



SMART Board® QX Pro

series interactive displays

Installation and maintenance guide

SBID-QX265-P | SBID-QX275-P | SBID-QX286-P
SBID-QX075-P | SBID-QX086-P | SBID-QX065-P
IDQX65-1 | IDQX75-1 | IDQX86-1



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This guide and other resources for SMART Board QX Pro 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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February 2, 2024

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 into which the display's polarized plug can be fully inserted.
- 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.

Important information

- **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. Check <https://echa.europa.eu/scip-database> for the latest information.



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.
- Exposure to chemical vapors and fumes can interfere with the environmental sensors built into the display. When cleaning the display, use water only. Immediately after cleaning, the environmental sensors may give inaccurate readings until water evaporates and dust settles.
- 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.

Important information

- The accessory slot's maximum available power is 100 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. It must be certified by UL or CSA or another NRTL / SCC certified body to CSA/UL 60950-1 or CSA/UL 62368-1 and it must have the CE marking. This is for operating safety and to avoid damage to the display.
- Wait five minutes before removing accessories from the display's OPS slot to allow the accessory to cool.

Important

- The following table shows the typical operating power for the display:

Models	Regulatory Models	Typical power
SBID-QX265-P, SBID-QX065-P	IDQX65-1	100V to 240V AC, 50 Hz to 60 Hz, 115 W
SBID-QX275-P, SBID-QX075-P	IDQX75-1	100V to 240V AC, 50 Hz to 60 Hz, 117 W
SBID-QX286-P, SBID-QX086-P	IDQX86-1	100V to 240V AC, 50 Hz to 60 Hz, 135 W

- For additional requirements and other information, refer to the display's specifications (see *More information* on page 17).

Contents

Important information	3
Chapter 1 Welcome	8
About this guide	8
About the display	9
Identifying your specific model	16
More information	17
Chapter 2 Installing the display	18
Moving the display to the installation site	18
Installing the display on a wall	20
Installing the display on a stand	24
Attaching the antennas	25
Connecting to a network	26
Connecting power and turning on the display for the first time	26
About energy saving modes	28
Initializing the environmental sensors	29
Chapter 3 Connecting computers and other devices	30
Installing SMART software	30
Connecting room computers and guest laptops	32
Connecting a SMART OPS PC module	35
Connecting other devices	35
Connector diagrams	39
Chapter 4 Maintaining the display	43
Turning off, turning on, and restarting the display	43
Cleaning and maintaining hardware	44
Updating system software	47
Chapter 5 Troubleshooting	49
Troubleshooting the display and related SMART products	49
Contacting your reseller for additional support	49
Appendix A Adjusting iQ Pro settings	50
Network settings	50
Application settings	51
System settings	52

Contents

Appendix B Enrolling the display in SMART Remote Management	56
Appendix C Managing the display using RS-232	57
Configuring the computer's serial interface settings	58
Commands and responses	58
Power state commands	60
Input commands	62
Brightness commands	62
Freeze commands	62
Screen shade commands	63
Volume commands	63
Mute commands	63
Firmware version commands	63
Serial number commands	64
Part number commands	64
Resolving issues with managing the display using RS-232	64
Appendix D Setting up an NFC card reader	65
Certification and compliance	66

Chapter 1 **Welcome**

- About this guide 8
- About the display 9
 - Touch 9
 - Writing, drawing, and erasing 10
 - Support for additional pens and tools 10
 - iQ 10
 - Display 11
 - Audio 11
 - Network connectivity 11
 - Room computers and guest laptops 11
 - Accessory slot 12
 - Convenience panel 12
 - Proximity sensor 12
 - Ambient light sensor 13
 - Remote control IR sensor 14
 - Environmental sensors 14
 - Microphone array 15
 - Video Camera 15
 - NFC reader 15
 - Mounting hardware 15
 - Accessory mounting points 16
- Identifying your specific model 16
- More information 17

The SMART Board® QX Pro series interactive display with iQ is the hub of your classroom or meeting room. This chapter introduces the SMART Board QX Pro series interactive displays.

About this guide

This guide explains how to install and maintain a SMART Board QX Pro series interactive display. It includes the following information:

- How to install the display
- How to connect power and devices
- How to turn on the display for the first time and configure iQ

- 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 remote management support.

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 17).

About the display

Note

The following features are available on the SMART Board QX Pro models.



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.

The display's advanced HyPr Touch™ (Hybrid Precision Touch) with Advanced IR touch technology provides a natural, intuitive writing and touch experience with high accuracy and low latency. In addition, the display's Silktouch ultra-smooth finish allows you to use the display for hours without discomfort.

Writing, drawing, and erasing



The display comes with a black pen and a red pen that you can use to write or draw on the screen. The pens are also equipped with erasers for fine erasing of digital ink.

The display also includes two erasers, which you can use to erase digital ink.

The display's Object Awareness responds automatically to the tool or object you're using, whether it's a pen, finger, eraser, or palm. The display's Pen ID and Simultaneous Tool Differentiation technologies allow multiple people to write independently and simultaneously, using different colors of ink.

Support for additional pens and tools

The Tool Explorer™ platform enables you to use SMART-authorized pens and tools in addition to those supplied with the display. Users can manipulate real-world objects to interact intuitively with on-screen objects, increasing engagement and knowledge retention. The SMART Board RX is Tool Explorer (v2) ready.

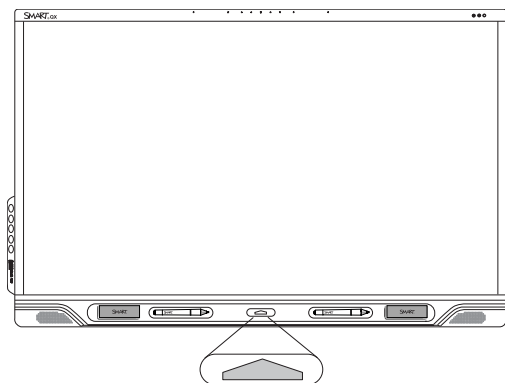
iQ

If enabled, the display's iQ Pro features provide one-touch access to collaborative tools, such as a whiteboard, wireless screen sharing, and a web browser. There's no need for manual software and firmware updates.

Note

Some features, such as Browser and Screen Share, require a properly configured network connection.

Press the **Home** button on the display (pictured) or the remote control to open the Home screen. From the Home screen, you can open the iQ apps, switch inputs, and adjust settings.



Display

The 4K ultra-high-definition LED display provides optimal image clarity and wide viewing angles.

The size of the display varies by model:

Models	Size (diagonal)
SBID-QX265-P / SBID-QX065-P	65"
SBID-QX275-P / SBID-QX075-P	75"
SBID-QX286-P / SBID-QX086-P	86"

Audio

The display includes an intergrated soundbar that features two 20 W speakers and a 15 W subwoofer, designed to provide sound at the front of a room.

Tip

You can connect an external audio system if you're providing sound in a larger space (see *Connecting an external audio system* on page 37).

Network connectivity

The display requires an internet network connection for downloading software and firmware updates, and a number of the iQ apps require a network connection as well.

You can connect 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 a Gigabit Ethernet network.

For more information, see *Connecting to a network* on page 26.

Room computers and guest laptops

You can connect room computers and guest laptops to the display and view and interact with their inputs.

The display comes with SMART software that you can install on connected computers to take full advantage of the display's features while using the connected computers.

For more information, see *Connecting room computers and guest laptops* on page 32.

Accessory slot

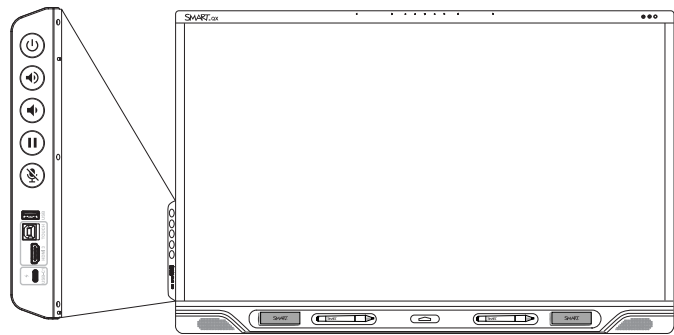
You can install an OPS-compatible device, such as a SMART OPS PC module, in the accessory slot. SMART OPS PC modules provide a complete Windows® Pro installation.

Caution.

The accessory slot's maximum available power is 100 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.

Convenience panel

The convenience panel provides buttons for turning the display on and off, controlling the volume, freezing and unfreezing the screen, and muting and unmuting the microphone. It also includes connectors for USB peripherals and a computer or other input source. See *Connecting room computers and guest laptops* on page 32.



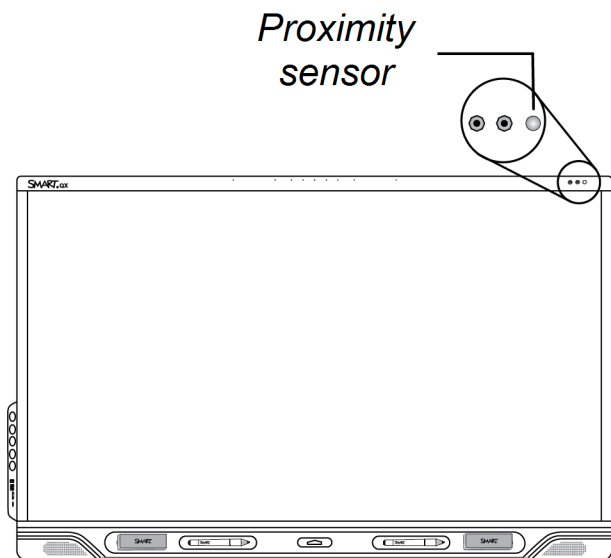
Proximity sensor

The proximity sensor is located in the top-right corner of the display's frame. It's the sensor on the right.

The proximity sensor can detect people up to approximately 16' (5 m) away when the display is in an energy saving mode.

When the proximity sensor detects people in the room, the display turns on, depending on how it's configured.

If the room is empty for a specified period, the display returns to an energy saving mode.



Notes

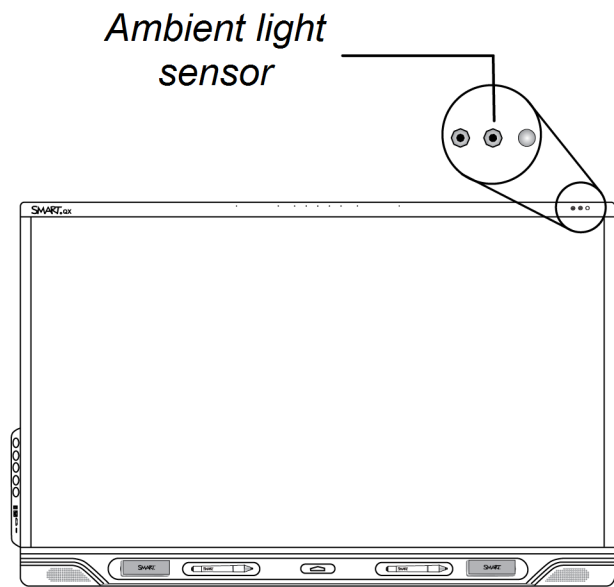
- For more information about energy saving modes, see *About energy saving modes* on page 28.
- The proximity sensor responds when the display is the standby and networked standby power states.
- The sensor can detect people through glass. Consider this when finding a location for the display (see *Installing the display on a wall* on page 20). Don't position the display so that the sensor faces a window.

Ambient light sensor

The ambient light sensor is located in the top-right corner of the display's frame. It's the sensor in the middle.

The ambient light sensor detects the room's brightness and adjusts the brightness of the screen accordingly.

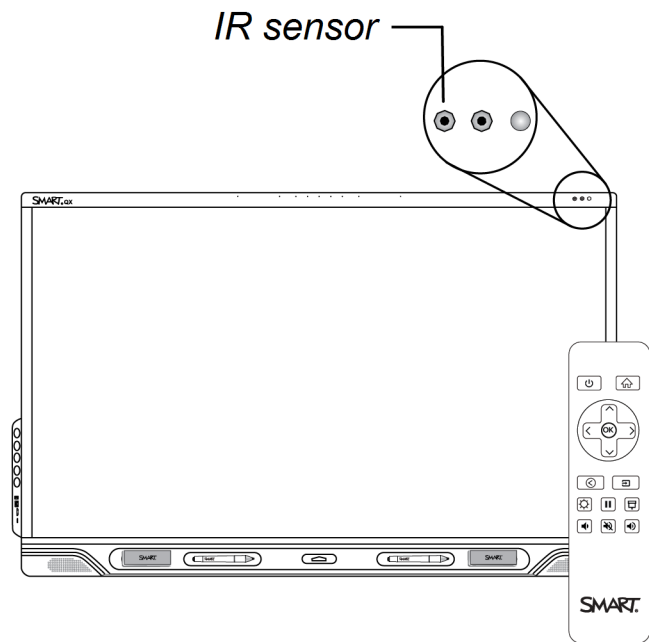
You can enable, disable, and adjust this feature.



Remote control IR sensor

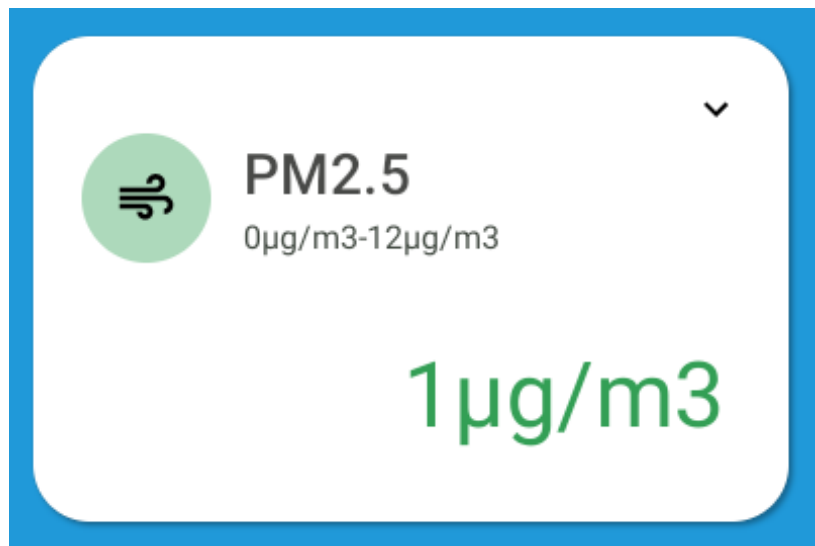
The IR sensor is located in the top-right corner of the display's frame. It's the sensor on the left.

You can use the remote control to turn the display on and off, adjust display settings, and so on.



Environmental sensors

The display features integrated temperature, humidity, Volatile Organic Compounds (VOCs), and fine particulate matter (PM_{2.5}) sensors that can provide real-time measurement and recording of the environmental conditions at the display. This data is accessible using the **Sensors** app in the display's App library.



For best results, every time the display is turned on give the sensors three minutes to warm up.

Notes

- Information from the display's environmental sensors is available only when iQ is enabled.
- The display's environmental sensors are not life safety rated sensors: they provide general information only.
- The typical lifespan of the display's environmental sensors is five years. This will vary based on usage and environmental factors.

Microphone array

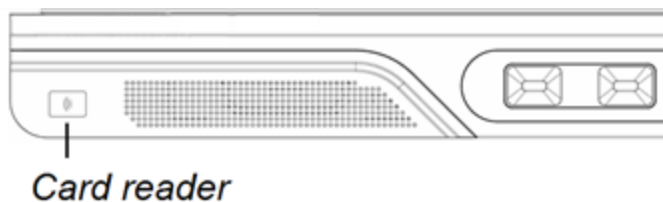
You can use the display's built-in microphone array while using a conferencing app on the display. The microphone array provides improved sound detection. You can also use the display's built-in microphone array in place of a connected computer's microphone.

Video Camera

The SMART HD camera is available for use with the QX Pro display. You can use this video camera while using a conferencing app on the display. You can also use the display's video camera in place of a connected computer's camera.

NFC reader

The display's integrated RFID NFC reader/writer supports a variety of ISO 14443 contactless identification cards (types 1, 2, 3, and 4). You can use third-party, CCID compatible NFC cards and software with features such as logging in to Microsoft Windows or other software systems on a connected computer.



In order to use a contactless identification card for authentication, the supporting PC must be connected to the QX Pro display, the display's input set to an external computer or OPS slot computer, and the NFC authentication set up by an administrator. SMART Technologies cannot provide guidance or support for third-party systems, so consult your NFC card provider for more information.

Mounting hardware

The display comes with a WM-SBID-200 wall mount, which you can use to mount the display on a wall (see *Installing the display on a wall* on page 20). The wall mount ships separately.

You can also mount the display on a wall or mobile stand.

Note

SMART does not provide stands for use in Australia or New Zealand, nor can we provide recommendations for stands from other vendors.

Accessory mounting points

The display features M4 mounting points located at the top-center (for the camera), and under the frame on the left and right sides for SMART-approved accessories.

Identifying your specific model

SMART offers a variety of models of the SMART Board QX Pro series interactive display:

Model/SKUs	Frame style	Screen size (approximate)	iQ embedded computing	Microphone array
SBID-QX265-P	Black	65"	Yes	Yes
SBID-QX275-P	Black	75"	Yes	Yes
SBID-QX286-P	Black	86"	Yes	Yes
SBID-QX065-P	Black	65"	No	Yes
SBID-QX075-P	Black	75"	No	Yes
SBID-QX086-P	Black	86"	No	Yes

Refer to the specifications for detailed technical information about these models, including product dimensions and weights (see *More information* on the next page).

Comparing SMART Board QX Pro series interactive display models

Feature	65"	75"	86"
Model number	<u>SBID-QX265-P</u>	<u>SBID-QX275-P</u>	<u>SBID-QX286-P</u>
Weight	92.6 lb. (42 kg)	124 lb. (56 kg)	154 lb. (70 kg)
Brightness	≥ 490 cd/m ²	≥ 490 cd/m ²	≥ 490 cd/m ²
Viewing angle	178°	178°	178°
Noise level	<32 dBA	<32 dBA	<32 dBA
Power consumption (normal operating)	115 W	117 W	135 W

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 the cover of this guide to view links to SMART Board QX Pro series interactive display documents and other support resources.

Chapter 2 Installing the display

Moving the display to the installation site	18
Using transportation aides	19
Accommodating doorways, hallways, and elevators	19
Dealing with cracked, chipped, or shattered glass	20
Saving the original packaging	20
Installing the display on a wall	20
Choosing a location	21
Choosing a height	23
Assessing the wall	23
Selecting mounting hardware	23
Selecting a wall mount	23
Mounting the display	24
Installing the display on a stand	24
Using SMART mobile stands	25
Using a third-party stand	25
Attaching the antennas	25
Connecting to a network	26
Connecting power and turning on the display for the first time	26
About energy saving modes	28
Initializing the environmental sensors	29

SMART recommends that only trained installers install the display.

This chapter is for installers. Installers should read this information along with 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 the knowledge base article, [Shattered glass on an interactive display](#), for information about conditions that can cause the display's glass to shatter even when it's not in use.

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

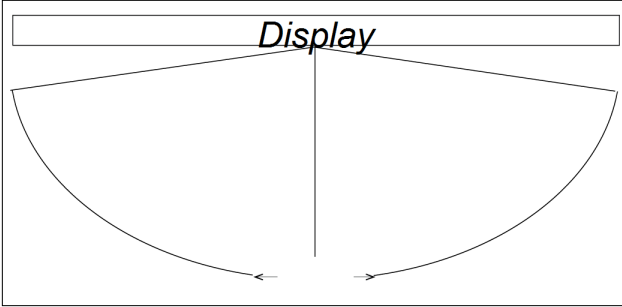
Typically, you install the display on a wall in a classroom or meeting space.

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.

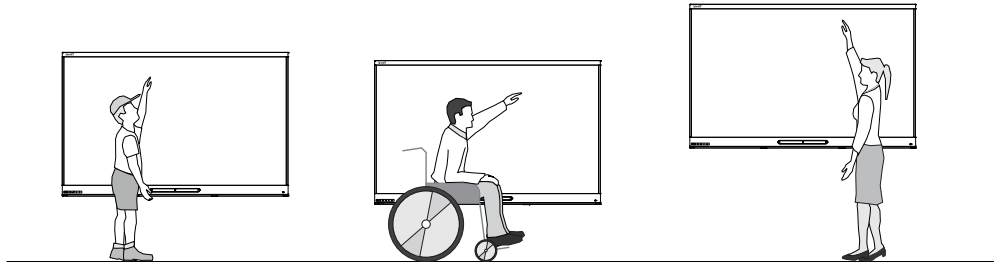
Selecting an appropriate location is crucial for ensuring the best possible experience with the display. Consider the following factors as you choose a location:

Factor	Considerations
Room setup	<ul style="list-style-type: none"> • 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 that 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 room features to accommodate the display.)
Power and other connections	<ul style="list-style-type: none"> • The location is close to: <ul style="list-style-type: none"> ◦ A power outlet ◦ A network outlet (if you plan to use a wired network connection) ◦ A room computer (if you plan to connect a room computer) ◦ External audio systems and other devices that you want to connect to the display <p>Notes</p> <ul style="list-style-type: none"> ◦ If the location is not near a power outlet, consult an electrician for the power setup you need. ◦ Determine if you'll need additional equipment, such as power bars, additional cables, or cable extenders. <ul style="list-style-type: none"> • The location is not where the mains power supply enters the building.

Factor	Considerations
<p>Visibility</p>	<p>The display's screen is clearly visible to all users in the room. SMART recommends users sit within a 178° viewing area:</p>  <p>Note</p> <p>The viewing area depends on the display's resolution and a variety of other factors. For more information, see the knowledge base article, Recommended viewing distances and viewing angles for SMART Board interactive displays.</p>
<p>Lighting</p>	<p>The location is not near bright light sources, such as windows or strong overhead lighting.</p> <p>Light sources can cause glare on the display's screen, reducing its visibility. Sources of strong infrared light can also affect the display's touch system.</p> <p>Tip</p> <p>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.</p>
<p>Acoustics</p>	<p>The room has good acoustics.</p>
<p>Environment and ventilation</p>	<ul style="list-style-type: none"> • The location meets the environmental requirements in the display's specifications (see <i>More information</i> on page 17). • 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.

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](https://www.smarttech.com/accessories)).

Note

Refer to the display's specifications for its weight (see *More information* on page 17).

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.

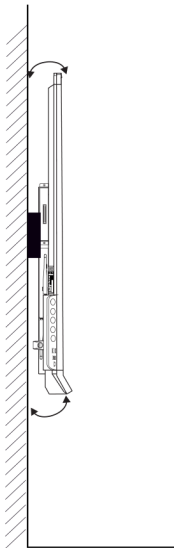
The display comes with a WM-SBID-200 wall mount, which ships separately. SMART recommends using this wall mount to install the display on a wall.

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

Mount the display following the included installation instructions. In addition, consider the following:

- Mount the display vertically (90° relative to the floor plus or minus 2° for tolerance) and in landscape orientation. SMART doesn't support mounting the display at other angles or in portrait orientation.



- Use M8 bolts included with the wall mount to fasten the bracket.

Caution

Do not over-tighten the bolts. Use 97.36–177.01 in-lb. (11–20 N·m) fasten force.

- Because the display's receptacles might not be easily accessible after you mount the display, consider connecting cables for power, the room computer, and other devices before mounting the display (see *Chapter 3 Connecting computers and other devices* on page 30).

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.

Note

For users in Australia and New Zealand: SMART does not provide stands for use in Australia or 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.

For more information about SMART mobile stands, see smarttech.com/accessories.

Using a third-party stand

For information on selecting and using a third-party stand, see *Installing the display on a stand* on the previous page.

Attaching the antennas

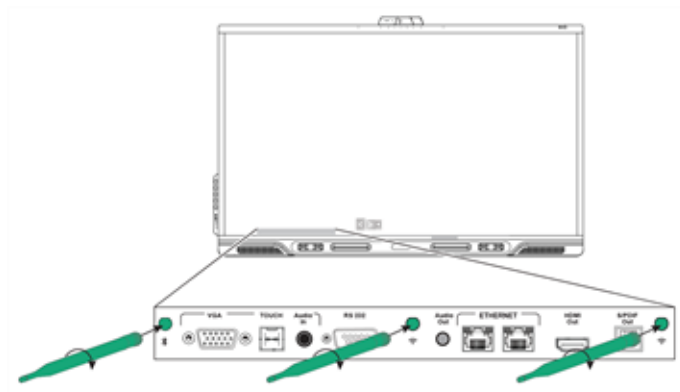
Three antennas are included with the display. They must be connected to enable Wi-Fi capability.

! Important

Use only the antennas supplied with the display.

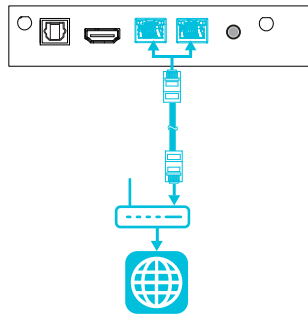
To attach the antennas

1. Push each antenna into an antenna socket on the back of the display and twist clockwise to secure in place (see below).
2. Point the antennas down for optimal coverage.



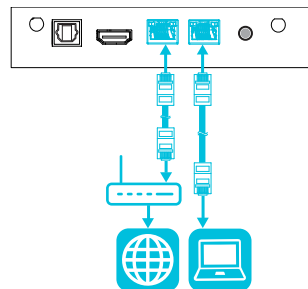
Connecting to a network

The display requires an internet connection for downloading software and firmware updates, and a number of the iQ apps require a network connection as well. You can connect to the network with Wi-Fi or with an Ethernet cable attached to one of the RJ45 jacks.



Tip

If you're using one of the display's RJ45 jacks to connect to a network, you can connect a computer to the other RJ45 jack to provide network access for the computer. This is particularly useful if only one wired network connection is available in the room. Network access is available when Networked Standby (sleep) is enabled in Settings but not when Standby (shutdown) is enabled.



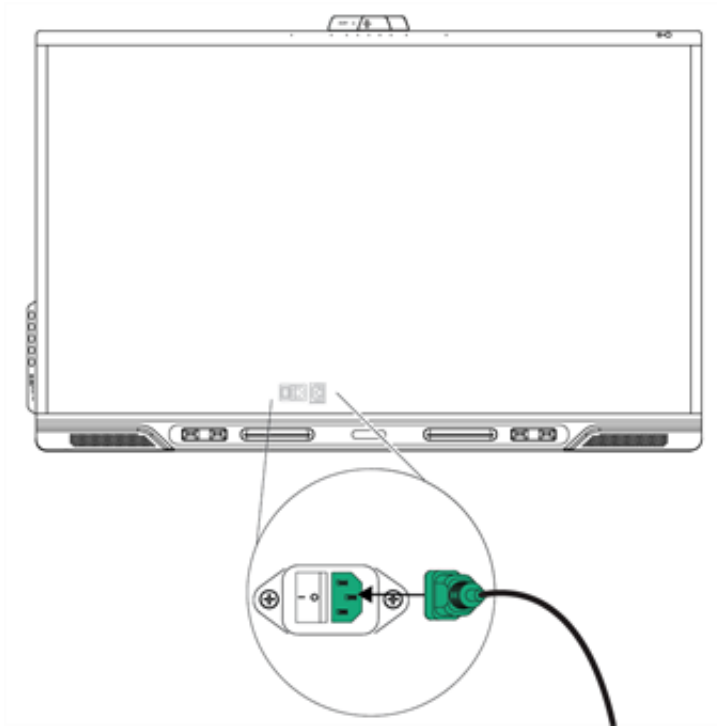
For more information about the display's network connection and configuration, see [Connecting a SMART Board display with iQ to a network](#).

Connecting power and turning on the display for the first time

The final steps in installing and configuring the display are to connect power, turn the display on, and configure the display's system software. When you first turn on the display, a setup wizard appears. Follow the steps in the wizard to complete the setup.

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.



Notes

- Refer to the display's specifications for power requirements and power consumption information (see *More information* on page 17).
- The AC power output on the back of the display is rated at 250 W.

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

ⓘ Important

Install the OPS PC module before you turn the display on.

1. Flick the switch beside the AC power inlet to the ON (I) position. The display turns on, and the setup wizard appears on-screen.
2. Select your preferred language, and then tap **Next**.
3. Enter a name for the display, and then tap **Next**.
4. Select your country, and then tap **Next**.
5. Select your time zone, and then tap **Next**.

6. Set the date, and then tap **Next**.
7. Set the time, and then tap **Next**.
8. If the display isn't using a wired Ethernet network connection, select a wireless network, and then tap **Next**.

! **Important**



The display needs an internet connection for downloading and installing important updates. Ask the network administrator to confirm that the network has been correctly configured for iQ. For more information about network configuration, see [Connecting a SMART display with the iQ experience to a network](#).

9. Select the display mode - with IQ, or as a display only - and then tap **Next**.
10. If you chose iQ in the previous step, select the iQ apps options, and then tap **Next**.
11. Tap **Finish**. The display downloads and applies updates for the firmware and system software.
12. If you chose the iQ display mode, you're presented with an iQ tutorial to step through.

The *Welcome* screen appears.

About energy saving modes

The display features a number of energy saving modes:

Mode	Description
Networked standby (sleep)	A low power state in which the display quickly turns on when the Power button  is pressed. In this state, the display also turns on when it receives a Wake on LAN command from a network.
Standby (shutdown)	A very low power state in which the display turns on when the Power button  is pressed.

Standby is the default energy saving mode for displays set to a location within the EU. Elsewhere, networked standby is the default energy saving mode. You can select the display's energy saving mode in **Settings > System Settings > Power > Energy Saver**.

Initializing the environmental sensors

Once the display is connected to power and turned on, the environmental sensors need to be initialized. Follow these steps:

1. Ensure the display has power and is turned on.
2. On the Home screen, select **Settings**.
3. In Settings, select **Power**.
4. Under **ENERGY SAVER** and **Go to energy saving mode after...**, select **Disabled**. This will keep the display fully powered for long enough for the environment sensors to initialize.

For the next 30 hours, you can use the display as normal. If you press the power button during this period, the display will appear to turn off. However, the display will continue to run in the background and carry out the initialization. The display will continue to provide continuous power to the environmental sensors until the initialization process is complete.

Important

The environmental sensors must complete the initialization process to operate optimally.

Until initialization is complete, do not unplug the power cable or toggle the power switch.

Once 30 hours have passed, return to the Power settings and set **Go to energy saving mode after...** to your preference (for example, 2 hrs).

Chapter 3 Connecting computers and other devices

Installing SMART software	30
Connecting room computers and guest laptops	32
Viewing a connected computer's input	32
Setting a connected computer's resolution and refresh rate	33
Using recommended cables	34
Connecting USB drives, peripherals, and other devices	34
Connecting a SMART OPS PC module	35
Connecting other devices	35
Connecting USB drives, peripherals, and other devices	35
Connecting an external display	36
Connecting an external audio system	37
Connecting room control systems	38
Connector diagrams	39
Connector panel	39
Convenience panel	41
Other connectors	42

Warning

Ensure that any cables that cross the floor to the display are properly bundled and marked 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 available but sold separately.

Included



SMART Meeting Pro



SMART Product Drivers and Ink

Sold separately

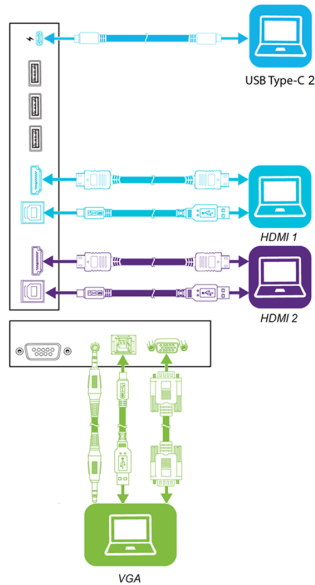


SMART TeamWorks Room

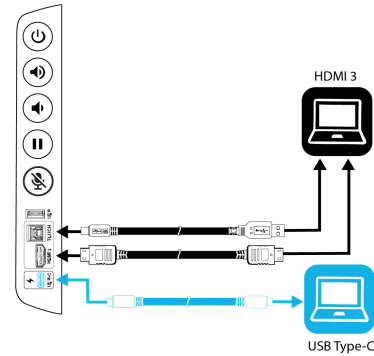
Connecting room computers and guest laptops

You can connect cables for room computers and guest laptops. By installing cables in advance, you 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.

Rear connector panel



Front convenience panel



Note





- Install SMART software on computers you connect to the display (see *Installing SMART software* on page 30).
- You can charge devices connected to the USB Type-C receptacles. These receptacles can provide up to 65 W to connected devices (the USB Type-C receptacle labeled USB-C 2 on the rear connector panel provides 30 W when an OPS PC module is installed).

Viewing a connected computer's input

Use the Input app to view a connected computer's input on the display.

To view a connected computer's input

1. Connect the computer to the display.
2. Select one of the following:

If iQ is enabled	If iQ is disabled
Tap Input  on the Home screen. OR Press Input  on the remote control.	Press the Home button  or the Input button  on the remote control.

The display shows thumbnails of the devices that are connected to the display:

- A gray thumbnail indicates no device is connected to an input.
 - A black thumbnail indicates a device is connected to an input but is in Sleep mode or not providing a video signal.
 - A thumbnail showing a preview screen indicates an active device is connected to an input.
3. Tap the computer's thumbnail.

Tip

If iQ is disabled and you want a computer's input to appear whenever you wake up the display, tap the star in the upper-left corner of the computer's thumbnail.

Setting a connected computer's resolution and refresh rate

This table presents the recommend resolutions and refresh rates for the display's inputs:

Input source	Resolution	Refresh rate
HDMI 1	3840 × 2160	60 Hz
HDMI 2	3840 × 2160	60 Hz
HDMI 3	3840 × 2160	60 Hz
VGA	1920 × 1080	60 Hz
USB Type-C	3840 × 2160	60 Hz

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
HDMI	23' (7 m)	Use only certified Premium High-Speed HDMI (18 Gpbs) cables that have been tested to support the performance standard you require.
VGA	23' (7 m)	Use VGA cables with all pins in their connectors fully populated and wired.
Stereo 3.5 mm	20' (6 m)	
USB 2.0	16' (5 m)	Use a USB extender if the distance between the computer and the display is greater than 16' (5 m). USB 2.0 cables support Hi-Speed (480 Mbps), whether connected to a USB 2.0 or USB 3.0 receptacle. For SuperSpeed (5 Gbps), connect a USB 3.0 cable to a USB 3.0 receptacle.
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 the recommended length. If you have problems with such a cable or an extender of any type, test the connection with a shorter cable before contacting SMART Support.
USB Type-C	6' 6" (2 m) for SuperSpeed 5Gbps cables	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: <ul style="list-style-type: none"> • A full-featured cable that supports SuperSpeed 5Gbps (or faster) data rates. • A computer that supports Display Port Alternate Mode via USB Type-C <p>Note</p> <p>The USB Type-C connector on the display can supply up to 15 W of power to connected devices.</p>

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

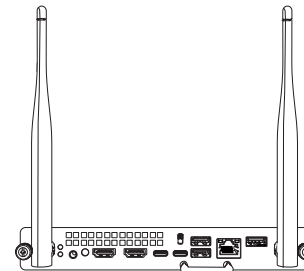
Connecting USB drives, peripherals, and other devices

You can use USB drives, peripherals, and other devices with a computer connected to the display using the display's USB connectors.

For more information, see *Connecting USB drives, peripherals, and other devices* below.

Connecting a SMART OPS PC module

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



For more information about SMART OPS PC modules, see the *SMART OPS PC modules user guide* (docs.smarttech.com/kb/171747).

Connecting other devices

In addition to computers, you can connect the following devices to the display:

- USB drives, peripherals, and other devices
- a microSD card
- External displays
- External audio systems
- Room control systems

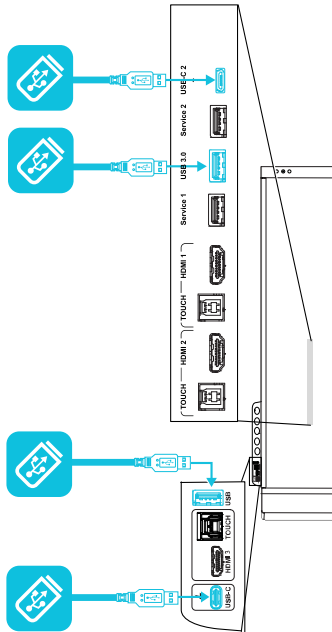
Connecting USB drives, peripherals, and other devices

The display includes one USB Type-C receptacle and one USB 3.0 Type-A receptacle on the convenience panel. The rear connector panel also includes a USB Type-C receptacle and a USB 3.0 Type-A receptacle.

You can connect USB drives, peripherals (such as keyboards), and other devices to these connectors and use the devices with iQ connected computers, and devices installed in the accessory slot, such as the SMART OPS PC.

Note

Connect only drives, peripherals, and devices to the USB Type-A and USB Type-C receptacles. Do not connect USB hubs.

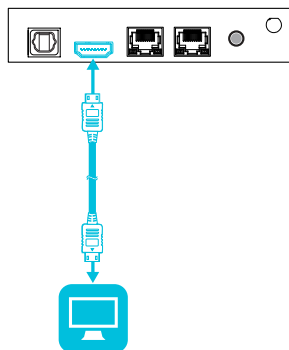


Connecting an external display

You can connect an external display using the HDMI 2.0 out connector on the bottom connector panel on the back of the display (pictured below). The external display will show the same image. This is useful when you're using the display in an auditorium or other large space where it would be beneficial to have a second display.

Note

The image on the external display may be at a lower resolution than the main display. You can change the output resolution by selecting **Settings > Display > HDMI Output**.



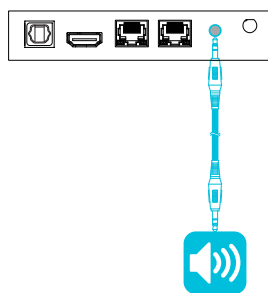
! **Important**

If the connected external display doesn't support HDCP, the image on the external display is limited to 480p resolution. For full resolution output, connect a display that supports HDCP.

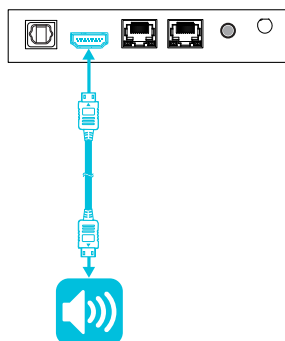
Connecting an external audio system

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

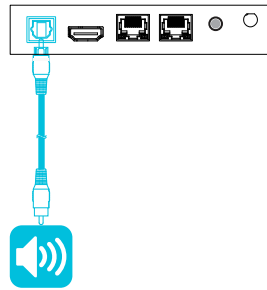
You can connect an external audio system to the display using the stereo 3.5 mm out connector (pictured). This disables the display's internal speakers. Alternatively, you can connect an external audio system directly to a room computer.



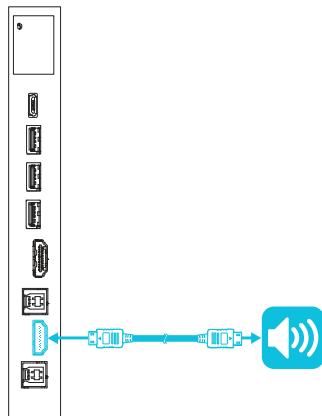
You can also connect an external audio system to the display using the HDMI 2.0 out connector on the connector panel.



In addition, the display provides a Sony/Philips Digital Interface (S/PDIF) out connector (pictured). S/PDIF is a digital audio transmission medium. You need an audio system that has an S/PDIF input to decode this connection to analog. Most external sound bars include a S/PDIF connector.



If you have external sound system with audio return channel (ARC), you can output the display's audio to the sound system by connecting the display's HDMI-1 connector on the side connector panel (pictured) to the HDMI Out connector on the sound system's receiver.



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 or *Appendix C Managing the display using RS-232* on page 57).

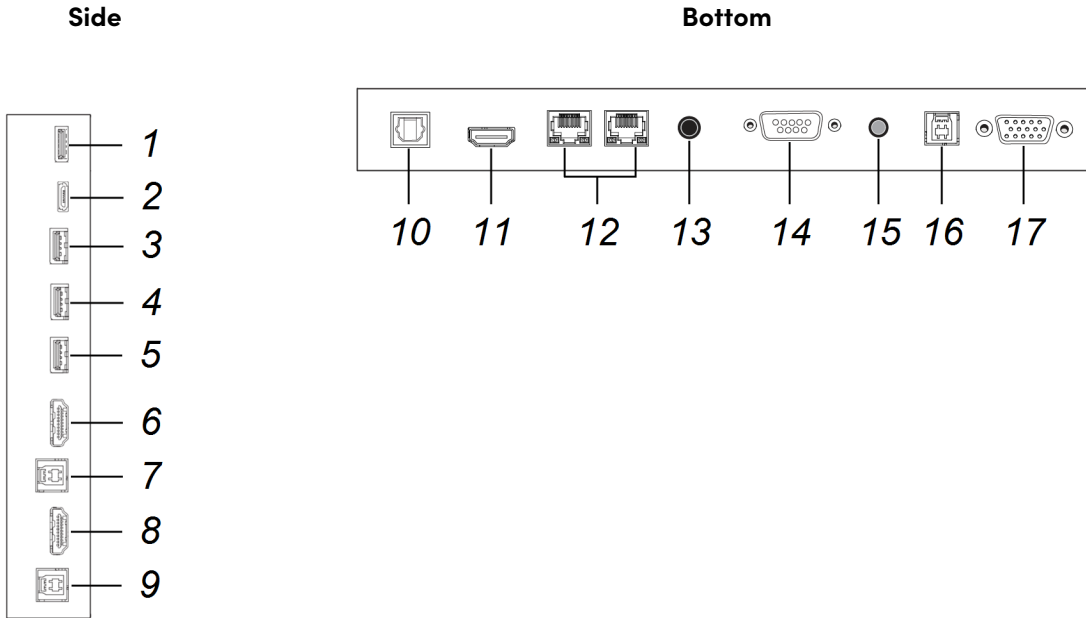
Note

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

Connector diagrams

Connector panel

This diagram and table present the connectors on the display's connector panel:

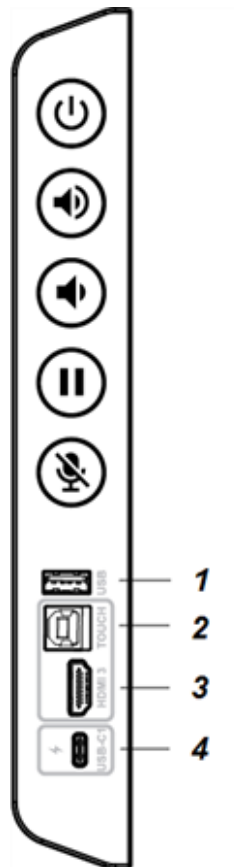


No.	Connector	Connects to	Notes
1	microSD	microSD card	See <i>Connecting other devices</i> on page 35. This connector features a security cover to prevent theft of an installed microSD card.
2	USB Type-C	USB-C 2 input	See page 32 and USB cables and connectors .
3	USB 3.0 Type-A	[N/A]	This connector is a service port (service port 2).
4	USB 3.0 Type-A	Supported USB drives, peripherals, and other devices	See <i>Connecting USB drives, peripherals, and other devices</i> on page 35 and USB cables and connectors .
5	USB 2.0 Type-A	[N/A]	This connector is a service port (service port 1).

No.	Connector	Connects to	Notes
6	HDMI 2.0 in	HDMI 1 input (video and audio)	See page 32 and HDMI cables and connectors .
7	USB 3.0 Type-B	HDMI 1 input (touch, microphone, camera, other USB peripherals)	See page 32 and USB cables and connectors .
8	HDMI 2.0 in	HDMI 2 input (video and audio)	See page 32 and HDMI cables and connectors .
9	USB 3.0 Type-B	HDMI 2 input (touch, microphone, camera, other USB peripherals)	See page 32 and USB cables and connectors .
10	S/PDIF out	Digital audio output	See page 37 and Digital audio cables and connectors .
11	HDMI 2.0 out	External display	See <i>Connecting an external display</i> on page 36 and HDMI cables and connectors .
12	RJ45 (×2)	Network	See page 26 and Ethernet (network) cables and connectors .
13	Stereo 3.5 mm out	External audio system	See page 37 and Analog audio cables and connectors .
14	RS-232	Room control system	See <i>Appendix C Managing the display using RS-232</i> on page 57 and RS-232 cables and connectors .
15	Stereo 3.5 mm in	VGA input (audio)	See page 32 and Analog audio cables and connectors .
16	USB 3.0 Type-B	Touch ,microphone, camera, and other USB peripheral routing to a computer connected to the VGA input (video).	See page 32 and USB cables and connectors .
17	VGA	VGA input (video)	See page 32 and VGA cables and connectors .

Convenience panel

This diagram and table present the connectors on the display's convenience panel:

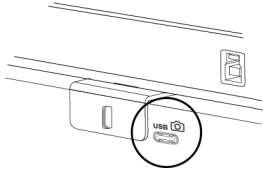


No.	Connector	Connects to	Notes
1	USB 3.0 Type-A	Supported USB drives, peripherals, and other devices	See <i>Connecting USB drives, peripherals, and other devices</i> on page 35 and <u>USB cables and connectors</u> .
2	USB 2.0 Type-B	HDMI 3 input (touch, microphone, camera, and other USB peripherals)	See page 32 and <u>USB cables and connectors</u> .
3	HDMI 2.0 in	HDMI 3 input (video and audio)	See page 32 and <u>HDMI cables and connectors</u> .
4	USB Type-C	USB-C	See page 32 and <u>HDMI cables and connectors</u> .

Other connectors

The display also includes a USB-C connector to connect the SMART UHD 120 Camera.

Rear top



Chapter 4 Maintaining the display

Turning off, turning on, and restarting the display	43
Cleaning and maintaining hardware	44
Checking the display installation	44
Cleaning the screen	44
Cleaning the touch sensors	45
Maintaining ventilation	46
Changes in temperature	46
Replacing the pens and erasers	46
Removing and transporting the display	46
Updating system software	47
Applying an automatic system software update manually	48
Updating system software manually	48


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

Turning off, turning on, and restarting the display

In most situations, you can put the display in an energy saving mode when not using it following the instructions in the *SMART Board QX Pro series interactive displays user guide* (smarttech.com/kb/171875).

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

To turn the display off

1. Press and hold the **Power** button  on the convenience panel or the remote control for five seconds.

A slider appears on the screen.

2. Move the slider to the right.

3. Flick the switch beside the AC power inlet to the OFF (O) position.

Note

Wait at least 30 seconds before turning the display back on.

To turn the display back on

Flick the switch beside the AC power inlet to the ON (I) position.

To reset the display

Press and hold the **Power** button  on the convenience panel or the remote control for 10 seconds.

Note

Restarting the display does not change any user settings or delete saved files.

The display resets.

Cleaning and maintaining hardware

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 clean the screen using cleaning solutions or glass cleaners that are not approved by SMART. Non-approved cleansers can cause deterioration or discoloration of the screen.

 **Important**

- Never spray liquid directly onto the surface of the display or in the area of the left-side speaker grill. Exposing the environmental sensors to liquids or chemical fumes can damage the sensors and void the warranty on this component.

To clean the screen

1. Turn off the display (see *Turning off, turning on, and restarting the display* on page 43).
2. 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 (IPA) 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. Without proper ventilation, reporting by the environmental sensors will not be accurate.

- 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* below.

Caution

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

Changes in temperature

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.

Replacing the pens and erasers

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

Note

For pen and eraser 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 transport 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 third-party mounting hardware.

To remove the display

1. Turn off any connected computers.
2. Turn off the display (see *Turning off, turning on, and restarting the display* on page 43).
3. Flick the switch beside the AC power inlet to the OFF (O) position.
4. Remove all accessible cables and connectors.
5. If you're shipping the display rather than just moving it within a building, remove any modules from the accessory slot, and remove the Wi-Fi antennas.
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 18.

Updating system software

When the display is connected to the internet, it automatically downloads software or firmware updates in the background, then waits for four hours of inactivity. When that happens, the display shows a two-minute countdown before the update begins. You can interrupt the countdown at any time. During the update, the display's screen is blank for several minutes. When the update is complete, the iQ home screen (or input lobby) appears.

Note

You can configure your organization's network to allow or prevent automatic system software and firmware updates (see [Connecting to a network](#)).

Applying an automatic system software update manually

If the display has downloaded the system software update but hasn't yet applied the update, you can start the update process manually from Settings.

To apply a system software update manually

1. In **Settings**, scroll to **Software Update**.
2. Under *Check for Updates Now*, tap **Apply Update Now**.

The display turns off and then turns back on. The display then applies the update.

Updating system software manually

You can also download system software updates at smarttech.com/downloads and update your display using a USB drive.

Note

Instructions for downloading and installing system software updates are provided on the software downloads page.

Chapter 5 Troubleshooting

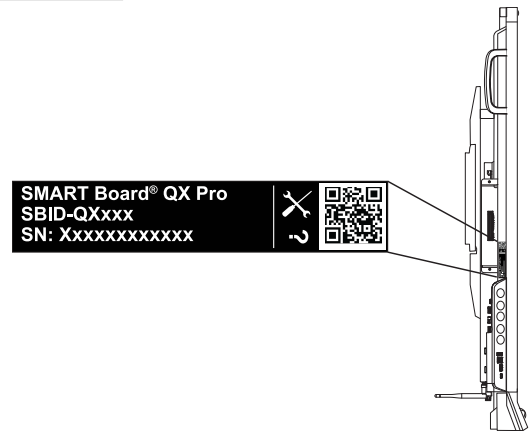
Troubleshooting the display and related SMART products

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 covered in this chapter or the knowledge base, contact your authorized SMART reseller (smarttech.com/where) for support.

Your reseller might ask you for the serial number for the display. The serial number is on a label located on the left side of the display (pictured).



Tips

- Scan the QR code on the label to view the SMART Board QX Pro series interactive display support pages on the SMART website.
- The label features the display's base model number (for example, SBID-QX065). Please note this number is different from the actual model/SKU number (for example SBID-QX265).
- You can also find the serial number in the iQ settings.

Appendix A Adjusting iQ Pro settings

Network settings	50
Application settings	51
System settings	52

You can access settings using the  icon on the Home screen.

Notes

- Settings can apply to a user or to the entire system. User-level settings change depending on the user who is signed in. System-level settings apply to all users. See the settings for more information.
- Some settings aren't available while you're signed in to your SMART Account. Sign out of your SMART Account on the display to see all settings.

Network settings

Option	Values	Function	Notes
▶ Wi-Fi			
▶ Wi-Fi	On Off	Enables or disables Wi-Fi on the display.	Turn on Wi-Fi to discover networks.
• [Wi-Fi network name]	[N/A]	Shows information about the connected wireless network.	[N/A]
• Wi-Fi MAC address	[N/A]	Shows the MAC address of the display's Wi-Fi network adapter.	[N/A]
• Wi-Fi IP address	[N/A]	Shows the IP address of the display's Wi-Fi network adapter.	[N/A]
▶ SMART iQ Ethernet			
▶ Advanced options			
• Static IP (Use DHCP)	On Off	Enables or disables DHCP to assign an IP address to the display.	[N/A]

Option	Values	Function	Notes
<ul style="list-style-type: none"> Proxy (Use proxy) 	On Off	Enables or disables a proxy server for connecting to the network.	[N/A]
<ul style="list-style-type: none"> Proxy (Auto-configure) 	On Off	Enables or disables automatic configuration of the proxy server for connecting to the network.	[N/A]
<ul style="list-style-type: none"> MAC Address 	[N/A]	Shows the MAC address of the display's Ethernet network adapter.	[N/A]
<ul style="list-style-type: none"> IP Address 	[N/A]	Shows the IP address of the display's Ethernet network adapter.	[N/A]
▶ Bluetooth			
<ul style="list-style-type: none"> Bluetooth 	On Off	Enable or disable the display's Bluetooth.	Turn on Bluetooth to view available Bluetooth devices.
<ul style="list-style-type: none"> View available Bluetooth devices 	[N/A]	Shows available Bluetooth devices.	Turn on Bluetooth to view available Bluetooth devices.
▶ SMART Cloud			
<ul style="list-style-type: none"> Service Region 	[N/A]	Shows the service region.	[N/A]

Application settings

Note

If iQ is disabled, these settings are not available.

Option	Values	Function	Notes
▶ SMART Whiteboard			
▶ Whiteboard Storage			
<ul style="list-style-type: none"> Allow saving 	On Off	Enables or disables saving SMART Whiteboard sessions.	[N/A]
<ul style="list-style-type: none"> Whiteboard deletion policy 	Delete after 1 week Delete after 1 Month Delete manually	Sets how long SMART Whiteboards are saved.	[N/A]
▶ Notifications			
<ul style="list-style-type: none"> Do not disturb 	On Off	When enabled, the display doesn't show notifications for apps.	[N/A]
<ul style="list-style-type: none"> [Apps] 	On Off	When enabled, the display shows notifications for apps.	[N/A]

System settings

Option	Values	Function	Notes
► Date & Time			
<ul style="list-style-type: none"> Automatic Date & Time 	On Off	Sets the display's date and time automatically.	Configure the network to allow Network Time Protocol (NTP) requests to internet time servers. See Connecting to a network .
<ul style="list-style-type: none"> Date 	[N/A]	Sets the display's date.	Disable Automatic date & time to set the date manually.
<ul style="list-style-type: none"> Time 	[N/A]	Sets the display's time.	Disable Automatic date & time to set the time manually.
<ul style="list-style-type: none"> 24 Hour Time 	On Off	Shows the display's time using the 24-hour clock.	[N/A]
<ul style="list-style-type: none"> Time Zone 	[N/A]	Sets the display's time zone.	[N/A]
► Language			
<ul style="list-style-type: none"> System Language 	[Languages]	Sets the language for the settings menu.	
<ul style="list-style-type: none"> Ink-To-Text Language 	[Languages]	Sets the language for converting writing to text.	You can install and uninstall languages. See Configuring ink-to-text languages for the Text pen .
► Diagnostics			
<ul style="list-style-type: none"> Factory Reset 	[N/A]	Resets all options to their default values.	Only administrators should reset the display.
<ul style="list-style-type: none"> Save Log File to a USB key 	[N/A]	Copy diagnostic logs to a USB drive.	The logs will be saved as a ZIP file on the USB drive.
<ul style="list-style-type: none"> Submit Log file to SMART 	[N/A]	Send diagnostic logs to SMART.	[N/A]
<ul style="list-style-type: none"> Improve the Experience 	On Off	Sends usage statistics and error reports to SMART.	[N/A]
<ul style="list-style-type: none"> Support ID 	[Support ID]	Shows the support ID associated with the display.	Enable this option only on the advice of SMART Support, and only in combination with the display's Support ID.
► Logging Service			
<ul style="list-style-type: none"> Enable Logging Service 	On Off	Enables or disables saving logs to a USB drive	This option allows the temporary iQ system log files to survive a system restart, at the cost of some device storage space.
► Log Levels			
<ul style="list-style-type: none"> Log Level RAW 	On Off	Advanced logging options to be set under the direction of SMART Support	[N/A]

Option	Values	Function	Notes
<ul style="list-style-type: none"> Log Level SPM 	On Off	Advanced logging options to be set under the direction of SMART Support	[N/A]
<ul style="list-style-type: none"> Log Level RATP 	On Off	Advanced logging options to be set under the direction of SMART Support	[N/A]
<ul style="list-style-type: none"> Log Level SEP 	On Off	Advanced logging options to be set under the direction of SMART Support	[N/A]
<ul style="list-style-type: none"> Log Level EXT 	On Off	Advanced logging options to be set under the direction of SMART Support	[N/A]
► Security			
<ul style="list-style-type: none"> Lock Down Settings 	[N/A]	Lock down the display's settings using a security certificate on a USB drive.	See Locking down the Settings app for more information.
<ul style="list-style-type: none"> Make passwords visible 	On Off	Reveals characters when typing a password in an app or website	[N/A]
<ul style="list-style-type: none"> Install certificates 	[N/A]	Install security certificates to connect to a network.	[N/A]
<ul style="list-style-type: none"> View certificates 	[N/A]	View installed security certificates.	[N/A]
<ul style="list-style-type: none"> View root CA certificates 	[N/A]	View installed root CA security certificates.	[N/A]
<ul style="list-style-type: none"> Automatic inactivity log out 	Disabled 1 hour 8 hours 12 hours	Automatically logs a user off after a time of inactivity.	[N/A]
<ul style="list-style-type: none"> Enable automatic login 	On Off	Automatically logs in a user if enabled	Default is off.
► Clean up			
<ul style="list-style-type: none"> Clean Up Policy 	Disabled Manually reset with the Clean Up button in the launcher 1 hour 2 hours 3 hours 1 day	Sets how often the display cleans up.	[N/A]
<ul style="list-style-type: none"> Clean Up the browser 	[N/A]	Closes the browser tabs and clears the history, cache, and cookies.	[N/A]

Option	Values	Function	Notes
<ul style="list-style-type: none"> Clean up app data and preferences 	[N/A]	Closes open applications and clears app data and preferences.	[N/A]
► Software Update			
<ul style="list-style-type: none"> Updates Channel 	Stable Channel Beta Channel	Selects which iQ system software updates the display receives.	When switching from the Beta channel to the Stable channel, a factory reset occurs. See page 52 for more information about factory reset. For more information about the Beta Channel, see Switching to the Beta channel .
<ul style="list-style-type: none"> Check for Updates Now 	[N/A]	Checks for updates to the system software.	If an update is available, the text changes to <i>Apply update now</i> . The display must be connected to the internet to check for system software updates, or a USB drive with the system software update file must be connected to the display.
► Remote Management			
<ul style="list-style-type: none"> Launch Remote Management Settings 	[N/A]	Configure the display's connection settings with SMART Remote Management.	This option is enabled only when SMART Remote Management is enabled.
<ul style="list-style-type: none"> Remote Management Enabled 	On Off	Enables or disables SMART Remote Management on the display.	[N/A]
<ul style="list-style-type: none"> Radix Viso version 	[N/A]	Shows the Radix Viso version.	[N/A]
► About			
<ul style="list-style-type: none"> Board Name 	[N/A]	Select a name for your display.	[N/A]
<ul style="list-style-type: none"> Help 	[N/A]	Shows the SMART support site for iQ.	[N/A]
<ul style="list-style-type: none"> Send Feedback 	[N/A]	Send a feature request to SMART.	[N/A]
► Board Details			
<ul style="list-style-type: none"> Build Number 	[N/A]	Shows the iQ system software's version number.	[N/A]
<ul style="list-style-type: none"> Part Number 	[N/A]	Shows the display's part number.	[N/A]
<ul style="list-style-type: none"> Model Number 	[N/A]	Shows the display's base model number. Displays purchased as 62xxS or 64xxS SKUs have a 60xxS base model number.	

Option	Values	Function	Notes
<ul style="list-style-type: none"> Configuration 	EDU-iQ (Education iQ experience) ENT-iQ (Enterprise iQ experience) ENT-NoiQ (Enterprise, display-only configuration without iQ)	Shows the display's iQ system configuration.	[N/A]
▶ Firmware Details			
▶ Legal Information			
<ul style="list-style-type: none"> End User License Agreement 	[N/A]	Shows the SMART end user license agreement.	[N/A]
<ul style="list-style-type: none"> Open Source Licenses 	[N/A]	Shows the open source licenses.	[N/A]
<ul style="list-style-type: none"> SMART Intellectual Property 	[N/A]	Shows the SMART intellectual property information.	[N/A]

Appendix B Enrolling the display in SMART Remote Management

Your SMART Board QX Pro 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:

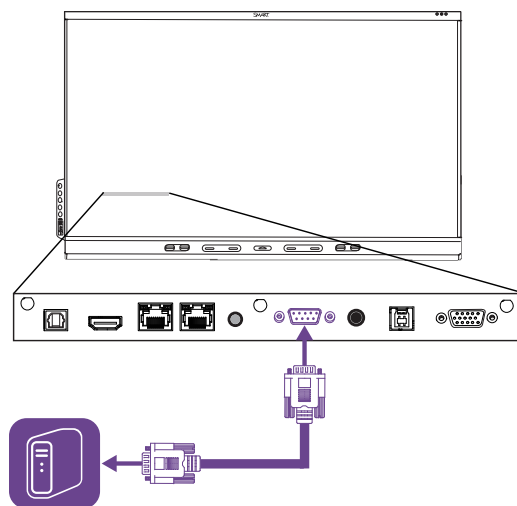
- blocklists and allowlists
- Wi-Fi
- wallpaper
- certificates
- lock screen
- available apps

To learn how to enroll your display, see [Enrolling SMART Board interactive displays](#).

Appendix C Managing the display using RS-232

Configuring the computer's serial interface settings	58
Commands and responses	58
Power state commands	60
Input commands	62
Brightness commands	62
Freeze commands	62
Screen shade commands	63
Volume commands	63
Mute commands	63
Firmware version commands	63
Serial number commands	64
Part number commands	64
Resolving issues with managing the display using RS-232	64

You can connect an RS-232 cable from a computer'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 computer's serial interface settings

Configure the computer's serial interface before sending commands to the display.

To configure the computer's serial interface

1. Turn on the display.
2. Turn on the computer, and then start the serial communications program or terminal emulation program.
3. Activate local echo.
4. Configure the serial interface settings using the following values, and then press ENTER.

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

Commands and responses

To access display information or to adjust display settings using the room control system, type commands after the command prompt (>) and wait for the response from the display.

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: <ul style="list-style-type: none"> • =on • =ready • =standby • =powersave Notes <ul style="list-style-type: none"> • If the display is in UPDATEON or UPDATEREADY state, it might not change power states after receiving the command. 	powerstate=[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • on • ready • standby • powersave • updateon • updateready

The display has six power states:

Power state	Description
ON	The display is in normal operating mode.

Power state	Description
READY	<p>The screen is off, but the display is ready to turn on when one of the following occurs:</p> <ul style="list-style-type: none"> • A user presses the Power button  on the convenience panel or the remote control. • You send the <code>set powerstate=on</code> command. • The display receives a video signal.
STANDBY	<p>The screen is off, and the display is in a low power state. The display enters READY or ON state when one of the following occurs:</p> <ul style="list-style-type: none"> • A user presses the Power button  on the convenience panel or the remote control. • You send the <code>set powerstate=ready</code> or <code>set powerstate=on</code> command. <p>This power state is the default energy saving mode for displays set to a non-EU location.</p> <p>Note In the display Settings, this power state is called “Networked standby”.</p>
POWERSAVE	<p>The screen is off, and the display is in a very low power state. The display enters READY or ON state when a user presses the Power button  on the convenience panel or the remote control.</p> <p>This power state is the default energy saving mode for displays set to an EU location.</p> <p>Note In the display Settings, this power state is called “Standby”.</p>
UPDATEON	The display is updating firmware. Do not turn off the display.
UPDATEREADY	The display is updating firmware while the screen is off. Do not turn off the display.

With the exception of `get powerstate` and `set powerstate`, commands are available only when the display is in READY or ON power state.

Input commands

Get command	Set command	Response
get input	set input[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • =hdmi1 • =hdmi2 • =hdmi3 • =vga1 • =ops1 • =usbc1 • =usbc2 • =android <p>Note</p> <p>The usbc1 set command applies only to displays equipped with USB Type-C connectors.</p>	input=[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • hdmi1 • hdmi2 • hdmi3 • vga1 • ops1 • usbc1 • =usbc2 • android • none

Brightness commands

Get command	Set command	Response
get brightness	set brightness[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • +[Value] • -[Value] • =[5-100] 	brightness=[Value] Where [Value] is a number between 5 and 100

Freeze commands

Get command	Set command	Response
get videofreeze	set videofreeze[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • =on • =off 	videofreeze=[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • on • off

Screen shade commands

Get command	Set command	Response
get screenshade	set screenshade[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • =on • =off 	screenshade=[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • on • off

Volume commands

Get command	Set command	Response
get volume	set volume[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • +[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: <ul style="list-style-type: none"> • =on • =off 	mute=[Value] Where [Value] is one of the following: <ul style="list-style-type: none"> • on • off

Firmware version commands

Get command	Response
If one display is connected	
get fwversion	fwversion=[Value] Where [Value] is the firmware or iQ system software version, in the format #.#.#.####.

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.

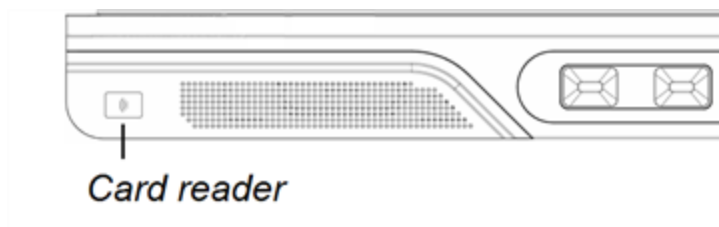
Resolving issues with managing the display using RS-232

The following table presents common issues with managing the display using RS-232 and explains how to resolve them:

Symptom	Troubleshooting steps
Managing the display using RS-232 isn't working as expected.	<ul style="list-style-type: none"> • Make sure all the cable connections are secure. • Restart the display and the remote management system. See <i>Turning off, turning on, and restarting the display</i> on page 43. • Configure the serial interface settings in your RS-232 terminal application. See <i>.Configuring the computer's serial interface settings</i> on page 58
You're experiencing other issues with managing the display using RS-232, or the previous steps don't resolve the issue.	See <i>Chapter 5 Troubleshooting</i> on page 49.


Appendix D **Setting up an NFC card reader**

The display's integrated RFID NFC reader/writer supports a variety of ISO 14443 contactless identification cards (types 1, 2, 3, and 4). You can use third-party, CCID compatible NFC cards and software with features such as logging in to Microsoft Windows or other software systems on a connected computer.



In order to use a contactless identification card for authentication, the supporting PC must be connected to the QX Pro display, the display's input set to an external computer or OPS slot computer, and the NFC authentication set up by an administrator. SMART Technologies cannot provide guidance or support for third-party systems, so consult your NFC card provider for more information.

Certification and compliance

Note You can access additional certification and compliance information for the display in Settings. From the Home screen, select the Settings icon , then select **About**, and select **Regulatory Information**.

You can also access certification and compliance information at smarttech.com/compliance.

Federal Communication Commission interference statement

FCC

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Unique Identifier: IDQX65-1, IDQX75-1, IDQX86-1

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 5.15-5.25GHz 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 is to be installed and operated with at least 8" (20 cm) between the Wi-Fi and Bluetooth antennas (including the optional OPS antennas) on the back of this device and any nearby people. 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.

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.

Certification and compliance

(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 is to be installed and operated with at least 8" (20 cm) between the Wi-Fi and Bluetooth antennas (including the optional OPS antennas) on the back of this device and any nearby people. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Innovation, Science et Développement économique Déclaration du Canada

Cet appareil est conforme à la norme ISED CNR-210 pour les appareils radio agréés. Son fonctionnement est soumis aux deux conditions suivantes:

1. le dispositif ne doit pas produire de brouillage préjudiciable, et
2. ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Avertissement

(i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5 250-5 350 MHz et 5 470-5 725 MHz doit se conformer à la limite de p.i.r.e.;

(iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5 725-5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

(iv) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Cet émetteur ne doit pas être co-implantés ou exploités conjointement avec une autre antenne ou émetteur.

EU Declaration of Conformity

Hereby, SMART Technologies ULC declares that the radio equipment type Interactive Display **IDQX65-1**, **IDQX75-1**, **IDQX86-1**, and the **OPS 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: IDQX65-1, IDQX75-1, IDQX86-1

Transmitting Band (MHz)	Maximum Transmit Power dBuV/m @ 10m
13.56	0.0007µW (ERP)

Transmitting Band (MHz)	Maximum Transmit Power dBm
2400–2483.5	20dBm (EIRP)
5150–5350	22dBm (EIRP)
5470–5725	20dBm (EIRP)
5725–5875	14dBm (EIRP)

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.

Certification and compliance

Japan VCCI Class A statement – applicable only to models certified for sale in Japan

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。VCCI-A 日本国内は100V交流動作のみに制限されています。

This is a Class A product based on the standard of the Voluntary Control Council for Interference (VCCI). If this equipment is used in a domestic environment, radio interference may occur, in which case the user may be required to take corrective actions.

Operation in Japan is restricted to 100V AC operation only.

当該機器には電波法に基づく、技術基準適合証明等を受けた特定無線設備を装着している。

This equipment contains specified radio equipment that has been certified to the Technical Regulation Conformity Certification under the Radio Law.

電波法により5.2/5.3 GHz帯は屋内使用に限ります。

The 5.2/5.3 GHz band is restricted to indoor use due to the Radio Law.

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)

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

The SMART Board QX Pro displays contain a CR1220 coin cell battery.

The remote contains two AAA batteries. The pen contains a lithium-ion rechargeable battery. Recycle or dispose of batteries properly.

Perchlorate material

The pen lithium battery contains perchlorate material. Special handling may apply. See dtsc.ca.gov/hazardouswaste/perchlorate.

More information

See smarttech.com/compliance for more information.

SMART Technologies

smarttech.com/support

smarttech.com/contactsupport

docs.smarttech.com/kb/171874