SMART Board GX V3 series Interactive Displays User Guide

SMART Board®
GX (V3)
series interactive displays
Installation and maintenance guide
SBID-GX165-V3 | SBID-GX175-V3 | SBID-GX186-V3
IDGX65-2 | IDGX75-2 | IDGX86-2

Contents

Board GX V3 series Interactive Displays

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https://support.smarttech.com/docs/redirect/?product=smartboardgx

This guide and other resources for SMART Board (V3) series interactive displays are available in the Support section of the SMART website (smarttech.com/support). Scan this QR code to view these resources on your mobile device.

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Important information

Warning

- Failure to follow the installation instructions included with the display could result in injury and product damage which may not be covered by the warranty.
- Do not open or disassemble the display. You risk electrical shock from the high voltage inside the casing. Opening the casing also voids the warranty.
- Do not stand (or allow children to stand) on a chair to touch the surface of the display. Rather, mount the product at the appropriate height.
- To reduce the risk of fire or electric shock, do not expose the display to rain or moisture.
- If the display requires replacement parts, make sure the service technician uses replacement parts specified by SMART Technologies or parts with the same characteristics as the original.
- Ensure that any cables that cross the floor to the display are properly bundled and marked to avoid a trip hazard.
- Do not insert objects inside the cabinet ventilation holes, because they could touch dangerous voltage points and cause electric shock, fire, or product damage which may not be covered by the warranty.
- Do not place heavy objects on the power cable. Damage to the cable could cause shock, fire, or product damage which may not be covered by the warranty.
- Use only extension cords and outlets that can fully accommodate the display’s polarized plug.

- Use the power cable provided with the display. If a power cable is not supplied, contact your supplier. Use only power cables that match the AC voltage of the power outlet and that comply with your country's safety standards.
- If the glass is broken, do not touch the liquid crystal. To prevent injury, handle glass fragments with care when disposing of them.
- Do not move or mount the display by connecting rope or wire to its handles. The display is heavy, and failure of the rope, wire, or handle could lead to injury.
- Stability Hazard: The display may fall, causing serious personal injury or death. To prevent injury, the display must be securely mounted to the wall in accordance with the installation instructions and using the mounting hardware provided by SMART (if supplied). If your display does not include mounting hardware, be sure to select mounting hardware that is rated or certified for the display's size and weight and is compatible with the surface to which you're mounting the display.
- Use only VESA®-compliant mounts.
- Disconnect the display's power cable from the wall outlet and seek assistance from qualified service personnel if any of the following occur:
  - The power cable or plug is damaged
  - Liquid is spilled into the display
  - Objects fall into the display
  - The display is dropped
  - Structural damage, such as cracking, occurs
  - The display behaves unexpectedly when you follow operating instructions
- This product may contain substances that are candidate SVHCs under the EU REACH Regulation (EC) 1907/2006.
  See > **echa.europa.eu/scip-database**

⚠ Caution

- Turn off the display before cleaning its screen. Otherwise, you may scramble the desktop icons or inadvertently activate applications when you wipe the screen.
- Avoid setting up and using the display in an area with excessive levels of dust, humidity, and smoke.
- Make sure an electrical socket is near the display and remains easily accessible during use.
- In Europe, the display should be used only with European TN and TT power distribution systems.
  It is not suitable for older, IT-type power distribution systems found in some European countries.
  "This system (IT-type) is widely used isolated from earth, in some installations in France, with impedance to earth, at 230/400V, and in Norway, with voltage limiter, neutral not distributed, at 230V line-to-line."
  Contact qualified personnel if you're uncertain of the type of power system available where you're installing the display.
- The accessory slot's maximum available power is 90 W. The slot is not a limited power source. To reduce the risk of fire, make sure that accessories connecting to the slot satisfy the fire enclosure requirements of IEC 62368-1.
- You must connect the USB cable that came with the display to a computer that has a USB compliant interface and that bears the USB logo. In addition, the USB source computer must be compliant with IEC 62368-1. The source computer must be CE marked and carry safety certification marks for Canada and USA. This is for

operating safety and to avoid damage to the display.

- Wait five minutes after disconnecting power from the display before removing accessories from the display's OPS slot to allow the accessory to cool.
- Prolonged focus on a fixed object, such as a display's screen, can contribute to eye strain and headaches. To protect eye health, follow the 20-20-20 rule: after 20 minutes of screen time, spend 20 seconds looking at something 20 feet (6 meters) away. Relaxing the eyes, looking around frequently, and blinking will also help prevent eye strain and fatigue.

Important
The following table includes the normal operating power requirements for the display:

Models	Regulatory Models	Power requirements
GX165-V3	IDGX65-2	100V to 240V AC, 50 Hz to 60 Hz, 79 W
GX175-V3	IDGX75-2	100V to 240V AC, 50 Hz to 60 Hz, 88 W
GX186-V3	IDGX86-2	100V to 240V AC, 50 Hz to 60 Hz, 119 W

For additional requirements and other information, refer to the display's specifications (see More information on page 14).

Chapter 1 Welcome

The SMART Board® (V3) series interactive display gives you everything you need to get started with interactivity. This chapter introduces the features of your GX series display.

About this guide

- How to install the display
- How to connect power and devices
- How to turn on the display for the first time
- How to maintain the display for years of use
- How to troubleshoot issues with the display

This guide also includes information about the display's settings and support for remote management.
This guide is intended for those who install and maintain displays in their organizations. Additional documentation and resources are available for users of the display (see More information on page 14).

About the display

The SMART Board GX series gives you everything you need to get started with interactivity.
The display includes a comprehensive set of features and components.

Touch
You can do everything on the display that you can do at your computer—open and close applications, meet with others, create new documents or edit existing ones, visit websites, play and manipulate videos, and so on—by touching the display's surface.
You can use an array of gestures within applications, including panning, scaling, rotating, and zooming in and out.

Display
The 4K ultra-high-definition LED display provides optimal image clarity and wide viewing angles.
The display size varies by model:

Models	Size (diagonal)
GX165-V3	65″
GX175-V3	75″
GX186-V3	86″

Mounting hardware
You can use VESA compliant wall mounts, such as SMART's WM-SBID-200 wall mount (not included), to mount the display on a wall (see Installing the display on a wall on page 17).
You can also mount the display on a mobile stand (see Accessories on page 13).

Front control panel
The front control panel provides buttons for turning the display on and off, controlling the volume, freezing the screen, and displaying the Home screen.

Remote control and infrared sensor
The display's infrared sensor is located in the control panel in the bottom-right corner of the display's frame.
You can use the remote control to turn the display on and off, adjust display settings, and so on.

Ambient light sensor
The ambient light sensor is located in the bottom-right corner of the display's frame. The sensor detects the brightness of the room and adjusts the screen's brightness accordingly.

To enable or disable this feature, go to Input > Advanced settings > Screen > AutoLight (see Advanced settings on page 76).

Note
The ambient light sensor is disabled by default.

Power status
See SMART Board GX (V3) series interactive displays user's guide (**docs.smarttech.com/kb/171903**).

Writing, drawing, and erasing
The display comes with two pens you can use to write or draw on the screen. Each end of a pen can be assigned to write or draw in a different color when using the Whiteboard app. You can erase digital ink by moving your fist or palm over the digital ink.
With Object Awareness[1], the display responds automatically to the tool or object you're using, whether it's a pen, finger, or palm.

Audio
The display includes two 20 W integrated speakers.

Network connectivity
The display requires a network and internet connection for downloading software and firmware updates. Some applications also require a network and internet connection (for example, the web browser).
The display requires a network and internet connection for downloading software and firmware updates.

You can connect the display to a network using Wi-Fi or an Ethernet cable.

- The Wi-Fi module supports both 2.4 and 5 GHz bands.
- The two RJ45 jacks allow you to connect the display and an external device, such as a computer, to an Ethernet network.

See > Connecting to a network on page 22

Front connector panel
The front connector panel includes connectors for USB peripherals and a computer or other input.
See > Connecting room computers and guest laptops on page 32
See > Connecting other devices on page 42

Room computers and guest laptops
You can connect room computers and guest laptops to the display and view and interact with them.
The display comes with SMART software that you can install on connected computers to take full advantage of the display's features.
See > Connecting room computers and guest laptops on page 32

Tools and features
The display's built-in Android™ computing provides apps that enable you to browse the web, use a whiteboard, share your screen, and more without using a connected device.

Accessory slot
You can install an OPS-compatible device, such as a SMART OPS PCmodule, in the accessory slot.
SMART OPS PCmodules provide a complete Windows® Pro installation.
See > SMART OPS PCmodule on the next page

⚠ **Caution**

- The accessory slot's maximum available power is 90 W. The slot is not a limited power source. To reduce the risk of fire, make sure that accessories connecting to the slot satisfy the fire enclosure requirements of IEC 62368-1.
- Do not remove the OPS PC or other devices from the accessory slot while they are turned on.
- Do not install or remove the OPS PC or other devices in the accessory slot while the display is turned on.

Identifying your specific model
SMART offers several models of the SMART Board GX (V3) series interactive displays.
For help identifying your model, see the labels on the back or left side of the display.

Tip
The label features the display's base model number (for example, SBID-GX075-V3). Please note this number is different from the actual model/SKU number (for example GX175-V3).

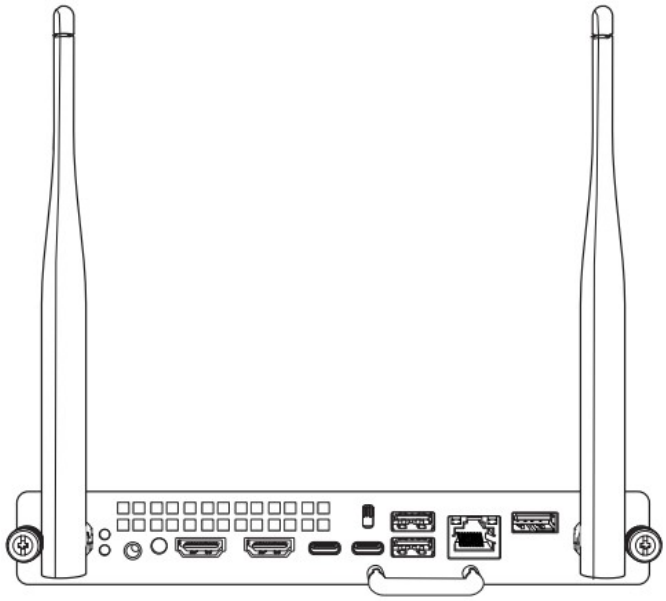
Model	Screen size (approximate)
GX165-V3	65″ (165 cm)
GX175-V3	75″ (190 cm)
GX186-V3	86″ (218 cm)

Accessories
Accessories for the display include:

- SMART OPS PCmodule
- SMART wall mount (WM-SBID-200) for SMART Board displays
- Stands
- USB extenders

See also > **smarttech.com/accessories**

SMART OPS PC module
SMART Open Pluggable Specification (OPS) PCmodules provide a hassle free Windows Pro installation based on Intel® Core™ processors and are designed specifically to work with a SMART Board interactive display. All OPS PCmodules are fully licensed with Windows Pro. Install the OPS PCmodule in a display's accessory slot to provide a complete 4K UHDWindows installation at your fingertips, without the need for an external PC or additional cables.



Install familiar Windows applications, such as SMART Notebook®, SMART TeamWorks™, and SMART Meeting Pro® software, and access the internet directly through your display's network connection. Upgrades and service for the OPS PCmodule are easy to performwithout removing the display from its mounting.

Stands
If you want to move the display from place to place, you can install it on a SMART mobile stand. If you are installing the display on a wall that cannot support the display's full weight, you can install the display on a SMART floor stand.

Notes

- If you want to use the 75″ and 86″ models (GX175-V3 and GX186-V3) with one of SMART's electric height-adjustable stands, you must first attach a SMART wall mount (model WM-SBID-200, part #1031766, **docs.smarttech.com/kb/171405**) to the display before mounting the display to the stand. (This applies to the FSE-400, FSE-410, and FSE-420 models of mobile stand and the WSE400 and WSE-410 models of wall stand).
- For users in Australia and New Zealand: SMART does not provide stands for use in Australia and New Zealand, nor can we provide recommendations for stands from other vendors.

USB extenders
As noted in the display's specifications, the USB connection between the display and computer should be no longer than 16′ (5 m). If you need to connect a computer that is more than 16′ (5 m) from the display, use the following USB extender:

Extender	Specifications
USB-XT	**docs.smarttech.com/kb/119318**

See also > Extending USB cables

More information
SMART provides a variety of other documents for this display in the Support section of the SMART website (**smarttech.com/support**). Scan the QR code on this guide's cover for links to SMART Board GX (V3) series interactive display documents and other support resources.

Chapter 2 Installing the display

SMART recommends that only trained installers install the display.
This chapter is for installers. Installers should read this information and the installation instructions included with the display before they begin the installation.

Warning
Improper installation of the display can result in injury and product damage.

Moving the display to the installation site

After your organization receives the display, you need to move it to the place where you plan to install it.
On occasion, you might also need to move the display to another location after installing it initially.

Important

- Move the display at your own risk. SMART cannot accept liability for damages or injury that occur during the display's transportation.
- When moving the display:
  - Follow local safety regulations and standards.
  - Pack the display in its original packaging, including the pallet.
  - Move the display so that its top frame faces up.
  - Do not place an unpacked display on its side.
  - Have at least two people move the display.

Tip
display packaging may be labeled to indicate which side is the front. Look for "FRONT" on the packaging to help orient the box during transportation.

Using transportation aides

You can use the following aides to move the display:

- Cart
- Furniture dolly
- Mechanical lift

Accommodating doorways, hallways, and elevators

In some situations, you might need to remove the display from its packaging to move it through narrow doorways or hallways or onto an elevator. In these situations, keep the foam pieces on the bottom corners of the display. These foam pieces protect the display if you need to set it down during transportation.
You might also need to rotate the display so that its top frame faces to the side. You can do this during transportation, but when you install the display, it must be in landscape orientation (with the top frame facing up). Do not place an unpacked display on its side.

Dealing with cracked, chipped, or shattered glass

The display contains safety-tempered glass. Although this glass is heat-strengthened to help withstand impacts, the glass can crack, chip, or shatter if struck with enough force. (Safety glass is designed to break into small pieces rather than sharp shards if it is broken.) Temperature changes can cause a minor crack or chip to become worse, possibly causing the glass to shatter.

See > Shattered glass on an interactive display

If the display's glass is cracked or chipped, have it professionally inspected and repaired at a SMART authorized repair center. If the display's glass shatters, carefully clean up the area and have the display repaired or replaced.

Warning
For safety and to prevent further damage, do not continue to install or use the display if its glass is cracked, chipped or shattered.

Saving the original packaging
Save the original packaging, including the display's pallet, and repack the display with as much of it as possible if you ever need to move the display after installation. This packaging was designed to provide the best possible protection against shock and vibration.

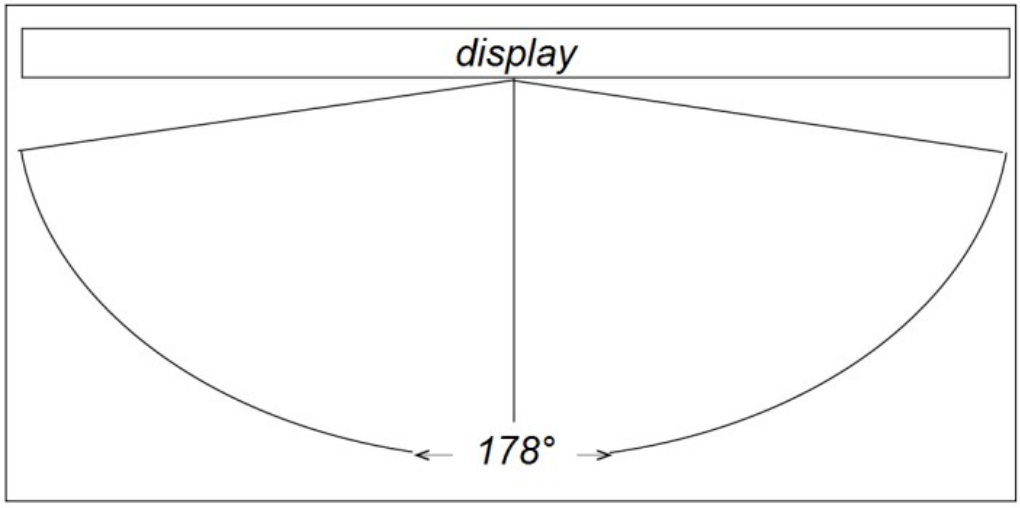
Note
If the original packaging isn't available, you can purchase the same packaging directly from your authorized SMART reseller (**smarttech.com/where**).

Caution
Move the display only in the original packaging or replacement packaging purchased from your authorized SMART reseller. Moving the display without correct packaging can lead to product damage and voids the warranty.

Installing the display on a wall
Typically, you install the display on a wall in a classroom or meeting space.

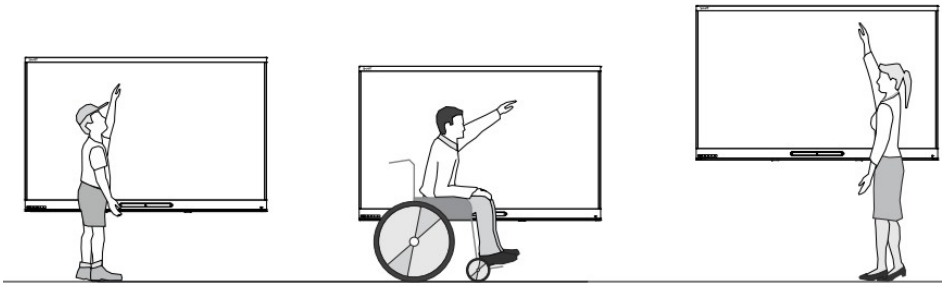
Choosing a location
A display is typically installed at the room's focal point, such as at the front of a classroom or meeting space. Selecting an appropriate location is crucial for ensuring the best possible experience with the display. Consider the following factors as you choose a location:

Factor	Considerations
Room setup	● The location allows users, including those in wheelchairs, access to the display. Refer to local regulations regarding accessibility. ● The location allows for multiple users to access the display at the same time. ● The location accommodates room traffic patterns, and there are no tripping hazards. ● The display is not installed where it could be hit by a door or gate. ● There are no nearby heating or cooling sources directed at the display, such as a radiator , heat vent, or air conditioner. ● There are no nearby shelving units, desks, or other furniture that has doors or drawers th at could hit the display. ● Furniture, wall decor, and other room features, such as light switches and thermostats, do not block the display and are not blocked by it. (You might be able to move some of these r oom features to accommodate the display.)

Power and other connections	● The location is close to: o A power outlet o A network outlet (if you plan to use a wired network connection) o A room computer (if you plan to connect a room computer) o External audio systems and other devices that you want to connect to the display **Notes** o If the location is not near a power outlet, consult an electrician for the power setup you needed. o Determine if you'll need additional equipment, such as power bars, additional cables, or cable extenders. ● The location is not where the mains power supply enters the building.
Visibility	The display's screen is clearly visible to all users in the room. SMART recommends users sit within a 178° viewing area:  **Note** The viewing area depends on the display's resolution and a variety of other factors. See > Recommended viewing distances and viewing angles for SMART Board interactive displays
Lighting	The location is not near bright light sources, such as windows or strong overhead lighting. Risks of light interference include: o **Reduced visibility:** Light sources can cause glare on the display's screen, reducing its visibility. o **Touch system interference:** Many displays use infrared (IR) light as a key component of the touch system. Strong light that hits the display's screen directly can cause interference with the touch system and prevent the display fromworking properly. **Tip** To reduce light interference, install blinds or shades on windows or skylights and install switches to dim or turn off any lights that shinedirectly on the display's screen. Keep in mind that sunlight can come through windows at different angles at different times of the year.
Acoustics	The room has good acoustics. See > The room has good acoustics.
Environment and ventilation	● The location meets the environmental requirements in the display's specifications. ● The display isn't subjected to strong vibrations or dust. ● Ventilation systems don't blow air directly on the display. ● There is adequate ventilation or air conditioning around the display so that heat can flow away from it and the mounting equipment. SMART recommends at least 2″ (5 cm) of space on all sides of the display for proper airflow. ● If you plan to install the display in a recessed area, there is at least 4″ (10 cm) of space between the display and the recessed walls to enable ventilation and cooling.

Choosing a height

Consider the general height of the user community when you choose the height for the display.



SMART recommends that you mount the display so that its top is 6′ 5″ (1.9 m) from the floor.

Note
If participants will be sitting at a steep angle (such as in a lecture hall), you may have to adjust the installation height or angle.
See > Mounting the display on the next page

Assessing the wall
Be sure the wall you're installing the display on can support the weight of the display and mounting equipment. If it can't, consider using a SMART wall stand to transfer some of the weight from the wall to the floor.
See > **smarttech.com/accessories**

Note
Refer to the display's specifications for its weight.
In some situations, you may need to request an engineering analysis to determine if the wall can support the display.

Selecting mounting hardware
The mounting hardware required for installation varies according to the type of wall onto which the display is being mounted.
If you're using the SMART wall mount (WM-SBID-200), see the wall mount's illustrated installation instructions for information about the required mounting hardware (**docs.smarttech.com/kb/171373**).

Selecting a wall mount
It is always best to mount the display on a wall. If the wall can't support the display's weight, you can use additional hardware to transfer some of the weight to the floor.
SMART offers the WM-SBID-200 wall mount for mounting the display on a wall. SMART recommends using this wall mount to install the display on a wall.
See the GX165-V3, GX175-V3, and GX186-V3 installation instructions (**docs.smarttech.com/kb/171905**).
Contact your authorized SMART reseller (smarttech.com/where) for information about SMART's mounting options.
If you choose a third-party option rather than one of SMART's mounting options, be sure the wall mount can accommodate the display's dimensions and support the display's weight as well as the weight of any attached accessories.

Mounting the display
The electrical and mechanical components of a display are designed to work properly when the display is mounted in the orientation described in its installation instructions. Mounting the display in a different orientation can cause malfunctions and will void the display's warranty.
Displays are designed for vertical mounting only: 90° relative to the floor, plus or minus 5°–15° for tolerance, depending on the display (consult the display's documentation). SMART doesn't support mounting displays at other angles or in a horizontal orientation (like a tabletop).

There are a number of potential hazards of mounting a display in a non-standard orientation or angle:

- Mounting a display horizontally (like a table) can cause the glass to sag, damaging the display or nterfering with the display's touch system.
- Non-standard orientation can affect ventilation, creating hotpots in equipment, premature failures.

Installing the display on a stand
You can install the display on a stand if you want to move the display from place to place or if it's not possible to install the display on a wall.

Notes

- If you want to use the 75″ and 86″ models (GX175-V3 and GX186-V3) with one of SMART's electric height-adjustable stands, you must first attach a SMART wall mount (model WM-SBID-200, part #1031766, **docs.smarttech.com/kb/171405**) to the display before mounting the display to the stand. (This applies to the FSE-400, FSE-410, and FSE-420 models of mobile stand and the WSE400 and WSE-410 models of wall stand).
- For users in Australia and New Zealand: SMART does not provide stands for use in Australia and New Zealand, nor can we provide recommendations for stands from other vendors.

Using SMART mobile stands
SMART mobile stands are designed for SMART Board interactive displays. Some are height-adjustable.
Some models include a locking cabinet to secure equipment and casters that swivel and lock for easy movement.

See also > **smarttech.com/accessories**

Using a third-party stand
For information about selecting and using a third-party stand, see **Installing your SMART Board GX on a stand**.

Connecting to a network
The display requires a network and internet connection for downloading software and firmware updates.

Configuring network settings
Network administrators need to configure the display's network connection to enable over-the-air firmware updates for a number of the embedded apps.

To configure the network

1. Open the required TCP/UDP ports:

Protocol	Port range	Feature
TCP	80	System software update
TCP	2067	Screen Share app
TCP	5000	AirPlay
TCP	7000	AirPlay
TCP	7236	Miracast
TCP	7382	CRCP
TCP	7385	Screen Share app
TCP	7385–7405	CRCP
TCP	8008	Websocket
TCP	8009	Chromecast
TCP	29736	Screen Share app
TCP	39458	Screen Share app
TCP	49200–49250	Screen Share app
TCP	49200–49420	AirPlay video
UDP	5353	MDNS/Bonjour
UDP	7236	Miracast
UDP	7385–7397	CRCP audio and touchback
UDP	21200	RTP /RTCP
UDP	21201	RTP/RTCP
UDP	49220–49420	AirPlay audio
UDP	49300–49350	Screen Share app
UDP	49400–49450	RTP/RTCP

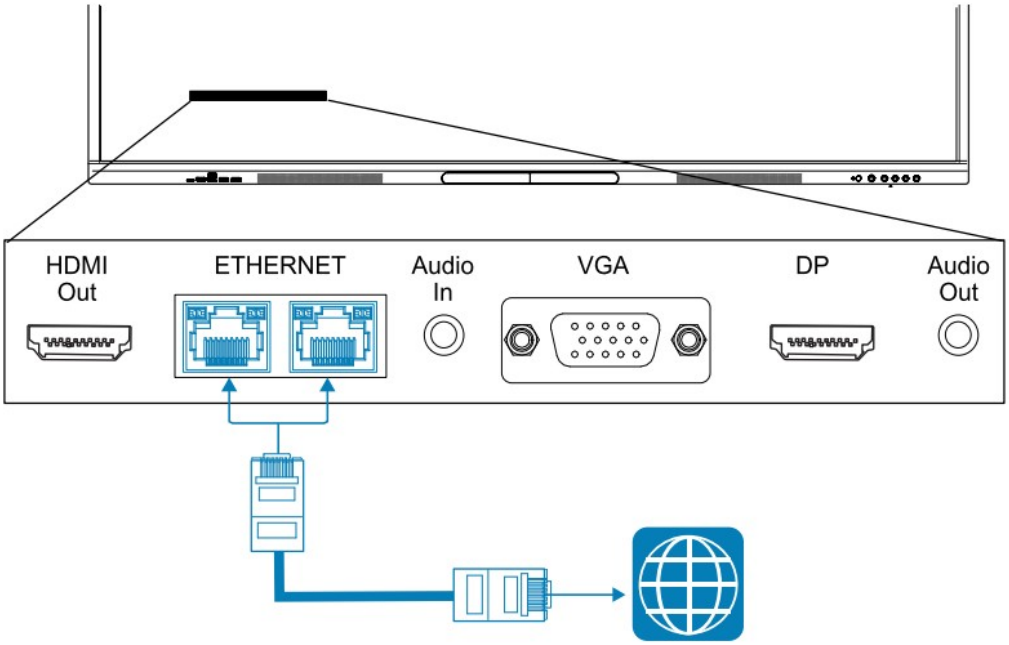
2. Add the following URLs to the to the network allowlist:

URL	Feature
https://share.bytello.com	Screen Share app
https://ssp.bytello.com/download	Screen Share app

3. Configure the network to enable broadcast service.
4. Configure the network to allowmDNS (multicast).

Connecting to a network

The display requires a network and internet connection for downloading software and firmware updates. You can connect to a network using Wi-Fi or one of the RJ45 Ethernet jacks.



Important

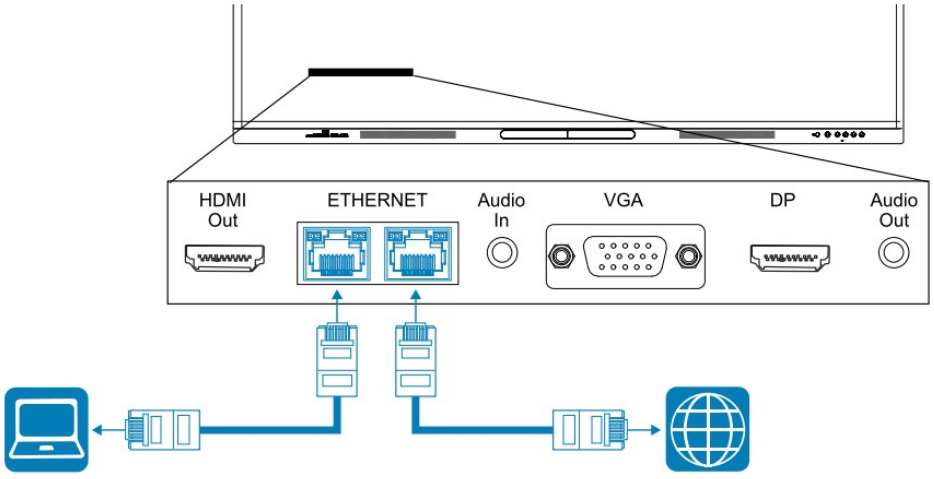
Do not use the RJ45 jack on an OPS PC to connect to a network.

Note

The display's network connection is shared internally with an OPS PC.

Tip

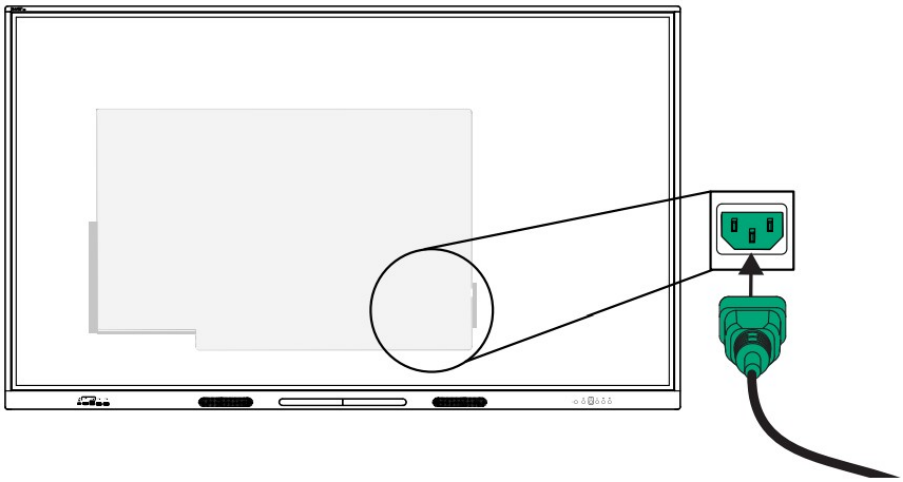
If you're using one of the display's RJ45 jacks to connect to an Ethernet network, you can connect the other jack to a computer to provide network access for the computer. This is particularly useful if there is only one wired network connection in the room. (Network access is available when the display is on, but not when it's in Standby mode).



Connecting power and turning on the display for the first time

To connect the display to power

Connect the supplied **power cable** from the AC power inlet on the back of the display to a power outlet.



Note

Refer to the display's specifications for power requirements and power consumption information (see More information on page 14).

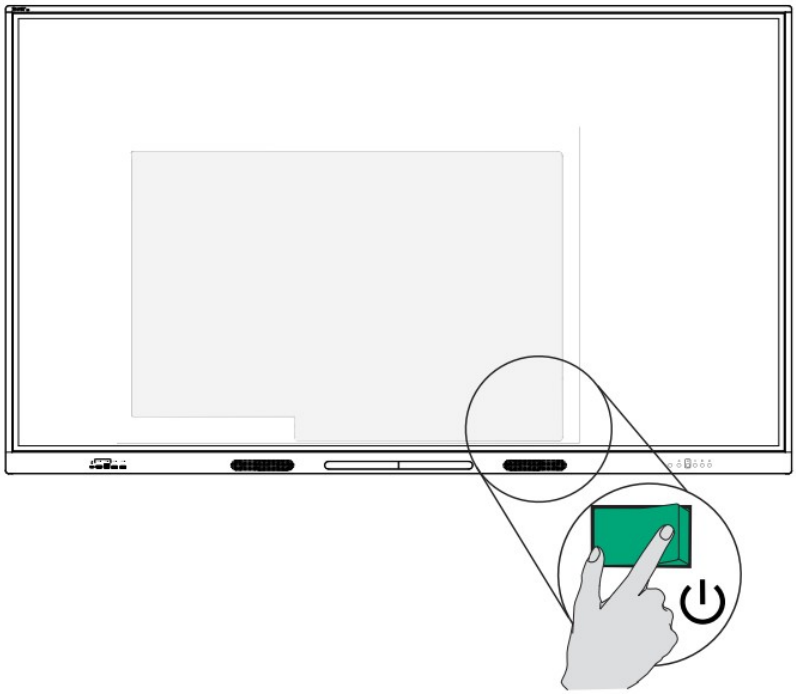
To turn on and set up the display for the first time

Important

- Install the OPS PCmodule before you turn on the display.
- The display's first-time setup procedure will not complete successfully if you try to connect to a Wi-Fi network that requires a user name. If you would like to connect the display to a Wi-Fi network that requires a user name, you can do that after you complete the first-time setup.

  See > To connect to a Wi-Fi network on page 27

1. Flick the power switch beside the AC power inlet on the rear of the display to the ON (I) position.



2. Select your preferred language, and then tap the Next icon ➔.

3. Select the country location where you're installing the display. This helps to ensure the proper Wi-Fi frequencies for wireless networks are available. Tap the Next icon ➡.
4. Select an Ethernet connection or wireless network. To add a hidden Wi-Fi network manually, tap the Add Network icon +.

   Important

   The display needs an internet connection for downloading and installing important updates. Ask the network administrator to verify that the display can access the network by making sure the display's built-in browser can access the internet.
5. Tap the Next icon ➡.
6. Set the date, time and timezone, and then tap the Next icon ➡.

   You can also enable the display's date and time to be set automatically.

   See > System on page 68
7. Set a password for the screen lock feature, and then tap Enter.

Important

Ensure the screen lock passcode is made available to authorized users of the display. Users must enter the passcode to unlock the display's screen when the Screen lock feature is enabled.
The Done screen indicates setup is finished.

Configuring the display's network settings

Use the procedures in this chapter to update network settings after turning on the display. The chapter describes:

- Connecting to a Wi-Fi network
- Configuring network proxy settings for a Wi-Fi network
- Installing a digital network certificate for a Wi-Fi network
- Connecting to an Ethernet network
- Configuring a wireless hotspot
- Connecting the display to a wireless hotspot
- Adding a VPN connection

Note

When the display is connected to a network using Wi-Fi its Ethernet connection will be turned off (and vice versa).

To connect to a Wi-Fi network

1. On the Home screen, tap the Wi-Fi icon in the top-right corner.

   OR

   On the Home screen, tap the **Apps** icon and then tap the Settings icon > Network > Wi-Fi.
2. Turn the Wi-Fi switch on.
3. Select a wireless network.

   If the Wi-Fi network is not password protected, the display connects to the network.

   OR

   If the network requires a password, enter the Wi-Fi password and tap Connect. Options are also available for adding a certificate and accessing the advanced setting to configure Proxy and IP Settings.

Notes

- Tap the Add Network icon + to add a network manually.
- Tap the More menu items icon ••• to access Wi-Fi preferences and see your MAC address, IP address, and install certificates.

To configure network proxy settings for a secured Wi-Fi network
To improve security and privacy, or to meet company policy, you can configure a secured network proxy for your Wi-Fi network.

1. On the Home screen, tap the Apps icon and then tap the Settings icon > Network Wi-Fi.
2. Toggle the Wi-Fi switch to on and tap a secured network.
3. Choose a Security option.
4. Type your network credentials (including a network password).
5. Ensure Advanced settings is selected.
6. Select options as required from the Proxy and IP Settings drop-down lists.
7. Tap Connect to save the settings.

To install a digital network certificate for a Wi-Fi network

To improve security and provide assurance of network authentication, you can install an SSL (secure sockets layer) certificate in the display.

1. On the Home screen, tap the Apps icon and then tap the Settings icon >Network > Wi-Fi.
2. Plug the USB drive that contains the SSL certificate into a USB port on the display.
3. Tap theMore menu items icon •••> Wi-Fi preferences > Install certificates.
4. Browse to the certificate on the USB drive.
5. Select the certificate. The Name the certificate dialog opens.
6. Change the name of the certificate (optional), and remember the name.
7. Under Credential use, select Wi-Fi.

When you join Wi-Fi networks that require a certificate, you will have the option to select the installed certificate.

To connect to an Ethernet network

1. Connect an Ethernet cable to either of the RJ45 jacks on the display.
2. On the Home screen, tap the Ethernet icon in the top-right corner.
   OR
   On the Home screen, tap the Apps icon and then tap the Settings icon > Network > Ethernet.
3. Toggle the Ethernet switch to on.
4. To obtain an IP address automatically, turn the Obtain IP address automatically (DHCP) switch on.
   OR
   Tap IP Address and fill out the static network configuration options as necessary.

To configure a wireless hotspot

Notes

- The wireless hotspot feature is available when the display is connected to the network with an Ethernet connection.
- When the wireless hotspot is enabled, the display's Wi-Fi connection is disabled.

1. On the Home screen, tap the Apps icon and then tap the Settings icon > Network > Hotspot.
2. Toggle the Hotspot switch to on.
3. You can use the default Hotspot name and password or tap the fields and enter your own.
4. Optionally, tap the Security drop-down list and select amethod of encryption.
5. If you selected Encryption, type a password in the Passwordtext box. This password is required when users connect their devices to the wireless hotspot.
6. Select a bandwidth frequency (2.4 GHz or 5 GHz).
7. Tap Save.

To connect to the display's wireless hotspot

1. On a computer or mobile device, view the list of available Wi-Fi networks and select the display's wireless hotspot.
2. Type the password for the display's wireless hotspot.
3. Connect to the display's wireless hotspot.

To add a VPN connection

1. On the Home screen, tap the Apps icon and then tap the Settings icon > Network > VPN.
2. Tap Add VPN.
3. Complete the following steps:
   o Type the name of the VPN in the Nametext box.
   o Select a type of VPN from the Typedrop-down menu.
   o Type the server address in the Serveraddresstext box.
   o You can select the PPPencryption(MPPE)checkbox to enableMicrosoft Point-to-Point Encryption (MPPE).
   o Type a user name and password.
4. Click Save.

Chapter 3 Connecting computers and other devices

Warning
Ensure that any cables that cross the floor to the display are properly bundled andmarked to avoid a trip hazard.

Installing SMART software
The display comes with SMART software that you can install on connected room computers and guest laptops. Other SMART software is optional.

Included

Optional

 Lumio by SMART	 SMART I
 SMART Notebook Plus **SMART** **Remote** **Management** SMART Remote Managemrnt	 SMART Tea

See > **smarttech.com/downloads**

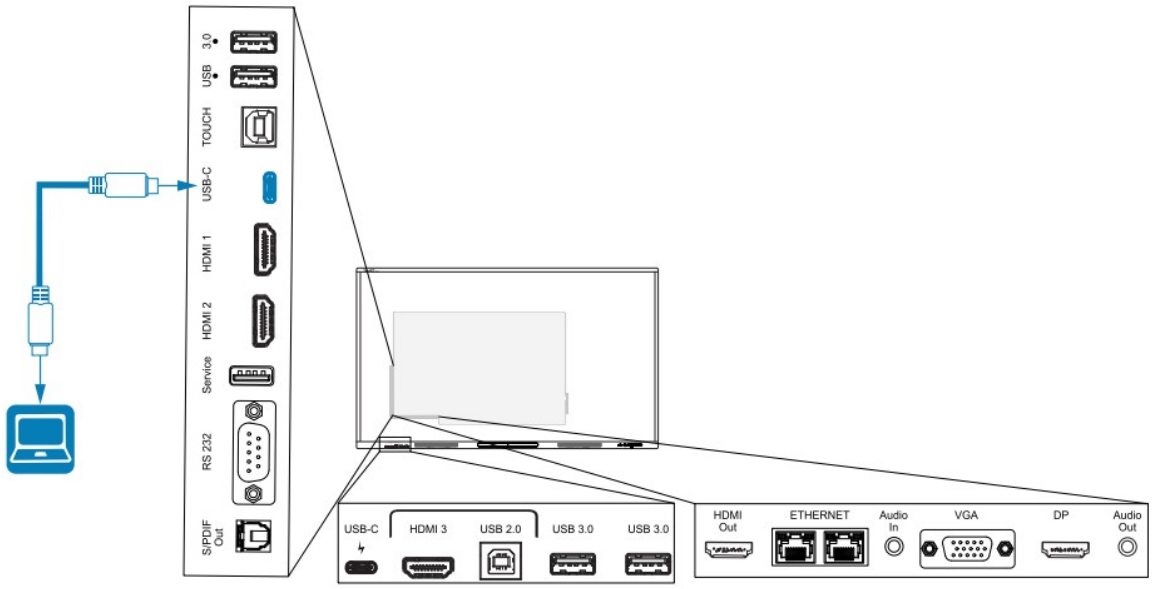
Connecting room computers and guest laptops
If you install cables for room computers and guest laptops in advance, you can make use of connectors that might not be accessible after the display is mounted on the wall. You can then run the cables across floors or behind walls as needed.

Notes

- Install SMART software on computers you connect to the display (see InstallingSMARTsoftware on the previous page).
- Make sure **SMART Product Drivers 12.20** or later are installed on any connected computers.
- As shown below, HDMI 1, HDMI 2, VGA, and Display Port share the Touch USB Type-B receptacle on the side connector panel, and HDMI 3 uses the Touch USB Type-B receptacle on the front connector panel (see SharingUSBType-Breceptacleson page 42).
- The USB Type-C connector on the front connector panel provides up to 15 W of power for charging connected devices.

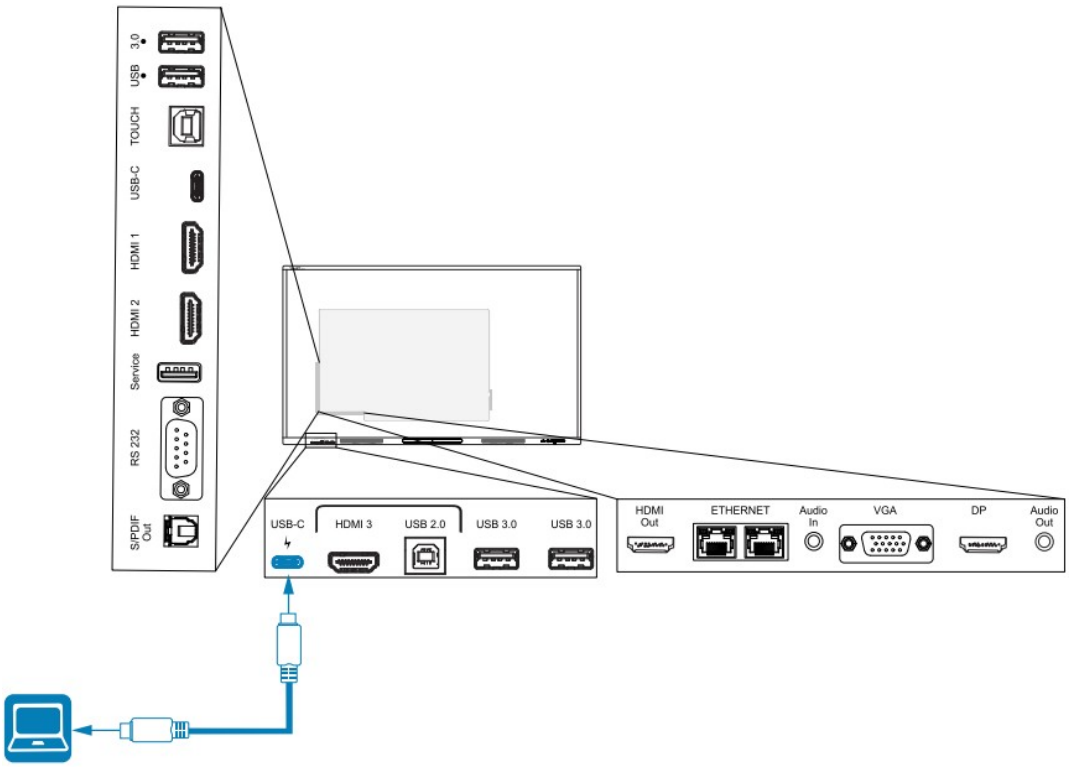
The following are the locations of the connectors and the connector and cable information for the display's inputs.

● USB Type-C 1



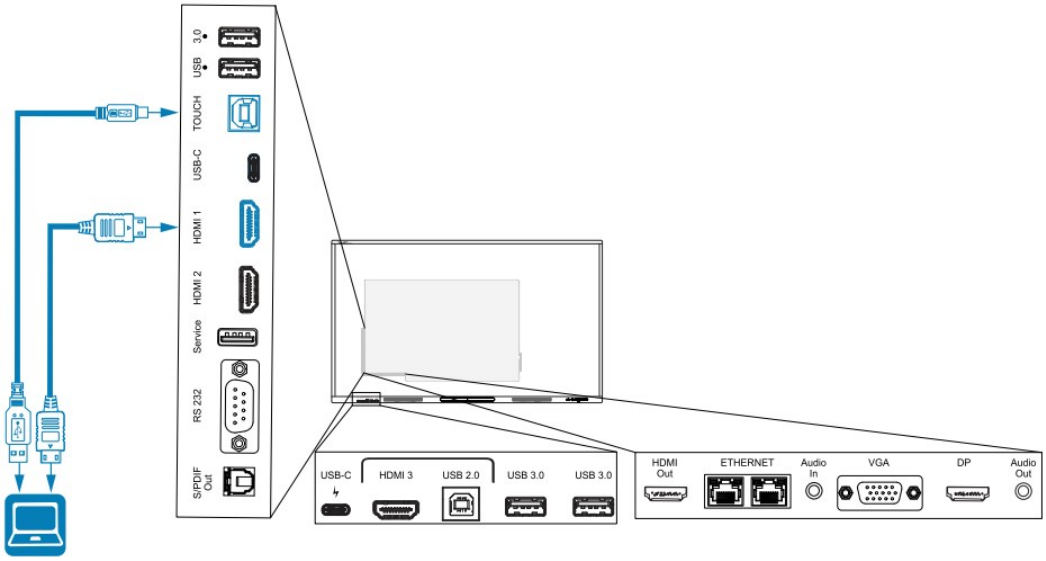
Connector	Standard	Connection type	Cable
USB Type-C 1	USB-C	Video/audio/touch	SuperSpeed USB Type-C

- **USB Type-C 2**



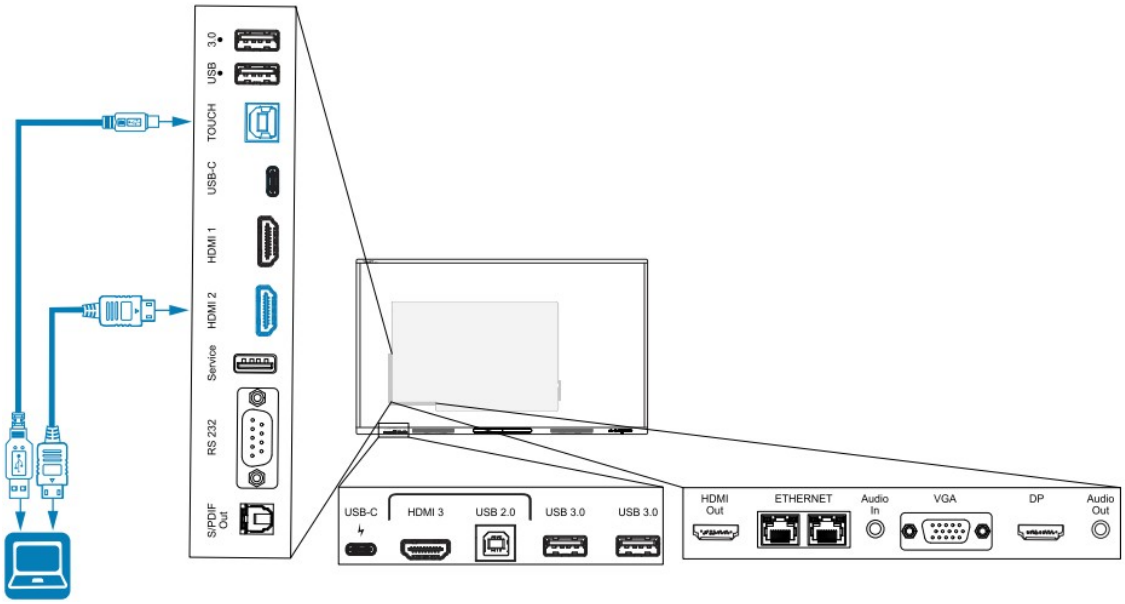
Connector	Standard	Connection type	Cable
USB Type-C 2	USB-C	Video/audio/touch	SuperSpeed USB Type-C

- **HDMI 1**



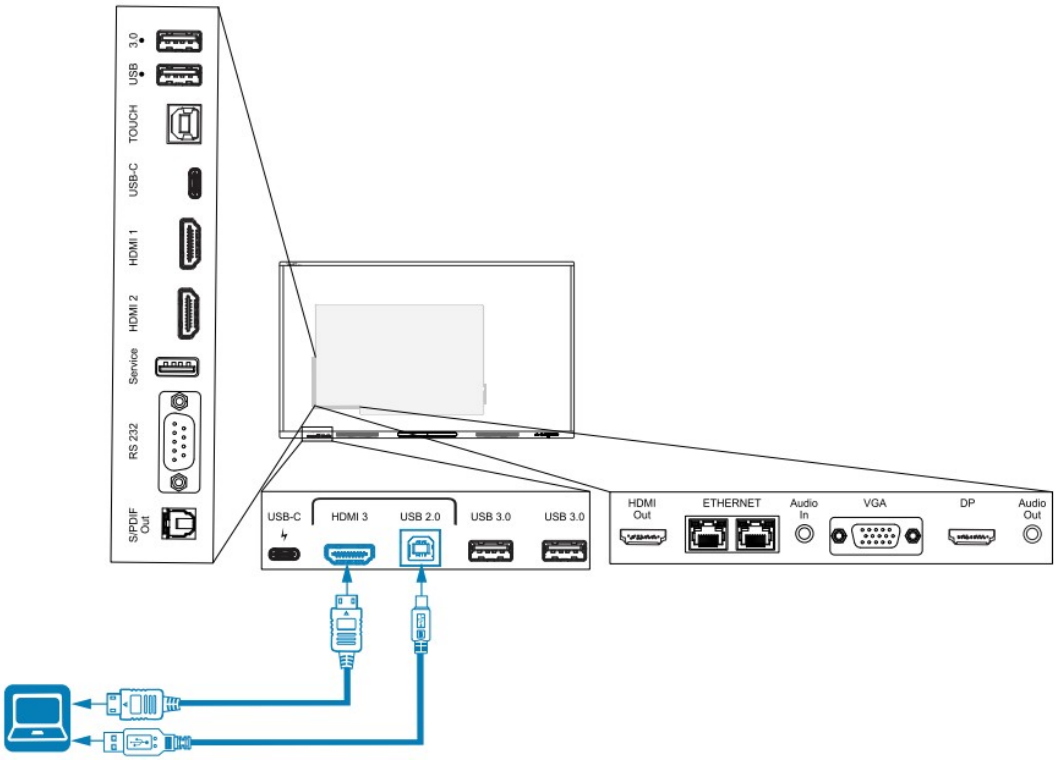
Connector	Standard	Connection type	Cable
HDMI 1	HDMI 2.0	Video/audio	Premium High Speed HDMI (18 Gbps)
Touch	USB 2.0 Type-B	Touch	High Speed (480 Mbps) USB 2.0

- **HDMI 2**



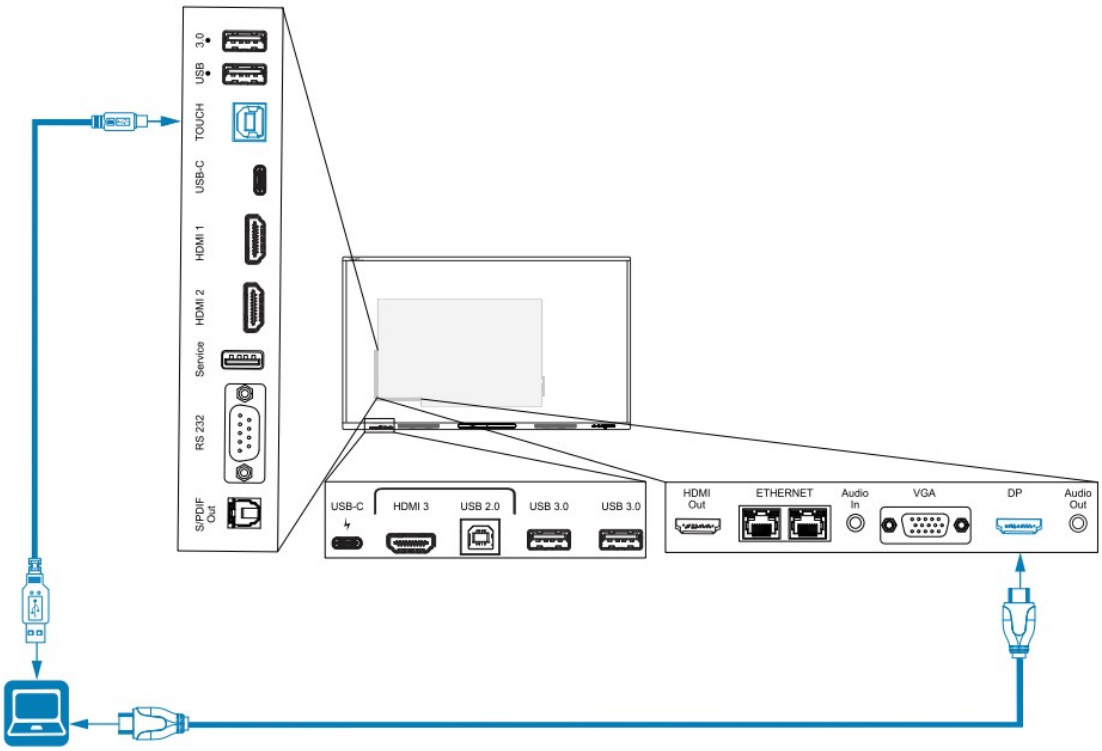
Connector	Standard	Connection type	Cable
HDMI 2	HDMI 2.0	Video/audio	Premium High Speed HDMI (18 Gbps)
Touch	USB 2.0 Type-B	Touch	High Speed (480 Mbps) USB 2.0

- **HDMI 3**



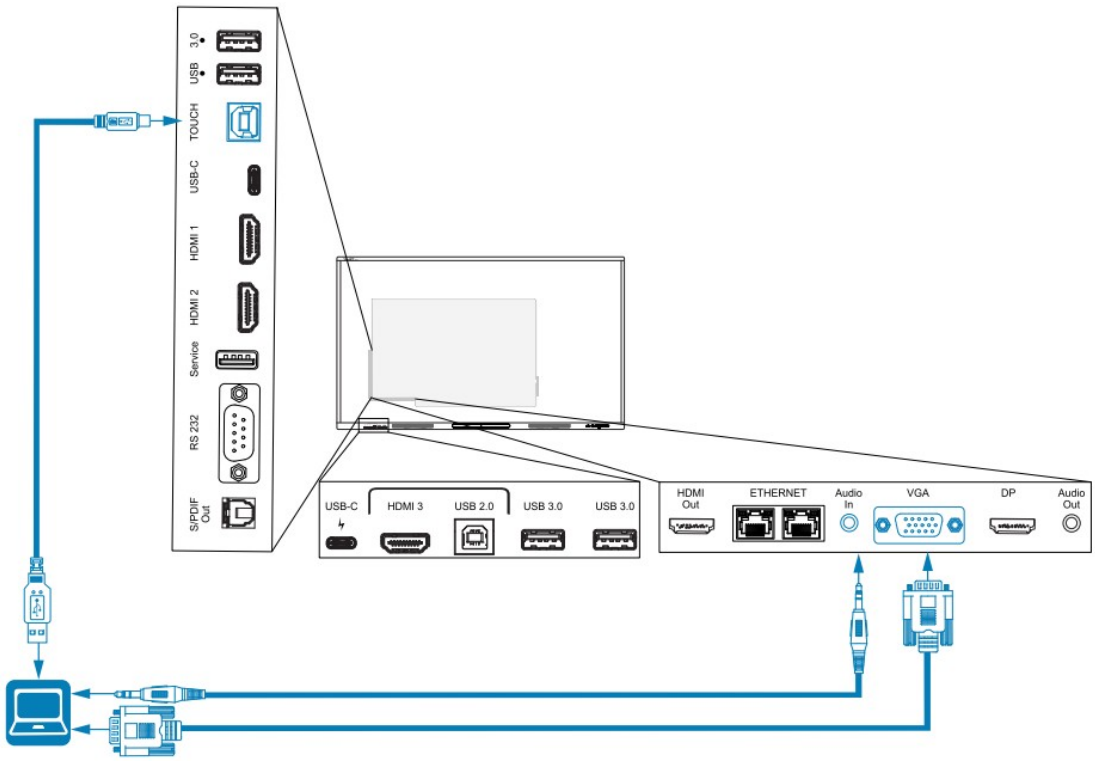
Connector	Standard	Connection type	Cable
HDMI 3	HDMI 2.0	Video/audio	Premium High Speed HDMI (18 Gbps)
Touch input	USB 2.0 Type-B	Touch	High Speed (480 Mpbs) USB 2.0

● Display Port



Connector	Standard	Connection type	Cable
Display Port	Display Port 1.2	Video/audio	Display Port
Touch	USB 2.0 Type-B	Touch	High Speed (480 Mbps) USB 2.0

- **VGA**



Connector	Standard	Connection type	Cable
VGA	VGA	Video	VGA
Audio In	Stereo 3.5 mm	Audio	Stereo 3.5 mm
Touch	USB 2.0 Type-B	Touch	High Speed (480 Mbps) USB 2.0

Viewing a connected computer or other device's input

1. Connect a device to the display's HDMI 1, HDMI 2, HDMI 3, USB Type-C 1, USB Type-C 2, Display Port, or VGA connectors.

   Note

   To enable touch control of the device, connect a USB cable to the associated USB connector.

   Devices connected to the USB Type-C connector don't require an additional USB connection to enable touch.
2. Select the source using one of the following methods:

Using the Input settings menu
a. Open the Toolbar by tapping one of the side Toolbar buttons  (on either sides of the screen). **b.** Tap the Input icon  . **Tip** Tap the **More** icon  to find the Input icon if it doesn't appear in the Favorite widgets list in the Toolbar.

Note

A green circle  appears around the currently selected input (PC, Android, HDMI1, HDMI2, HDMI3, Type-C1, Type-C2, DP, or VGA). Inputs with a connected source have a green dot beside the input name, rather than a gray dot. The input name also appears in green text rather than gray when an input is connected.

3. Tap the computer's input or use the navigation keys on the remote control to select the source and then press the **OK** button.
   The device's output appears on the display's screen.

Tip
You can rename inputs, enable or disable inputs , configure the display to turn on when an active video signal is connected, and automatically switch the input when an active video signal is connected.
See > Input and output on page 65.

Setting a connected computer's resolution and refresh rate
This table presents the recommend resolutions and refresh rates for the display's inputs:

If possible, set connected computers to these resolutions and refresh rates. See the computers' operating system documentation for instructions.

Using recommended cables
SMART recommends the following varieties of cable:

Cable type	Maximum length	Recommendation
Display Port	23′ (7 m)1	Use only certified Display Port 1.4 cables that have been tes ted to support the performance standard you require.
HDMI	23′ (7 m)	Use only certified Premium High-Speed HDMI (18 Gpbs) ca bles that have been tested to support the performance stand ard you require.
VGA	23′ (7 m)	Use VGA cables with all pins in their connectors fully populat ed and wired.
Stereo 3.5 mm	20′ (6 m)	Use only shielded 3.5 mm cables **Important** Use only a 3.5 mm stereo jack (15 mm long barrel) to conne ct to the display.
USB 2.0	16′ (5 m)	See > *USB extenders* on page 14
USB 3.0	9′ (3 m)	SMART supports only installations that use directly connected video and USB cables, or AC-powered extenders. You might be able to use higher-grade cables that exceed th e recommended length. If you have problems with such a ca ble or an extender of any type, test the connection with a sh orter cable before contacting SMART Support.
USB Type-C	6′ 6″ (2 m) for SuperSpeed 5Gbps cable s	USB-IF certified USB 3.2 Gen 1 Type-C cable, SuperSpeed (5 Gbps) support To use a USB Type-C cable for video, you need: ● A full-featured cable that supports SuperSpeed 5Gbps (or faster) data rates. ● A computer that supports Display Port Alternate Mode via USB Type-C **Note**

Using cables that exceed these maximum lengths may produce unexpected results, intermittent loss of picture, or degraded picture quality and USB connectivity.

1The performance of cables longer than 23′ (7 m) is highly dependent on the cable's quality.

Sharing USB Type-B receptacles

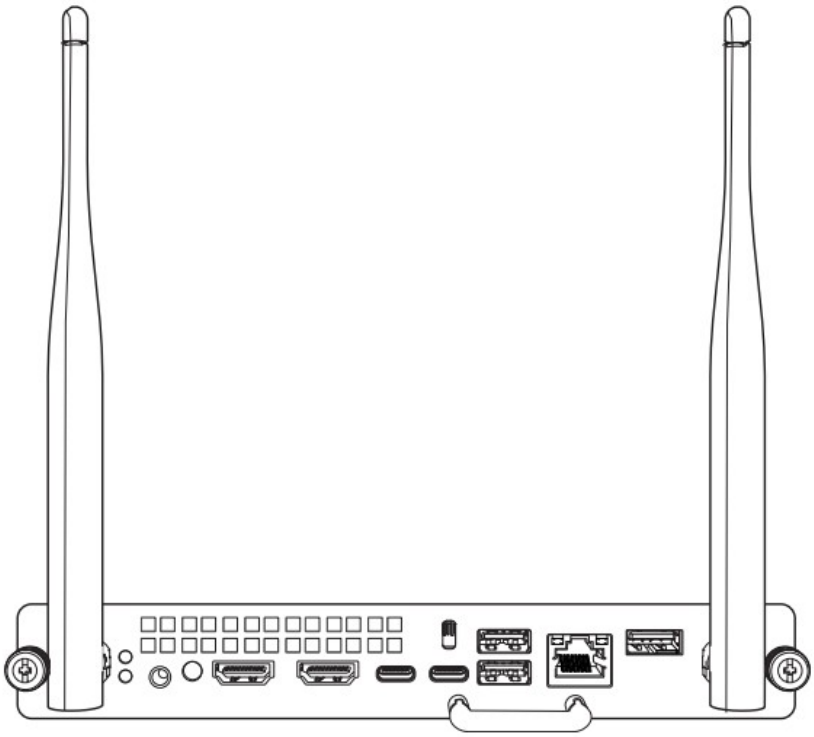
The HDMI, VGA, and Display Port connectors on the rear connector panels (back of the display) all share a single USB Type-B receptacle on the rear, side panel. This means the touch system can be used with only one device connected to these video inputs.

The touch system can still be used with a device connected to USB Type-B receptacle even when one of the video connectors is connected to another display.

USB Type-B receptacle	Video connectors
Touch	● HDMI 1 ● HDMI 2 ● VGA ● Display Port

Connecting a SMART OPS PC module

If your organization has purchased a SMART OPS PCmodule, you or your organization's installers can install the module in the display's accessory slot following the OPS PCmodule's installation instructions (**docs.smarttech.com/kb/171775** or **docs.smarttech.com/kb/171544**). You can then view the OPS PCmodule's input on the display.



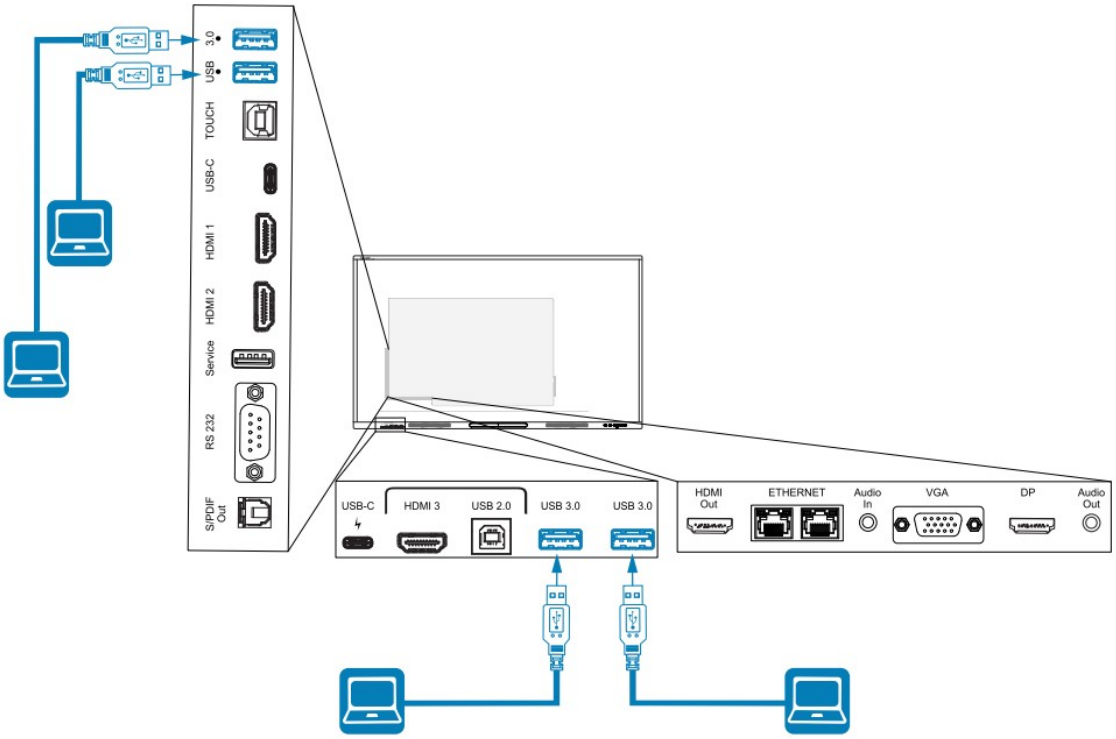
Caution
Do not insert or remove the OPS PCwhile the display is turned on.
See > SMART OPS PCmodules user guide (**docs.smarttech.com/kb/171747**)

Connecting other devices
In addition to computers, you can connect a variety of other devices to the display:

- USB drives and other peripherals
- External displays
- External audio systems
- Room control systems

Connecting USB drives and other peripherals

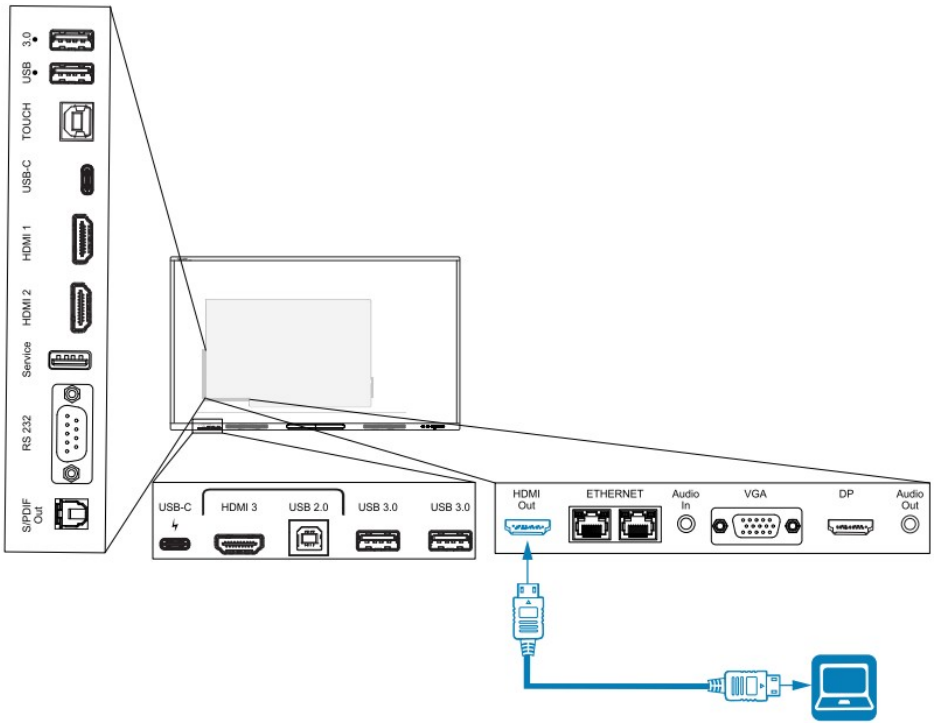
The display includes two USB 3.2 Gen 1 Type-A receptacles on the front connector panel and two USB 3.2 Gen 1 Type-A receptacles on the side connector panel. You can connect USB drives, peripherals (such as keyboards), and other devices to the USB 3.2 Gen 1 Type-A receptacles and use these devices with the display's embedded OS or OPS slot computer. The display's USB 3.2 Gen 1 Type-A receptacles will switch to the active input.



Connecting an external display

You can connect an external display using the HDMI 2.0 out connector on the connector panel.

The external display shows the same image as the display. This is useful when you're using the display in an auditorium or other large space where a second display would be beneficial.



Important

If the connected external display doesn't support High-bandwidth Digital Content Protection (HDCP), no image will appear on the external display. For full resolution output, connect a display that supports HDCP.

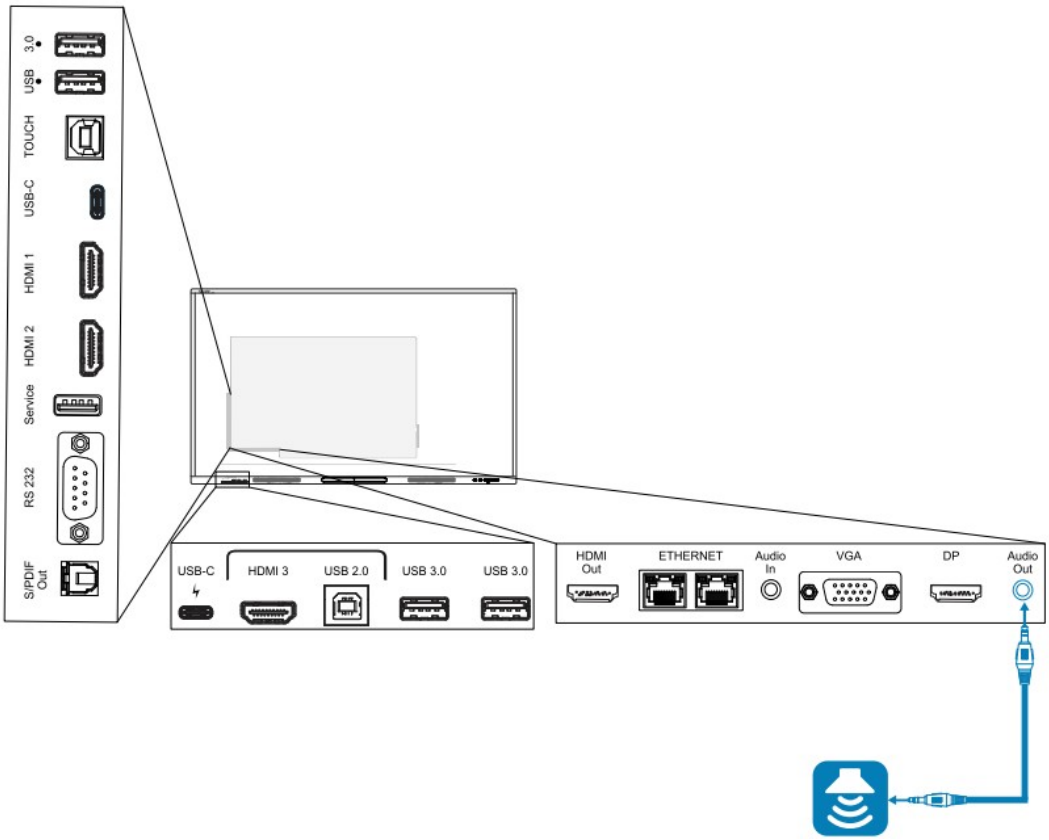
Note

The display's default output resolution is 4K (3840 × 2160). The output resolution can also be set to 1080p 60Hz in display settings.

See > Input and output on page 65.

Connecting an external audio system
The display includes two 20 W speakers, which are designed to provide sound at the front of a room. You might want to connect a third-party external audio system if you're providing sound in a larger space.

You can connect an external audio system to the display using the stereo 3.5 mm out connector (pictured). You can also connect an external audio system directly to a room computer.



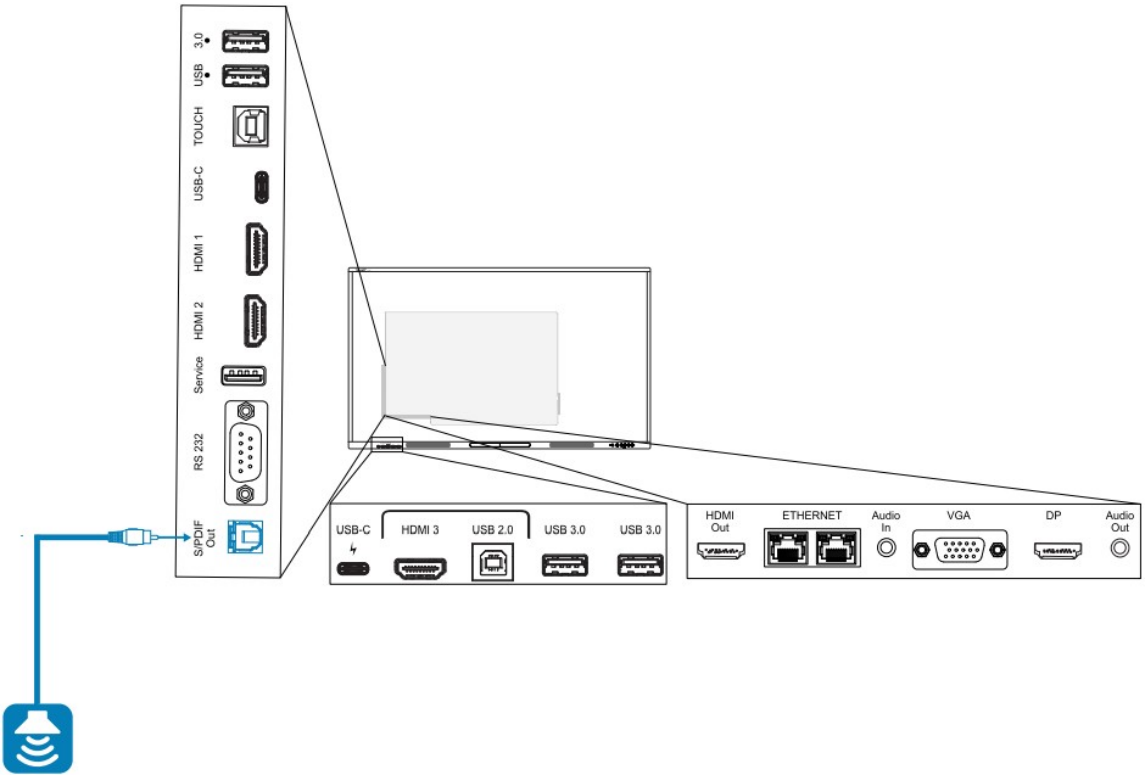
Use of an external audio systemmust be enabled in display settings (see Input and output on page 65).

Important
Use a 3.5 mm stereo jack (15 mm long barrel only) to connect to the display's stereo 3.5 mmOut connector.

Note

- You can use the display's volume controls to adjust the volume of an audio system connected to the display's stereo 3.5 mmOut connector.

In addition to the stereo 3.5 mm out connector, the display also provides a Sony/Philips Digital Interface (S/PDIF) Out connector (pictured). S/PDIF is a digital audio transmission medium. You need an audio receiver that supports S/PDIF to use this connection with an external sound bar or other audio system.



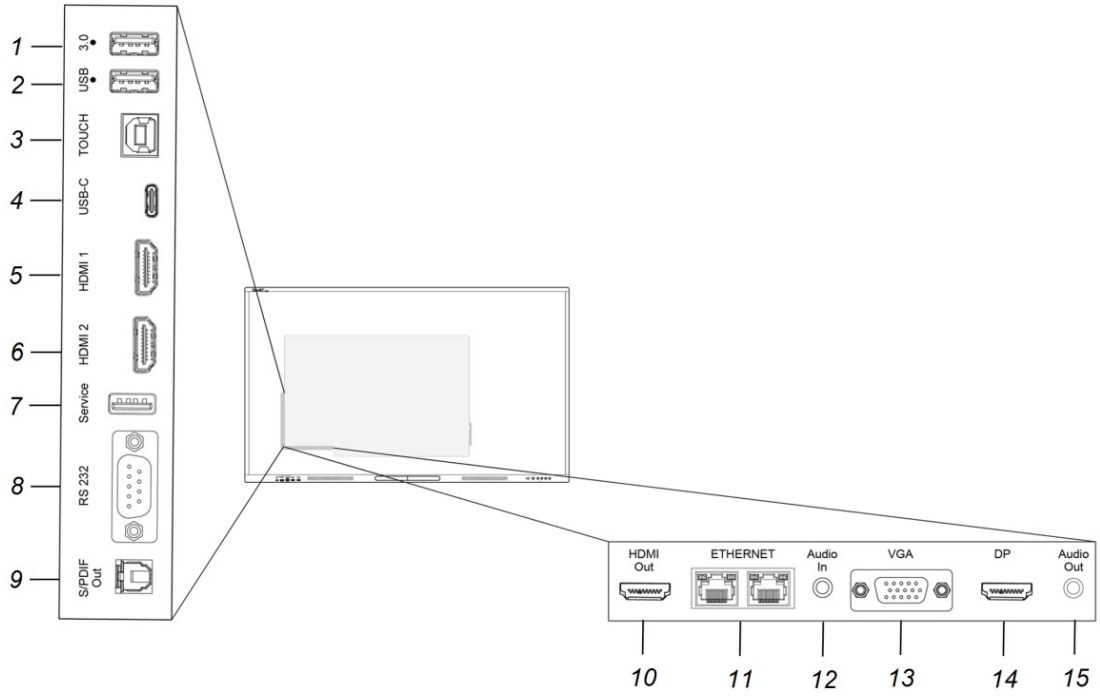
Note
When you connect an audio system to the display's S/PDIF Out connector, the audio system's volume controls, rather than the display's, adjust the volume.

Connecting room control systems
A room control system enables users to control a room's lighting, audio system, and possibly, the display. Some installations may require you to integrate the display with a room control system.

You can use the display's **RS-232 connector** to connect a third-party external control system to the display (see Appendix CManaging the display using RS-232 on page 80).

Note
displays are not compatible with centralized remote control systems, such as a universal remote control.

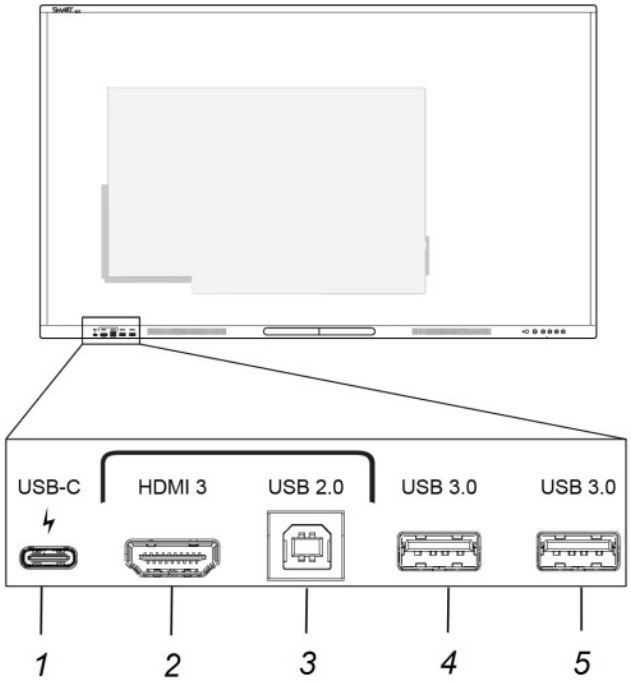
Connector diagrams
Side and bottom connector panels
This diagram and table describe the connectors on the display's connector panel:



No.	Connector	Connects to	Notes
1	USB 3.2 Gen 1 Type-A	Supported USB drives and other peripherals	See > Connecting other devices on page 42 See > **USB cables and connectors** The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer. **Note** Connect a USB mouse to navigate the display's onscreen menu during troubleshooting.
2	USB 3.2 Gen 1 Type-A	Supported USB drives and other peripherals	See > Connecting other devices on page 42 See > **USB cables and connectors** The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer. **Note** Connect a USB mouse to navigate the display's onscreen menu during troubleshooting.
3	USB 2.0 Type-B	Touch	See > Connecting other devices on page 42 See > USB cables and connectors
4	USB 2.0 Type-C	USB Type-C 1 input (supported USB drives, video, audio, and touch)	See > Connecting other devices on page 42 See > **USB cables and connectors** The connector will switch to the active input, including the display's embedded OS, the OPS slot computer, or an external computer.
5	HDMI 2.0	HDMI 1 input (video and audio)	See > Connecting room computers and guest laptops on page 32
6	HDMI 2.0	HDMI 2 input (video and audio)	See > Connecting room computers and guest laptops on page 32

7	USB 2.0 Type-A	N/A	This connector is a service port (connects to the embedded OS).
8	RS-232	Room control system	See > Appendix CManaging the display using RS-232 on page 80 See > **RS-232 cables and connectors**
9	S/PDIF Out	Digital audio output	See > Connecting an external audio system on page 44 See > **Digital audio cables and connectors**
10	HDMI 2.0 out	External display	See > Connecting an external display on page 43
11	RJ45 (×2)	Network	See > Connecting to a network on page 22 See > **Ethernet (network) cables and connectors**
12	Audio in (stereo 3.5 mm)	VGA input (audio)	Use this audio input with Stereo 3.5 mm in. See > Connecting room computers and guest laptops on page 32 See > **Analog audio cables and connectors**
13	VGA in	VGA input (analog video)	Use this video input with analog video sources (VGA). See > Connecting room computers and guest laptops on page 32 See > **Analog audio cables and connectors** Use this video input with Touch (USB) connector for touch control.
14	Display Port 1.2	Display Port 1.2 input (video and audio)	See > Connecting room computers and guest laptops on page 32 See > **Display Port cables and connectors**
15	Audio out	External audio system	See > Connecting an external audio system on page 44 See > **Analog audio cables and connectors**

Front connector panel
This diagram and table describe the connectors on the display’s front connector panel:



No.	Connector	Connects to	Notes
1	USB 2.0 for the embedded OS and OPS slot computer USB 3.2 Gen 1 for peripherals	USB Type-C 2 input (video, audio, and touch)	See > Connecting other devices on page 42 See > **USB cables and connectors** The connector will switch to the active input, in cluding the display's embedded OS, the OPS slot computer, or an external computer. **Note** The USB 3.2 Type-C connector can also provi de 15 W of power to connected devices.
2	HDMI 2.0 in	HDMI 3 input (video and audio)	See > Connecting room computers and guest l aptops on page 32 See > **HDMI cables and connectors**.
3	USB 2.0 Type-B	Touch input	Use this touch input with the HDMI video and audio input on the front of the display. See > Connecting room computers and guest l aptops on page 32 See > **USB cables and connectors**.
4	USB 3.2 Gen 1 Type-A	Supported USB drives a nd other peripherals	See > Connecting other devices on page 42 See > **USB cables and connectors** The connector will switch to the active input, in cluding the display's embedded OS, the OPS slot computer, or an external computer.
5	USB 3.2 Gen 1 Type-A	Supported USB drives a nd other peripherals	See > Connecting other devices on page 42 See > **USB cables and connectors** The connector will switch to the active input, in cluding the display's embedded OS, the OPS slot computer, or an external computer.

Chapter 4 Maintaining the display

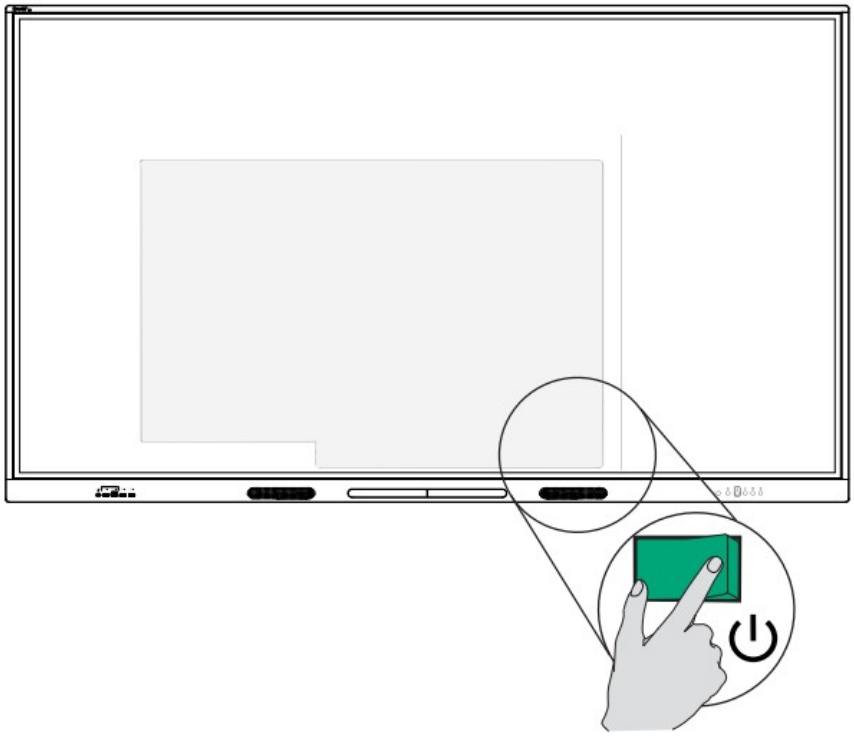
With proper maintenance, the display will provide years of use.

Turning the display on or off
In most situations, you can put the display in Standby mode when not using it by following the instructions in SMART Board GX (V3) series interactive displays user guide (**docs.smarttech.com/kb/171903**).

In some situations, such as when you move the display or clean its screen, you need to turn the display off. You can turn it back on after.

To turn the display off

1. Press and hold the Power button on the front control panel or remote control for three seconds to begin a 10 second countdown before the display enters Standby mode and the status light stops blinking.
2. Flick the power switch (beside the AC power inlet) on the bottom of the display's rear surface to the OFF (O) position.



To turn the display on
Flick the power switch (beside the AC power inlet) on the bottom of the display's rear surface to the ON(I) position.

To turn the display on or off (with an OPS module installed)

- If PC is currently set as the default input in display settings (see Startup and shutdown in System on page 68), the OPS module will start automatically when the display is turned on.
- Before turning off the display, turn off the OPS module using the power controls on the OPS module (such as the Shut down command in the Windows 10 start menu on the OPS).
- When the OPS module is turned off, it is then safe to turn off the display using the steps listed above in To turn the display off.

Cleaning and maintaining the display
Checking the display installation
Inspect the display installation frequently to ensure that the display remains securely installed.

- Check the mounting location for signs of damage or weakness that can occur over time.
- Check for loose screws, gaps, distortions, or other issues that could occur with the mounting hardware.

If you find an issue, contact a trained installer.

Cleaning the screen
Follow these instructions to clean the screen without damaging its anti-glare coating or other product components.

⚠ Caution

- Do not use permanent or dry-erase markers on the screen. If dry-erase markers are used on the screen, remove the ink as soon as possible with a lint-free, non-abrasive cloth.
- Do not rub the screen with dense or rough material.
- Do not apply pressure to the screen.
- Do not use strong cleaning solutions or glass cleaners on the screen. They can damage or discolor the screen.

To clean the screen

1. Turn off any connected computers.
2. Turn off the display.
3. Wipe the screen with a lint-free, non-abrasive cloth.

Note
You can also use a damp cloth with a drop of dish soap, or follow the instructions in the knowledge base article, **How to clean SMART Board surfaces and accessories**.

Cleaning the touch sensors
The display uses infrared (IR) transmitters and sensors around the display's perimeter between the screen and the frame. Dust buildup on the protective plastic can impair touch performance. Inspect these areas for dust, and clean them every week.

⚠ Caution

- Do not use compressed air to clean the sensors or borders.
- Do not use water or cleaning agents to clean the touch sensors.
- Do not apply too much pressure when cleaning the display because you can damage the plastic.

To clean the IR transmitters and sensors

1. With a clean lint-free, non-abrasive cloth, gently wipe the plastic between the screen and the frame around the perimeter of the display's screen.
2. If dirt still remains, use 50% isopropyl alcohol to clean the protective plastic between the screen and the frame.

Maintaining ventilation
The display requires proper ventilation. Dust buildup in the ventilation holes compromises cooling and can lead to product failure.

- Clean accessible ventilation holes monthly with a dry cloth.
- Use a vacuum cleaner with a narrow hose end fitting to clear the back ventilation holes regularly. You might have to remove the display from the wall.

For more information about removing the display, see Removing and transporting the display on the next page.

Caution
Avoid setting up or using the display in an area with excessive levels of dust, humidity, smoke, or chemical fumes.

Preventing condensation
If the display has been moved from a cold environment to a warmer one (for example, from storage to the installation site), let the display sit for a few hours to allow it to acclimate to the new temperature.
Failing to do so can cause humidity to build up in the space between the front glass and the LCD.
If condensation appears under the screen after you turn on the display, select an active video source and leave the display on for 48 hours. If the condensation doesn't dissipate, contact SMART support if the display is still under warranty.
If there is enough moisture between the layers to cause the moisture to drip and run, remove power immediately and contact SMART Support if the display is still under warranty.

Replacing the pens
To prevent damage to the display's anti-glare coating, replace a pen if its nibs become worn. You can purchase replacement pens from the Store for SMART Parts (see **smarttech.com/support/parts-store**).

Important
Use only pens designed for SMART Board GX (V3) series interactive displays. Pens for other SMART products aren't compatible with SMART Board GX (V3) series interactive displays (see **Comparing SMART product pens**).

Note
For pen part numbers, refer to the service parts diagrams.

Removing and transporting the display
On occasion, you might need to remove the display from its current wall mount and move it to another location.

To remove the display safely, use two or more trained installers.

Warning

- Do not attempt to move the display by yourself. The display is very heavy.
- Do not move the display by connecting a rope or wire to the handles on the back. The display can fall and cause injury and product damage.

Important
Follow the documentation included with any SMART or third-party mounting hardware.

To remove the display

1. Turn off any connected computers.

2. Turn off the display (see Turning the display on or off on page 52).
3. Flick the switch beside the AC power inlet to the OFF (O) position.
4. Remove all accessible cables and connectors.
5. Remove any modules from the OPS slot.
6. Lift the display from its mounting location.

   Warning

   Do not place the display on a sloping or unstable cart, stand, or table. The display could fall, resulting in injury and severe product damage.

   Caution

   Do not leave the display face up, face down or upside down for an extended period. This could cause permanent damage to the screen.
7. Remove the mounting brackets.

To transport the display

See Moving the display to the installation site on page 15.

Updating system firmware

The display checks for firmware updates automatically when its turned on, provided the display is connected to the internet and the Disable system updates setting is disabled (see System on page 68).
The display notifies you when a firmware update is available.
To make sure the network is configured properly for firmware updates, see Network on page 61.

Applying a firmware update
To apply a firmware update

1. After turning on the display, a dialog appears on the screen asking if you want to update the display's firmware.
2. Tap OK to update the display's firmware.

   Note

   The display may restart a number of times when a firmware update is applied.

   OR

   Tap Cancel to update the firmware later.

To apply a firmware update from settings

1. On the Home screen, tap the Apps icon and then tap the Settings icon > System > System update > Check for update.

   A message lets you knowwhether an update is available.
2. If an update is available and you'd like to apply it, tap OK. The display applies the firmware update automatically after a short time.

   Note

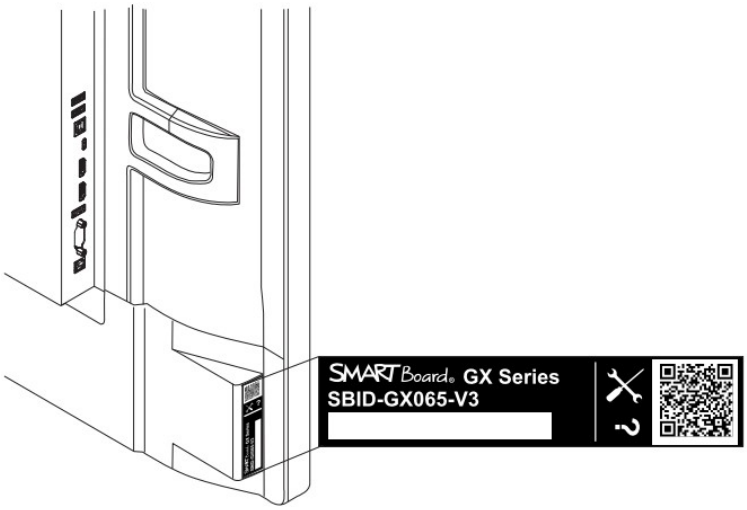
   The display may restart a number of times when a firmware update is applied.

Chapter 5 Troubleshooting

Troubleshooting the display and related SMART products

See **Troubleshooting** for information on how to resolve a variety of common problems with the display and related SMART products.

Contacting your reseller for additional support
If an issue you're experiencing with the display persists or isn't addressed in this chapter or the knowledge base, contact your authorized SMART reseller (**smarttech.com/where**) for support.
Your reseller might ask you for the display's serial number. The serial number is on a label on the left side of the display.



Tip
Scan the QR code on the label to view the SMART Board GX (V3) series interactive display support pages on the SMART website.

Appendix A Adjusting display settings

Accessing the display's settings
You can access the display's settings from the Home screen by tapping the Apps icon and then tapping the Settings icon. You can also press the Settings button on the remote control.

Note
If the display's input is set to its Android system and you access the display's settings while viewing input from a connected computer, an input settings dialog appears rather than the main display settings.
The Settings dialog includes the following menu options:

Setting	Function	Notes
Network	Configure network and Wi-Fi settings.	See > **Network on the next page**.
Personalization	Select the wallpaper that appears in the background, configure swipe-up menu options, enable muti-window mode, icon labels, and toolbar display options.	See > **Personalization on page 64**.

Input and output	Enable touch sounds, select output devices for sound, name input devices, configure external source display settings, and more.	See > Input and output on page 65.
Applications	See which applications are installed, check their permissions and storage, and more.	See > Applications on page 67.
System	Configure system settings including the displayed date and time, keyboard language, lock screen password, startup and shut down options, adding an email account, file storage options, system update options, and more.	See System on page 68. **Note** If the system settings lock is enabled, only admins who have the settings passcode can access the system settings. See > Settings lock password on page 70.
Regulatory Information	See an electronic (e-label) version of the GX (V3) display's regulatory information.	See > Regulatory Information on page 73.
About	View information about the display.	See > About on page 73.

Exiting the display's settings

Press the **Home** button on the front control panel.

Network

Option	Values	Function	Notes
▶ Wi-Fi			
● Wi-Fi	On Off	Enables or disables connections to Wi-Fi networks.	Turn on Wi-Fi to discover networks.
● Select a network	N/A	Shows information about available Wi-Fi networks.	The display automatically reconnects to a previously connected network unless that connection is removed using *Forget*.

Option	Values	Function	Notes
+ icon (Add network)	Network name Security Advanced Settings	Manually connect to a hidden wireless network.	For the network you're connecting to: ● Add the SSID. ● Select a security protocol and password. ● Adjust additional advanced settings, such as Proxy and DHCP settings.
● ••• icon (Wi-Fi preferences)			
● Install certificates	N/A	Installs an SSL certificate for wireless network access.	N/A

● MAC Address	N/A	Shows the unique media acces s control (MAC) address for the display's Wi-Fi.	N/A
● IP Address	N/A	Shows the Internet Protocol (IP) address currently assigned to the display's Wi-Fi network inter face.	N/A
▶ Ethernet			
● Ethernet	On Off	Enables or disables the display' s Ethernet network connection. **Note** Turning on the Ethernet connect ion will turn off the display's Wi-Fi connection.	N/A
● Obtain IP address auto matically	On Off	Enables the display to obtain an IP address automatically (DHC P).	When the Obtain IP address aut omatically is disabled, you can change the currently assigned n etwork settings.
● MAC address	N/A	Shows the unique media acces s control (MAC) address for the display's Ethernet interface.	N/A
● IP address	N/A	Shows the Internet Protocol (IP) address currently assigned to the display's Ethernet network i nterface.	N/A
● Default gateway	N/A	Information displayed by a rout er.	N/A
● Netmask	N/A	Information displayed by a rout er.	N/A
● DNS 1	N/A	Information displayed by a rout er.	N/A
● DNS 2	N/A	Information displayed by a rout er.	N/A
● Proxy	None Manual Automatic pro xy configuratio n	N/A	When Proxy is set to Manual, a dditional settings appear for ent ering the Proxy hostname of the proxy server, Proxy port, and By pass proxy for:.

Option	**Values**	**Function**	**Notes**
▶ Hotspot			
● Hotspot	On Off	Enables or disables the display's Wi-Fi hotspot. **Note** Turning on the Wi-Fi hotspot will tur n off the display's Wi-Fi connection.	The display must be connected to an Ethernet network to provide a Wi-Fi hotspot. **Note** The display's Wi-Fi connection will be disabled when providing a Wi-Fi hotspot.

● Hotspot settings	N/A	Enables configuration of the display's hotspot settings.	N/A
● Hotspot name	N/A	Sets the hotspot name.	Keep the default hotspot name or use the display's on-screen keyboard to type a new one.
● Security	None WPA2 PSK	Set an encryption method for the display's Wi-Fi hotspot.	WPA2-PSK is the preferred security option.
● Password	N/A	Set a password for the display's Wi-Fi hotspot.	Use the display's pop-up keyboard to type a password.
● Frequency	2.4 GHz 5 GHz	Set a frequency band for the display's Wi-Fi hotspot. If 5 GHz is not selected, a default frequency band of 2.4 GHz is used.	The display's 5 GHz and 2.4 GHz Wi-Fi hotspot frequency bands are not available simultaneously.
▶ Bluetooth			The display's 5 GHz and 2.4 GHz Wi-Fi hotspot frequency bands are not available simultaneously.
● Bluetooth	On Off	Enable or disable the display's Bluetooth.	Turn on Bluetooth to view available Bluetooth devices.
● Available devices	N/A	Shows a list of paired Bluetooth devices, their connection status, and a list of available Bluetooth devices.	Choose a paired device to disconnect or forget the device.
● ••• icon (more options)	Rename this display Show received files	N/A	N/A
▶ VPN			
● VPN switch	On Off	Enable or disable use of a virtual private network (VPN) service with the display.	N/A
● Add a VPN profile	N/A	Create a VPN connection profile.	N/A
● Name (profile name)	N/A	Sets the VPN name.	N/A
● Type	[Encryption type]	Set an encryption method for the display's VPN connection.	N/A
● Server address	N/A	Enter the fully qualified domain name (FQND) for the VPN server.	N/A

Option	Values	Function	Notes
● PPP encryption (MPPE)	On Off	Enables encryption for the VPN .	N/A
● Username	N/A	Set user name for the VPN.	N/A
● Password	N/A	Set a password for the display's VPN.	N/A
● Advanced options	N/A	Set advanced VPN configuratio n options.	The availability of these options is dependent on the type of VP N selected.
● Always-on VPN	On Off	Configures the VPN to be const antly enabled.	The availability of this option is dependent on the type of VPN s elected.
▶ Samba Service			
● Samba switch	On Off	Enable or disable the display's Samba service.	Allows the display to communic ate with Windows computers ac ross a network.
● Sign in settings	N/A	User credentials for the Samba service.	N/A

Personalization

Option	Values	Function	Notes
● Wallpaper	N/A	Select the wallpaper that appears i n the background.	3840 × 2160 images wor k best.
● Swipe-up menu options	Select input Bott om toolbar	Sets which menu option appears when swiping up from the bottom e dge of any screen.	N/A
● Multi-window mode	On Off	Enables or disables the ability to di splay more than one app at the sa me time.	N/A
● Display icon labels	On Off	Show or hide the text labels that id entify the icons in the side toolbar.	N/A
● Hide toolbar after:	5 seconds 15 seconds 30 seconds 1 mins 5 mins Always	Sets the time the side and bottom t oolbars and Common settings win dow remain visible before being hi dden.	N/A

Input and output

Option	Values	Function	Notes
▶ Sound			
● Touch sounds	On Off	Enables or disables sounds tha t accompany touch interactions with the display's screen.	N/A
● Audio output settings	Speaker Lineo ut Auto	Choose whether the display's a udio goes to the display's built-i n speakers or to an optional ext ernal sound system.	This setting switches to Lineout when a 3.5 mm audio cable is p lugged into the Audio Out connector on the bottom-rear co nnector panel. If Auto is selected, the display's audio is sent to an external sou nd system if one is connected. Otherwise, audio output goes to the display's internal speakers.
▶ Input settings			
● Rename/Enable inputs	N/A	Enables renaming and disabling individual inputs on th e display.	N/A
● Enable input renaming	On Off	Enables renaming of individual i nputs on the display. **Note** An input name changes from gr ay to green when it's editable.	N/A
● PC	On Off	Enables or disables the video in put in the display's OPS expans ion slot.	This option is available when an OPS PC module is installed in t he display's accessory slot.
● Android	On Off	Enables or disables the in-built Android system software.	N/A
● HDMI1	On Off	Enables or disables the HDMI 1 video input on the side connector panel.	N/A
● HDMI2	On Off	Enables or disables the HDMI 2 video input on the side connector panel.	N/A
● HDMI3	On Off	Enables or disables the HDMI 3 video input on the front connect or panel.	N/A
● Type-C1	On Off	Enables or disables the USB Ty pe-C input on the side connecto r panel.	N/A
● Type-C2	On Off	Enables or disables the USB Ty pe-C video input on the front co nnector panel.	N/A

● DP	On Off	Enables or disables the Display Port video input on the bottom c onnector panel.	N/A
● VGA	On Off	Enables or disables the analog VGA input on the bottom conne ctor panel.	N/A
● CEC	On Off	Enables or disables Consumer Electronic Control functions for HDMI video inputs.	HDMI-CEC (Consumer Electron ics Control) is a function of the HDMI standard that allows conn ected devices to talk with each other. Enabling this will allow you to c ontrol the display's power and a udio volume by using the remot e control of a CEC capable devi ce connected to the display via HDMI (such as a DVD player or media device)
● Wake on active source	On Off	Enables the display to be turne d on by connecting an active vid eo signal to the display.	N/A
● Switch to active input automatically	OFF ON SELECT	Automatically switches the inpu t when an active video signal is connected to the display, or dis plays a user-notification.	N/A
● No signal power off	1 minutes 3 minutes 5 minutes 30 minutes 45 minutes 60 minutes (di sabled)	Sets the number of minutes bef ore the display goes into an ene rgy saving mode when no video signal is detected.	N/A
▶ External source display settings			
● HDMI OUT format	3840 × 2160_60HZ 1080P_60HZ	Sets the HDMI out resolution.	Ensure the device that receives the display's HDMI out signal m atches the selected output resol ution. For best results, make sure the device that receives the display' s HDMI out signal uses the sam e resolution settings as the displ ay.

Option	Values	Function	Notes
● Advanced HDMI settings	N/A	Set the HDMI-EDID version for individual digital video inputs. **Note** HDMI 2.0 is the default.	When HDMI 1.4 is selected, the display presents itself as an HDMI 1.4 compliant device with a video resolution limit of 3840 × 2160 @ 30Hz. When EDID 2.0 is selected, the display presents itself as an HDMI 2.0 compliant device with a video resolution limit of 3840 × 2160 @ 60Hz. **Note** This setting can be applied differently to each digital video source.
● PC	HDMI 1.4 HDMI 2.0	N/A	This option is available when an OPS PC module is installed in the display's accessory slot.
● HDMI1	HDMI 1.4 HDMI 2.0	N/A	Side connector panel.
● HDMI2	HDMI 1.4 HDMI 2.0	N/A	Side connector panel.
● HDMI3	HDMI 1.4 HDMI 2.0	N/A	Front connector panel.
● TYPE_C1	HDMI 1.4 HDMI 2.0	N/A	Side connector panel.
● TYPE_C2	HDMI 1.4 HDMI 2.0	N/A	Front connector panel.
● DP	HDMI 1.4 HDMI 2.0	N/A	Bottom connector panel.

Applications

Option	Values	Function	Notes
▶ Applications			
● For each application	N/A	N/A	N/A
● Uninstall	N/A	Uninstall the app.	N/A
● Force Stop	N/A	Temporarily stop the app from running in the background.	The app will start running again next time its opened.
● App Notifications	On Off	Prevent all apps from providing a pop-up message on the screen.	N/A

Option	Values	Function	Notes
● Permissions	N/A]	Change permissions for the apps installed on the display, such as what an app is permitted to do and access.	N/A
● Storage	N/A	Provides information about the amount of storage an app is using, such as app size, user data, and cache.	N/A
● Open by default	N/A	Set an app's open prompt or clear the app's default settings.	N/A
● Memory	N/A	View an app's memory usage.	N/A
● Advanced	N/A	N/A	N/A
● Install unknown apps	N/A	This feature is disabled by default. ⚠ **Caution** SMART cannot accept liability for damages to the display or your personal data that might result from the installation of apps from unknown sources.	Third-party apps cannot be installed when this feature is disabled.
● Modify system settings	On Off	Allows an app to modify system settings. **Note** This feature is not available for most apps.	N/A
● ••• icon (additional settings)	N/A	N/A	N/A
● Show System	N/A	Only third-party apps and desktop apps only are displayed by default. Enabling this option displays the rest of the Android system.	N/A
● Reset app preferences	N/A	Restore the default preferences of all applications.	N/A

System

Option	Values	Function	Notes
▶ Date and time			
● Use 24-hour format	On Off	Shows the display's time using the 24-hour clock.	Default setting is Disable and shows a 12-hour clock.

Option	Values	Function	Notes

● Automatic date and time	On Off	Sets the display's date and time automatically.	This is based on your region and time zone settings. The display synchronizes with network time servers on the internet. When Automatic date and time is disabled, options are available for manually setting the date, time, date format, and time zone.
● Date format	[Date formats]	Sets the display's date format.	The default date format is MM/DD/YYYY.
● Time zone	[Time zones]	Sets the display's time zone.	N/A
▶ Language and keyboard			
● Languages	[Languages]	Sets the language for the display.	N/A
● Keyboard	N/A	Enables you to choose which of the installed keyboards and input methods are active.	N/A
● Virtual keyboard	N/A	Sets the on-screen keyboard options.	N/A
● Android Keyboard (AOSP)	On Off	Enables the Android Keyboard (AOSP) on-screen keyboard.	Clicking the enabled keyboard provides additional options, including options to set the keyboard language, appearance, layout, and other advanced settings.
● Google Pinyin Keyboard	On Off	Enables the Google Pinyin Keyboard on-screen keyboard.	Clicking the enabled keyboard provides additional options, including options to set the keyboard language, appearance, layout, and other advanced settings.
● Physical keyboard	[Physical keyboard options]	Sets the physical keyboard options.	N/A
▶ Region			
● Region	[Country/regions]	Sets the display's country or region.	Switching the region changes some of the display's behavior, such as the Wi-Fi network channels available for use in that region.
▶ Password			
● Lock-screen password		Access options for configuring the lock screen password.	N/A
● Clear password	N/A	Clears the lock screen password.	N/A

● Set password	N/A	Set a lock screen password.	This option is available when a n existing password has been cleared.

Option	Values	Function	Notes
● Change password	N/A	Change the four-digit lock scre en password.	The passcode is set when turn ing on the display for the first ti me. **Important** The display's Screen lock feat ure is enabled only when a pa sscode is set.
● Settings lock password		Access options for configuring the settings lock password.	N/A
● Clear password	N/A	Clears the settings lock passw ord.	N/A
● Set password	N/A	Set a password to access cert ain settings.	The Settings Lock Password is not the same as the user's Loc k Screen Password.
● Change password	N/A	Change the four-digit settings l ock password.	N/A
▶ Startup and shutdown			
● Startup input	N/A	Options for configuring startup and shutdown settings.	N/A
● Startup input	Last shutdown in put PC Android HDMI1 HDMI2 H DMI3 Type-C1 T ype-C2 DP VGA	Select which input source is se lected on startup. Disabled inp uts will not appear in the list.	By default, the input source act ive at the last shutdown is the selected startup input. The PC option is available when an OPS PC module is in stalled in the display's accessory slot.
● Enter Ready mode after startup	On Off	Enables or disables whether th e display enters Ready mode after starting.	When enabled, the display ent ers Ready mode after starting and no image is displayed on t he screen. Pressing the power or home buttons will wake the display.
● Wake On LAN	On Off	Enables or disables waking th e display when it receives a M agic Packet via the network. **Note** The display's power consumpti on may increase when Wake On LAN is enabled.	N/A

Option	Values	Function	Notes

● Timer Switch	N/A	Options for configuring timer s witch settings.	User-configured startup and shutdown tasks will be listed at the bottom of this section, whe re you can adjust or delete the m individually.
● Power-off reminder	On Off	Enables or disables a countdo wn reminder that appears befo re the display begins shutting d own.	N/A
● Add startup task	[Time and date o ptions]	Add a scheduled startup task.	N/A
● Add shutdown task	[Time and date o ptions]	Add a scheduled shutdown tas k.	N/A
▶ Lock control			
● Lock control	N/A	N/A	N/A
● Remote lock	On Off	Enables or disables keypad fu nctionality on the display's rem ote control.	N/A
● Touch lock	On Off	Enables or disables touch inpu t on the display's screen.	N/A
● Keypad lock	On Off	Enables or disables button fun ctionality on the display's front control panel.	N/A
● Wake lock	On Off	Enables or disables a lock scr een that appears when the dis play wakes from ready mode.	**Important** ● The display's Screen lock fe ature must be enabled before you can enable the Wake lock feature. See > Set password on page 6 9 ● A lock screen will only appear when the display wake s from ready mode and not wh en turned on. Press the power button on the front control panel to put the di splay in Ready mode or to wake the display.
▶ Pixel shift			
● Pixel shift	Off Interval 2 mins Interval 3 mins Interval 5 mins Interval 30 mins Interval 60 mins	When the interval timer is enab led, the display's image will mo ve up and down momentarily t o reduce the risk of image burn-in.	N/A
▶ Email			

Option	Values	Function	Notes
● Add Account	[Mail Settings]	Add an email account to the di splay.	N/A
▶ Storage			
● Internal storage space	N/A	Shows how much storage me mory is available and how muc h is currently in use.	Delete saved documents, ima ge, or video files, or uninstall t hird-party applications if availa ble storage memory is low.
● Clean up app data	N/A	Cleans app data.	N/A
▶ System update			
● Disable system updates	On Off	Enables or disables the ability to update the display's system software	This feature is disabled by def ault.
● Current version	N/A	Shows the current version of t he display's firmware.	N/A
● Check for update	N/A	Manually check for updates to the display's firmware.	If an update is available, a message appears on screen a nd asks whether the user wish es to install it. **Note** The display must be connected to the internet to ch eck for system software updat es. Check the display's networ k settings. See > *Network* on page 61.

▶ Factory reset

● Factory reset	Cancel Confirm	Resets all options to their defa ult values.	Only administrators should res et the display to factory setting s

▶ Security

● Credential storage	N/A	You can view installed trusted system and user credentials (certificates), control the enabling status of these credentials, and view the details of each certificate.	N/A
● Trusted credentials	N/A	View and enable or disable trusted credentials.	N/A
● System	N/A	Enable or disable trusted system credentials.	N/A
● User	N/A	Enable or disable trusted user credentials.	N/A
● User credentials	N/A	View and modify user credentials.	N/A
● Install from storage	N/A	Install a certificate from local storage or a USB drive.	N/A

Option	Values	Function	Notes
● Clear credentials	N/A	Removes security certificates from the display.	⚠ **Caution** Removing security certificates may affect the performance of some applications.
● Install from unknown sources			
● Unknown sources	On Off	Allow the installation of apps from unknown sources.	The display and your data are more vulnerable to attack by applications from unknown sources. ⚠ **Caution** SMART is not responsible for any damage to the display or loss of your data that might result from using applications from unknown sources. Only administrators should install applications from unknown sources.

Regulatory Information
View an electronic (e-label) version of the GX (V3) display's regulatory information.

About

Option	Values	Function	Notes
● Legal information	N/A	N/A	N/A
● Third-party licenses	N/A	Shows the third-party licenses.	N/A
● Open-source licenses	N/A	Shows the open source licenses.	N/A
● System WebView licenses	N/A	Shows the system WebView licenses.	N/A
● Display part number	N/A	Shows the display's part number.	N/A
● Model number	N/A	Shows the display's model number.	N/A
● Android version	N/A	Shows the current version of the display's Android operating system.	N/A
● Kernel version	N/A	Shows the display's Android Kernel version.	N/A
● Build number	N/A	Shows build information for the current version of the display's system firmware.	N/A
● Version	N/A	Shows the current version of the display's system firmware.	SMART Support teams might request this information if you contact them.
● Touchkit version	N/A	Shows the current version of the display's touch kit.	SMART Support teams might request this information if you contact them.
● SRM version	N/A	Shows the current version of the display's SMART Remote Management software.	SMART Support teams might request this information if you contact them.
● Memory Info	N/A	Shows how much RAM is installed in the display	N/A

Appendix B Adjusting Input settings

Opening the Input settings menu

1. Open the **Toolbar** by tapping one of the side Toolbar buttons  on either sides of the screen.
2. Tap the **Input**  icon.

   The Common Settings dialog appears.

Tip

You can also open the Inputs menu by pressing the Input button  on the remote control when the display's input is set to Android.

Exiting the Input settings menu

Press the Home button on the front control panel.

Source settings

Option	Values	Function	Notes
▶ Inputs			

Option	Values	Function	Notes
● Select an input	PC Android HDMI1 HDMI2 HDMI3 Type-C1 Type-C2 DP VGA	Select a connected computer or other device's input to view on the display. **Note** The PC input appears only when an OPS PC module is installed in the display's accessory slot.	A green circle appears around the currently selected input (PC, Android, HDMI1, HDMI2, HDMI3, Type-C1, Type-C2, DP, or VGA). Inputs with a connected source have a green dot beside the input name, rather than a gray dot. The input name also appears in green text rather than gray when an input is connected. **Note** Disabled inputs do not appear in the list of available inputs.
● Screen brightness	Range slider	Sets the overall brightness of the image.	N/A
● Volume	Range slider	Sets the display's volume.	N/A

Advanced settings

Access the current input's advanced settings by tapping the three dots ••• that appear in upper right corner of the input settings menu screen. The current input is surrounded by a green circle.

Tip

You can also open the Advanced settings menu by pressing the Settings button on the remote control when viewing any input other than Android.

Option	Values	Function	Notes

▶ Audio

Note

The following settings are applicable to all inputs.

● Volume	1 to 100	Sets the display's volume	N/A
● Bass	-5 to 5	Sets the bass level.	This setting is only adjustable when Custom audio mode is enabled (see Audio modes below).
● Treble	-5 to 5	Sets the treble level.	This setting is only adjustable when Custom audio mode is enabled (see Audio modes below).
● Balance	-50 to 50	Sets the L/R balance of the display's built-in speakers.	N/A

Option	**Values**	**Function**	**Notes**
● Audio modes			
● Standard	On Off	This is the default audio mode	N/A
● Meeting	On Off	An audio mode optimized for meeting rooms, with slightly reduced bass.	N/A
● Class	On Off	An audio mode optimized for classrooms, with slightly reduced bass and slightly increased treble.	N/A
● Custom	On Off	An audio mode that allows full user control of bass and treble adjustments.	N/A
● Mute	On Off	Mutes the display's audio system.	N/A
▶ Screen			
● Pixel shift	On Off	If enabled, the display's image will move up and down momentarily to reduce the risk of image burn-in. To set timing options, see Pixel Shift in the **System on page 68** section of display settings).	N/A
● Eye Care	On Off	Changes the screen settings to reduce the brightness and amount of blue light in the image.	N/A
● AutoLight	On Off	Detects the ambient light in the room and automatically adjusts the screen brightness.	N/A
● SaveEnergy	On Off	Reduces the screen brightness of the display to save power.	N/A

● Image scaling

Note

The following settings are only available when DP or VGA inputs are selected.

● 4:3	On Off	Sets the screen image’s aspect ratio to 4:3	N/A
● 16:9	On Off	Sets the screen image’s aspect ratio to 16:9	N/A
● PTP	On Off	This setting may help if the 16:9 setting causes the screen image’s edges to be clipped.	N/A
● Auto	On Off	Enables the display to automatically choose the optimal image scaling for the source video signal. This is the default setting.	This is the recommended setting for image scaling.

Option	Values	Function	Notes
▶ **Display Notes** ● This display uses continuous current dimming to prevent flicker at low brightness settings ● The following settings are applicable to all inputs.			
● Brightness	1 to 100	Sets the overall brightness of th e image.	N/A
● Contrast	1 to 100	Sets the difference in brightnes s between the lightest and dark est parts of the image.	N/A
● Hue	1 to 100	Sets the hue (color) of the imag e.	This setting is available only wh en *Custom* display mode is ena bled and is not available for all i nputs.
● Sharpness	1 to 100	Sets the sharpness of the imag e.	This setting is available only wh en *Custom* display mode is ena bled and is not available for all i nputs.
● Display modes			
● Standard	On Off	The default display mode, for o ptimal performance.	N/A
● Bright	On Off	A brighter image mode that ma y use more power.	Different shades of light gray m ay be harder to see in this mod e.
● Soft	On Off	A softer image mode with slightl y reduced contrast.	N/A
● Custom	On Off	An image mode that allows use rs to customize the image brigh tness, contrast, hue, and sharp ness.	N/A
● Color modes			
● Standard	On Off	The default color mode.	N/A
● Cold	On Off	Raises the screen image’s color temperature.	N/A
● Warm	On Off	Lowers the screen image’s colo r temperature.	N/A
● More ••• icon (additional settings)	N/A	Manually adjust the red, green, and blue color channels individually. You can also reset t he white balance to its default s etting.	N/A

▶ Adjust

Note

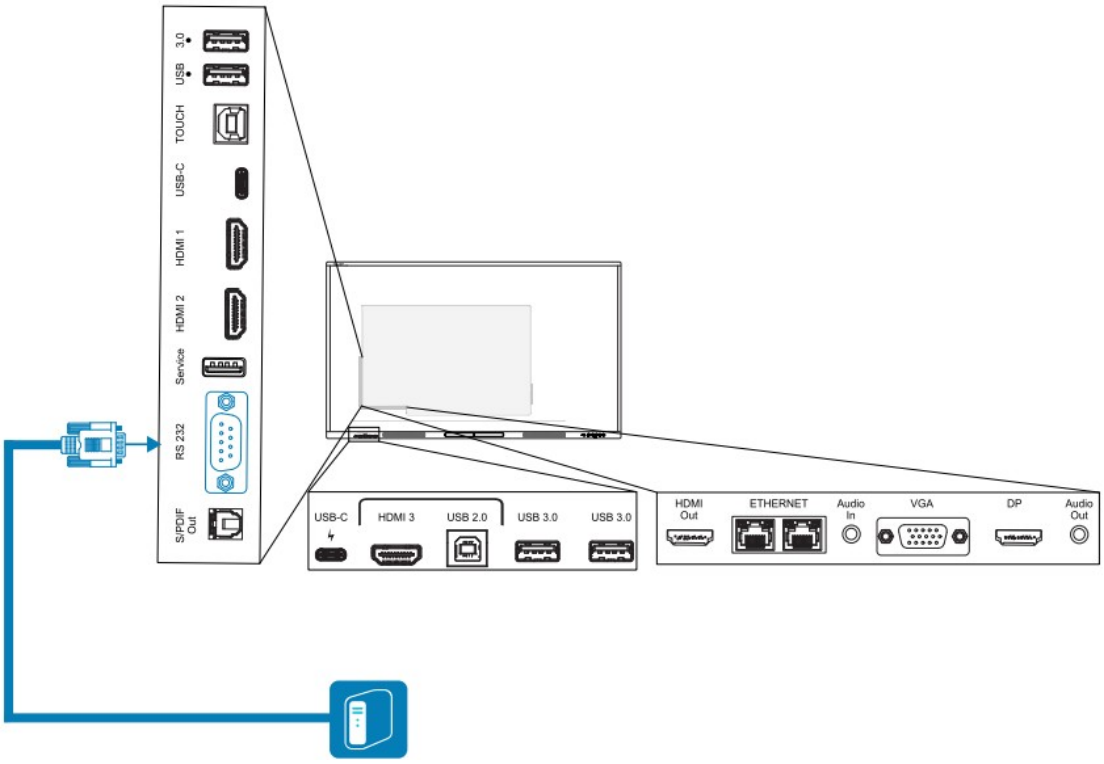
The following settings apply only to VGA inputs.

● H Position	1 to 100	Manually set the image's relative horizontal position on the display.	N/A

Option	Values	Function	Notes
V Position	1 to 100	Manually set the image's relative vertical position on the display.	N/A
Phase	1 to 36	Adjusts the phase of the analog video signal.	Adjusting this setting can help compensate for indistinct colors on analog video inputs.
AUTO PHASE	N/A	Enables the display to try to detect the best phase setting for the current analog video signal.	N/A

Appendix CManaging the display using RS-232

You can connect an RS-232 cable from a computer or a control system's serial output to the display's RS-232 in connector to remotely select video inputs, turn the display on or off, and get information about the display's current settings, such as volume and power state.



Important
Use only a standard RS-232 cable. Do not use a null modem cable. Null modem cables typically have ends of the same type.

Tip
SMART also offers SMART Remote Management cloud-based device-management software, which you can use to manage SMART Board interactive displays with iQ and devices running Windows, Chrome™ OS, Android, and iOS operating systems. For more information, see **SMART Remote Management**.

Configuring the serial interface settings
Configure the computer or control system's serial interface before sending commands to the display.

1. Turn on the display.
2. If you're using a terminal application on a computer, activate local echo to see what you're typing and sending to the display.
3. Configure the serial interface settings with the following values:

Baud rate	19200
Data length	8
Parity bit	None
Stop bit	1

4. Send a carriage return character (<CR>) to the display. The display will show a command prompt (>) to indicate that the display can now accept commands.

Note

- If you're using a terminal application on a computer, pressing ENTER should send a carriage return character (<CR>) but might also send a line feed character (<LF>), depending on your terminal application configuration.
- If no message appears or an error message appears, the serial interface isn't configured correctly. Repeat steps 3 and 4.
- If you're using a terminal app on a PC, keep your screen legible by configuring the terminal app's settings to add a line feed <LF> after sending or receiving a carriage return <CR>. For example, in the PUTTY app, enable terminal option Implicit LF in every CR.

When using a control system program instead of terminal program, all the lines output from the display are preceded by a carriage return character (<CR>) and line feed character (<LF>) and then followed by a carriage return character (<CR>) and line feed character (<LF>), as shown in the example below. Refer to an **ASCII table** for more information about character codes if needed.

>set volume=0<CR>
<CR><LF>
volume=0<CR><LF>
>

Commands and responses
To access display information or to adjust display settings using the room control system, send a command after the command prompt (>), send a carriage return character or press ENTER, and then wait for the response from the display. Responses are preceded by a carriage return character (<CR>) and line feed character (<LF>) and then followed by a carriage return character (<CR>) and line feed character (<LF>). If no command prompt is present, send a carriage return character to the display. If the display is ready to receive commands, it will show a command prompt (>)when the carriage return is received. See the example below.

Correct
>get volume
volume=55
>

In the example below, the user used =-50 instead of -50.

Incorrect
>set volume=-50
invalid cmd: setvolume=-50
>

Notes

- Use ASCII formatted commands.
- Commands aren't case-sensitive and extra spacing is ignored.
- In many terminal applications on a computer, you can use the BACKSPACE key when typing commands.
- Review each entry carefully before sending a command to the display.
- Don't send another command until you receive the response and the next command prompt (>).
  If no command prompt is present, send a carriage return character (<CR>) to the display. If the display is ready to receive commands, it will show a command prompt after receiving the carriage return.

To retrieve a setting's current value
Use a get command.
This example shows how to get the volume:

>get volume
volume=55
>

To assign a value to a setting
Use a set command.
This example sets the volume to 65:

>set volume=65
volume=65
>

To increase or decrease the value of a setting
Use the set command to increase or decrease the value by a designated number.
This example increases the volume by 5:

>set volume+5
volume=70
>

This example decreases the volume by 15:

>set volume-15
volume=55
>

Power state commands

Get command	Set command	Response
get powerstate	set powerstate [Value] Where [Value] is one of the following: ● =on ● =ready ● =powersave	powerstate = [Value] Where [Value] is one of the following: ● on ● ready ● powersave

The display has three power states:

Power state	Description
ON	The display is in normal operating mode.
READY	The screen is off, but the display is ready to turn on when one of the following occurs: ● A user presses the **Power** button ⏻ on the front control panel or the remote control. ● You send the set powerstate=on command. ● The display receives a video signal.
POWERSAVE	The screen is off, and the display is in a very low power state. The display enters READY or ON state when one of the following occurs: ● A user presses the Power button ⏻ on the front control panel or the remote control. ● You send the set powerstate=ready or set powerstate=on command. This power state is the default energy saving mode for displays set to an EU location. **Note** The EU uses “Standby” to describe this power state.

Input commands

Get command	Set command	Response
get input	set input[Value] Where [Value] is one of the following: ● =hdmi1 ● =hdmi2 ● =hdmi3 ● =vga ● =ops ● =type-c1 [or usbc1] ● =type-c2 [or usbc2] ● =dp ● =android	input=[Value] Where [Value] is one of the following: ● hdmi1 ● hdmi2 ● hdmi3 ● =vga ● =ops ● =type-c1 [or usbc1] ● =type-c2 [or usbc2] ● =dp ● =android

Brightness commands

Get command	Set command	Response
get brightness	set brightness [Value] Where [Value] is one of the following: ● +[Value] ● -[Value] ● =[0–100]	brightness=[Value] Where [Value] is a number between 0 and 100

Freeze commands

Get command	Set command	Response
get videofreeze	set brightness[Value] Where [Value] is one of the following: ● +[Value] ● -[Value] ● =[0–100]	brightness=[Value] Where [Value] is a number between 0 and 100

Freeze commands

Get command	Set command	Response
get videofreeze	set videofreeze[Value] Where [Value] is one of the following: ● =on ● =off	videofreeze=[Value] Where [Value] is one of the following: ● =on ● =off

Screen shade commands

Get command	Set command	Response
get screenshade	set screenshade[Value] Where [Value] is one of the following: ● =on ● =off	screenshade=[Value] Where [Value] is one of the following: ● on ● off

Volume commands

Get command	Set command	Response
get volume	set volume[Value] Where [Value] is one of the following: ● +[Value] ● -[Value] ● =[0–100]	volume=[Value] Where [Value] is a number between 0 and 100

Mute commands

Get command	Set command	Response
get mute	set mute[Value] Where [Value] is one of the following: ● =on ● =off	Response mute=[Value] Where [Value] is one of the following: ● on ● off

Firmware version commands

Get command	Response
get fwversion	fwversion=[Value] Where [Value] is the firmware version.

Model number commands

Get command	Response
get modelnum	modelnum=[Value] Where [Value] is one of the following: ● sbid-gx065-v3 ● sbid-gx075-v3 ● sbid-gx086-v3

Serial number commands

Get command	Response
get serialnum	serialnum=[Value] Where [Value] is the serial number.

Part number commands

Get command	**Response**
get partnum	partnum=[Value] Where [Value] is the part number, including the revision.

Asynchronous messages

The display sends an asynchronous message when the front control panel, Settings app, or remote control are used to change a display's setting that can be controlled by RS-232. The display will also send an asynchronous message if the display's power state changes. Asynchronous messages are identified by a pound sign (#) before the message and aren't followed by a command prompt (>).

Change	Asyncronous message
display power state	#powerstate=[Value] Where [Value] is one of the following: ● on ● ready ● powersave
Input selection	#input=[Value] Where [Value] is one of the following: ● =android ● =hdmi1 ● =hdmi2 ● =hdmi3 ● =vga ● =ops ● =type-c1 [or usbc1] ● =type-c1 [or usbc1] ● =dp
Brightness	#brightness=[Value] Where [Value] is a number between 5 and 100
Freeze frame	#videofreeze=[Value] Where [Value] is one of the following: ● on ● off
Screen shade	#screenshade=[Value] Where [Value] is one of the following: ● on ● off
Volume increase or decrease	#volume=[Value] Where [Value] is a number between 0 and 100
Volume mute	#mute=[Value] Where [Value] is one of the following: ● on ● off

Appendix D Enrolling the display in SMART Remote Management

Your SMART Board GX series interactive display has a built-in feature that enables you to enroll the display with your organization's SMART Remote Management account. When you enroll the display, you can use SMART Remote Management to centrally control the display's features and settings, such as:

- blocklists and allowlists
- Wi-Fi
- wallpaper
- lock screen
- available apps

See > **support.smarttech.com/docs/enrolllingsrm**

Appendix E Disabling and reenabling the embedded OS and other inputs

Admins can disable specific inputs, including the embedded Android OS. This is ideal for environments that use

only connected devices. Admins can also re-enable specific inputs.
You cannot enable or disable the Android input or any other input unless a Settings Lock Password has been enabled.
See > System on page 68.

Disabling inputs
To disable the embedded OS

1. Open the display's settings from the Home screen by tapping the Apps icon and then tapping the Settings icon . You can also press the Settings button on the remote control.
   The display's Settings dialog appears.
   Note
   If the Settings lock password is enabled, you must enter the password before you can change the source settings.
2. In Input and output > Input settings > Rename/enable inputs, and disable the Android input.
   If the Settings Lock Password is not enabled, a dialog box appears prompting you to configure a password.
   Disable the Android input after configuring a password.
3. Tap **Restart.**
   Note
   When Android is disabled, the Home button is also disabled on the front control panel and the remote control.

To disable other inputs
To disable other inputs, select a different input under Rename/enable inputs and follow the same process.
See > System on page 68.

Reenabling inputs

To reenable the embedded OS

1. Open the display's settings by tapping either of the Side Toolbar menu buttons (located either side of the screen), and then tapping the Settings icon .
   The display's Settings dialog appears.
   Note
   If the Settings lock password is enabled, you must enter the password before you can change the source settings.
   See > System on page 68.
2. In Input and output > Input settings > Rename/enable inputs, and enable the Android input.
3. Tap Restart.
   The display restarts.

To reenable other inputs
To re-enable other inputs, select a different input under Rename/enable inputs and follow the same process.
See > System on page 68.

Certification and compliance

Note

For the purposes of certification, the SMART Board GX (V3) series of displays are identified as models IDGX65-2, IDGX75-2, and IDGX86-2.

Accessing the display's e-label information
An electronic (e-label) version of the GX (V3) display's regulatory information is available in the display's settings.

From the Home screen, tap the Apps icon > Settings icon > Regulatory Information.
For more information, see Regulatory Information on page 73.
For more information, see the SMART Board GX (V3) series interactive displays user guide (**docs.smarttech.com/kb/171903**

Federal Communication Commission interference statement

FCC
Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information
Unique Identifier: IDGX65-2, IDGX75-2, IDGX86-2
Responsible Party – U.S. Contact Information
SMART Technologies Inc.
2401 4th Ave, 3rd Floor
Seattle, WA 98121
compliance@smarttech.com

This device complies with Part 15 of the 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.

Note
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Restriction
Operations in the 5.15-5.25 GHz band are restricted to indoor usage only.
IEEE 802.11b or 802.11g operation of this product in the USA is firmware limited to channels 1 through 11.

Radiation exposure statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the antenna of this device and all nearby persons. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Innovation, Science and Economic Development Canada statement
This device complies with RSS-210 of the Innovation, Science and Economic Development Canada 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.

Disabling and reenabling the embedded OS and other inputs

Caution
(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
(ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and
(iii) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.
(iv) Users should also be advised that high-power radars are allocated as primary users (i.e., priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Radiation exposure statement
This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the antenna of this device and all nearby persons.
This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

EUDeclaration of Conformity
Hereby, SMART Technologies ULC declares that the radio equipment type Interactive Display IDGX65-2, IDGX75-2, IDGX86-2 and the PCM11 are in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following Internet address:
smarttech.com/compliance

Warning
Operation of this equipment in a residential environment could cause radio interference.

The frequency band and the maximum transmitted power in EU are listed below:
Regulatory models: IDGX65-2, IDGX75-2, IDGX86-2

Transmitting Band (MHz)	Maximum Transmit Power dBm
2402–2483.5	19.5
5150–5350	21
5470–5725	20
5725–5850	14

Regulatory model: PCM11

Transmitting Band (MHz)	Maximum Transmit Power dBm
2402–2483.5	20
5150–5350	23
5470–5725	23
5725–5850	13.9

Restrictions in:
AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/LV/LI/LT/LU/HU/MTNL/NO/PL/PT/RO/SI/SK/TR/FI/SE/CH/UK/HR
–
5150MHz-5350MHZ is for indoor use only.
For optimal performance any support equipment connected to this device must be CE compliant.

Hardware environmental compliance
SMART Technologies supports global efforts to ensure that electronic equipment is manufactured, sold, and disposed of in a safe and environmentally friendly manner.

Waste Electrical and Electronic Equipment (WEEE) and batteries	Electrical and electronic equipment and batteries contain substances that can be harmful to the environment and to human health. The crossed-out wheeled bin symbol indicates that products should be disposed of in the appropriate recycling stream and not as regular waste.
Batteries	⚠ **Caution** There is a risk of fire or explosion if a battery is replaced by an incorrect type. Dispose of used batteries promptly. Follow handling instructions on coin cell packaging. Recycle or dispose of used batteries according to local guidelines. The display contains a CR2032 coin cell battery (not user accessible). The remote contains two AAA batteries. Recycle or dispose of batteries properly.
REACH Regulation	This product may contain substances that are candidate SVHCs under the EU REACH Regulation (EC) 1907/2006. See > **echa.europa.eu/scip-database**
Perchlorate material	The coin cell battery contains perchlorate material. Special handling may apply. See > **dtsc.ca.gov/hazardouswaste/perchlorate**
More information	See > **smarttech.com/compliance**

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docs.smarttech.com/kb/171903

Documents / Resources

	SMART Board GX V3 series Interactive Displays [pdf] User Guide SBID-GX165-V3, SBID-GX175-V3, SBID-GX186-V3 IDGX65-2, IDGX75-2, IDGX86-2, Board G X V3 series Interactive Displays, Board GX V3, series Interactive Displays, Interactive Displays, Displays

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- Product Compliance Documents | SMART Technologies
- smarttech.com/docfeedback/171903

- Store for SMART Parts
- SMART Support - SMART Technologies
- User Manual