

# SMART Board® 8000i-G5-SMP series interactive flat panels

## ADMINISTRATOR'S GUIDE

FOR MODELS SBID8055i-G5-SMP AND SBID8065i-G5-SMP

## Product registration

If you register your SMART product, we'll notify you of new features and software upgrades.

Register online at [smarttech.com/registration](http://smarttech.com/registration).

Keep the following information available in case you need to contact SMART Support.

Serial number:

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Date of purchase:

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04/2015

# Important information



## WARNING

- Failure to follow the installation instructions shipped with the interactive flat panel could result in personal injury and product damage which may not be covered by the warranty.
- Do not open or disassemble the interactive flat panel. 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 interactive flat panel. Rather, mount the product at the appropriate height.
- To reduce the risk of fire or electric shock, do not expose the interactive flat panel to rain or moisture.
- If the interactive flat panel 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 interactive flat panel 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 any 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 full accommodate the interactive flat panel's polarized plug.
- Use the power cable provided with the interactive flat panel. 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 interactive flat panel by connecting rope or wire to its handles. The interactive flat panel is heavy, and failure of the rope, wire or handle could lead to injury.

## IMPORTANT INFORMATION

- Use only VESA®-approved mounting hardware.
- Disconnect all of the interactive flat panel's power cables 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 interactive flat panel
  - Objects fall into the interactive flat panel
  - The interactive flat panel is dropped
  - Structural damage, such as cracking, occurs
  - The interactive flat panel behaves unexpectedly when you follow operating instructions

### CAUTION

- Before you clean the interactive flat panel's screen, shut down or disconnect the computer. Otherwise, you may scramble the desktop icons or inadvertently activate applications when you wipe the screen.
- Avoid setting up and using the interactive flat panel in an area with excessive levels of dust, humidity and smoke.
- Make sure an electrical socket is near the interactive flat panel and remains easily accessible during use.
- The external power supply must meet the Limited Power Source (LPS) requirements of CSA/UL/IEC/EN 60950-1, when required.
- The interactive flat panel 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." (IEC 60950:1999)

Contact qualified personnel if you're uncertain of the type of power system available where you're installing the interactive flat panel.

- The accessory slot is for use with SMART accessories only. The slot's maximum available power is 60 W. The slot is not a limited power source. To reduce the risk of fire, ensure accessories connecting to the slot satisfy the fire enclosure requirements of IEC 60950-1.

## IMPORTANT INFORMATION

- You must connect the USB cable that came with the interactive flat panel 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 CSA/UL/EN 60950 and bear the CE mark and CSA and/or UL Mark(s) for CSA/UL 60950. This is for operating safety and to avoid damage to the interactive flat panel.



### IMPORTANT

- The following are the power requirements for the interactive flat panel:

Model	Power requirements
SBID8055i-G5-SMP	90V to 240V AC, 50Hz to 60 Hz, 140 W
SBID8065i-G5-SMP	100V to 240V AC, 50 Hz to 60 Hz, 210 W

- For additional requirements and other information, refer to the interactive flat panel's specifications (see *Resources for decision makers* on page 9).



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## Chapter 1

# Welcome

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This chapter introduces the SMART Board® 8000i-G5-SMP series interactive flat panel and this guide.

## About this guide

This guide explains how to set up and maintain the SMART Board 8000i-G5-SMP series interactive flat panel. It includes the following information:

- How to mount the interactive flat panel
- How to connect power and devices
- How to set up the interactive flat panel

- How to maintain the interactive flat panel for years of use
- How to troubleshoot issues with the interactive flat panel

In addition, this guide includes information on the interactive flat panel's on-screen display menu and remote management support.

This guide is intended for individuals who install and maintain interactive flat panels in their organizations. Other documentation and resources are available for individuals who use interactive flat panels.

## About the interactive flat panel

The interactive flat panel features SMART's proprietary DVIT® (Digital Vision Touch) technology on an LCD screen with e-LED backlight.

### Models

The SMART Board 8000i-G5-SMP series interactive flat panels consists of two models:

- SMART Board 8055i-G5-SMP interactive flat panel (SBID8055i-G5-SMP)
- SMART Board 8065i-G5-SMP interactive flat panel (SBID8065i-G5-SMP)

Differences between these models are noted in this guide.

### Specifications

Refer to the interactive flat panel's specifications for detailed technical information, including product dimensions and weights (see *Resources for decision makers* on page 9).

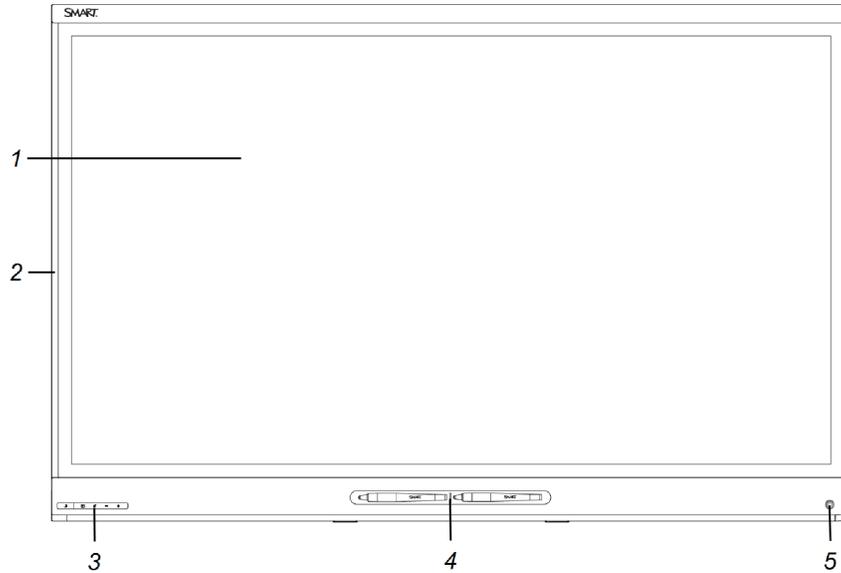
## Features

The interactive flat panel includes the following features:

Feature	Description
Touch support	<p>You can do everything on the interactive flat panel 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 interactive flat panel’s surface.</p> <p>You can use an array of gestures within applications, including panning, scaling, rotating and zooming in and out.</p> <p>The interactive flat panel’s support for at least four simultaneous touches enables you and other users to interact with objects on the screen at the same time.</p>
Writing and drawing support	<p>You can write over any application in digital ink using one of the supplied pens, and then erase the digital ink using your palm or the eraser on the pen.</p> <p>You and another writer can write or draw digital ink on the screen at the same time. The Pen iQ™ feature enables you to assign different ink appearances to each pen.</p>
Audio support	<p>The interactive flat panel includes integrated speakers for presenting audio from connected input sources.</p>

## Components

The interactive flat panel consists of the following components:



No.	Name	More information
<b>Pictured</b>		
1	Screen	Page 5
2	Cameras and reflective tape channel	Page 5
3	Front control panel	Page 5
4	Pen with eraser (×2)	Page 6
5	Presence detection sensor	Page 7
<b>Not pictured</b>		
6	Speakers	Page 7
7	Connector panel	Page 16
8	Menu control panel	Page 37
9	USB receptacle	Page 18
10	Accessory slot and I/O extension module	Page 7

## Screen

The screen specifications vary by model:

Model	Diagonal	Width	Height	Aspect ratio
SBID8055i-G5-SMP	54 1/2" (138.4 cm)	47 5/8" (121 cm)	26 3/4" (68 cm)	16:9
SBID8065i-G5-SMP	64 1/2" (163.9 cm)	56 1/4" (142.8 cm)	31 5/8" (80.4 cm)	16:9

For information on cleaning the screen, see *Cleaning the screen* on page 25.

## Cameras and reflective tape channel

Cameras in the corners of the screen track finger and pen positions across the display. The screen is bordered by a channel that contains reflective tape.

For information on cleaning the camera windows and reflective tape, see *Cleaning the screen* on page 25.

### CAUTION

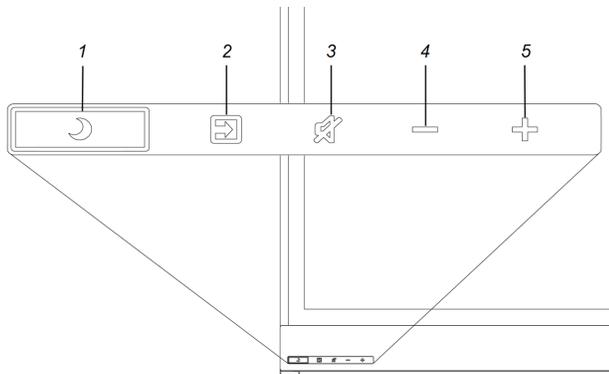
- Keep the reflective tape dry.
- Do not remove or damage the reflective tape.

### IMPORTANT

- Do not attach adhesive notes or other items to the screen because they will interfere with the cameras.
- Do not place anything in the reflective tape channel because it will interfere with the cameras.

## Front control panel

The front control panel contains the Standby, Input Select, Mute and volume control buttons.



No.	Name
1	Standby button
2	Input Select button
3	Mute button
4	Volume decrease
5	Volume increase

 **IMPORTANT**

If there is a film over the front control panel, remove it before using the front control panel.

In normal operation, all buttons are white.

The Standby button also functions as an indicator light:

Indicator light	Status	Troubleshooting
Solid white	Normal operation	[N/A]
Off	Not receiving power	Confirm the interactive flat panel's power cable is connected to the power outlet (see page 17). Flick the power switch to the ON (I) position (see page 19).
Solid amber	DPMS (power management) mode	Press the <b>Standby</b> button  to exit DPMS mode.
Slowly flashing amber	Standby mode	Press the <b>Standby</b> button  to exit Standby mode.
Flashing amber	No USB connection from the connected computer	Verify the connections to the room computer (see page 17).
Slowly flashing white	SMART Board service not running on the connected computer	Ensure that SMART Product Drivers is installed and that the SMART Board service is running.

**Pens with erasers**

The interactive flat panel comes with two pens with erasers attached.

The interactive flat panel's bottom frame includes magnetic holders for the pens. Removing a pen from the holders activates it, and you can use it to draw or erase digital ink.

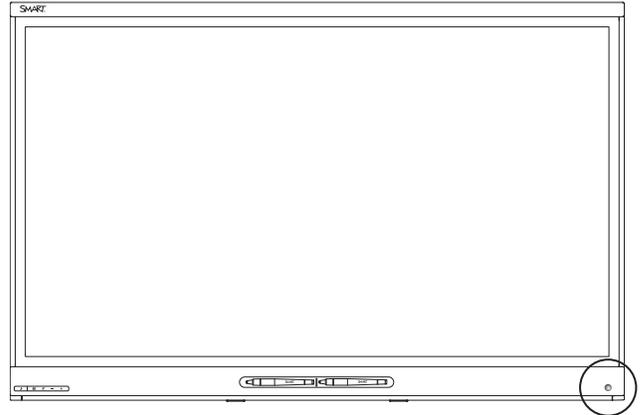
 **CAUTION**

When you return the pen to the magnetic holder, make sure it's centered in its holder to prevent it from falling and potentially being damaged.

### Presence detection sensor

The interactive flat panel has a presence detection sensor on its bottom frame that can detect people up to 16' (5 m) away when the interactive flat panel is in Standby mode.

If the sensor detects people in the room, the interactive flat panel turns on and displays a welcome screen. Touching the screen activates the interactive flat panel. If the sensor doesn't detect people in the room for a specified period, the interactive flat panel returns to Standby mode.



#### NOTES

- For information on cleaning the presence detection sensor, see *Cleaning the presence detection sensor* on page 27.
- Presence detection settings can be changed with the on-screen display menu. For more information, see *Proximity* on page 40.

### Speakers

The interactive flat panel includes two 10 W integrated side-firing speakers.

You can connect external speakers if desired (see *Connecting external speakers* on page 18).

### Accessory slot and I/O extension module

You can install the I/O extension module in the accessory slot located on the back of the interactive flat panel. When installed, the I/O extension module enables you to connect the room computer to the interactive flat panel using USB and HDMI® cables (see *Connecting the room computer* on page 17).

#### CAUTION

The accessory slot is for use with SMART accessories only. The slot's maximum available power is 60 W. The slot is not a limited power source. To reduce the risk of fire, ensure accessories connecting to the slot satisfy the fire enclosure requirements of IEC 60950-1.

## About SMART software

To take full advantage of the interactive flat panel's features, you can install the following SMART software on the computers connected to the interactive flat panel:

Software	Description
SMART Product Drivers	SMART Product Drivers enables connected computers to detect input from the interactive flat panel.
SMART Ink™	<p>SMART Ink enables you to write and draw in digital ink over applications, files, folders, websites and any other open window on your computer. When you write outside the open windows on your computer, a SMART Ink Note appears, and you can write inside the note.</p> <p>When you open an application that has its own ink tools, you can use the application's ink tools to write in the content.</p>
SMART Meeting Pro® software	<p>SMART Meeting Pro software is designed to use with the interactive flat panel in a meeting room.</p> <p>You can write or draw on a digital whiteboard, present content by sharing your desktop and connect and collaborate with local or remote participants using integrated conferencing software.</p>

## Resources for administrators

In addition to this guide, SMART provides a variety of other resources for administrators.

### Training

The SMART training website ([smarttech.com/trainingforbusiness](http://smarttech.com/trainingforbusiness)) includes an extensive library of training resources you can refer to as you learn how to set up and maintain the interactive flat panel.

### Support center and knowledge base

The Support center ([smarttech.com/support](http://smarttech.com/support)) contains a library of documents, including this guide, and a knowledge base that you can search when troubleshooting issues.

## Resources for others

SMART provides resources for decision makers, installers and users as well as administrators.

### Resources for decision makers

Decision makers can refer to the specifications for detailed information about the interactive flat panels.

Model	Specifications
SBID8055i-G5-SMP	<a href="https://smarttech.com/kb/170815">smarttech.com/kb/170815</a>
SBID8065i-G5-SMP	<a href="https://smarttech.com/kb/170816">smarttech.com/kb/170816</a>

### Resources for installers

Installers can refer to the installation instructions included with the interactive flat panel when installing the product. A PDF version of these installation instructions is available for download from [smarttech.com/kb/170810](https://smarttech.com/kb/170810).

### Resources for users

Users can refer to the SMART Meeting Pro software Help for information about using the software with the interactive flat panel. To open the Help, users can select **Help > Contents** in Whiteboard mode.



## Chapter 2

# Mounting the interactive flat panel

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Mounting the interactive flat panel on a wall requires a team of professional installers.

This chapter is intended for installers. Installers should read this chapter along with the installation instructions included with the interactive flat panel before they mount the interactive flat panel.



### WARNING

Improper mounting of the interactive flat panel can result in injury and product damage.

## Before mounting the interactive flat panel

Remember the following before mounting the interactive flat panel:

- Review the environmental requirements in the interactive flat panel's specifications (see *Resources for decision makers* on page 9).
- Save all product packaging so that it's available if you need to transport the interactive flat panel. If the original packaging isn't available, you can purchase new packaging from your authorized SMART reseller ([smarttech.com/where](http://smarttech.com/where)).
- Refer to local building codes to ensure the wall can support the weight of the interactive flat panel (specified in the following table) and mounting equipment.

Model	Weight
SBID8055i-G5-SMP	106 lb. (48.2 kg)
SBID8065i-G5-SMP	137 lb. (62.2 kg)

- Use a standard VESA 400 mm × 400 mm mounting plate (not included) to mount the interactive flat panel on a wall.

- Use M8 screws to fasten the wall bracket.

Screw length       $20 \text{ mm} + x \text{ mm} < M8 < 45 \text{ mm} + x \text{ mm}$   
where  $x$  is the combined thickness of the wall bracket and washer

Fasten force      97.36–177.01 in-lb. (11–20 N·m)

 **CAUTION**

Do not over-tighten the screws.

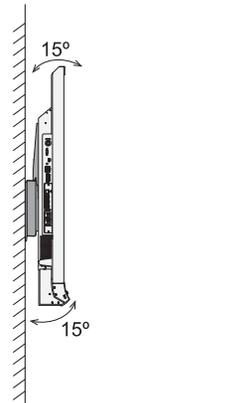
 **NOTE**

SMART recommends M8 × 30 mm mounting screws for standard installations where the total wall mount bracket and washer thickness is less than 7 mm.

- Because the receptacles might not be easily accessible after the installers mount the interactive flat panel, consider connecting cables for power, computers and other devices while the interactive flat panel is still in its packaging (see *Connecting power and devices* on page 15).
- Before turning on the interactive flat panel for the first time, clean the camera windows and reflective tape following the instructions in *Cleaning the camera windows and reflective tape* on page 26.

## Mounting the interactive flat panel vertically

The interactive flat panel is designed for vertical mounting (90° relative to the floor plus or minus 15° for tolerance). SMART doesn't support mounting the interactive flat panel at other angles.



## Choosing a location

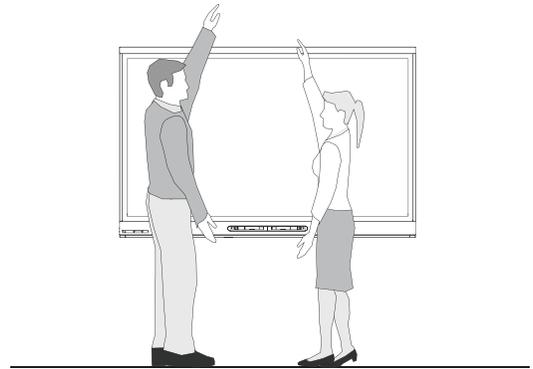
Consider the following when choosing a location for the interactive flat panel:

- Do not install the interactive flat panel in a location where a door or gate could hit it.
- Do not install the interactive flat panel in an area where it will be subjected to strong vibrations or dust.

- Choose a location that's far from bright light sources, such as windows and strong overhead lighting. IR lighting can cause issues with the performance of the cameras and can lead to unintentional or missed touches.
- Do not install the interactive flat panel near where the main power supply enters the building.
- Ensure adequate ventilation or provide air conditioning around the interactive flat panel so that heat can flow away from the unit and the mounting equipment.
- If you mount the interactive flat panel in a recessed area, leave at least 4" (10 cm) of space between the interactive flat panel 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 interactive flat panel.





## Chapter 3

# Connecting power and devices

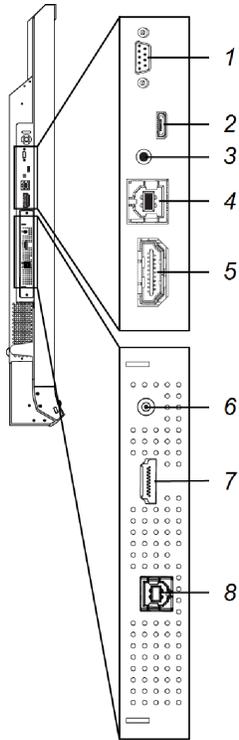
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This chapter describes connecting the interactive flat panel to power, computers and other devices.

## Connector panel

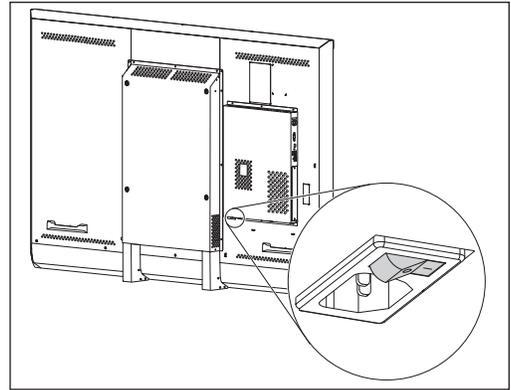
The following diagram and table present the connectors on the interactive flat panel:



No.	Connector	Connects to	Notes (if any)
1	RS-232	Room control system	See page 43.
2	USB Micro-B	[N/A]	This connector is a service port.
3	Stereo 3.5 mm	External speakers	See page 18.
4	USB Type-B	Guest laptop (touch)	See page 18.
5	HDMI (HDMI)	Guest laptop (video)	See page 18.
6	Stereo 3.5 mm	[N/A]	This connector is not available for SMART Board 8000i-G5-SMP series interactive flat panels.
7	HDMI (OPS/HDMI2)	Room computer (video)	See page 17.
8	USB Type-B	Room computer (touch)	See page 17.

## Connecting power

Connect the supplied power cable from the AC power inlet on the bottom of the interactive flat panel to a power outlet.

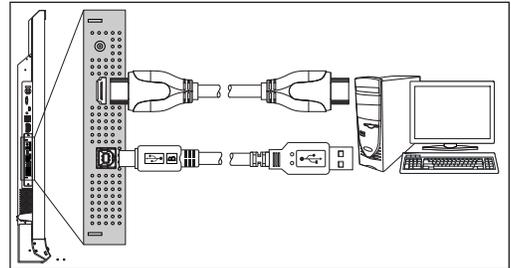


### NOTE

Refer to the interactive flat panel's specifications for power requirements and power consumption information (see *Resources for decision makers* on page 9).

## Connecting the room computer

Using USB and HDMI cables, connect the room computer to the appropriate connectors on the interactive flat panel.



### NOTES

- You can use the interactive flat panel with up to two USB-XT extenders.
- If you use a CAT 5 USB extender, the maximum length of the Cat 5 cable is 52' (16 m).

Press the **Input Select** button  on the front control panel until the input source is OPS/HDMI2.

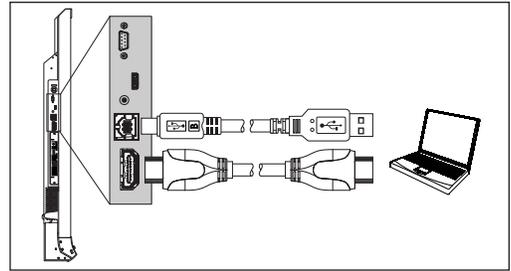
### NOTE

If the I/O extension module is installed, three values appear when you press the **Input Select** button: HDMI, OPS/HDMI2 and DisplayPort. DisplayPort is not an available input for SMART Board 8000i-G5-SMP series interactive flat panels.

## Connecting cables for a guest laptop

You can install cables that enable users to connect a guest laptop to the interactive flat panel from another location in the room, such as on a conference table.

By installing these cables, you make use of connectors that might not be accessible when the interactive flat panel is wall-mounted.



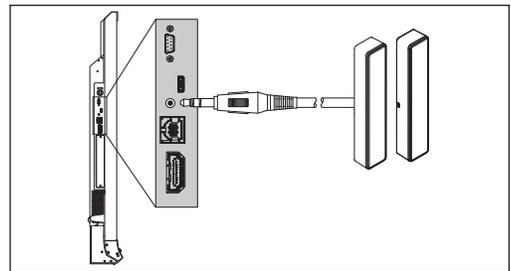
Connect USB and HDMI cables to the appropriate connectors on the interactive flat panel. You can then run the cables across floors or behind walls to the conference table.

### WARNING

Ensure that any cables that cross the floor to the interactive flat panel are properly bundled and marked to avoid a trip hazard.

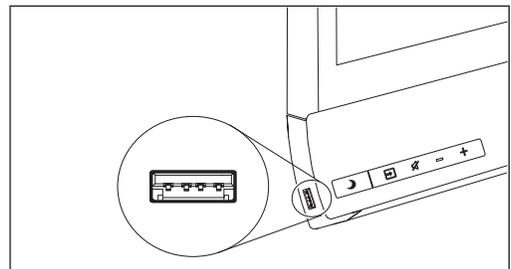
## Connecting external speakers

The interactive flat panel includes two 10 W speakers. However, you can connect external active speakers using the stereo 3.5 mm connector.



## Using the USB receptacle

Users can connect a USB drive or device to the USB Type-A receptacle on the bottom-left corner of the interactive flat panel, and then use the USB drive to open and save files to the room computer.



## Chapter 4

# Setting up the interactive flat panel and room computer

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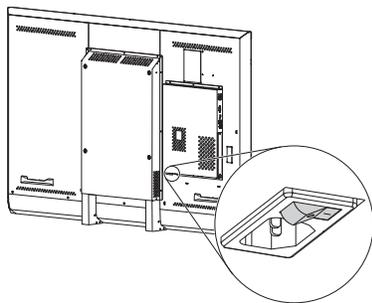
This chapter explains how to set up the interactive flat panel and room computer after mounting the interactive flat panel and connecting power and devices.

## Turning on the interactive flat panel and room computer for the first time

After connecting the room computer to the interactive flat panel (see *Connecting the room computer* on page 17) and mounting the interactive flat panel (see *Mounting the interactive flat panel* on page 11), you can turn on both devices.

### **To turn on the interactive flat panel and room computer for the first time**

1. Turn on the room computer.
2. Turn on the interactive flat panel by flicking the power switch beside the AC power inlet to the ON (I) position.



3. Press the **Standby** button  on the front control panel.

## Installing SMART software

Download and install SMART software on the room computer to take full advantage of the interactive flat panel's features.

### To download and install SMART software

1. Go to [smarttech.com/downloads](http://smarttech.com/downloads).
2. Scroll to the *SMART Meeting Pro software* section.
3. Click **Choose a version**, and then select the most recent version.
4. Click **Download**.
5. Follow the on-screen instructions to save the installer to a temporary location.
6. Double-click the installer.
7. Follow the on-screen instructions to install SMART software.

## Running the SMART Connection Wizard

After turning on the interactive flat panel and room computer for the first time and installing SMART software, run the SMART Connection Wizard to calibrate and orient the interactive flat panel.



### IMPORTANT

You must calibrate the interactive flat panel before using it.

### To run the SMART Connection Wizard

1. Access the SMART Connection Wizard by opening SMART Settings (see *Opening SMART Settings* on page 22).
2. Click **Connection Wizard**.  
  
The *SMART Connection Wizard* appears.
3. Select the interactive flat panel from the list of connected SMART interactive products, and then click **Next**.
4. Select **Product is being set up for the first time**, and then click **Next**.
5. Follow the on-screen instructions to calibrate and orient the interactive flat panel for the first time.

## Chapter 5

# Maintaining the interactive flat panel

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This chapter describes common maintenance procedures for the interactive flat panel.

## Resetting the interactive flat panel

You can reset the interactive flat panel using the front control panel.

### To reset the interactive flat panel

1. Press the **Standby** button  on the front control panel.

A message appears on the screen, prompting you to either press the button again to enter Standby mode or press and hold the button to reset the interactive flat panel.

2. Press and hold the **Standby** button  until the screen turns black.

The interactive flat panel resets, and then your computer's logon screen or desktop appears on the interactive flat panel.

## Maintaining the interactive flat panel software and firmware

This section describes common maintenance procedures for the interactive flat panel software and firmware.

### Opening SMART Settings

Several maintenance and troubleshooting procedures in this guide are accessible through SMART Settings.

#### To open SMART Settings on Windows 7 operating system

Select **Start > All Programs > SMART Technologies > SMART Tools > SMART Settings**.

SMART Settings appears.

#### To open SMART Settings on Windows 8 operating system

1. Open the *Apps* screen.
2. Press **SMART Settings**.

SMART Settings appears.

### Updating firmware

The interactive flat panel uses firmware on its processor. Updates to SMART software could include a firmware update in the form of a downloaded firmware executable file. When the interactive flat panel detects this executable file, you're prompted to run the file to update the firmware.

#### CAUTION

- Only a system administrator should update interactive flat panel firmware.
- Only one interactive flat panel can be connected to the computer during the firmware update.
- Do not disconnect the interactive flat panel from your computer during the firmware update.

- Do not touch the interactive flat panel's screen or input button during the firmware update.
- Do not turn off your computer or the interactive flat panel during the firmware update.

### To update firmware

1. Make sure the interactive flat panel is connected to your computer.
2. Browse to and start the firmware updater at the following location:

Operating system	Location
Windows (32-bit)	C:\Program Files\SMART Technologies\SMART Product Drivers\SMARTFirmwareUpdater.exe
Windows (64-bit)	C:\Program Files (x86)\SMART Technologies\SMART Product Drivers\SMARTFirmwareUpdater.exe

3. Follow the on-screen instructions using your computer's mouse and keyboard. Don't touch the interactive flat panel's screen.
4. Select the check box for the SMART product you want to update, and then click **Next**.  
A progress bar appears.
5. When the installation is complete, calibrate the interactive flat panel (see *Calibrating the interactive flat panel* on the next page).

## Updating software

SMART Product Update (SPU) is included in SMART software (see *Installing SMART software* on page 20). SPU periodically checks for updates to the SMART software posted on the SMART website. You can configure SPU to prompt users to install updates or to install updates automatically.

### NOTE

If you didn't install SPU, you can download updates to SMART software from [smarttech.com/downloads](http://smarttech.com/downloads).

## Orienting the interactive flat panel

If the pointer appears a distance from the actual contact when you touch the screen, orient the interactive flat panel.

### NOTE

You can use your finger or a pen to orient the interactive flat panel.

### To orient the interactive flat panel

1. Open SMART Settings (see *Opening SMART Settings* on page 22).
2. Press **Orient**.
3. Press the red targets as they appear. Hold your finger or the tip of the pen at the center of each target, and then lift the pen or finger. When you lift the pen or finger, the target moves to the next orientation point.



#### IMPORTANT

Hold the pen perpendicular to the screen.

4. Continue until you've pressed all the targets.  
The orientation window closes.
5. If orientation doesn't correct inaccurate touch, calibrate the interactive flat panel (see *Calibrating the interactive flat panel* below).

## Calibrating the interactive flat panel

Digital cameras in the corners of the interactive flat panel track the position of the pens, eraser and your finger on the interactive surface, and then send the information to the SMART software, which interprets this information as mouse clicks, digital ink or an eraser in the appropriate location. Calibration determines the position and angles of the cameras to accurately identify the location of touches on the interactive flat panel.



#### IMPORTANT

If an error message appears while you are calibrate the interactive flat panel, contact SMART Support ([smarttech.com/support/entsupport](https://smarttech.com/support/entsupport)).

### To calibrate the interactive flat panel

1. Open SMART Settings (see *Opening SMART Settings* on page 22).
2. Press **SMART Hardware Settings**.
3. If more than one SMART product is connected to your computer, select the interactive flat panel.
4. Select **Advanced Settings** from the drop-down list.
5. Press **Calibrate**.

The calibration screen appears. This can take a few moments.

6. Press the red target with the tip of a pen. Hold the tip at the center of the target until the target turns green, and then lift the pen.

The target moves to the next location.



**NOTE**

You can calibrate a target again by pressing the LEFT ARROW key on your keyboard.

7. Continue pressing targets until the second calibration screen and a grid appears.

An example appears briefly to demonstrate how to draw across the screen to calibrate the interactive surface.

8. Use a pen to draw a spiral horizontally across the grid. As you draw, the ink is blue. As you complete each square, the square becomes green.

9. When all the squares are green, a progress bar appears.

When the progress bar is full, the interactive flat panel displays the message *Calibration successful*.

10. Orient the interactive flat panel (see *Orienting the interactive flat panel* on page 23).

## Maintaining the interactive flat panel hardware

With proper maintenance, the interactive flat panel hardware will provide years of use.

### Checking the interactive flat panel installation

Inspect the interactive flat panel installation frequently to ensure that it 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 professional installer.

### Cleaning the screen

Follow these instructions to clean the interactive flat panel 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 a dense or rough material.
- Do not apply pressure to the screen.
- Do not use cleaning solution or glass cleaner on the interactive flat panel screen, because they can deteriorate or discolor the screen.
- Avoid touching the reflective tape between the screen and the frame, and ensure that this strip stays dry. Damage to this strip affects touch interactivity.

### To clean the screen

1. Turn off the room computer.
2. Press the **Standby** button  on the front control panel twice.
3. Turn the interactive flat panel off by flicking the power switch beside the AC power inlet.
4. Wipe the screen with a lint-free, non-abrasive cloth.

## Cleaning the camera windows and reflective tape

The interactive flat panel's DVIT technology uses four cameras in the corners of the frame and the reflective material between the screen and the frame. Dust buildup on the camera windows or reflective tape can impair touch performance.

Inspect these areas regularly for dust, and clean them if any obvious dust buildup has occurred.

### CAUTION

- Do not use compressed air to clean the camera windows or borders.
- Do not use water, chemicals or cleaning agents.
- Applying too much pressure when cleaning the tape or cameras can damage the tape and cause performance issues or errors.

### To clean the camera windows and reflective tape

1. Using a clean lint-free cloth, gently wipe the camera windows in the top corners and the reflective tape along the top of the interactive flat panel screen.
2. Gently wipe the reflective tape along the sides of the interactive flat panel screen.
3. Gently wipe the camera windows in the bottom corners and the reflective strip across the bottom of the interactive flat panel screen.

## Cleaning the presence detection sensor

The interactive flat panel has a presence detection sensor on its bottom frame (see *Presence detection sensor* on page 7).

Inspect the sensor regularly for dust and gently wipe it using a clean lint-free cloth if dust buildup has occurred.



### CAUTION

Do not use compressed air, water, chemical agents or cleaning agents to clean the sensor.

## Maintaining ventilation

The interactive flat panel requires proper ventilation. Dust buildup in the ventilation holes compromises cooling and leads 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 interactive flat panel from the wall. For more information on removing the interactive flat panel, see *Removing the interactive flat panel* on the next page.



### CAUTION

Avoid setting up or using the interactive flat panel in an area with excessive levels of dust, humidity or smoke.

## Preventing condensation

The interactive flat panel screen contains layers of glass that can collect condensation, especially in the following conditions:

- Temperature extremes with high humidity
- Rapid changes in humidity, which can occur when you operate the product near water (such as a pool, kettle or air conditioner ventilator)
- Direct exposure to sunlight

### To evaporate condensation from the interactive flat panel

1. Remove the humidity source from the interactive flat panel, if possible.
2. Turn off the interactive flat panel.

3. Remove any moisture from the interactive flat panel with a smooth, dry cloth.
4. Leave the interactive flat panel turned off for 48 hours.

## Maintaining pens

To prevent damage to the interactive flat panel's anti-glare coating, replace a pen if its nib becomes worn. You can purchase replacement pens from the Store for SMART Parts (see [smarttech.com/Support/PartsStore](http://smarttech.com/Support/PartsStore)).

# Removing and transporting the interactive flat panel

On occasion, you might need to remove the interactive flat panel from its current location and transport it to another location.

## Removing the interactive flat panel

To remove the interactive flat panel safely, use two or more professional installers.



### WARNING

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



### IMPORTANT

Follow the instructions included with the floor stand or mounting hardware.

## To remove the interactive flat panel

1. Turn off the room computer.
2. Press the **Standby** button  on the front control panel twice.
3. Turn off the interactive flat panel by flicking the power switch beside the AC power inlet.
4. Remove all accessible cables and connectors.

5. Lift the interactive flat panel from its mounting location.



**WARNING**

Do not place the interactive flat panel on a sloping or unstable cart, stand or table, because the interactive flat panel could fall, resulting in injury and severe product damage.



**CAUTION**

Do not leave the interactive flat panel face up, face down or upside down for an extended period of time, because it could cause permanent damage to the screen.

6. Remove the mounting brackets.

## Transporting the interactive flat panel

Save your original packaging so that you can repack the interactive flat panel with as much of the original packaging as possible. This packaging was designed to provide the best possible protection against shock and vibration. If the original packaging isn't available, you can purchase the same packaging directly from your authorized SMART reseller ([smarttech.com/where](http://smarttech.com/where)).



**CAUTION**

Transport the interactive flat panel only in original or replaced packaging. Transporting the interactive flat panel without correct packaging can lead to product damage and voids the warranty.



## Chapter 6

# Troubleshooting

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This chapter helps you solve simple issues that can occur with the interactive flat panel. If issues persist or aren't covered in this chapter, contact SMART Support ([smarttech.com/support/entsupport](http://smarttech.com/support/entsupport)).

## Locating the interactive flat panel serial number

When you contact SMART Support, you might be asked to provide the interactive flat panel serial number. The serial number is located in two places:

- The on-screen display menu (see *Serial Number* on page 40)
- Underneath the bottom frame

## Resolving common issues using the indicator light

The Standby button on the front control panel also functions as an indicator light. You can use the indicator light to resolve common issues with the interactive flat panel. For more information, see *Front control panel* on page 5.

## Resolving presence detection issues

Use the following table to resolve presence detection issues:

Symptom	Cause	Solution
The interactive flat panel isn't turning on.	Presence detection isn't enabled.	Enable presence detection (see page 40).
	There isn't enough difference between the room temperature and human body temperature.	Reduce the room temperature.
	You aren't within 16' (5 m) of the interactive flat panel.	Move closer to the interactive flat panel or make bigger motions.
	There is glass, acrylic or similar material between you and the interactive flat panel.	Remove the material.
The interactive flat panel isn't turning off when people leave the room.	Presence detection isn't enabled.	Enable presence detection (see page 40).
The interactive flat panel is turning on after it has been turned off.	The re-enable time is too short to allow you to exit the room before the sensor starts detecting motion again.	Increase the re-enable time (see page 40).
	Sunlight is hitting the interactive flat panel.	Close any blinds or shades.
	There is glass, acrylic or similar material between you and the interactive flat panel.	Remove the material.
The interactive flat panel is turning on when people aren't present.	There's a sudden temperature change in the room (for example, humidifier emission, air conditioning or heating system).	Remove the source of major temperature fluctuation.
	Sunlight is hitting the interactive flat panel.	Close any blinds or shades.
The interactive flat panel is turning off when people are present.	Over time, presence detection averages the room temperature so people's body temperature becomes part of the ambient temperature.	Increase the time before the interactive flat panel automatically turns off (see page 40).

## Resolving image issues

Use the following table to resolve image issues:

Symptom	Cause	Solution
The image is too light, too dark or has poor image quality.	The interactive flat panel's picture settings might be set incorrectly.	Adjust the Picture options (see <i>Picture</i> on page 38).
There is a persistent image on the screen.	An image was displayed for too long.	<ul style="list-style-type: none"> <li>• Turn off the interactive flat panel and leave it turned off for as long as the image was on the screen.</li> <li>• Set up screen savers on any connected computers to prevent persistent images.</li> </ul>
There are other image issues.		Return all settings to their default values (see page 40).

## Resolving touch issues

Use the following table to resolve touch issues:

Symptom	Cause	Solution
When you touch the screen, the pointer appears in the wrong location.	You aren't touching the screen at a right angle.	For more information, see <i>Touching and drawing on your SMART Board interactive whiteboard is inaccurate</i> ( <a href="http://kb.smarttech.com/?q=13976">kb.smarttech.com/?q=13976</a> ).
	The interactive flat panel isn't oriented.	Orient the interactive flat panel (see page 23).
An area of the screen doesn't respond to your touch, or when you draw digital ink, the lines are broken.	Something is blocking the cameras.	Ensure nothing is taped to the screen.
	Something is in the reflective tape channel.	Remove items from the reflective tape channel.
	Your finger or pen is skipping as you draw. This is most common on the upstroke.	Use consistent pressure while drawing digital ink.
	Bright lights are interfering with the cameras.	Close blinds or shades or dim all halogen lights and LEDs.
	The cameras require calibration, possibly because of a temperature change in the room.	Calibrate the interactive flat panel (see page 24).
You can interact with screen elements by touching them, but you can't write or draw using the pens.	The cameras require calibration, possibly because of a temperature change in the room.	Calibrate the interactive flat panel (see page 24).

## Resolving connected computer issues

Use the following table to resolve connected computer issues:

Symptom	Cause	Solution
The connected computer's display is too large, too small or doesn't completely fill the screen.	The connected computer's video resolution settings don't match the interactive flat panel's native resolution.	Set the computer's video resolution to 3840 × 2160 at 30 Hz. (If the connected computer can't support this resolution, consider 1920 × 1080 at 60 Hz as an alternative.)
The connected computer's screen resolution is correct, but the image is surrounded by black bars.	The connected computer's video card is underscanning the image.	<ul style="list-style-type: none"> <li>Turn off or adjust the overscan/underscan feature in the video card driver software until the image fits the screen resolution. Refer to the computer's video card Help for more information.</li> <li>Select the 4K UHD option from the video card driver's advanced menu (if available).</li> </ul>
	The video cable is of poor quality.	Replace the video cable with a better quality video cable.
	You're using two connected video cables.	<ul style="list-style-type: none"> <li>Replace the two cables with one longer cable.</li> <li>OR</li> <li>Move the computer so that it's within a single cable length of the interactive flat panel.</li> </ul>
	The interactive flat panel's native resolution doesn't match the resolution on the computer's display adapter.	Check the resolution on the computer's display adapter and change the interactive flat panel's resolution to match.
The connected computer's display is unstable or unfocused.	The video connection is loose.	Secure the video cable to both your computer and the interactive flat panel.
	The video cable is of poor quality.	Replace the video cable with a better quality video cable.
	You're using two connected video cables.	<ul style="list-style-type: none"> <li>Replace the two cables with one longer cable.</li> <li>OR</li> <li>Move the computer so that it's within a single cable length of the interactive flat panel.</li> </ul>
	The connected computer's video display card is defective.	Connect a different computer to the interactive flat panel. If this improves the image quality, consider replacing the video card in the original computer.
The SMART Board icon  doesn't appear.	SMART Product Drivers isn't installed.	Download and install SMART Product Drivers from <a href="http://smarttech.com/downloads">smarttech.com/downloads</a> .
	SMART Product Drivers isn't running.	Start SMART Product Drivers following the steps in the Help.

Symptom	Cause	Solution
Touch interactivity is slow.	The connected computer is running too many applications.	Close some open applications.
	The connected computer doesn't meet SMART requirements.	Upgrade the computer or replace it with another computer that meets system requirements.
	You haven't used a USB 2.0 cable to connect the interactive flat panel to the computer.	Use a USB 2.0 cable and ensure it's connected to the correct USB receptacle (see page 17 or page 18).
There's no sound when you play an audio file.	The connected computer's playback device isn't set correctly.	Ensure the connected computer's playback device is set as the interactive flat panel (see the connected computer's documentation).
	The interactive flat panel's audio input isn't set correctly.	Ensure the interactive flat panel's audio input is set as the computer's audio connector (see page 39).
	The connected computer is muted.	Turn off the mute setting.
	The connected computer's volume is too low.	Turn up the volume on the computer.
	The interactive flat panel is muted.	Turn off the mute setting using the front control panel.
	The interactive flat panel's volume is too low.	Turn up the volume using the front control panel.

## Using the SMART Connection Wizard

You can resolve a variety of issues using the SMART Connection Wizard found in SMART Settings.

### To use the SMART Connection Wizard

1. Access the SMART Connection Wizard by opening SMART Settings (see *Opening SMART Settings* on page 22).
2. Press **Connection Wizard**.  
The *SMART Connection Wizard* appears.
3. Select the interactive flat panel from the list of connected SMART interactive products, and then press **Next**.
4. Select the option that best describes the issue you're encountering, and follow the on-screen instructions.

## Using SMART Diagnostics

If you touch the interactive flat panel's surface and nothing happens, if there is no digital ink, or if the ink appears in some locations and not in others, use SMART Diagnostics to help identify and resolve these issues.



### IMPORTANT

Do not change diagnostic settings unless asked to do so by SMART Support.

### To check camera views

1. Open SMART Settings (see *Opening SMART Settings* on page 22).
2. Select **About Software and Product Support > Tools > Diagnostics**.

SMART Diagnostics opens.

3. Select **View > SPNL-6000/SBID8000-G5 Bar**.

The group box appears.

4. Press **View**.

The camera view screen appears.

5. Click **Get image** to display the four camera views. This could take a few moments.

If one of the camera views doesn't appear, the camera is blocked or can't locate the reflective tape on the interactive flat panel's inner frame.



### NOTE

You can compare the camera view to examples of normal camera views.

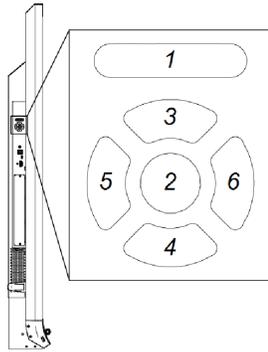
6. Check the camera lens and ensure that nothing is blocking its view and that nothing is affixed to the interactive surface.

## Appendix A

# Using the on-screen display menu

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You can access the on-screen display menu using the menu control panel located on the side of the interactive flat panel.



No.	Name
1	MENU
2	SET
3	[Up]
4	[Down]
5	[Left]
6	[Right]

## Changing settings in the on-screen display menu

### To change settings in the on-screen display menu

1. Press the **MENU** button on the menu control panel.  
The on-screen display menu appears.
2. Press the up and down arrows to highlight a menu, and then press **SET**.
3. Press the up and down arrows to highlight a menu option.

4. Press the left and right arrows to change the menu option's setting.

OR

Press the right arrow to open the menu option's submenu. (Repeat steps 3 and 4 to change settings in the submenu.)

5. Press **MENU** until the on-screen menu closes.

## On-screen display menu options

Option	Values	Function	Notes (if any)
<b>Picture</b>			
▶ Picture Mode	Standard User Dynamic	Sets the picture mode	Select <b>User</b> to customize brightness, contrast, sharpness and other <i>Picture</i> options. Select one of the other values to set brightness, contrast, sharpness and other <i>Picture</i> options to default values.
• Brightness	0–100	Sets the overall brightness of the image and background	You can modify this option only if you select <b>User</b> in <i>Picture Mode</i> .
• Contrast	0–100	Sets the difference in brightness between the lightest and darkest parts of the image.	You can modify this option only if you select <b>User</b> in <i>Picture Mode</i> .
• Black Level	0–100	Sets the level of brightness in the darkest parts of the image	You can modify this option only if you select <b>User</b> in <i>Picture Mode</i> .
• Color	0–100	Sets the image color depth	You can modify this option only if you select <b>User</b> in <i>Picture Mode</i> .
• Sharpness	0–100	Sets the image sharpness	You can modify this option only if you select <b>User</b> in <i>Picture Mode</i> .
▶ Color temperature	Normal Warm User Cool	Sets the color temperature	Select <b>User</b> to customize the amount of red, green and blue in the image. Select one of the other values to set the amount of red, green and blue in the image to default values.
• Red	0–100	Sets the amount of red in the image	You can modify this option only if you select <b>User</b> in <i>Color Temperature</i> .
• Green	0–100	Sets the amount of green in the image	You can modify this option only if you select <b>User</b> in <i>Color Temperature</i> .
• Blue	0–100	Sets the amount of blue in the image	You can modify this option only if you select <b>User</b> in <i>Color Temperature</i> .

APPENDIX A  
**USING THE ON-SCREEN DISPLAY MENU**

Option	Values	Function	Notes (if any)
• Movie Mode	Off Low Middle High	Sets the brightness, contrast, black level, color and sharpness for movie watching	
• Picture Reset	[N/A]	Resets all options in the <i>Picture</i> menu to their default values	
<b>Sound</b>			
▶ Sound Mode			
• Treble	L50–R50	Sets the high frequency sound	
• Bass	L50–R50	Sets the low frequency sound	
▶ EQ			
• 120 Hz	0–100	Sets the sound equalization at 120 Hz	
• 500 Hz	0–100	Sets the sound equalization at 500 Hz	
• 1.2 kHz	0–100	Sets the sound equalization at 1.2 kHz	
• 7.5 kHz	0–100	Sets the sound equalization at 7.5 kHz	
• 12 kHz	0–100	Sets the sound equalization at 12 kHz	
• Balance	L50–R50	Balances the left and right volume	
• Audio Input	[Depends on the current video input]	Sets the audio input source	If HDMI is the current video input, the available values are HDMI and USB. If OPS/HDMI2 is the current video input, the available values are OPS Digital and USB. If DisplayPort is the current video input, the available values are DisplayPort and USB.
• Sound Reset	[N/A]	Resets all options in the <i>Sound</i> menu to their default values	
<b>OSD</b>			
• Language	[Languages]	Sets the on-screen display menu's language	
• OSD Turn Off	Off 5 seconds 10 seconds 15 seconds	Sets the time of inactivity before the on-screen display menu turns off	

APPENDIX A  
**USING THE ON-SCREEN DISPLAY MENU**

Option	Values	Function	Notes (if any)
• OSD Reset	[N/A]	Resets all options in the <i>OSD</i> menu to their default values	
<b>Setup</b>			
• Power Save	On Off	Enables or disables Power Save mode	When Power Save mode is enabled and there is no video input, the interactive flat panel displays <i>No Signal</i> for 25 seconds before turning off.
• Monitor ID	1–100	Specifies a unique ID for the interactive flat panel	
• FBC Control	On Off	Enables or disables the front control panel	
▸ Proximity	On Off	Enables or disables presence detection	
• Re-enable Time	1Min.–10Min.	Sets how long the interactive flat panel waits before detecting motion again	
• Auto Power Off	15Min.–240Min.	Sets how long the interactive flat panel waits before turning off	
• Video input detect	On Off	Enables or disables video input detection.	With video input detection, the interactive flat panel displays the default video input (OPS/HDMI2) when there are no computers or other devices connected.  Video input detection is useful in scenarios where a user connects a laptop to the interactive flat panel for a meeting and forgets to return to the default video input after disconnecting the laptop.
• Lync® Room Reset	[N/A]	Resets options in all menus to their default values (for a SMART Room System™ for Microsoft® Lync)	
• Setup Reset	[N/A]	Restores the setup settings to their default value	
• Factory Reset	[N/A]	Resets options in all menus to their default values	
<b>About</b>			
• Model Number	[N/A]	Displays the interactive flat panel's model number	
• Serial Number	[N/A]	Displays the interactive flat panel's serial number	

APPENDIX A  
USING THE ON-SCREEN DISPLAY MENU

Option	Values	Function	Notes (if any)
• Scalar firmware version	[N/A]	Displays the interactive flat panel's scalar firmware version	
• Touch firmware version	[N/A]	Displays the interactive flat panel's touch firmware version	
• OPS Information	[N/A]	Displays whether the I/O extension module is installed	



## Appendix B

# Remotely managing the interactive flat panel

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This appendix includes detailed instructions for setting up your computer or room control system to remotely manage the interactive flat panel using an RS-232 serial interface.

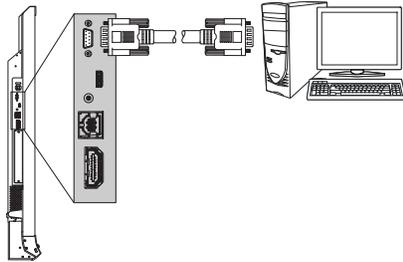
## Connecting and configuring a room control system

Connect a computer to the room control input on the interactive flat panel to remotely select video inputs, turn the interactive flat panel on or off and request information such as contrast, power state and current settings.

## Connecting a computer to the interactive flat panel

### To connect a computer to the interactive flat panel

Connect an RS-232 cable from the computer's serial output to the room control input on the connector panel.



#### IMPORTANT

Do not use a null modem cable. Use only a standard RS-232 cable.

## Configuring the computer's serial interface settings

Configure the computer's serial interface before sending commands to the interactive flat panel.

### To configure the computer's serial interface

1. Turn on the interactive flat panel.
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

A command prompt (>) appears on the following line, and the interactive flat panel can now accept commands from the computer.



#### NOTE

If no message appears or an error message appears, the serial interface configuration isn't correct. Repeat steps 3 and 4.

## Power modes

The interactive flat panel has three power modes:

- On
- Power Save
- Standby

All commands are available when the interactive flat panel is on. Some commands are available when the interactive flat panel is in Standby mode.

## Room control system programming commands and responses

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

### CORRECT

```
>get contrast  
contrast=55
```

If you type a command that the room control system doesn't recognize, you receive an invalid command response.

In the example below, the user included an extra space in the contrast command.

### INCORRECT

```
>set con trast=65  
invalid cmd=set con trast=65
```

### NOTES

- Use ASCII formatted commands.
- Commands aren't case-sensitive.
- Review each entry carefully before you press ENTER.
- Don't send another command until you receive the response and the next command prompt.

## Command inventory

The interactive flat panel responds to the commands listed in the tables on the following pages.

### Viewing a list of available commands

You can view a list of available commands by typing `?` at the command prompt and pressing ENTER.

### Identifying current values

Use the `get` command to identify values for a setting. This example shows how to get the interactive flat panel's contrast level.

```
>get contrast  
contrast=55
```

### Assigning a specific value

Use the `set` command to assign a value to a setting. This example sets the interactive flat panel's contrast level to 65.

```
>set contrast=65  
contrast=65
```

### Increasing or decreasing a value for a setting

You can also use the `set` command to increase or decrease a setting by a designated number. This example increases the interactive flat panel's contrast level by 5.

```
>set contrast +5  
contrast=70
```

This example decreases the interactive flat panel's contrast level by 15.

```
>set contrast -15  
contrast=55
```

## Designating video control settings for a specific video input

When you connect multiple video inputs to the interactive flat panel, you can designate different settings for each video input. You can also specify the video input for which to identify or assign settings.

### NOTE

You must connect the video input to the interactive flat panel to identify or assign a value for it, but the video input doesn't need to be in use.

In the example below, the user wants to identify the contrast for the HDMI1 video input.

```
>get contrast hdmi1  
contrast hdmi1=65
```

In the example below, the user wants to set the contrast to 70 for the HDMI video input.

```
>set contrast hdmi1=70  
contrast hdmi1=70
```

## Commands

The following tables contain the commands for the interactive flat panel.

### NOTE

The Standby mode column indicates whether the command is available while the interactive flat panel is in Standby mode.

## Power state

Use the following commands to identify power state settings.

Command	Response	Possible values	Standby mode
get intpowerstate	intpowerstate=[ <i>Value</i> ]	<ul style="list-style-type: none"><li>• on</li><li>• standby</li><li>• dpms</li><li>• novideo</li><li>• confirm</li><li>• proximitywait</li><li>• welcome</li></ul>	Yes
get powerstate	powerstate=[ <i>Value</i> ]	<ul style="list-style-type: none"><li>• on</li><li>• off</li><li>• standby</li></ul>	Yes

Use the following commands to assign power state settings.

Command	Possible values	Response	Standby mode
set powerstate [ <i>Value</i> ]	<ul style="list-style-type: none"><li>• =on</li><li>• =off</li><li>• =standby</li></ul>	powerstate=[ <i>Value</i> ]	Yes

## Source

Use the following commands to identify source settings.

Command	Response	Possible values	Standby mode
get input	input=[ <i>Value</i> ]	<ul style="list-style-type: none"> <li>• hdmi1</li> <li>• ops/hdmi2</li> <li>• displayport</li> </ul>	Yes
get videoinputs	videoinputs=[ <i>Value</i> ]	<ul style="list-style-type: none"> <li>• hdmi1</li> <li>• ops/hdmi2</li> <li>• displayport</li> </ul>	Yes

Use the following commands to assign source settings.

Command	Possible values	Response	Standby mode
set input [ <i>Value</i> ]	<ul style="list-style-type: none"> <li>• =hdmi1</li> <li>• =ops/hdmi2</li> <li>• =displayport</li> <li>• =next</li> </ul>	input=[ <i>Value</i> ]	Yes

## Video

Use the following commands to identify video settings.

Command	Response	Possible values	Standby mode
get displaymode	displaymode=[ <i>Value</i> ]	<ul style="list-style-type: none"> <li>• standard</li> <li>• user</li> <li>• dynamic</li> </ul>	No
get contrast	contrast=[ <i>Value</i> ]	0–100	No
get brightness	brightness=[ <i>Value</i> ]	0–100	No
get tint	tint=[ <i>Value</i> ]	0–100	No
get sharpness	sharpness=[ <i>Value</i> ]	0–100	No
get colortemp	colortemp=[ <i>Value</i> ]	<ul style="list-style-type: none"> <li>• normal</li> <li>• warm</li> <li>• cool</li> <li>• user</li> </ul>	No
get red	red=[ <i>Value</i> ]	0–100	No
get green	green=[ <i>Value</i> ]	0–100	No
get blue	blue=[ <i>Value</i> ]	0–100	No
get blacklevel	blacklevel=[ <i>Value</i> ]	0–100	No

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Use the following commands to assign video settings.

Command	Possible values	Response	Standby mode
set displaymode <i>[Value]</i>	<ul style="list-style-type: none"> <li>• =standard</li> <li>• =user</li> <li>• =dynamic</li> </ul>	displaymode= <i>[Value]</i>	No
set contrast <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	contrast= <i>[Value]</i>	No
set brightness <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	brightness= <i>[Value]</i>	No
set tint <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	tint= <i>[Value]</i>	No
set sharpness <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	sharpness= <i>[Value]</i>	No
set colortemp <i>[Value]</i>	<ul style="list-style-type: none"> <li>• =normal</li> <li>• =warm</li> <li>• =cool</li> <li>• =user</li> </ul>	colortemp= <i>[Value]</i>	No
set red <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	red= <i>[Value]</i>	No
set green <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	green= <i>[Value]</i>	No
set blue <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	blue= <i>[Value]</i>	No
set blacklevel <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0-100</li> </ul>	blacklevel= <i>[Value]</i>	No
set picturereset <i>[Value]</i>	=yes	picturereset= <i>[Value]</i>	No

## Audio

Use the following commands to identify audio settings.

Command	Response	Possible values	Standby mode
get volume	volume= <i>[Value]</i>	0-100	No
get mute	mute= <i>[Value]</i>	<ul style="list-style-type: none"> <li>• on</li> <li>• off</li> </ul>	No

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Command	Response	Possible values	Standby mode
get audioinput	audioinput= <i>[Value]</i>	<ul style="list-style-type: none"> <li>• usbaudio</li> <li>• HDMI</li> <li>• DisplayPort</li> <li>• OPSdigital</li> </ul>	No
get treble	treble= <i>[Value]</i>	0–100	No
get bass	bass= <i>[Value]</i>	0–100	No
get audioeq120	audioeq120= <i>[Value]</i>	0–100	No
get audioeq500	audioeq500= <i>[Value]</i>	0–100	No
get audioeq1200	audioeq1200= <i>[Value]</i>	0–100	No
get audioeq7500	audioeq7500= <i>[Value]</i>	0–100	No
get audioeq12k	audioeq12k= <i>[Value]</i>	0–100	No
get balance	balance= <i>[Value]</i>	0–100	No

Use the following commands to assign audio settings.

Command	Possible values	Response	Standby mode
set volume <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0–100</li> </ul>	volume= <i>[Value]</i>	No
set mute <i>[Value]</i>	<ul style="list-style-type: none"> <li>• =on</li> <li>• =off</li> </ul>	mute= <i>[Value]</i>	No
set audioinput <i>[Value]</i>	<ul style="list-style-type: none"> <li>• =usbaudio</li> <li>• =HDMI</li> <li>• =DisplayPort</li> <li>• =OPSDigital</li> </ul>	audioinput= <i>[Value]</i>	No
set treble <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0–100</li> </ul>	treble= <i>[Value]</i>	No
set bass <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0–100</li> </ul>	bass= <i>[Value]</i>	No
set audioeq120 <i>[Value]</i>	=0–100	audioeq120= <i>[Value]</i>	No
set audioeq500 <i>[Value]</i>	=0–100	audioeq500= <i>[Value]</i>	No
set audioeq1200 <i>[Value]</i>	=0–100	audioeq1200= <i>[Value]</i>	No
set audioeq7500 <i>[Value]</i>	=0–100	audioeq7500= <i>[Value]</i>	No
set audioeq12k <i>[Value]</i>	=0–100	audioeq12k= <i>[Value]</i>	No
set balance <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =0–100</li> </ul>	balance= <i>[Value]</i>	No
set soundreset <i>[Value]</i>	=yes	soundreset= <i>[Value]</i>	No

## System information

Use the following commands to identify system information settings.

Command	Response	Possible values	Standby mode
get autopoweroff	autopoweroff= <i>[Value]</i>	15–240	No
get fwverscr	fwverscr= <i>[Value]</i>	<i>[Scalar version firmware number]</i>	Yes
get fwvertouch	fwvertouch= <i>[Value]</i>	<i>[Touch controller firmware version number]</i>	Yes
get serialtouch	serialtouch= <i>[Value]</i>	<i>[Touch controller serial number]</i>	
get opsinfo	opsinfo= <i>[Value]</i>	<ul style="list-style-type: none"> <li>• OPS</li> <li>• NO OPS</li> </ul>	
get language	language= <i>[Value]</i>	<ul style="list-style-type: none"> <li>• English</li> <li>• Arabic</li> <li>• Danish</li> <li>• German</li> <li>• Spanish</li> <li>• Finnish</li> <li>• French</li> <li>• Hebrew</li> <li>• Italian</li> <li>• Dutch</li> <li>• Norwegian</li> <li>• Portuguese</li> <li>• Russian</li> <li>• Swedish</li> <li>• Turkish</li> <li>• Chinese_sim</li> </ul>	No
get modelnum	modelnum= <i>[Value]</i>	<i>[Model number]</i>	No
get serialnum	serialnum= <i>[Value]</i>	<i>[Serial number]</i>	No
get proximityinstalled	proximityinstalled= <i>[Value]</i>	<ul style="list-style-type: none"> <li>• yes</li> <li>• no</li> </ul>	
get proximity	proximity= <i>[Value]</i>	<ul style="list-style-type: none"> <li>• on</li> <li>• off</li> </ul>	Yes
get proximityreenable	proximityreenable= <i>[Value]</i>	1–10	Yes
get proximitydetected	proximitydetected= <i>[Value]</i>	<ul style="list-style-type: none"> <li>• yes</li> <li>• no</li> </ul>	No
get monitorid	monitorid= <i>[Value]</i>	1–100	No

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Use the following commands to assign system information settings.

Command	Possible values	Response	Standby mode
set autpoweroff <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =15–240</li> </ul>	autpoweroff= <i>[Value]</i>	No
set factoryreset <i>[Value]</i>	=yes	factoryreset= <i>[Value]</i>	Yes
set language <i>[Value]</i>	<ul style="list-style-type: none"> <li>• =English</li> <li>• =Arabic</li> <li>• =Danish</li> <li>• =German</li> <li>• =Spanish</li> <li>• =Finnish</li> <li>• =French</li> <li>• =Hebrew</li> <li>• =Italian</li> <li>• =Dutch</li> <li>• =Norwegian</li> <li>• =Portuguese</li> <li>• =Russian</li> <li>• =Swedish</li> <li>• =Turkish</li> <li>• =Chinese_sim</li> </ul>	language= <i>[Value]</i>	No
set proximity <i>[Value]</i>	<ul style="list-style-type: none"> <li>• =on</li> <li>• =off</li> </ul>	proximity= <i>[Value]</i>	Yes
set proximityreenable <i>[Value]</i>	=1–10	proximityreenable= <i>[Value]</i>	Yes
set monitorid <i>[Value]</i>	<ul style="list-style-type: none"> <li>• + <i>[Incremental value]</i></li> <li>• - <i>[Incremental value]</i></li> <li>• =1–100</li> </ul>	monitorid= <i>[Value]</i>	No
set lyncroom <i>[Value]</i>	• =reset	lyncroom= <i>[Value]</i>	
set touchdetected <i>[Value]</i>	• =yes	touchdetected= <i>[Value]</i>	

## Appendix C

# 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 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.



## More information

See [smarttech.com/compliance](https://www.smarttech.com/compliance) for more information.



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