x 1024	60Hz
1360 x 768	60Hz
1440 x 900	60Hz
1680 x 1050	60Hz
1920 x 1080	60Hz
3840 x 2160	30Hz, 60Hz
480p	59Hz, 60Hz
576p	50Hz
720p	50Hz, 60Hz
1080i	50Hz, 60Hz
1080p	50Hz, 60Hz

Troubleshooting

This section describes some common problems that you may experience when using the CDE9800.

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.
False color	**1.** Check the VGA connection. **2.** Adjust the chroma, brightness, and contrast settings.
Unsupported format	**1.** Choose auto adjust. **2.** Adjust clock and phase settings.

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.

FCC Compliance Statement

This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

CE Conformity for European Countries

CE The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU.

The following information is only for EU-member states:

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE). The mark indicates the requirement NOT to dispose of the equipment as unsorted municipal waste, but use the return and collection systems according to local law.



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:

http://www.viewsonic.com/company/green/recycle-program/

Europe:

http://www.viewsoniceurope.com/eu/support/call-desk/

Taiwan:

https://recycle.epa.gov.tw/

Copyright Information

Copyright© ViewSonic® Corporation, 2019. All rights reserved.

Macintosh and Power Macintosh are registered trademarks of Apple Inc.

Microsoft, Windows, and the Windows logo are registered trademarks of Microsoft Corporation in the United States and other countries.

HDMI logo and High-Definition Multimedia Interface are trademarks of HDMI licensing LLC.

ViewSonic®, the three birds logo, OnView, ViewMatch, and ViewMeter are registered trademarks of ViewSonic® Corporation.

VESA is a registered trademark of the Video Electronics Standards Association. DPMS, DisplayPort, and DDC are trademarks of VESA.

Disclaimer: ViewSonic® Corporation shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from furnishing this material, or the performance or use of this product.

In the interest of continuing product improvement, ViewSonic® Corporation reserves the right to change product specifications without notice. Information in this document may change without notice.

No part of this document may be copied, reproduced, or transmitted by any means, for any purpose without prior written permission from ViewSonic® Corporation.

CDE9800_UG_ENG_1a_20190820

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® Commercial Display

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® Commercial Display

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	
NÚMERO GRATIS DE ASISTENCIA TÉCNICA PARA TODO MÉXICO: 001.866.823.2004	
Hermosillo: Distribuciones y Servicios Computacionales SA de CV. Calle Juarez 284 local 2 Col. Bugambilias C.P: 83140 Tel: 01-66-22-14-9005 E-Mail: disc2@hmo.megared.net.mx	***Villahermosa:*** Compumantenimietnos Garantizados, S.A. de C.V. AV. GREGORIO MENDEZ #1504 COL, FLORIDA C.P. 86040 Tel: 01 (993) 3 52 00 47 / 3522074 / 3 52 20 09 E-Mail: compumantenimientos@prodigy.net.mx
Puebla, Pue. (Matriz): RENTA Y DATOS, S.A. DE C.V. Domicilio: 29 SUR 721 COL. LA PAZ 72160 PUEBLA, PUE. Tel: 01(52).222.891.55.77 CON 10 LINEAS E-Mail: datos@puebla.megared.net.mx	***Veracruz, Ver.:*** CONEXION Y DESARROLLO, S.A DE C.V. Av. Americas # 419 ENTRE PINZÓN Y ALVARADO Fracc. Reforma C.P. 91919 Tel: 01-22-91-00-31-67 E-Mail: gacosta@qplus.com.mx
Chihuahua: Soluciones Globales en Computación C. Magisterio # 3321 Col. Magisterial Chihuahua, Chih. Tel: 4136954 E-Mail: Cefeo@soluglobales.com	***Cuernavaca:*** Compusupport de Cuernavaca SA de CV Francisco Leyva # 178 Col. Miguel Hidalgo C.P. 62040, Cuernavaca Morelos Tel: 01 777 3180579 / 01 777 3124014 E-Mail: aquevedo@compusupportcva.com
Distrito Federal: QPLUS, S.A. de C.V. Av. Coyoacán 931 Col. Del Valle 03100, México, D.F. Tel: 01(52)55-50-00-27-35 E-Mail : gacosta@qplus.com.mx	***Guadalajara, Jal.:*** SERVICRECE, S.A. de C.V. Av. Niños Héroes # 2281 Col. Arcos Sur, Sector Juárez 44170, Guadalajara, Jalisco Tel: 01(52)33-36-15-15-43 E-Mail: mmiranda@servicrece.com
Guerrero Acapulco: GS Computación (Grupo Sesicomp) Progreso #6-A, Colo Centro 39300 Acapulco, Guerrero Tel: 744-48-32627	***Monterrey:*** Global Product Services Mar Caribe # 1987, Esquina con Golfo Pérsico Fracc. Bernardo Reyes, CP 64280 Monterrey N.L. México Tel: 8129-5103 E-Mail: aydeem@gps1.com.mx
MERIDA: ELECTROSER Av Reforma No. 403Gx39 y 41 Mérida, Yucatán, México CP97000 Tel: (52) 999-925-1916 E-Mail: rrrb@sureste.com	***Oaxaca, Oax.:*** CENTRO DE DISTRIBUCION Y SERVICIO, S.A. de C.V. Murguía # 708 P.A., Col. Centro, 68000, Oaxaca Tel: 01(52)95-15-15-22-22 Fax: 01(52)95-15-13-67-00 E-Mail. gpotai2001@hotmail.com
Tijuana: STD Av Ferrocarril Sonora #3780 L-C Col 20 de Noviembr Tijuana, Mexico	***FOR USA SUPPORT:*** ViewSonic® Corporation 381 Brea Canyon Road, Walnut, CA. 91789 USA Tel: 800-688-6688 E-Mail: http://www.viewsonic.com


ViewSonic®