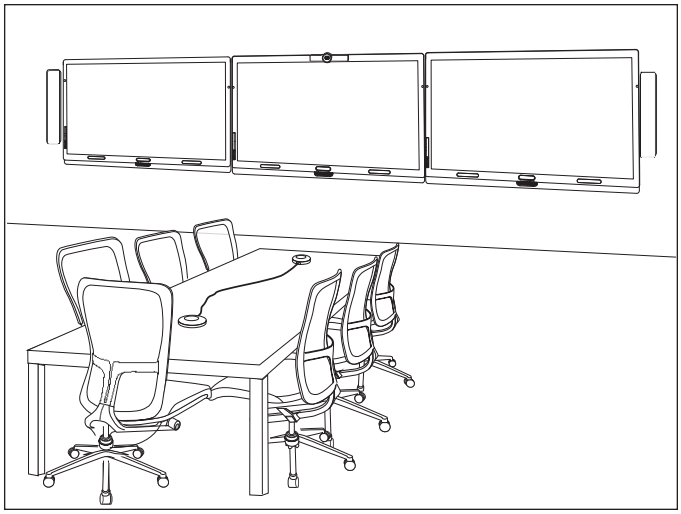


SMART Room System™
with SMART Meeting Pro® software

SETUP AND MAINTENANCE GUIDE

FOR MODELS SRS-MP-170, SRS-MP-270, SRS-MP-370, SRS-MP-184 AND SRS-MP-284

SMART®

Product registration

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

Register online at smarttech.com/registration.

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

Interactive flat panel serial numbers: _____

Camera serial number: _____

Table microphones serial number: _____

Speakers serial number: _____

Audio processor serial number: _____

Date of purchase: _____

06/2014

Important information

WARNING

- Failure to follow the installation instructions shipped with your SMART product could result in personal injury and product damage which may not be covered by your warranty.
- Ensure your installation complies with local building and electrical codes.
- Do not open or disassemble the SMART product. You risk electrical shock from the high voltage inside the casing. Opening the casing also voids your warranty.
- Do not stand (or allow children to stand) on a chair to touch the surface of your SMART product. Rather, mount the product at the appropriate height.
- To reduce the risk of fire or electric shock, do not expose the SMART product to rain or moisture.
- If your SMART product 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 extending across the floor to your SMART product 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 your 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 your warranty.
- Use only extension cords and outlets into which this product's polarized plug can be fully inserted.
- Use the power cable provided with this product. If a power cable is not supplied with this product, please 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. Because the interactive flat panel is heavy, rope, wire or handle failure could lead to personal injury.
- To prevent personal injury, do not attempt to mount or carry the interactive flat panel using your own strength. Instead, use a lifting device with the included attachable eyebolts. The eyebolts are not post-installation hardware.
- Use SMART supplied mounting hardware or hardware that is designed to properly support the weight of your product.
- Disconnect all power cables for your interactive flat panel from the wall outlet and seek assistance from qualified service personnel when any of the following occurs:
    - 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

Contents

Important information i

Chapter 1: Welcome 1

About your SMART Room System 2
About this guide 10
Other documentation and resources 10

Chapter 2: Installing your SMART Room System 13

Before installing your SMART Room System 13
Connecting power 16
Connecting the room computer 16
Connecting cables for laptops 19

Chapter 3: Setting up your SMART Room System 21

Turning on your SMART Room System for the first time 21
Installing software 22
Running the connection wizard 23

Chapter 4: Using your SMART Room System 25

Turning on and turning off your SMART Room System 25
Using presence detection 27
Using your SMART Room System with the room computer 28
Connecting a guest laptop 28
Changing input sources 29
Using the remote control 29

Chapter 5: Maintaining your SMART Room System 37

Opening SMART Settings 38
Updating software 38
Updating firmware 38
Maintaining the interactive flat panels 40
Maintaining the camera 45
Maintaining the microphones 45
Maintaining the speakers 46
Checking the SMART Room System installation 46
Removing your SMART Room System 46
Transporting your SMART Room System 47

Chapter 6: Troubleshooting your SMART Room System 49

Locating serial numbers 50

Locating power and status lights 51
Resolving issues with the interactive flat panels 52
Resolving issues with the camera 59
Resolving issues with the microphones 60
Resolving issues with the speakers 61
Resolving issues using the SMART Connection Wizard 61
Resolving issues using SMART Board Diagnostics 62

Appendix A: Using the on-screen display menu 65

Changing settings in the on-screen display menu 65
SMART Board 8070i-G4 interactive flat panel on-screen display menu 66
SMART Board 8084i-G4 interactive flat panel on-screen display menu 72

Appendix B: Remotely managing your SMART Room System 79

Connecting and configuring a room control system 80
Power modes 81
Room control system programming commands and responses 82
SMART Board 8070i-G4 interactive flat panel commands 84
SMART Board 8084i-G4 interactive flat panel commands 91

Appendix C: Hardware environmental compliance 101

Waste Electrical and Electronic Equipment and Battery regulations (WEEE and Battery Directives) 101
Batteries 101
More information 101

Index 103

Chapter 1

Welcome

About your SMART Room System 2
- Features 2
  - Touch-enabled interactivity 2
  - Gesture support 2
  - Dual user support 2
  - Presence detection 2
  - Integrated video and audio 2
- About SMART Board interactive flat panels 3
  - Screen 4
  - DViT cameras and reflective tape channel 4
  - Presence detection sensors 4
  - Pens and eraser 5
  - Color select module 5
  - Front control panel 6
  - Remote control 7
- About other hardware 7
  - Camera 7
  - Table microphones, speakers and audio processor 8
  - Optional wall stand kit 8
- About software 8
- Differences between systems 9

About this guide 10

Other documentation and resources 10
- Specifications 10
- Release notes 11
- Installation instructions 11
- Help 12
- Training 12
- Knowledge base 12

This chapter introduces you to your SMART Room System™ with SMART Meeting Pro® software and this guide.

About your SMART Room System

Your SMART Room System features one, two or three SMART Board® interactive flat panels, a camera, microphones, speakers and supporting hardware as well as SMART Meeting Pro software and SMART Meeting Pro PE software. This system is designed for use in highly collaborative team environments.

Features

Your SMART Room System includes several features:

- Touch-enabled interactivity
- Gesture support
- Dual user support
- Presence detection
- Integrated video and audio

Touch-enabled interactivity

You can do everything on your SMART Room System's interactive flat panels 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 surfaces.

You can also write over any application in digital ink using one of the supplied pens or your finger, and then erase the digital ink using the supplied eraser or your palm.

Gesture support

You can use an array of gestures within applications, including panning, scaling, rotating and zooming in and out.

Dual user support

Two users can each pick up a pen and draw on the screen of the same interactive flat panel, enabling greater collaboration.

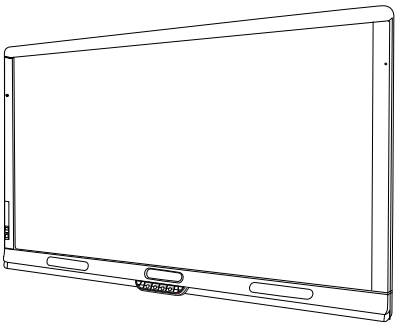
Presence detection

Each interactive flat panel has two presence detection sensors. For more information on these sensors, see *Presence detection sensors* on page 4.

Integrated video and audio

Your SMART Room System includes a camera, table microphones and speakers, which you can use with Bridgit® conferencing software or with other conferencing applications to collaborate with others remotely.

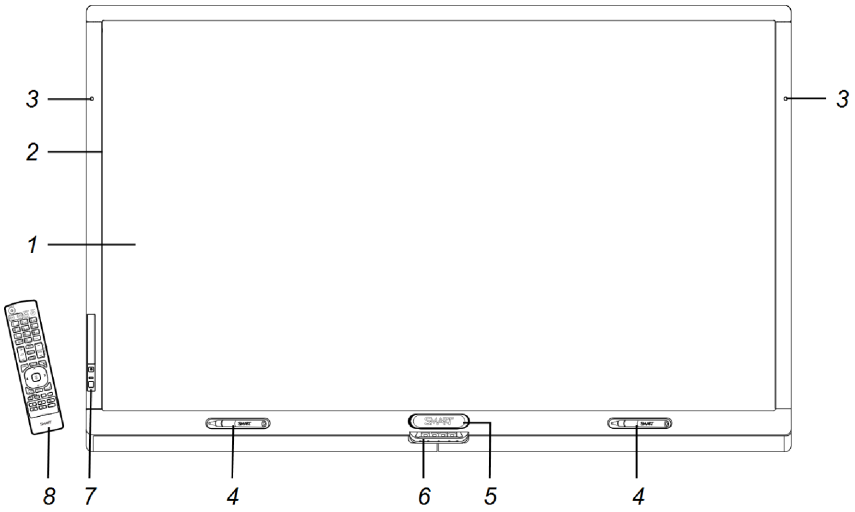
About SMART Board interactive flat panels



SMART Board interactive flat panels feature SMART's proprietary DViT® (Digital Vision Touch) technology on a 16:9 LCD screen with e-LED backlight. DViT technology enables users to select, write and erase on the interactive surface. Users can do everything on the interactive flat panel that they can do at their computers by touching the surface, and they can use an array of gestures within applications.

For information on which interactive flat panel model is included with your SMART Room System and the differences between these systems, see *Differences between systems* on page 9.

Each interactive flat panel consists of the following components:



No.	Name
1	Screen
2	DViT cameras and reflective tape channel
3	Presence detection sensor (×2)
4	Pen (×2)
5	Eraser
6	Color select module
7	Front control panel
8	Remote control

NOTE

Components not pictured include the connector panels and the menu control panel.

Screen

The active screen area specifications vary by model:

Model	Diagonal	Width	Height	Aspect ratio
SBID 8070i-G4	70" (178 cm)	61" (154.9 cm)	34 3/8" (87.2 cm)	16:9
SBID 8084i-G4	84" (213.4 cm)	73 1/4" (186.1 cm)	41 1/4" (104.7 cm)	16:9

For information on cleaning the screen, see *Cleaning the screens* on page 43.

DViT cameras and reflective tape channel

In the corners of each interactive flat panel's screen, there are DViT cameras that track finger and pen positions across the screen. The screen is bordered by a channel that contains reflective tape.

For information on cleaning the DViT camera windows and reflective tape, see *Cleaning the DViT camera windows and reflective tape* on page 43.

CAUTION

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

IMPORTANT

- Do not attach items, such as adhesive notes, to the screens because they interfere with the DViT cameras.
- Do not place anything in the channels because it interferes with the DViT cameras.

Presence detection sensors

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

When the sensors detect motion in the room, the interactive flat panel turns on and displays a welcome screen. Touching the screen activates the interactive flat panel. When the sensors no longer detect people in the room, the interactive flat panel returns to Standby mode.

For information on cleaning the presence detection sensors, see *Cleaning the presence detection sensors* on page 43.

NOTES

- Presence detection settings can be changed with the on-screen display menu.
- If ECO Standby mode is enabled for SMART Board 8070i-G4 interactive flat panels, presence detection functionality is limited.
- For more information on the on-screen display menu settings relevant for presence detection, see page 70 for SMART Board 8070i-G4 interactive flat panels or page 76 for SMART Board 8084i-G4 interactive flat panels.

Pens and eraser

Each interactive flat panel comes with two pens and an eraser.

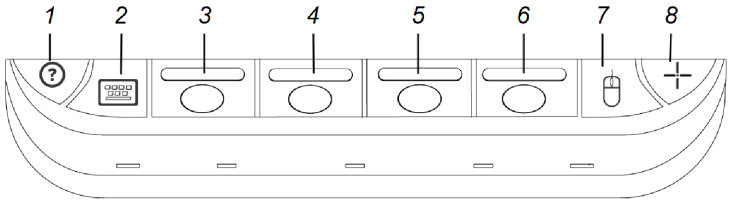
The bottom bezel of the interactive flat panel includes magnetic holders for the pens and the eraser. Removing a pen or the eraser from the holders activates it and enables you to either draw or erase digital ink.

CAUTION

When returning the pen or eraser to the magnetic holder, ensure that it is centered on the holder to prevent it from falling and potentially being damaged.

Color select module

Each interactive flat panel's color select module enables you to access Help, to open the on-screen keyboard, to select pen colors, to right-click and to orient the interactive flat panel.

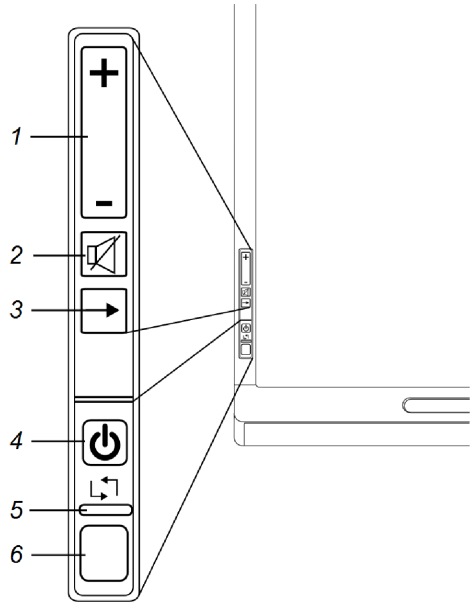


No.	Name
1	Help
2	Keyboard
3	Black pen color
4	Red pen color
5	Green pen color
6	Blue pen color

No.	Name
7	Right-click
8	Orientation

Front control panel

Each interactive flat panel's front control panel contains the Input Select and Power/Standby buttons, as well as the status light and the remote control sensor.



No.	Name
1	Volume control (not used in SMART Room Systems)
2	Mute button (not used in SMART Room Systems)
3	Input Select button
4	Power/Standby button, power light
5	DViT technology status light
6	Remote control sensor

IMPORTANT

- If there is a film over the front control panel, remove the film before using the front control panel.
- Do not cover or block the front control panel or you could have reduced use of the remote control.

In normal use:

- The Volume control, Mute button and Input Select button are blue.
- The power light is green.
- The status light is green.

For information on diagnosing issues using the front control panel lights, see *Resolving blank screen issues* on page 52.

For information on disabling the front control panel, see page 70 for SMART Board 8070i-G4 interactive flat panels or page 77 for SMART Board 8084i-G4 interactive flat panels.

Remote control

The remote control enables you to turn on and turn off the interactive flat panel, change the input source, access the on-screen menu and more.

For more information on the remote control, see *Using the remote control* on page 29.

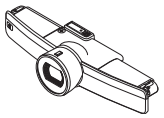
About other hardware

In addition to the interactive flat panels, your SMART Room System includes the following hardware:

Part no.	Description
CAM301	Camera
MIC500	Table microphones
CSR500	Speakers
MIX500	Audio processor
WSK-SINGLE OR WSK-DUAL	Optional wall stand kit

Camera

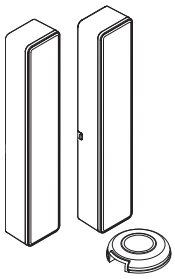
The high definition camera automatically captures room video during Bridgit or other conferencing application meetings. Users can temporarily stop the video or shutter the camera for privacy purposes.



In most meeting rooms, digital pan, tilt and zoom (DPTZ) and the camera's 105° field of view ensure all meeting participants are captured regardless of where they are in the meeting room.

The camera is installed on top of the interactive flat panels and positioned in the center of the interactive flat panel in SMART Room Systems with one interactive flat panel, between the interactive flat panels in SMART Room Systems with two interactive flat panels and in the center of the middle interactive flat panel in SMART Room Systems with three interactive flat panels.

Table microphones, speakers and audio processor

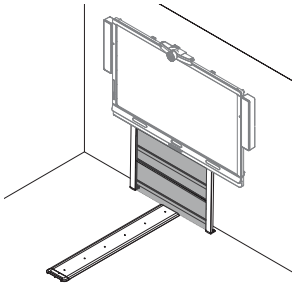


The table microphones and speakers facilitate audio communication during Bridgit or other conferencing application meetings. The audio processor eliminates echos and in-room audio feedback.

Users can temporarily mute the table microphones for privacy purposes.

The table microphones are typically located on the meeting room table, and the speakers are located on either side of the interactive flat panels.

Optional wall stand kit



The optional wall stand kit includes a wall stand for each interactive flat panel in your SMART Room System and the cable raceway. The wall stands transfer some of the weight from the wall to the floor and are required for metal stud walls that can't support the full weight of the interactive flat panels. The cable raceway covers cables running across the floor from the interactive flat panels to the meeting room table.

About software

Your SMART Room System comes with licenses for two software packages:

- SMART Meeting Pro software
- SMART Meeting Pro PE software

Using these software packages, you can write or draw in digital ink on an interactive flat panel, present content on your desktop and connect to individuals and other meeting rooms using integrated conferencing software. You typically install SMART Meeting Pro software on the computers that are connected to the SMART Room Systems and SMART Meeting Pro PE software on users' laptops.

Both software packages include the following other software:

Software	Description
SMART Product Drivers	SMART Product Drivers enables connected computers to detect input from the interactive flat panel.
SMART Ink®	SMART Ink enables you to write and draw in digital ink over open 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. When you open an application that has its own ink tools, you can turn off SMART Ink, and then use the application's ink tools to write in the content.

Differences between systems

The following table presents the key differences between the five SMART Room Systems:

System	Differences	Guide icon
SRS-MP-170	Number of interactive flat panels: 1 Interactive flat panel model: SBID 8070i-G4 Screen size (diagonal): 70" (178 cm)	
SRS-MP-184	Number of interactive flat panels: 1 Interactive flat panel model: SBID 8084i-G4 Screen size (diagonal): 84" (213.4 cm)	
SRS-MP-270	Number of interactive flat panels: 2 Interactive flat panel model: SBID 8070i-G4 Screen size (diagonal): 2 × 70" (178 cm)	
SRS-MP-284	Number of interactive flat panels: 2 Interactive flat panel model: SBID 8084i-G4 Screen size (diagonal): 2 × 84" (213.4 cm)	
SRS-MP-370	Number of interactive flat panels: 3 Interactive flat panel model: SBID 8070i-G4 Screen size (diagonal): 3 × 70" (178 cm)	

NOTES

- Other, minor differences between models are noted throughout this guide.
- Sections in this guide that are relevant to specific models are flagged with the icons defined in the previous table.

About this guide

This guide explains how to set up and maintain your SMART Room System. It includes the following information:

- How to install your SMART Room System
- How to set up your SMART Room System
- What users can do with your SMART Room System
- How to maintain your SMART Room System for years of use
- How to troubleshoot issues with your SMART Room System

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

This guide is intended for individuals who are responsible for installing and maintaining SMART Room Systems in their organizations. Other documentation and resources are available for individuals who use SMART Room Systems.

Other documentation and resources

In addition to this guide, there are resources for individuals who install, maintain and use SMART Room Systems.

Specifications

Your SMART Room System's specifications define the product's dimensions, weight, recommended operating and storage temperatures, power requirements, power consumption and other important information for installation and maintenance.

System	Specifications
SRS-MP-170	smarttech.com/kb/170774
SRS-MP-184	smarttech.com/kb/170775
SRS-MP-270	smarttech.com/kb/170765
SRS-MP-284	smarttech.com/kb/170766
SRS-MP-370	smarttech.com/kb/170767

Release notes

The release notes for SMART Meeting Pro software and SMART Meeting Pro PE software contain the computer requirements for the software.

Software	System administrator's guide
SMART Meeting Pro	smarttech.com/kb/170521
SMART Meeting Pro PE	smarttech.com/kb/170520

Installation instructions

Your SMART Room System comes with installation instructions. These installation instructions explain how to unpack, assemble and mount the interactive flat panels and how to connect them to the other components as well as to a computer. If you misplaced these installation instructions, you can download a PDF version.

Systems	Installation instructions
SRS-MP-170 SRS-MP-270 SRS-MP-370	smarttech.com/kb/170671
SRS-MP-184 SRS-MP-284	smarttech.com/kb/170762

To use your SMART Room System with a connected computer, you need to install SMART Meeting Pro software or SMART Meeting Pro PE software on the computer (see *Installing software* on page 22). If you need to deploy the software to multiple computers on your network, refer to the system administrator's guides.

Software	System administrator's guide
SMART Meeting Pro	smarttech.com/kb/170518
SMART Meeting Pro PE	smarttech.com/kb/170525

If your organization has purchased Bridgit server software, you need to install it before you can use Bridgit software that comes with SMART Meeting Pro software and SMART Meeting Pro PE software. For more information on installing Bridgit server software, see the *Bridgit software installation and system administrator's guide* (smarttech.com/kb/170397).

Help

SMART Meeting Pro software and SMART Meeting Pro PE software include extensive Help which explains how to use both your SMART Room System and the software.

To view Help

1. In SMART Meeting Pro software or SMART Meeting Pro PE software, select **Help > Contents**.

   The Help appears.

   TIP

   If you want to view the Help on your smart phone, tablet or other Internet-connected mobile device, scan the QR code that appears on the home page of the Help with your device's camera.

2. Use the Help's table of contents or search to browse its contents.

Training

The SMART training website (smarttech.com/trainingforbusiness) includes an extensive library of training resources you can refer to when first learning to set up or use your SMART Room System.

Knowledge base

The Support center (smarttech.com/support) includes a knowledge base that you can refer to when performing maintenance on your SMART Room System or troubleshooting issues.

Chapter 2

Installing your SMART Room System

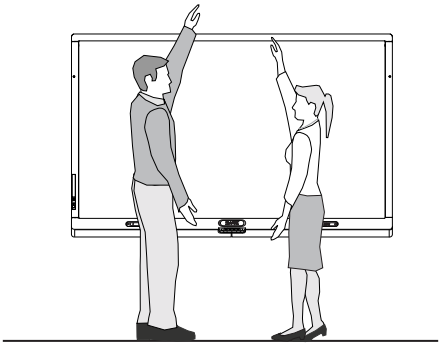
Before installing your SMART Room System 13
Connecting power 16
Connecting the room computer 16
Connecting the interactive flat panels 17
Connecting the camera 17
Connecting the audio processor 18
Connecting cables for laptops 19

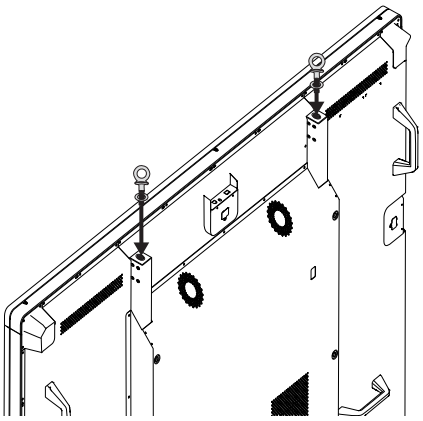
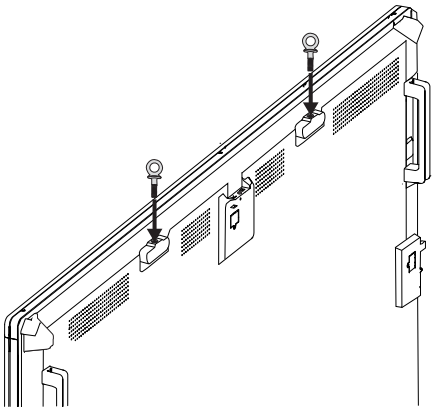
This chapter is intended for installers. Before they install your SMART Room System, installers should read this chapter along with the hardware installation instructions included with your SMART Room System (see *Installation instructions* on page 11).

Before installing your SMART Room System

Do the following before installing your SMART Room System:

✓	Task
	Review the environmental requirements in the SMART Room System's specifications (see *Specifications* on page 10).
	Save all product packaging so that it's available if you need to transport the SMART Room System. If the original packaging isn't available, you can purchase new product packaging from your authorized SMART reseller (smarttech.com/where).

<table>
<tr><th>✓</th><th>Task</th></tr>
<tr><td></td><td>Ensure the wall can support the weight of the interactive flat panels, camera, speakers, audio processor and mounting equipment.
<table>
<tr><th>Model</th><th>Weight (lb.)</th><th>Weight (kg)</th></tr>
<tr><td>SRS-MP-170</td><td>248</td><td>112.5</td></tr>
<tr><td>SRS-MP-184</td><td>317</td><td>144</td></tr>
<tr><td>SRS-MP-270</td><td>477</td><td>216.4</td></tr>
<tr><td>SRS-MP-284</td><td>616</td><td>279.2</td></tr>
<tr><td>SRS-MP-370</td><td>706</td><td>320.3</td></tr>
</table></td></tr>
<tr><td></td><td>Choose an appropriate location for your SMART Room System:
Do not install your SMART Room System in a location where a door or gate could hit it.
Do not install your SMART Room System in an area where it will be subjected to strong vibrations or dust.
Do not install your SMART Room System near where the mains power supply enters the building.
Ensure adequate ventilation or provide air conditioning around your SMART Room System so that heat can flow away from the unit and the mounting equipment.
If you mount your SMART Room System in a recessed area, leave at least 4" (10 cm) of space between the interactive flat panels and the recessed walls to enable ventilation and cooling.</td></tr>
<tr><td></td><td>Consider the general height of the user community when you choose the height for the interactive flat panels.
  </td></tr>
</table>

✓	Task
	Attach the included eyebolts and washers to assist in mounting, and remove them after you mount the interactive flat panels.  *SBID 8070i-G4*  *SBID 8084i-G4* **WARNING** Do not attempt to mount or carry the interactive flat panels using your own strength because they could fall and cause personal injury. Attach a lifting device to the included eyebolts to lift and carry the interactive flat panels. **CAUTION** Hand-tighten the eyebolts. If you over-tighten the eyebolts and damage the threads, you will be unable to remove the eyebolts.
	Use the supplied wall mounts to mount the interactive flat panels on the wall.
	Because the receptacles might not be easily accessible after you mount the interactive flat panels, consider connecting cables for power, computers and other devices while the interactive flat panels are still in their packaging or are suspended from a lifting device.
	Before turning on the interactive flat panels for the first time, clean the DViT camera windows and reflective tape following the instructions in *Cleaning the DViT camera windows and reflective tape* on page 43.

Connecting power

Power the different components of your SMART Room System as described in the installation instructions (see *Installation instructions* on page 11).

Component	Procedure
Interactive flat panels	For each interactive flat panel, connect the supplied power cable from the AC power inlet on the interactive flat panel to a power outlet.
Camera	Connect the camera to one of the interactive flat panels.
Speakers	Connect the speakers to the provided power supply and the provided power supply to a power outlet.
Audio processor	Connect the audio processor to one of the interactive flat panels.

NOTE

Refer to your SMART Room System's specifications for power requirements and power consumption information (see *Specifications* on page 10).

Connecting the room computer

In a typical installation, you connect the room computer to the following components of your SMART Room System:

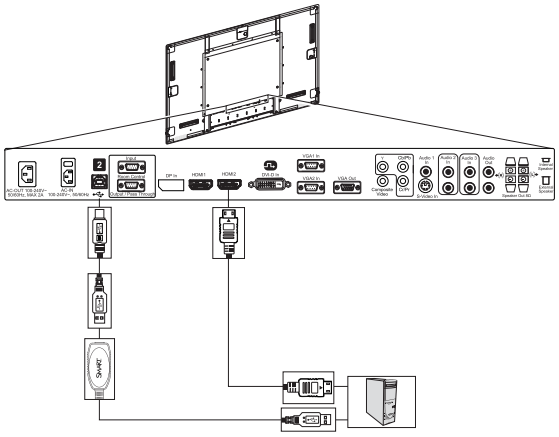
- Interactive flat panels
- Camera
- Microphones and speakers (through the audio processor)

NOTES

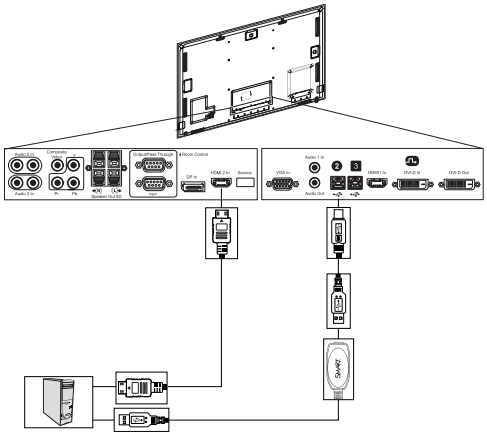
The connections in this section are based on the default USB mappings. However, you can customize these mappings (see page 71 for SMART Board 8070i-G4 interactive flat panels or page 77 for SMART Board 8084i-G4 interactive flat panels).

Connecting the interactive flat panels

Using the supplied USB cable, USB extender and HDMI cable, connect the room computer to the USB2 receptacle and the HDMI2 connector on each interactive flat panel in your SMART Room System.



SBID 8070i-G4



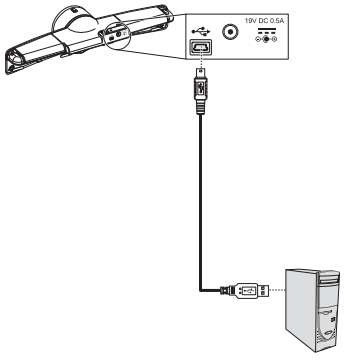
SBID 8084i-G4

IMPORTANT

For SMART Room Systems with more than one interactive flat panel, the room computer must be able to support multiple displays and have one video input (preferably HDMI) for each interactive flat panel. If you want to connect the room computer to an interactive flat panel using a video input other than HDMI, you must provide the appropriate cable.

Connecting the camera

The camera is installed on the top of the interactive flat panels and is connected to the room computer through a USB cable.



IMPORTANT

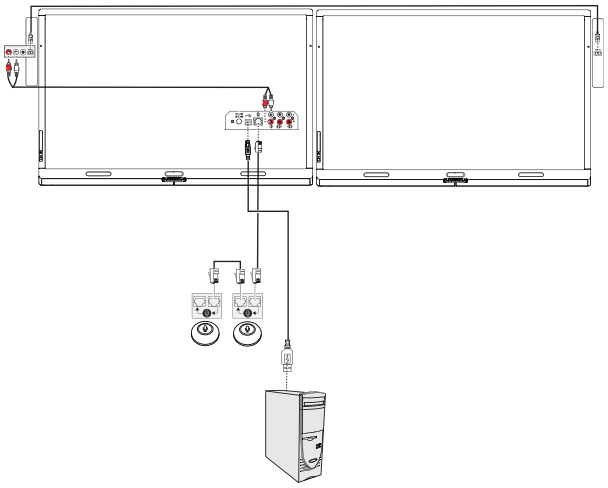
Connect the camera to the room computer using the provided USB cable. SMART recommends that you do not use a USB hub or extender to extend the length of the USB connection.

NOTE

The microphone status light on the camera is lit green when the camera is receiving power, but it doesn't indicate the status of the microphones.

Connecting the audio processor

The table microphones are typically located on the meeting room table, and the speakers are located on either side of the interactive flat panels. The table microphones and speakers are connected to the audio processor, which is connected to the room computer though a USB cable.



IMPORTANT

Connect the audio processor to the room computer using the provided USB cable. SMART recommends that you do not use a USB hub or extender to extend the length of the USB connection.

After you connect the audio processor to the room computer, set the table microphones as the default audio input device and the speakers as the default audio output device.

NOTE

This procedure may vary depending on your version of Windows operating system and your system preferences.

To set the table microphones and speakers as the default audio devices

1. Open Control Panel.
2. Press Hardware and Sound, and then press Sound.

   The *Sound* dialog box appears.
3. Press **Playback**.
4. Right-click **Echo Canceling Speakerphone**, and then select **Set as Default Device**.

5. Right-click **Echo Canceling Speakerphone**, and then select **Set as Default Communication Device**.
6. Press **Recording**.
7. Right-click **Echo Canceling Speakerphone**, and then select **Set as Default Device**.
8. Right-click **Echo Canceling Speakerphone**, and then select **Set as Default Communication Device**.
9. Press **OK**.
10. Close Control Panel.

Connecting cables for laptops

You can install cables that enable users to connect laptops to one of the interactive flat panels from another location in the room, such as on the meeting room table.

By installing these cables, you make use of connectors that might not be accessible when the interactive flat panels are mounted. You can then run the cables across floors or behind walls to the meeting room table.

WARNING

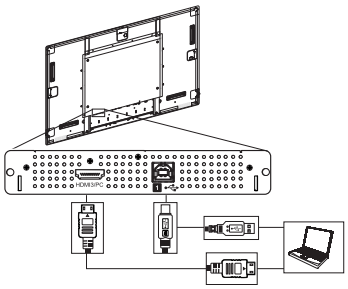
Ensure that any cables extending across the floor to your SMART product are properly bundled and marked to avoid a trip hazard.

NOTE

The SMART Room System's audio features aren't available to laptops because there is no cable connecting laptops to the audio processor.

70
70 70
70 70 70

To connect cables for laptops to a SMART Board 8070i-G4 interactive flat panel

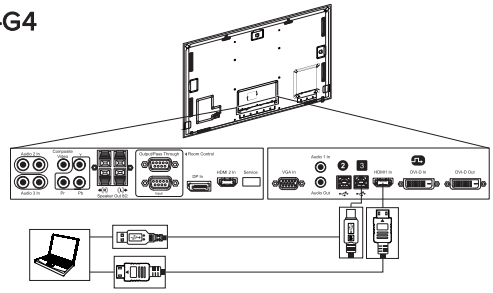


1. Purchase an I/O extension module (Part No. SBID-G4-XTM) and install it in one of the interactive flat panels.
2. Connect a USB cable to the USB1 receptacle on the I/O extension module.
3. Connect an HDMI cable to the HDMI3/PC connector on the I/O extension module.

4. Ensure the USB1 receptacle is mapped to the HDMI3/PC input in the on-screen display menu (see *USB SETTING* on page 71).

84
84 84

To connect cables for laptops to a SMART Board 8084i-G4 interactive flat panel



1. Connect a USB cable to the USB3 receptacle on the bottom connector panel.
2. Connect an HDMI cable to the HDMI1 connector on the bottom connector panel.
3. Ensure the USB3 receptacle is mapped to the HDMI1 input in the on-screen display menu (see *USB Setting* on page 77).

Chapter 3

Setting up your SMART Room System

Turning on your SMART Room System for the first time 21
Installing software 22
Downloading and installing software 22
Deploying software to multiple computers 23
Running the connection wizard 23

This chapter explains how to set up your SMART Room System after installing it.

Turning on your SMART Room System for the first time

After installing your SMART Room System (see *Installing your SMART Room System* on page 13), you can turn it on.

To turn on your SMART Room System for the first time

1. Turn on your room computer.
2. Turn on the first interactive flat panel by flicking the power switch beside the AC power inlet.
3. Press the **Power/Standby** button on the first interactive flat panel's front control panel.
4. Press the **Input Select** button on the first interactive flat panel's front control panel until the input source is HDMI2.

   TIP

   Alternatively, you can press the **POWER** and **INPUT** buttons on the remote control (see *Remote control buttons* on page 31).
5. For SMART Board 8084i-G4 interactive flat panels, map the USB2 receptacle to the HDMI2 video input (see *USB Setting* on page 77).
6. Repeat steps 2 to 5 for the other interactive flat panels.

Installing software

To take full advantage of your SMART Room System's features, you must download and install SMART Meeting Pro software on your room computer and SMART Meeting Pro PE software on any other computers, including laptops.

NOTE

If your organization has purchased Bridgit server software, you also need to download and install it for users to use Bridgit software that comes with SMART Meeting Pro software and SMART Meeting Pro PE software. For more information, see *Installation instructions* on page 11.

Downloading and installing software

To download and install SMART Meeting Pro software on the room computer

1. Go to 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 Meeting Pro software.
8. Configure SMART Meeting Pro software following the instructions in the Help (see *Help* on page 12).

To download and install SMART Meeting Pro PE software on other computers

1. Go to smarttech.com/downloads.
2. Scroll to the *SMART Meeting Pro PE 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 Meeting Pro PE software.

8. Configure SMART Meeting Pro PE software following the instructions in the Help (see *Help* on page 12).

Deploying software to multiple computers

You might need to deploy software to multiple computers in the following situations:

- Your organization has multiple SMART Room Systems, each with its own room computer.
- You want to deploy SMART Meeting Pro PE software to users' laptops so that they can use their laptops with your SMART Room System.

To deploy software to multiple computers and configure it, refer to the system administrator's guides (see *Installation instructions* on page 11).

Running the connection wizard

After turning on your SMART Room System for the first time and installing software, run the connection wizard to calibrate and orient the interactive flat panels.

To run the connection wizard

1. Press the **Help** button on one of the interactive flat panel's color select modules.

   The *Help and Support for Your SMART Board Interactive Whiteboard* window appears.

2. Press **Connection Wizard**.

   The *SMART Connection Wizard* appears.

3. Select the first interactive flat panel from the list, and then press **Next**.

   TIP

   If you don't know which interactive flat panel listed in the *SMART Connection Wizard* is the one you want to set up, press the interactive flat panel's surface with your finger. The green dot to the right of the interactive flat panel's name in the *SMART Connection Wizard* changes color to blue.

4. Select **Product is being set up for the first time**, and then press **Next**.

5. Follow the on-screen instructions to calibrate and orient the interactive flat panel for the first time.

   NOTES

   - You can press the orientation button on the color select module to move the calibration screen to the next interactive flat panel.
   - If you select the incorrect display during calibration or orientation, touch might not respond.

6. Repeat steps 3 to 5 for the other interactive flat panels.

Chapter 4

Using your SMART Room System

Turning on and turning off your SMART Room System 25
Using presence detection 27
Using your SMART Room System with the room computer 28
Connecting a guest laptop 28
Changing input sources 29
Using the remote control 29
- Remote control sensor 30
- Remote control buttons 31
  - SMART Board 8070i-G4 interactive flat panel remote control 31
  - SMART Board 8084i-G4 interactive flat panel remote control 33
- Menu control panel 35

This chapter explains how to use the key features of your SMART Room System.

Turning on and turning off your SMART Room System

You turn on and turn off your SMART Room System by turning on or turning off the room computer and interactive flat panels. You can turn on and turn off each interactive flat panel using its front control panel or remote control.

NOTE

If presence detection is enabled, the interactive flat panels turn on and enter Standby mode automatically (see *Using presence detection* on page 27).

To turn on your SMART Room System

1. Turn on the room computer.
2. Press the **Power/Standby** button on the first interactive flat panel's remote control.

   OR

   For SMART Room Systems with SMART Board 8070i-G4 interactive flat panels, press the **POWER ON** button on the first interactive flat panel's remote control.

   OR

   For SMART Room Systems with SMART Board 8084i-G4 interactive flat panels, press the **MONITOR ON** button on the first interactive flat panel's remote control.

   Your computer's logon screen or desktop appears on the first interactive flat panel.

   IMPORTANT

   If the power light on the front control panel is off, either the interactive flat panel is not plugged in or the main power switch is turned off.

   NOTE

   If you use the remote control to turn on an interactive flat panel, the other interactive flat panels in your SMART Room System might turn on as well.
3. Repeat step 2 for any other interactive flat panels in your SMART Room System.

To turn off your SMART Room System

1. Turn off your computer.
2. Press the **Power/Standby** button on the first interactive flat panel's front control panel.

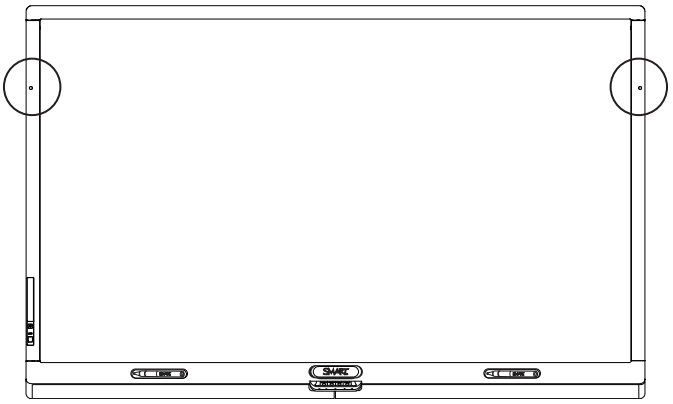
   OR

   For SMART Room Systems with SMART Board 8070i-G4 interactive flat panels, press the **STANDBY** button on the first interactive flat panel's remote control.

   OR

   For SMART Room Systems with SMART Board 8084i-G4 interactive flat panels, press the **POWER** button or the **MONITOR OFF** button on the first interactive flat panel's remote control.
3. Repeat step 2 for any other interactive flat panels in your SMART Room System.

Using presence detection



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

When the sensors detect motion in the room, the interactive flat panel turns on and displays a welcome screen. Touching the screen activates the interactive flat panel. When the sensors no longer detect people in the room, the interactive flat panel returns to Standby mode.

NOTE

If ECO Standby mode is enabled for SMART Board 8070i-G4 interactive flat panels, presence detection functionality is limited.

Presence detection settings can be changed with the on-screen display menu.

For more information on the on-screen display menu settings relevant for presence detection, see page 70 for SMART Board 8070i-G4 interactive flat panels or page 76 for SMART Board 8084i-G4 interactive flat panels.

For information on cleaning your sensors, see *Cleaning the presence detection sensors* on page 43.

Using your SMART Room System with the room computer

Users will most often use the interactive flat panels with the room computer you set up in the previous chapter (see *Setting up your SMART Room System* on page 21).

SMART Meeting Pro software installed on the room computer enables users to do the following:

- Interact with objects on the screen by touching them
- Write, draw and erase digital ink
- Use multitouch gestures to browse pages, zoom in and out, and resize, rotate, group, ungroup and flick objects
- Create and participate in collaborative meetings

For more information on the software and how you can use it with your SMART Room System, refer to the Help (see *Help* on page 12).

Connecting a guest laptop

Users can connect a guest laptop to one of the interactive flat panels in your SMART Room System using the cables you installed (see *Connecting cables for laptops* on page 19).

When a user connects a guest laptop to an interactive flat panel, the laptop's desktop is displayed on the interactive flat panel and touch interactivity is enabled if SMART Meeting Pro PE software is installed (see *Installing software* on page 22).

NOTE

The SMART Room System's audio features aren't available to laptops because there is no cable connecting laptops to the audio processor.

70

To connect a guest laptop to a SMART Board 8070i-G4 interactive flat panel

70 70

70 70 70

1. Connect the USB cable from the I/O extension module's USB1 receptacle to the guest laptop.
2. Connect the HDMI cable from the I/O extension module's HDMI3/PC connector to the guest laptop.
3. Turn on the laptop.

4. Press the **Input Select** button on the front control panel until the input source is HDMI3/PC.

> **TIP**
> Alternatively, you can press the **INPUT** button on the remote control (see *Remote control buttons* on page 31).

84

To connect a guest laptop to a SMART Board 8084i-G4 interactive flat panel

84 84

1. Connect the USB cable from the interactive flat panel's USB3 receptacle to the guest laptop.
2. Connect the HDMI cable from the interactive flat panel's HDMI1 connector to the guest laptop.
3. Turn on the laptop.
4. Press the **Input Select** button on the front control panel until the input source is HDMI1.

> **TIP**
> Alternatively, you can press the **INPUT** button on the remote control (see *Remote control buttons* on page 31).

Changing input sources

You can connect the interactive flat panel to a room computer or a guest laptop (see *Connecting the room computer* on page 16).

You can display a device's input source by pressing the **Input Select** button on the front control panel until the device's input appears on the interactive flat panel. Alternatively, you can press the **INPUT** button on the remote control.

> **TIP**
> The remote control for SMART Board 8070i-G4 interactive flat panels has buttons for each input source (**HDMI1**, **HDMI2**, and so on). Press one of these input source buttons to display the connected device's input.

Using the remote control

Each interactive flat panel's infrared remote control enables you to turn on and turn off the interactive flat panel, change the input source and more. You can also use the remote control to open the on-screen display menu and then change the interactive flat panel's settings.

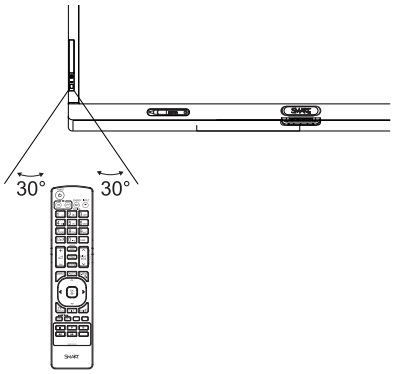
If the remote control doesn't respond, see *Resolving remote control issues* on page 58.

CAUTION

- Do not subject the remote control to strong shock.
- Keep the remote control away from liquids. If it gets wet, wipe it dry immediately.
- Do not expose the remote control to heat or steam.
- Do not open any part of the remote control other than the battery compartment and picture-in-picture compartment.

Remote control sensor

The remote control sensor is located on the front control panel. It enables you to control the interactive flat panel from an angle of 30º and within a distance of 23' (7 m) using the included remote control.



IMPORTANT

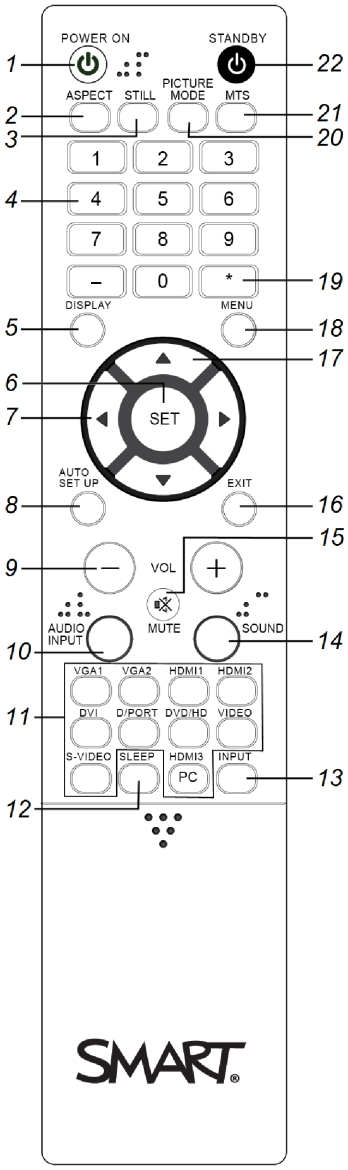
The remote control might not function when the infrared remote control sensor is blocked or when it is in direct sunlight or strong lighting.

Remote control buttons

The remote control enables you to access on-screen menus and to change display and input settings.

70
70 70
70 70 70

SMART Board 8070i-G4 interactive flat panel remote control



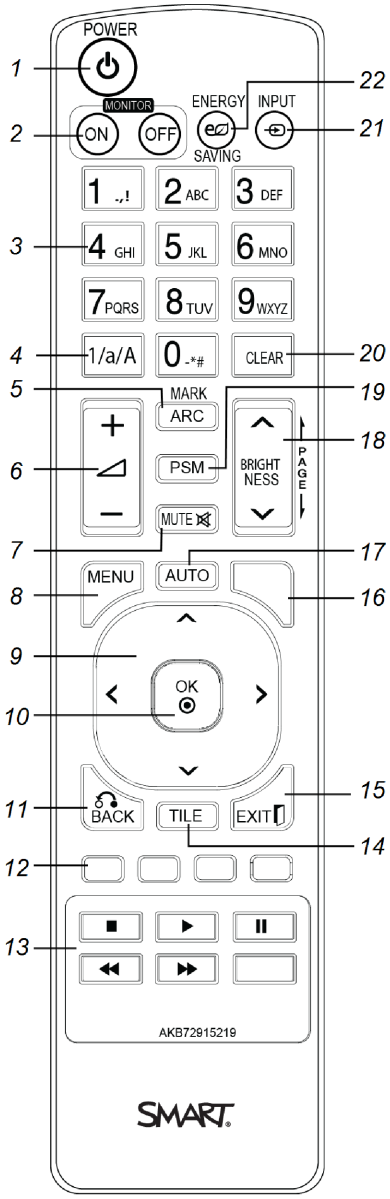
No.	Name	Description
1	POWER ON	Turn on the interactive flat panel
2	ASPECT	Select the aspect ratio
3	STILL	Turn on or off the still picture mode

No.	Name	Description
4	[Number buttons]	Press buttons on the number pad to set and change passwords, change channels or customize or change settings
5	DISPLAY	Display the information menu
6	SET	Open a selected menu option in the on-screen display menu
7	[Left and right buttons]	Change the value of the selected menu option in the on-screen display menu
8	AUTO SET UP	Automatically set the H position, V position and clock phase (for VGA video inputs only)
9	VOL +/-	Increase or decrease the audio output level[1]
10	AUDIO INPUT	Select the audio input source[1]
11	[Input buttons]	Select a specific video input
12	SLEEP	Set a timer to turn off the interactive flat panel
13	INPUT	Switch video inputs
14	SOUND	Select artificial surround sound[1]
15	MUTE	Mute audio inputs for the interactive flat panel[1]
16	EXIT	Close the on-screen display menu
17	[Up and down buttons]	Select a menu option in the on-screen display menu
18	MENU	Display the on-screen display menu
19	*	[Not in use]
20	PICTURE MODE	Select the picture mode
21	MTS	[Not in use]
22	STANDBY	Turn off the interactive flat panel (in Standby mode)

[1]Not used in SMART Room Systems

84
84 84

SMART Board 8084i-G4 interactive flat panel remote control



No.	Name	Description
1	POWER	Turn on or off the interactive flat panel
2	MONITOR	Alternate between different interactive flat panel modes (on, off and Standby) depending on how you configure Standby mode
3	[Number buttons]	Press buttons on the number pad to set and change passwords, or to customize or change settings

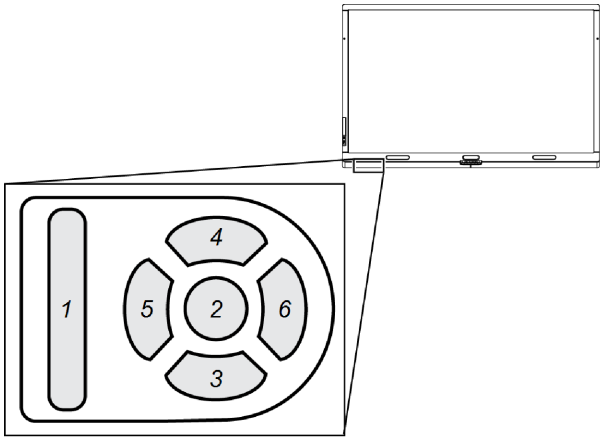
No.	Name	Description
4	1/a/A	Switch the number pad between number input (1, 2, 3), lowercase letter input (a, b, c) and uppercase letter input (A, B, C)
5	MARK/ARC	Set the aspect ratio
6	VOL +/-	Increase or decrease audio output level[2]
7	MUTE	Mute audio inputs for the interactive flat panel[2]
8	MENU	Display the on-screen display menu
9	[Up, down, left and right buttons]	Select a menu option in the on-screen display menu, and then change the value of the selected menu option
10	OK	Open a selected menu option in the on-screen display menu
11	BACK	Return to the previous screen in the on-screen display menu
12		[Not in use]
13	[Video buttons]	Play, pause, stop, fast forward and rewind video
14	TILE	[Not in use]
15	EXIT	Close the on-screen display menu
16		[Not in use]
17	AUTO	Automatically set the H position, V position and clock phase (for VGA video inputs only)
18	BRIGHTNESS	Increase or decrease brightness
19	PSM	Set the picture mode, sound mode and sleep timer
20	CLEAR	Clear number or letter input
21	INPUT	Switch video inputs
22	ENERGY SAVING	[For future use]

[2] Not used in SMART Room Systems

Menu control panel

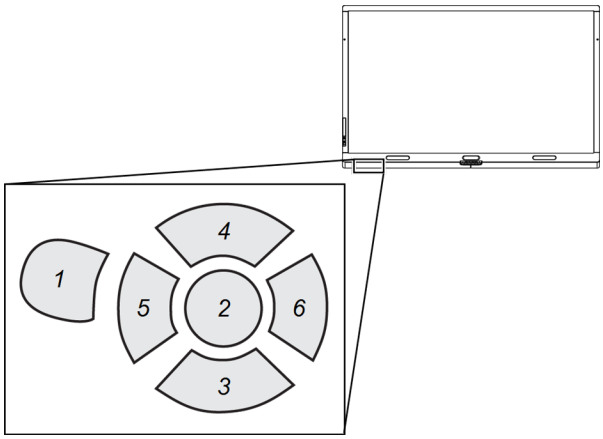
As an alternative to using your remote control to navigate the on-screen display menu, you can use the menu control panel located on the bottom of the interactive flat panel.

SMART Board 8070i-G4 interactive flat panels



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

SMART Board 8084i-G4 interactive flat panels



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

Chapter 5

Maintaining your SMART Room System

Opening SMART Settings 38
Updating software 38
Updating firmware 38
Maintaining the interactive flat panels 40
- Calibrating the interactive flat panels 40
- Orienting the interactive flat panels 41
- Replacing batteries in the remote controls 42
- Replacing a pen nib 42
- Cleaning the screens 43
- Cleaning the presence detection sensors 43
- Cleaning the DViT camera windows and reflective tape 43
- Maintaining ventilation 44
- Preventing condensation 45

Maintaining the camera 45
Maintaining the microphones 45
Maintaining the speakers 46
Checking the SMART Room System installation 46
Removing your SMART Room System 46
Transporting your SMART Room System 47

Your SMART Room System is designed to require no, or only minimal, cleaning and maintenance.

If your SMART Room System requires cleaning or other maintenance or if your organization mandates periodic cleaning or other maintenance of its IT infrastructure, follow the instructions in this chapter.

Opening SMART Settings

Several maintenance and troubleshooting procedures in this guide require you to open SMART Settings.

To open SMART Settings on Windows® 7 operating systems

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

SMART Settings appears.

To open SMART Settings on Windows 8 operating systems

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

   SMART Settings appears.

Updating software

SMART Product Update (SPU) is included in SMART Meeting Pro software and SMART Meeting Pro PE software (see *Installing software* on page 22). 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.

For more information on SPU, search for “SMART Product Update” in the Help (see *Help* on page 12).

NOTE

If you didn’t install SPU, you can download updates to SMART software from smarttech.com/downloads.

Updating firmware

Each interactive flat panel in your SMART Room System uses firmware on its processor. After you update SMART software, a new firmware file could be saved on the room computer. When this happens, you are 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 process.
- Do not disconnect the interactive flat panel from the computer during the firmware update process.
- Do not touch the interactive flat panel's screen or the Input Select button during the firmware update process.
- Do not turn off the computer or the interactive flat panel during the firmware update process.

To update firmware

1. Ensure there is a USB connection between the interactive flat panel and the room computer (see *Connecting the interactive flat panels* on page 17).
2. Launch 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 the computer's mouse and keyboard. Don't touch the interactive flat panel screen.
4. Select your interactive flat panel model, and then click **Next**.

   A progress bar appears.
5. When the installation is complete, calibrate the interactive flat panel (see *Calibrating the interactive flat panels* on the next page).

Maintaining the interactive flat panels

Complete the following tasks as needed to maintain your SMART Room System's interactive flat panels:

- Calibrate and orient the interactive flat panels
- Replace batteries in the remote control
- Replace pen nibs
- Clean the screen
- Clean the presence detection sensors
- Clean the DViT camera windows and reflective tape
- Maintain ventilation
- Prevent condensation

Calibrating the interactive flat panels

DViT 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 ink removal in the appropriate location. Calibration determines the position and angles of the DViT cameras to accurately identify the location of touches on the interactive flat panel.

IMPORTANT

If an error message appears while you are calibrating the interactive flat panel, contact SMART Support (smarttech.com/contactsupport).

To calibrate an interactive flat panel

1. Open SMART Settings (see *Opening SMART Settings* on page 38).
2. Press **SMART Hardware Settings**.
3. Select the interactive flat panel you want to calibrate.

   TIP

   If you don't know which interactive flat panel listed in SMART Settings is the one you want to calibrate, press the interactive flat panel's surface with your finger. The blue dot to the right of the interactive flat panel's name in SMART Settings changes color to blue.

4. Select **Advanced Settings** from the drop-down list.

5. Press **Calibrate**.

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

   NOTES

   - You can press the orientation button on the color select module to move the calibration screen to the next interactive flat panel.
   - If you select the incorrect display during calibration or orientation, touch might not respond.

6. Press the red target with the tip of an interactive flat panel 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, or the **Keyboard** button or **Right-click** button on the color select module.

7. Continue pressing targets until the calibration is complete.

   A message appears stating that the calibration was successful, and then the orientation screen appears.

8. Orient the interactive flat panel (see *Orienting the interactive flat panels* below).

Orienting the interactive flat panels

If the location of your touch is misinterpreted (the pointer appears a distance from the actual contact), orient the interactive flat panel.

To orient an interactive flat panel

1. Press the **Orientation** button on the color select module.

   The orientation window opens.

2. Use an interactive flat panel pen to press the red targets as they appear. Hold the tip of the pen at the center of each target, and then lift the pen. When you lift the pen, the target moves to the next orientation point.

   IMPORTANT

   Hold the pen perpendicular to the screen.

3. Continue until you've pressed all the targets.

   The orientation window closes.

4. If this doesn't correct inaccurate touch, calibrate the interactive flat panel (see *Calibrating the interactive flat panels* on page 40).

Replacing batteries in the remote controls

Each remote control requires two 1.5V AAA batteries.

WARNING

To reduce the risk associated with leaking batteries:

- use only AAA type batteries
- do not mix used and new batteries
- orient the battery's plus (+) and minus (-) terminals according to the markings found on the remote control
- do not leave the batteries in the remote control for an extended period
- do not heat, disassemble, short or recharge the batteries, or expose them to fire or high temperature
- avoid eye and skin contact if batteries have leaked
- dispose of exhausted batteries and product components in accordance with applicable regulations

To replace batteries in a remote control

1. Press the tab on the underside of the remote control, and then open the cover.
2. Remove the existing batteries.
3. Insert two new 1.5V AAA batteries in the remote control.
4. Replace the cover.

Replacing a pen nib

To prevent damage to the interactive flat panel's anti-glare coating, replace your pen nib if it becomes worn. Four replacement pen nibs are included with the pens, and you can purchase additional replacements from the Store for SMART Parts (see smarttech.com/Support/PartsStore).

To replace a pen nib

1. Grasp the worn nib on the pen with a pair of pliers, and then pull and twist the nib loose.
2. Press the replacement nib into the pen.

Cleaning the screens

Follow these instructions to clean the interactive flat panel screens without damaging their 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 bezel, and ensure that this strip stays dry. Damage to this strip affects touch interactivity.

To clean a screen

1. Shut off the room computer, and then disconnect the power sources for the room computer and the interactive flat panel.
2. Wipe the screen with a lint-free, non-abrasive cloth.

Cleaning the presence detection sensors

Each interactive flat panel has two presence detection sensors on its frame. The sensors should be inspected regularly for dust and should be cleaned if any obvious dust buildup has occurred.

CAUTION

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

To clean the presence detection sensors

Gently wipe the sensors using a clean lint-free cloth.

Cleaning the DViT camera windows and reflective tape

The DViT technology in each interactive flat panel uses four cameras in the corners of the frame and the reflective material between the screen and the bezels. Excessive dust buildup on the DViT camera windows or reflective tape can impair touch performance.

These areas should be inspected regularly for dust and should be cleaned if any obvious dust buildup has occurred.

CAUTION

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

To clean the DViT camera windows and reflective tape

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

Maintaining ventilation

The interactive flat panels require ventilation to enable the cooling fans to function. 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 your wall. For more information on removing the interactive flat panel see *Removing your SMART Room System* on page 46.

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 sink, 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. Adjust the room temperature to normal operating ranges.
3. Turn on the interactive flat panel and leave it on for 2–3 hours.
4. If the screen condensation doesn't evaporate, contact SMART Support (smarttech.com/contactsupport).

Maintaining the camera

CAUTION

Do not directly contact the camera lens, even to clean it. Directly contacting the camera lens can scratch or otherwise damage it, negatively impacting the camera's performance.

You need to clean the camera lens only if there is visible accumulation of dust. Use a canister of inert gas or a blower bulb to blow the dust off of the lens. Don't blow off dust with your mouth because this can deposit droplets of saliva on the camera lens.

Maintaining the microphones

Follow these instructions to clean the microphones.

To clean the microphones

1. Turn off the interactive flat panels.
2. Wipe the microphones with a lint-free, non-abrasive cloth.

Maintaining the speakers

Follow these instructions to clean the speakers.

To clean the speakers

1. Turn off the interactive flat panels.
2. Wipe the speakers with a lint-free, non-abrasive cloth.

Checking the SMART Room System installation

Inspect your SMART Room System's 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 apparatus.

If you find an issue, contact a professional installer.

Removing your SMART Room System

To safely remove your SMART Room System, use four or more professional installers.

WARNING

- Do not attempt to move the interactive flat panels using your own strength. The interactive flat panels are very heavy.
- Do not move the interactive flat panels by connecting a rope or wire to the handles on the back. The interactive flat panels can fall and cause personal injury and product damage.

To remove your SMART Room System

1. Turn off the interactive flat panels and disconnect the power cables from the wall outlet.
2. Remove all accessible cables and connectors.
3. Attach the eyebolts for your lifting equipment to the first interactive flat panel. For more information, see *Before installing your SMART Room System* on page 13.

4. 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.

5. Repeat steps 3 to 4 for the other interactive flat panels in the SMART Room System.

Transporting your SMART Room System

Save your original packaging so that you can repack your SMART Room System with as much of the original packaging as possible. This packaging was designed with optimal shock and vibration protection. If your original packaging isn't available, you can purchase the same packaging directly from your authorized SMART reseller (smarttech.com/where).

CAUTION

Transport your SMART Room System only in original or replaced packaging. Transporting your SMART Room System without correct packaging voids your warranty and could lead to product damage.

Chapter 6

Troubleshooting your SMART Room System

Locating serial numbers 50
Locating power and status lights 51
Resolving issues with the interactive flat panels 52
- Resolving image issues 52
  - Resolving blank screen issues 52
  - Resolving image quality issues 53
- Resolving touch control and digital ink issues 56
- Resolving remote control issues 58
- Resolving presence detection issues 58

Resolving issues with the camera 59
Resolving issues with the microphones 60
Resolving issues with the speakers 61
Resolving issues using the SMART Connection Wizard 61
Resolving issues using SMART Board Diagnostics 62
- Checking the DViT camera views 62

This chapter provides you with the information necessary to solve simple issues that can occur with your SMART Room System. If issues persist, or aren't covered in this chapter, contact SMART Support (smarttech.com/contactsupport).

Locating serial numbers

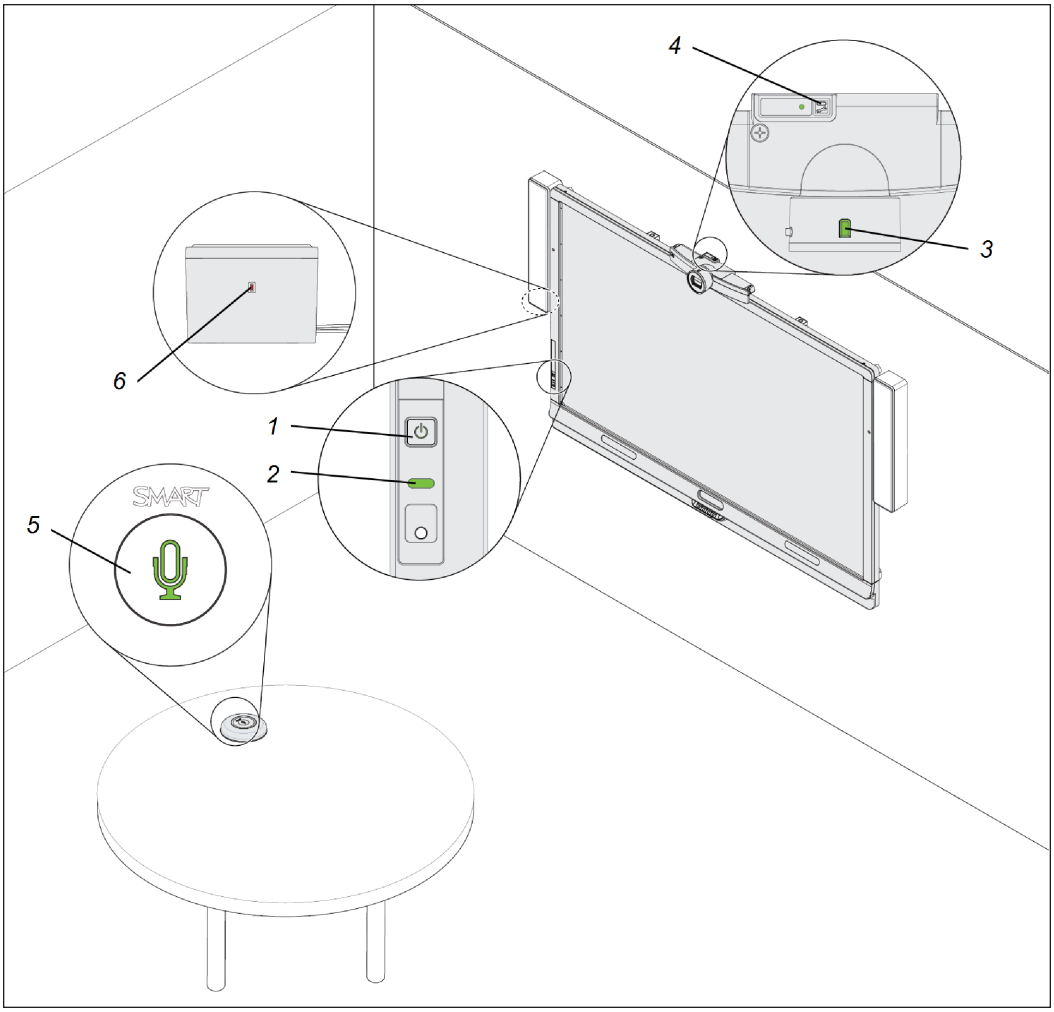
Each of the major components of your SMART Room System has a serial number.

Component	Serial number location
Interactive flat panel	Bottom of the interactive flat panel on the left side **NOTES** • When you request technical support, provide SMART Support with the left interactive flat panel's serial number. • You can also access the interactive flat panel's serial number from the on-screen display menu. SBID 8070i-G4 — *SERIAL NUMBER* on page 69 SBID 8084i-G4 — *Serial Number* on page 77
Camera	Top of the camera beside the service light
Table microphones	Bottom of each microphone
Speakers	Back of each speaker
Audio processor	Narrow side of the audio processor

It's good practice to record these serial numbers in a safe place. You can use the inside front cover of this guide for this purpose.

Locating power and status lights

Your SMART Room System's components have power and status lights, which you can use when resolving common issues.



No.	Component	Light
1	Interactive flat panel	Power
2	Interactive flat panel	DViT technology status
3	Camera	Video capture
4	Camera	USB connection status
5	Microphones	Microphone
6	Speakers	Power

NOTE

In addition to the power and status lights in the above table, there is a microphone status light on the camera. This status light is lit green when the camera is receiving power but it doesn't indicate the status of the microphones.

Resolving issues with the interactive flat panels

Resolving image issues

Complete the following steps if the interactive flat panel doesn't display an image correctly or doesn't display any image at all.

Resolving blank screen issues

Use the following troubleshooting table when the room computer is turned on, but you don't see an image on the interactive flat panel screen.

Begin by looking at the interactive flat panel power light and system light on the front control panel.

Power light	Status light	Causes	Solution
Off	Off	The interactive flat panel isn't connected to a power source.	Connect the interactive flat panel's power cable to a power outlet (see page 16).
		The main power is off.	Flick the power switch to turn the main power on.
Solid red	Off	The interactive flat panel is in Standby mode.	Press the power button on the front control panel or the remote control.
Solid amber or red	Red	The computer is off.	Turn on the computer.
		The computer isn't connected to the interactive flat panel.	Connect the computer to the interactive flat panel with the required cables (see page 17).
		The interactive flat panel isn't set to the correct video input source.	• Select the computer's input source (typically HDMI1) using the remote control. • Press the **Power/Standby** button until the **Input Select** button is blue, and then press the **Input Select** button until the computer's desktop appears.
Solid green	Flashing amber	The interactive flat panel is updating firmware.	Do not touch the interactive flat panel (see page 38).

Power light	Status light	Causes	Solution
Solid green	Flashing green	The interactive flat panel detects a computer, but SMART Product Drivers isn't installed or isn't running (see page 56).	Install SMART Meeting Pro software or SMART Meeting Pro PE software.
Solid green	Solid green	The interactive flat panel detects a computer with SMART Product Drivers installed.	This is the standard operating status of the interactive flat panel.

Resolving image quality issues

Symptom	Causes	Solution
The image is too large, too small or doesn't completely fill the screen.	The computer's video resolution settings don't match the interactive flat panel's native resolution.	• The native resolution of SMART Board 8070i-G4 interactive flat panels is 1920 × 1080 at 60 Hz. If the computer can't support this resolution, consider one of the following 16:9 resolutions as an alternative: ◦ 1600 × 900 ◦ 1366 × 768 ◦ 1280 × 720 • The native resolution of SMART Board 8084i-G4 interactive flat panels is 3840 × 2160 at 30 Hz. If the computer can't support this resolution, consider one of the following 16:9 resolutions as an alternative: ◦ 1600 × 900 ◦ 1366 × 768 ◦ 1280 × 720 ◦ 1920 × 1080 • Other resolutions could result in image distortion or black bars around the desktop.

Symptom	Causes	Solution
The screen resolution is correct, but the image is surrounded by black bars.	The computer's video card is underscanning the image.	• 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. • Select the HDTV setting from the video card driver's advanced menu (if available). This should provide a pixel-perfect image for the interactive flat panel.
	You have a poor quality video cable.	1. Replace the video cable with a better quality video cable. 2. Press **AUTO SETUP** (on SMART Board 8070i-G4 interactive flat panels) or **AUTO** (on SMART Board 8084i-G4 interactive flat panels) on the remote control.
	You connected two video cables together.	1. Replace the two cables with one longer cable. OR Move the computer so that it's within a single cable length of the interactive flat panel. 2. Press **AUTO SETUP** (on SMART Board 8070i-G4 interactive flat panels) or **AUTO** (on SMART Board 8084i-G4 interactive flat panels) on the remote control.
The image isn't centered on the screen.		Press **AUTO SETUP** (on SMART Board 8070i-G4 interactive flat panels) or **AUTO** (on SMART Board 8084i-G4 interactive flat panels) on the remote control.

Symptom	Causes	Solution
The image is unstable or unfocused.	The video connection is loose.	Secure the video cable to both the computer and the interactive flat panel.
	You have a poor quality video cable.	1. Replace the video cable with a better quality video cable. 2. Press **AUTO SETUP** (on SMART Board 8070i-G4 interactive flat panels) or **AUTO** (on SMART Board 8084i-G4 interactive flat panels) on the remote control.
	You connected two video cables together.	1. Replace the two cables with one longer cable. OR Move the computer so that it's within a single cable length of the interactive flat panel. 2. Press **AUTO SETUP** (on SMART Board 8070i-G4 interactive flat panels) or **AUTO** (on SMART Board 8084i-G4 interactive flat panels) on the remote control.
	The 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 image is too light, too dark or has image quality issues.	You might have incorrect video settings.	Press **AUTO SETUP** (on SMART Board 8070i-G4 interactive flat panels) or **AUTO** (on SMART Board 8084i-G4 interactive flat panels) on the remote control.
There is a persistent image on the screen.	An image was displayed for too long.	• Turn off the interactive flat panel and leave it turned off for as long as the image was on the screen. • Use a screen saver to prevent persistent images.
Other display quality issues		Return all on-screen display menu settings to their default values (see page 71 for SMART Board 8070i-G4 interactive flat panels or page 76 for SMART Board 8084i-G4 interactive flat panels).

Resolving touch control and digital ink issues

Use the following troubleshooting table if you can see the computer desktop on the interactive flat panel, but you don't have touch control over the desktop.

Symptom	Causes	Solution
When you touch the screen, no pointer appears and you're unable to move icons. The status light is red.	SMART Product Drivers isn't running.	Start SMART Board Tools following the steps in the Help (see page 12).
	SMART Product Drivers isn't current.	Update SMART Product Drivers (see page 38).
	There's no USB connection from the computer to the interactive flat panel.	Verify the connections (see page 17).
	The USB connection doesn't correspond with the selected video input.	Connect the USB to the correct receptacle that corresponds to the computer's video input (see page 17).
The SMART Board icon (or) doesn't appear.	SMART Product Drivers isn't installed.	Download and install SMART Product Drivers from smarttech.com/downloads.
	SMART Product Drivers isn't running.	Start SMART Board Tools following the steps in the Help (see page 12).
The SMART Board icon (or) displays a red X in its bottom-right corner.	The computer can't find the interactive flat panel.	Run the SMART Connection Wizard's troubleshooting procedures (see page 61).
	Either the *SMART Board Diagnostics* window or SMART Settings is open.	Close the *SMART Board Diagnostics* window and SMART Settings.
Touch interactivity is slow.	The computer is running too many applications.	Close some open applications.
	The computer doesn't meet the requirements.	Refer to the release notes for the current computer requirements (see page 11). Upgrade the computer or replace it with another computer that meets the 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 is connected to the USB2 receptacle on the interactive flat panel.

Symptom	Causes	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 *Touching and drawing on your SMART Board interactive whiteboard is inaccurate* (knowledgebase.force.com/?q=13976).
	The interactive flat panel isn't oriented.	Orient the interactive flat panel (see page 41.)
	The desktop isn't centered on the screen.	• Press **AUTO SETUP** (on SMART Board 8070i-G4 interactive flat panels) or **AUTO** (on SMART Board 8084i-G4 interactive flat panels) on the remote control. • You might have to do this more than once.
An area of the screen doesn't respond to touch or when you draw digital ink, the lines are broken.	Something is blocking the DViT cameras.	Ensure nothing is taped to the screen.
	Something is on 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 DViT cameras.	Close blinds or shades or dim all halogen lights and LEDs.
	The DViT cameras require calibration, possibly because of a temperature change in the room.	Calibrate the interactive flat panel (see page 40).
You try to erase using something other than the eraser, but you draw more digital ink. One of the color select button lights is flashing.	You're in Locked Ink mode and all objects are interpreted as pens.	• Press a color select button that isn't flashing to exit Locked Ink mode. • Remove the eraser from the eraser holder to enable erasing while in Locked Ink mode.
You try to erase with the eraser, but you draw more digital ink. You don't see a flashing light on the color select module.	You're using an edge of the eraser.	Increase the contact area of the eraser.
You're trying to draw digital ink, but you see a circle beneath the pointer and you're erasing digital ink.	The interactive flat panel is interpreting an eraser.	• Lift other fingers and the heel of your hand from the interactive flat panel while you write because the interactive flat panel is interpreting them as an eraser. • Use a smaller pointer, such as the pen.

Resolving remote control issues

The remote control provides control of the interactive flat panel up to 23' (7 m) from the front control panel.

Symptom	Causes	Solution
The remote control behaves unexpectedly.	The interactive flat panel isn't receiving power.	Ensure the interactive flat panel is plugged in (see page 16).
	You're outside the range of the infrared remote control sensor.	Move to within the range of the infrared remote control sensor (see page 30).
	The remote control batteries need to be replaced.	Replace the batteries (see page 42).
	The remote control is damaged.	Contact your authorized SMART reseller (smarttech.com/where) to inquire about a replacement remote control.

Resolving presence detection issues

The sensors for presence detection can detect when people are within 16' (5 m) of the interactive flat panel and automatically turn on or off the interactive flat panel.

Symptom	Causes	Solution
The interactive flat panel isn't turning on.	The sensors aren't enabled.	Enable presence detection (see page 70 for SMART Board 8070i-G4 interactive flat panels or page 76 for SMART Board 8084i-G4 interactive flat panels).
	There isn't enough of a temperature difference between the ambient 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.
	Glass, acrylic or other similar material is between you and the sensors.	Remove the material.
The interactive flat panel isn't turning off when people have left the room.	The sensors aren't enabled.	Enable presence detection (see page 70 for SMART Board 8070i-G4 interactive flat panels or page 76 for SMART Board 8084i-G4 interactive flat panels).
The interactive flat panel is turning on after it has been turned off.	The re-enable time is too short for you to exit the room before the sensors start detecting motion again.	Increase the re-enable time (see page 70 for SMART Board 8070i-G4 interactive flat panels or page 76 for SMART Board 8084i-G4 interactive flat panels).
	Sunlight is hitting the sensors.	Close any blinds or shades.
	Glass, acrylic or other similar material is between you and the sensors.	Remove the material.

Symptom	Causes	Solution
The interactive flat panel is turning on when people aren't present.	There's a sudden temperature change in the room (humidifier emission, air conditioning, heating system).	Remove the source of major temperature fluctuation.
	Sunlight is hitting the sensors.	Close any blinds or shades.
The interactive flat panel is turning off when people are present.	Over time, the sensors average 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 70 for SMART Board 8070i-G4 interactive flat panels or page 76 for SMART Board 8084i-G4 interactive flat panels).

Resolving issues with the camera

Use the following table to resolve issues with the camera.

Lights	Camera status	Issues	Solutions
Video capture: Off USB connection status: Off	Not receiving power	The camera should be receiving power but isn't.	• Ensure that the camera is connected as shown in the installation instructions (see page 11) and that the interactive flat panel it is connected to is turned on. • Press the **Power/Standby** button on the interactive flat panel until it resets.
Video capture: Off USB connection status: Flashing amber	Updating firmware	The service light continues flashing amber for more than five minutes.	Temporarily disconnect the power cable from the camera and then connect it again after a few seconds.
Video capture: Off USB connection status: Flashing red	Hardware error	The camera's video output doesn't appear.	Temporarily disconnect the power cable from the camera and then connect it again after a few seconds.
Video capture: Off USB connection status: Solid red	Hardware error (the USB cable isn't properly connected)	The camera's video output doesn't appear.	Ensure the USB cable from the camera is connected to the room computer. SMART recommends that you do not use a USB hub or extender to extend the length of the USB connection.

Lights	Camera status	Issues	Solutions
Video capture: Red USB connection status: Green	On but not capturing video	The camera's video output doesn't appear even though it should.	Troubleshoot the room computer's operating system and software.
Video capture: Green USB connection status: Green	On and capturing video	The camera's video output doesn't appear.	Open the privacy shutter. (The privacy shutter is marked with a red spot to indicate when it's closed.)
		The video quality is poor.	Refer to the room computer's Windows operating system Help for instructions on troubleshooting video quality.

Resolving issues with the microphones

Use the following table to resolve issues with the microphones.

Microphone light	Microphone status	Issues	Solutions
Off	Not receiving power	The microphones should be receiving power but aren't.	• Ensure that the microphones are connected as shown in the installation instructions (see page 11) and that the interactive flat panel the audio processor is connected to is turned on. • Press the **Power/Standby** button on the interactive flat panel until it resets.
Red	On but muted	Remote participants are unable to hear room participants.	Unmute the microphones in Bridgit software (or press the microphone button on the table microphones).
Green	On and not muted	Remote participants are still unable to hear room participants.	• Ensure the microphones are the room computer's default audio input device (see page 18). • Ensure the microphones are the selected audio input device in Bridgit software.

Resolving issues with the speakers

Use the following table to resolve issues with the speakers.

Power light	Speaker status	Issues	Solutions
Off	Not receiving power	The speakers should be receiving power but aren't.	Ensure that the speakers are connected as shown in the installation instructions (see page 11).
On	On	You're unable to hear sound.	• Ensure the speakers are the room computer's default audio output device (see page 18). • Ensure the speakers are the selected audio output device in Bridgit software. • Unmute the audio in Bridgit software. • Turn up the volume in Bridgit software.
		You can hear sound, but it's quiet.	Turn up the volume in Bridgit software.
		You can hear sound, but it's distorted or there's feedback.	One or more of the remote participants' audio systems is causing the distortion or feedback. Ask individual remote participants to mute their audio until you identify the remote participants with problematic audio systems. Ask those remote participants to troubleshoot their audio systems.

Resolving issues using the SMART Connection Wizard

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

To resolve issues using the SMART Connection Wizard

1. Press the **Help** button on the color select module.

   The *Help and Support for Your SMART Board Interactive Whiteboard* window appears.

2. Press **Connection Wizard**.

   The *SMART Connection Wizard* appears.

   NOTE

   You can also access the SMART Connection Wizard by opening SMART Settings (see *Opening SMART Settings* on page 38) and then pressing **Connection Wizard**.

3. Select **SMART Board 8000 series interactive flat panel**, and then press **Next**.
4. Select the option that best describes the issue you're encountering, and follow the on-screen instructions to troubleshoot the interactive flat panel.

Resolving issues using SMART Board Diagnostics

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

IMPORTANT

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

Checking the DViT camera views

If nothing happens when you touch the interactive flat panel's surface, check to make sure that nothing is blocking one of the DViT cameras.

To check DViT camera views

1. Open SMART Settings (see *Opening SMART Settings* on page 38).
2. Select **About Software and Product Support > Tools > Diagnostics**.

   SMART Board Diagnostics opens.

3. Select **View > SBX800/SBID8000i Bar**.

   The *SBX800* group box appears in the *SMART Board Diagnostics* screen.

4. Press **View**.

   The DViT camera view screen appears.

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

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

6. Check the DViT 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

Changing settings in the on-screen display menu 65
SMART Board 8070i-G4 interactive flat panel on-screen display menu 66
SMART Board 8084i-G4 interactive flat panel on-screen display menu 72

You can access the on-screen display menu using either the remote control (see *Remote control buttons* on page 31) or the menu control panel (see *Menu control panel* on page 35).

Changing settings in the on-screen display menu

To change settings in the on-screen display menu

1. Press the **MENU** button on the remote control or the menu control panel.

   The on-screen display menu appears.

2. Press the up and down arrows to select a menu, and then press **SET** or **OK**.
3. Press the up and down arrows to select 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.

SMART Board 8070i-G4 interactive flat panel on-screen display menu

Option	Values	Function	Notes (if any)
PICTURE			
• PICTURE MODE	STANDARD CINEMA/sRGB SPORT GAME USER AMBIENT DYNAMIC	Sets the picture mode	Select **USER** to customize brightness, contrast, sharpness and other *PICTURE* options. Select **AMBIENT** to set brightness based on the illuminance level of the room and to customize all other *PICTURE* options. Select one of this option's other values to set brightness, contrast, sharpness and other *PICTURE* options to default values. Alternatively, you can press the **PICTURE MODE** button on the remote control.
• BRIGHTNESS	0–100	Sets the overall brightness of the image and background	You can modify this option only if you select **USER** in *PICTURE MODE*.
• CONTRAST	0–100	Sets the brightness of the image in relation to the background	You can modify this option only if you select **USER** or **AMBIENT** in *PICTURE MODE*.
• SHARPNESS	0–100	Sets the image sharpness	You can modify this option only if you select **USER** or **AMBIENT** in *PICTURE MODE*.
• 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 **USER** or **AMBIENT** in *PICTURE MODE*.
• TINT	0–100	Sets the image tint	You can modify this option only if you select **USER** or **AMBIENT** in *PICTURE MODE*.
• COLOR	0–100	Sets the image color depth	You can modify this option only if you select **USER** or **AMBIENT** in *PICTURE MODE*.
▸ COLOR TEMPERATURE			
• COLOR TEMPERATURE	NORMAL WARM USER COOL	Sets the color temperature	Select **USER** to customize the amount of red, green and blue in the image. Select one of this option's 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 **USER** in *COLOR TEMPERATURE*.

Option	Values	Function	Notes (if any)
• GREEN	0–100	Sets the amount of green in the image	You can modify this option only if you select **USER** in *COLOR TEMPERATURE*.
• BLUE	0–100	Sets the amount of blue in the image	You can modify this option only if you select **USER** in *COLOR TEMPERATURE*.
▸ AMBIENT			
• IN BRIGHT	1–100	Sets the image brightness for brightly lit rooms	You can modify this option only if you select **AMBIENT** in *PICTURE MODE*. The value of this menu option can't be less than the value of *IN DARK*.
• IN DARK	0–99	Sets the image brightness for dimly lit rooms	You can modify this option only if you select **AMBIENT** in *PICTURE MODE*. The value of this menu option can't be more than the value of *IN BRIGHT*.
• IN BRIGHT LUX	100–1000	Sets the illuminance level for brightly lit rooms (in lux)	You can modify this option only if you select **AMBIENT** in *PICTURE MODE*. The value of this menu option can't be less than the value of *IN DARK LUX*.
• IN DARK LUX	50–950	Shows the illuminance level for dimly lit rooms (in lux)	You can modify this option only if you select **AMBIENT** in *PICTURE MODE*. The value of this menu option can't be more than the value of *IN BRIGHT LUX*.
• SENSING LUX	[N/A]	Displays the current illuminance level of the room (in lux)	This option only provides information. You're unable to modify it.
• NOISE REDUCTION	ON OFF	Enables or disables image noise reduction	You can modify this option only if the currently selected video input is S-Video or component video.
• PICTURE RESET	[N/A]	Resets all options in the *PICTURE* menu to their default values	
ADJUST			
• AUTO SETUP	[N/A]	Automatically sets the H position, V position and clock phase when the interactive flat panel turns on	You can modify this option only if the currently selected video input is VGA. Alternatively, you can press the **AUTO SET UP** button on the remote control.

Option	Values	Function	Notes (if any)
• H-POSITION	0–100	Sets the horizontal position of the image within the screen area	You can modify this option only if the currently selected video input is VGA.
• V-POSITION	0–100	Sets the vertical position of the image within the screen area	You can modify this option only if the currently selected video input is VGA.
• CLOCK	0–100	Sets the clock phase of the image	You can modify this option only if the currently selected video input is VGA.
• PHASE	0–100	Sets the image visual noise	You can modify this option only if the currently selected video input is VGA.
• INPUT RESOLUTION	1024 × 768 1280 × 768 1360 × 768	Sets the image resolution	You can modify this option only if the currently selected video input is VGA.
▸ LONG CABLE COMP			
• EQUALIZE	ON OFF	Enables or disables the equalization of the video signal if a long VGA cable is used	You can modify this option only if the currently selected video input is VGA.
• POLE	0–255	Sets the pole value	You can modify this option only if the currently selected video input is VGA and if you select **ON** in *EQUALIZE*.
• PEAK	0–255	Sets the peak value	You can modify this option only if the currently selected video input is VGA and if you select **ON** in *EQUALIZE*.
• GAIN	0–255	Sets the gain value	You can modify this option only if the currently selected video input is VGA and if you select **ON** in *EQUALIZE*.
• ASPECT	16:9 1:1 4:3 ZOOM1 ZOOM2	Sets the image aspect ratio	Alternatively, you can press the **ASPECT** button on the remote control.
• ADJUST RESET	[N/A]	Resets all options in the *ADJUST* menu to their default values	
AUDIO	The options in this menu aren't applicable to your SMART Room System.		
OSD			
• LANGUAGE	[Languages]	Sets the on-screen display menu's language	

Option	Values	Function	Notes (if any)
• OSD TURN OFF	5–240	Sets the time of inactivity before the on-screen display menu turns off (in seconds)	
• OSD H-POSITION	0–100	Sets the horizontal position of the on-screen display menu	
• OSD V-POSITION	0–100	Sets the vertical position of the on-screen display menu	
• INFORMATION OSD	3–10 OFF	Specifies how long the information menu displays when a user changes the video input or presses the **DISPLAY** button on the remote control	
▸ MONITOR INFO			
• MODEL NAME	[N/A]	Shows the interactive flat panel's model number	This option only provides information. You're unable to modify it.
• SERIAL NUMBER	[N/A]	Shows the interactive flat panel's serial number	This option only provides information. You're unable to modify it.
• OSD TRANSPARENCY	TYPE1 TYPE2 OFF	Sets the on-screen display menu transparency	
• OSD RESET	[N/A]	Resets all options in the *OSD* menu to their default values	
SETUP			
• POWER SAVE	ON OFF	Enables or disables Power Save mode	When Power Save mode is enabled and there isn't video input, the interactive flat panel displays *No Signal* for 25 seconds before turning off. When you connect a DVI video cable, the video card might not stop sending digital data even if there is no image. In this case, the interactive flat panel doesn't enter Power Save mode.
• STANDBY MODE	STANDBY ECO STANDBY	Sets the Standby mode to reduce power consumption	When ECO Standby mode is enabled, presence detection is disabled and you can't wake the computer by touching the interactive flat panel's screen. You can't use remote management functions in ECO Standby mode.

Option	Values	Function	Notes (if any)
• DDC CI	ENABLE DISABLE	Enables or disables two-way communication and control of the interactive flat panel	
• SCAN MODE	UNDER SCAN OVER SCAN	Sets the scanning mode	Some video formats might require different modes to display the best image.
• FBC CONTROL	ENABLE DISABLE	Enables or disables the front control panel	
• MONITOR ID	1–100	Sets the interactive flat panel's ID	
▸ PROXIMITY CONTROL			
• PROXIMITY	ENABLE DISABLE	Enables or disables presence detection	You can modify this option only if you select **STANDBY** in *STANDBY MODE*.
• RE-ENABLE TIME	1–10	Sets how long the interactive flat panel waits before detecting motion again (in minutes)	You can modify this option only if you select **ENABLE** in *PROXIMITY*.
• AUTO POWER OFF	15–240	Sets when the interactive flat panel automatically turns off (in minutes)	You can modify this option only if you select **ENABLE** in *PROXIMITY*.
• BRIGHTNESS	0–100	Sets the brightness of the welcome screen	You can modify this option only if you select **ENABLE** in *PROXIMITY*.
• CEC	ENABLE DISABLE	Enables or disables Consumer Electronics Control (CEC) support on HDMI inputs	
▸ HEAT STATUS			
• FAN1	[N/A]	Shows the status of the first fan	This option only provides information. You're unable to modify it.
• FAN2	[N/A]	Shows the status of the second fan	This option only provides information. You're unable to modify it.
• SENSOR1	[N/A]	Shows the temperature reading from the first sensor	This option only provides information. You're unable to modify it.
• SENSOR2	[N/A]	Shows the temperature reading from the second sensor	This option only provides information. You're unable to modify it.
▸ FAN CONTROL			
• COOLING FAN	ON AUTO	Sets the fan to run continuously (ON) or only when the sensor temperature is greater than optimal sensor temperature (AUTO)	

Option	Values	Function	Notes (if any)
• FAN SPEED	LOW HIGH	Sets the speed of the fan	
• SENSOR1	35–55	Sets the optimal temperatures for the first sensor (in degrees Celsius)	
• SENSOR2	35–55	Sets the optimal temperatures for the second sensor (in degrees Celsius)	
▸ USB SETTING			
• USB1	VGA1 VGA2 DVI HDMI1 HDMI2 HDMI3/PC DISABLE	Sets the video input for the USB1 receptacle or disables the receptacle	The video input you select must be unique for USB1.
• USB2	VGA1 VGA2 DVI HDMI1 HDMI2 HDMI3/PC DISABLE	Sets the video input for the USB2 receptacle or disables the receptacle	The video input you select must be unique for USB2.
• SETUP RESET	[N/A]	Resets all options in the *SETUP* menu to their default values	
• Lync® ROOM RESET	[N/A]	Resets options in all menus to their default values (for a SMART Room System for Microsoft® Lync)	
• FACTORY RESET	[N/A]	Resets options in all menus to their default values	

84
84 84

SMART Board 8084i-G4 interactive flat panel on-screen display menu

Option	Values	Function	Notes (if any)
PICTURE			
▸ Picture Mode			
▸ Picture Mode	Vivid Standard Ambient Expert1 Expert2	Sets the picture mode	The other options in the *Picture Mode* menu change depending on which value you select for this option. The options documented in this table are those that appear when you select **Vivid**, **Standard** or **Ambient** in this option. Alternatively, you can press the **PSM** button on the remote control to access this option.
• In Bright	1–100	Sets the image brightness for brightly lit rooms	You can modify this option only if you select **Ambient** in *Picture Mode*. The value of this menu option can't be less than the value of *In Dark*.
• In Dark	0–99	Sets the image brightness for dimly lit rooms	You can modify this option only if you select **Ambient** in *Picture Mode*. The value of this menu option can't be more than the value of *In Bright*.
• Light Threshold	[Number]	Sets the light threshold	You can modify this option only if you select **Ambient** in *Picture Mode*.
• Sensing Lux	[N/A]	Shows the current illuminance level of the room (in lux)	This option only provides information. You're unable to modify it.
• Backlight	0–100	Sets the backlight level of the image	
• Contrast	0–100	Sets the brightness of the image in relation to the background	
• Brightness	0–100	Sets the overall brightness of the image and background	Alternatively, you can press the **BRIGHTNESS** buttons on the remote control.
• Sharpness	0–50	Sets the image sharpness	
• Saturation	0–100	Sets the image saturation	
• Tint	R50–G50	Sets the image tint	
• Color Temp.	W50–C50	Sets the image color temperature	

Option	Values	Function	Notes (if any)
▸ Advanced Control			
• Dynamic Contrast	Low Medium High Off	Sets the dynamic contrast	
• Dynamic Color	Low High Off	Sets the dynamic color	
• Clear White	Low High Off	Sets the clear white color	
▸ Preferred color			
• Skin Color	-5–5	Sets the preferred color value for skin in the image	
• Grass Color	-5–5	Sets the preferred color value for grass in the image	
• Sky Color	-5–5	Sets the preferred color value for sky in the image	
• Super Resolution	On Off	Enables or disables super resolution	
• Gamma	Low Medium Hight	Sets the gamma	
▸ Picture Option			
• Noise Reduction	Low Medium High Off	Sets image noise reduction	
• MPEG Noise Reduction	Low Medium High Off	Sets MPEG image noise reduction	
• Black Level	High Low	Sets the level of brightness in the darkest parts of the image	
• LED Local Dimming	Low Medium High	Sets the level of LED local dimming to reduce brightness in the darkest parts of the image	

Option	Values	Function	Notes (if any)
▸ TruMotion			
• TruMotion	Smooth Clear Clear Plus User Off	Sets TruMotion	
• De-Judder	0–10	Reduces image juddering	You can modify this option only if you select **User** in *TruMotion*.
• De-Blur	0–10	Reduces image blurring	You can modify this option only if you select **User** in *TruMotion*.
• Picture Reset	Yes No	Resets all options in the *Picture Mode* menu to their default values	
• Aspect Ratio	16:9 Just Scan Set By Program 4:3 Zoom Cinema Zoom 1	Sets the aspect ratio	
• Picture Wizard II	[N/A]	Starts Picture Wizard II, which you can use to adjust the picture quality of the original image	
• Screen	[N/A]	Shows the current input type	This option only provides information. You're unable to modify it.
SOUND	The options in this menu aren't applicable to your SMART Room System.		
TIME			
▸ Clock			
• Date	1–31	Specifies the current date	
• Month	Jan.–Dec.	Specifies the current month	
• Year	2010–2040	Specifies the current year	
• Hour	00–23	Specifies the current hour	
• Minute	00–59	Specifies the current minute	
• Off Time	[N/A]	Enables you to schedule times when the interactive flat panel turns off automatically	You must set the current time using the *Clock* menu to schedule off times.
• On Time	[N/A]	Enables you to schedule times when the interactive flat panel turns on automatically	You must set the current time using the *Clock* menu to schedule on times.

Option	Values	Function	Notes (if any)
• Sleep Timer	10–240 Off	Specifies the amount of inactivity (in minutes) before the interactive flat panel turns off or disables the sleep timer feature	Alternatively, you can press the **PSM** button on the remote control to access this option.
OPTION			
• Language	[Languages]	Sets the on-screen display menu's language	
• ISM Method	Normal Color Wash	Sets the method for image stickiness minimization (ISM)	ISM prevents static images that appear in the same location for long periods of time from causing screen burn-in.
• Key Lock	On Off	Enables or disables key lock	
▸ Fail Over			
• Mode	Off Auto Manual	Enables or disables fail over mode	If you select **Auto** or **Manual** and the current video input is not active, the interactive flat panel displays the next available video input. You can either use the default order of video inputs for fail over mode (by selecting **Auto**) or define the order of video inputs for fail over mode (by selecting **Manual** and then specifying values for *Input 1* through *Input 5*).
• Input1	VGA HDMI1 DVI-D Display Port HDMI2 HDMI3/PC	Specifies the first video input for fail over mode	You can modify this option only if you select **Manual** in *Mode*.
• Input2	VGA HDMI1 DVI-D Display Port HDMI2 HDMI3/PC	Specifies the second video input for fail over mode	You can modify this option only if you select **Manual** in *Mode*.
• Input3	VGA HDMI1 DVI-D Display Port HDMI2 HDMI3/PC	Specifies the third video input for fail over mode	You can modify this option only if you select **Manual** in *Mode*.

Option	Values	Function	Notes (if any)
• Input4	VGA HDMI1 DVI-D Display Port HDMI2 HDMI3/PC	Specifies the fourth video input for fail over mode	You can modify this option only if you select **Manual** in *Mode*.
• Input5	VGA HDMI1 DVI-D Display Port HDMI2 HDMI3/PC	Specifies the fifth video input for fail over mode	You can modify this option only if you select **Manual** in *Mode*.
• DPM Select	On Off	Enables or disables DPM Select	
• DivX® VOD	Registration Deregistration	Registers DivX video-on-demand (VOD)	
• Initial Setting	Yes No	Resets options in all menus to their default values	
• Set ID	1–255	Sets the interactive flat panel's ID	
• Standby Mode	Standby	Sets the Standby mode to reduce power consumption	
▸ Proximity Control			
• Proximity Control	On Off	Enables or disables presence detection	
• Re-enable Time	1–10	Sets how long the interactive flat panel waits before detecting motion again (in minutes)	
• Auto Power Off	15–240	Sets when the interactive flat panel automatically turns off (in minutes)	
• Welcome OSD	Enabled Disable	Enables or disables the welcome screen	
• Welcome Timeout	5–30	Sets how long the welcome screen appears (in seconds)	
• Ready State Brightness	0–100	Sets the brightness of the welcome screen	

Option	Values	Function	Notes (if any)
▸ USB Setting			
• USB 1	HDMI1 HDMI2 HDMI3/PC DVI-D DPORT VGA Disable	Sets the video input for the USB1 receptacle, or disables the receptacle	The video input you select must be unique for USB1.
• USB 2	HDMI1 HDMI2 HDMI3/PC DVI-D DPORT VGA Disable	Sets the video input for the USB2 receptacle, or disables the receptacle	The video input you select must be unique for USB2.
• USB 3	HDMI1 HDMI2 HDMI3/PC DVI-D DPORT VGA Disable	Sets the video input for the USB3 receptacle, or disables the receptacle	The video input you select must be unique for USB3.
• Lync® Room Reset	Reset Cancel	Resets options in all menus to their default values (for a SMART Room System for Microsoft Lync)	
• CEC	Enabled Disable	Enables or disables Consumer Electronics Control (CEC) support on HDMI inputs	
• FBC Control	On Off	Enables or disables the front control panel	
SUPPORT			
• Model/Type	[N/A]	Shows the interactive flat panel's model number	This option only provides information. You're unable to modify it.
• Software Version	[N/A]	Shows the interactive flat panel's firmware version number	This option only provides information. You're unable to modify it.
• Serial Number	[N/A]	Shows the interactive flat panel's serial number	This option only provides information. You're unable to modify it.
• Customer Service Center	[N/A]	Provides information on how to contact SMART Support	This option only provides information. You're unable to modify it.

Appendix B

Remotely managing your SMART Room System

Connecting and configuring a room control system 80
- Connecting a computer to an interactive flat panel 80
- Configuring the computer's serial interface settings 80

Power modes 81

Room control system programming commands and responses 82
- Command inventory 82
  - Identifying current values 82
  - Assigning a specific value 83
  - Increasing a value for a setting 83
  - Decreasing a value for a setting 83
- Designating video control settings for a specific video input 83
  - Identifying the value for a video control setting 83
  - Assigning a value for a video control setting 84

SMART Board 8070i-G4 interactive flat panel commands 84
- Power state 84
- Source 85
- Video control 86
- System information 88
- Service information 91

SMART Board 8084i-G4 interactive flat panel commands 91
- Power state 92
- Source 93
- Video control 94
- System information 96
- Service information 100

This appendix includes detailed instructions on how to set up your computer or room control system to remotely manage the interactive flat panels in your SMART Room System using an RS-232 serial interface.

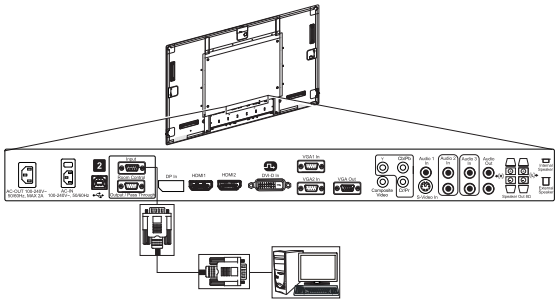
Connecting and configuring a room control system

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

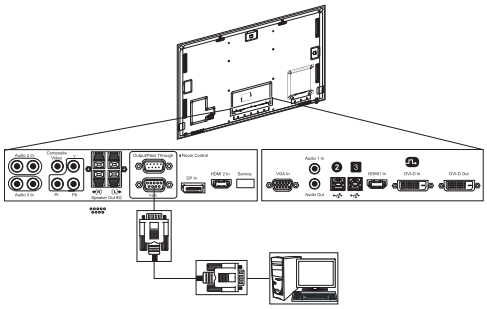
Connecting a computer to an interactive flat panel

To connect a computer to the interactive flat panels

1. Connect an RS-232 cable from the serial output on the computer to the room control input on the bottom connector panel of the first interactive flat panel.



SBID 8070i-G4



SBID 8084i-G4

IMPORTANT

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

2. Connect an RS-232 cable from the room control output of the first interactive flat panel to the room control input of the second interactive flat panel.
3. Connect an RS-232 cable from the room control output of the second interactive flat panel to the room control input of the third interactive flat panel.

NOTE

Up to three interactive flat panels can be connected.

Configuring the computer's serial interface settings

You need to configure the computer's serial interface before sending commands.

To configure the computer's serial interface

1. Turn on the interactive flat panels.
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.

   NOTE

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

5. Type commands to configure the interactive flat panels.

Power modes

An interactive flat panel has five distinct power modes:

- On
- Power Save
- Standby
- ECO Standby[1]
- Off

All commands are available when the interactive flat panel is on. Some commands are available when the interactive flat panel is in Standby mode. No commands are available when the interactive flat panel is off or in ECO Standby mode.

[1]SMART Board 8070i-G4 interactive flat panels only

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 a 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 in the tables on the following pages. To see a list of valid commands for the interactive flat panel's current power state, type **?**, and then press ENTER.

Identifying current values

You can identify the current value for each setting. In the example below, the user wants to identify the contrast level for the interactive flat panel.

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

Assigning a specific value

You can assign a specific value for a setting within the command's target range. In the example below, the user wants to set the contrast level for the interactive flat panel to 65.

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

Increasing a value for a setting

You can increase a setting by a designated number. In the example below, the user wants to increase the contrast level for the interactive flat panel by 5.

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

Decreasing a value for a setting

You can decrease a setting by a designated number. In the example below, the user wants to decrease the contrast level for the interactive flat panel 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 which video input you want to get information about or assign values to.

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.

Identifying the value for a video control setting

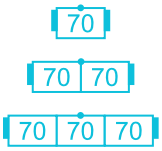
Use the **get** command to identify values for a video control setting. In the example below, the user wants to identify the contrast for the HDMI1 video input.

```
>get contrast HDMI1
contrast HDMI1=65
```

Assigning a value for a video control setting

Use the **set** command to assign values for a video control setting. In the example below, the user wants to set the contrast to 70 for the HDMI1 video input.

```
>set contrast HDMI1=70
contrast HDMI1=70
```



SMART Board 8070i-G4 interactive flat panel commands

The following tables contain commands for SMART Board 8070i-G4 interactive flat panels.

Power state

Use the following commands to identify power state settings.

Command	Response	Possible values	Standby mode
get intpowerstate	intpowerstate=*[Value]*	• standby • on • dpms-standby • welcome • prox-reenable-wait • pre-standby • pre-standby-auto	Yes
get powerstate	powerstate=*[Value]*	• on • ready • standby • off	Yes
get standbymode	standbymode=*[Value]*	• normal • eco	Yes

Use the following commands to assign power state settings.

Command	Possible values	Response	Standby mode
set intpowerstate *[Value]*	• =standby • =on • =dpms-standby • =welcome • =prox-reenable-wait • =pre-standby • =pre-standby-auto	intpowerstate=*[Value]*	Yes
set powerstate *[Value]*	• =on • =ready • =standby • =off	powerstate=*[Value]*	Yes
set standbymode *[Value]*	• =normal • =eco	standbymode=*[Value]*	Yes

Source

Use the following commands to identify source settings.

Command	Response	Possible values	Standby mode
get input	input=*[Value]*	• VGA1 • VGA2 • DVI • Video • S_Video • DVD/HD • DisplayPort • HDMI1 • HDMI2 • HDMI3/PC	Yes
get videoinputs	videoinputs=*[Value]*	• VGA1 • VGA2 • DVI • Video • S_Video • DVD/HD • DisplayPort • HDMI1 • HDMI2 • HDMI3/PC	Yes
get usb1source	usb1source=*[Value]*	• VGA1 • VGA2 • DVI • DisplayPort • HDMI1 • HDMI2 • HDMI3/PC (default) • Disabled	Yes
get usb2source	usb2source=*[Value]*	• VGA1 • VGA2 • DVI • DisplayPort • HDMI1 • HDMI2 (default) • HDMI3/PC • Disabled	Yes

Use the following commands to assign source settings.

Command	Possible values	Response	Standby mode
set input *[Value]*	• =VGA1 • =VGA2 • =DVI • =Video • =S_Video • =DVD/HD • =DisplayPort • =HDMI1 • =HDMI2 • =HDMI3/PC	input=*[Value]*	Yes
set usb1source *[Value]*	• =VGA1 • =VGA2 • =DVI • =DisplayPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disabled	usb1source=*[Value]*	Yes
set usb2source *[Value]*	• =VGA1 • =VGA2 • =DVI • =DisplayPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disabled	usb2source=*[Value]*	Yes

NOTE

You must specify unique values for **set ubs1source** and **set usb2source**.

Video control

Use the following commands to identify video control settings.

Command	Response	Possible values	Standby mode
get blacklevel	blacklevel=*[Value]*	0–100	No
get brightness	brightness=*[Value]*	0–100	No
get clock	clock=*[Value]*	*[Dependent on the video signal]*	No
get clockphase	clockphase=*[Value]*	*[Dependent on the video signal]*	No
get colortemp	colortemp=*[Value]*	• NORMAL • WARM • COOL • USER	No

Command	Response	Possible values	Standby mode
get contrast	contrast=*[Value]*	0–100	No
get displaymode	displaymode=*[Value]*	• DYNAMIC • STANDARD • sRGB • CINEMA • SPORT • GAME • USER • AMBIENT	No
get saturation	saturation=*[Value]*	0–100	No
get sharpness	sharpness=*[Value]*	0–100	No
get tint	tint=*[Value]*	0–100	No

Use the following commands to assign video control settings.

Command	Possible values	Response	Standby mode
set blacklevel *[Value]*	• +*[Incremental value]* • -*[Incremental value]* • =0–100	blacklevel=*[Value]*	No
set brightness *[Value]*	• +*[Incremental value]* • -*[Incremental value]* • =0–100	brightness=*[Value]*	No
set brightness *[Video input]* *[Value]*	• +*[Incremental value]* • -*[Incremental value]* • =0–100	brightness *[Video input]*=*[Value]*	No
set clock *[Value]*	• +*[Incremental value]* • -*[Incremental value]* • =*[Range of values dependent on the video signal]*	clock=*[Value]*	No
set clockphase *[Value]*	• +*[Incremental value]* • -*[Incremental value]* • =*[Range of values dependent on the video signal]*	clockphase=*[Value]*	No
set colortemp *[Value]*	• =NORMAL • =WARM • =COOL • =USER	colortemp=*[Value]*	No
set contrast *[Value]*	• +*[Incremental value]* • -*[Incremental value]* • =0–100	contrast=*[Value]*	No

Command	Possible values	Response	Standby mode
set displaymode *[Value]*	• =DYNAMIC • =STANDARD • =sRGB • =CINEMA • =SPORT • =GAME • =USER • =AMBIENT	displaymode=*[Value]*	No
set saturation *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	saturation=*[Value]*	No
set sharpness *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	sharpness=*[Value]*	No
set tint *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	tint=*[Value]*	No

System information

Use the following commands to identify system information settings.

Command	Response	Possible values	Standby mode
get aspectratio	aspectratio=*[Value]*	• 1:1 • 16:9 • 4:3 • zoom1 • zoom2	No
get autopoweroff	autopoweroff=*[Value]*	15–240	No
get fwinfotouch	fwinfotouch=*[Value]*	*[User defined value]*	Yes
get fwvericp	fwvericp=*[Value]*	*[Firmware (ICP) version number]*	Yes
get fwvermpu	fwvermpu=*[Value]*	*[Firmware (MPU) version number]*	Yes
get fwverscr	fwverscr=*[Value]*	*[Firmware (Scaler) version number]*	Yes
get hposition	hposition=*[Value]*	*[Dependent on the video signal]*	No

Command	Response	Possible values	Standby mode
get language	language=*[Value]*	• English • Arabic • Danish • German • English_UK • Spanish • Spanish_MEX • French • Hindi • Hungarian • Italian • Korean • Dutch • Norwegian • Portuguese_BRA • Portuguese • Russian • Swedish • Turkish • Chinese • Chinese_SIM	No
get modelnum	modelnum=*[Value]*	*[Model number]*	No
get monitorid	monitorid=*[Value]*	1–100	No
get proximity	proximity=*[Value]*	• on • off	Yes
get proximitydetected	proximitydetected=*[Value]*	• yes • no	No
get proximityreenable	proximityreenable=*[Value]*	1–10	Yes
get readystatebrightness	readystatebrightness=*[Value]*	0–100	Yes
get resolution	resolution=*[Value]*	• 800 × 600 • 1024 × 768	No
get serialnum	serialnum=*[Value]*	*[Serial number]*	No
get tempsensor1	tempsensor1=*[Value]*	*[Temperature in ºC]*	No
get tempsensor2	tempsensor2=*[Value]*	*[Temperature in ºC]*	No
get vposition	vposition =*[Value]*	*[Dependent on the video signal]*	No
get welcome	welcome=*[Value]*	• on • off	No
get welcometimeout	welcometimeout=*[Value]*	5–30	No
get zoom	zoom=*[Value]*	100–300	No

Use the following commands to assign system information settings.

Command	Possible values	Response	Standby mode
set aspectratio *[Value]*	• =1:1 • =16:9 • =4:3 • =zoom1 • =zoom2	aspectratio=*[Value]*	No
set autopoweroff *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =15–240	autopoweroff=*[Value]*	No
set factoryreset *[Value]*	=yes	factoryreset=*[Value]*	Yes
set fwinfotouch *[Value]*	=*[User defined value]*	fwinfotouch=*[Value]*	Yes
set fwvericp *[Value]*	=*[Firmware (ICP) version number]*	fwvericp=*[Value]*	Yes
set hposition *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =*[Range of values dependent on the video signal]*	hposition =*[Value]*	No
set language *[Value]*	• =English • =Arabic • =Danish • =German • =English_UK • =Spanish • =Spanish_MEX • =French • =Hindi • =Hungarian • =Italian • =Korean • =Dutch • =Norwegian • =Portuguese_BRA • =Portuguese • =Russian • =Swedish • =Turkish • =Chinese • =Chinese_SIM	language=*[Value]*	No
set monitorid *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =1–100	monitorid=*[Value]*	No
set proximity *[Value]*	• =on • =off	proximity=*[Value]*	Yes
set proximitydetected *[Value]*	• =yes • =no	proximitydetected=*[Value]*	No
set proximityreenable *[Value]*	=1–10	proximityreenable=*[Value]*	Yes
set readystatebrightness *[Value]*	=0–100	readystatebrightness=*[Value]*	Yes

Command	Possible values	Response	Standby mode
set vposition *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =*[Range of values dependent on the video signal]*	vposition=*[Value]*	No
set welcome *[Value]*	• =on • =off	welcome=*[Value]*	No
set welcometimeout *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =5–30	welcometimeout=*[Value]*	No
set zoom *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =100–300	zoom=*[Value]*	No

Service information

Use the following commands to identify service information settings.

Command	Response	Possible values	Standby mode
get displayhour	displayhour=*[Value]*	0–20000	Yes
get fancontrol	fancontrol=*[Value]*	• on • auto	Yes
get highspeedfan	highspeedfan=*[Value]*	• high • normal	No
get totalhours	totalhours=*[Value]*	0–20000	Yes

Use the following commands to assign service information settings.

Command	Possible values	Response	Standby mode
set highspeedfan *[Value]*	• =high • =normal	highspeedfan=*[Value]*	No
set fancontrol *[Value]*	• =on • =auto	fancontrol=*[Value]*	Yes

84
84 84

SMART Board 8084i-G4 interactive flat panel commands

The following tables contain commands for SMART Board 8084i-G4 interactive flat panels.

Power state

Use the following commands to identify power state settings.

Command	Response	Possible values	Standby mode
get intpowerstate	intpowerstate=*[Value]*	• standby • on • no-video • welcome • prox-reenable-wait • pre-eco • eco-standby • soft-reset • dpms • pre-standby-auto	Yes
get powerstate	powerstate=*[Value]*	• on • standby • off	Yes
get standbymode	standbymode=*[Value]*	• normal • eco	Yes

Use the following commands to assign power state settings.

Command	Possible values	Response	Standby mode
set intpowerstate *[Value]*	• =standby • =on • =no-video • =welcome • =prox-reenable-wait • =pre-eco • =eco-standby • =soft-reset • =dpms • =pre-standby-auto	intpowerstate=*[Value]*	Yes
set powerstate *[Value]*	• =on • =standby • =off	powerstate=*[Value]*	Yes
set standbymode *[Value]*	• =normal • =eco	standbymode=*[Value]*	Yes

Source

Use the following commands to identify source settings.

Command	Response	Possible values	Standby mode
get input	input=*[Value]*	• VGA • DVI • Component • Composite • DPort • HDMI1 • HDMI2 • HDMI3/PC	Yes
get videoinputs	videoinputs=*[Value]*	• VGA • DVI • Component • Composite • DPort • HDMI1 • HDMI2 • HDMI3/PC	Yes
get usb1source	usb1source=*[Value]*	• VGA • DVI • DPort • HDMI1 • HDMI2 • HDMI3/PC (default) • Disable	Yes
get usb2source	usb2source=*[Value]*	• VGA (default) • DVI • DPort • HDMI1 • HDMI2 • HDMI3/PC • Disable	Yes
get usb3source	usb3source=*[Value]*	• VGA • DVI • DPort • HDMI1 (default) • HDMI2 • HDMI3/PC • Disable	Yes

Use the following commands to assign source settings.

Command	Possible values	Response	Standby mode
set input *[Value]*	• =VGA • =DVI • =Component • =Composite • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =next	input=*[Value]*	Yes
set usb1source *[Value]*	• =VGA • =DVI • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disable	usb1source=*[Value]*	Yes
set usb2source *[Value]*	• =VGA • =DVI • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disable	usb2source=*[Value]*	Yes
set usb3source *[Value]*	• =VGA • =DVI • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disable	usb3source=*[Value]*	Yes

NOTE

You must specify unique values for **set ubs1source**, **set usb2source** and **set usb3source**.

Video control

Use the following commands to identify video control settings.

Command	Response	Possible values	Standby mode
get ambient	ambient=*[Value]*	0–1023	No
get blacklevel	blacklevel=*[Value]*	• high • low	No
get brightness	brightness=*[Value]*	0–100	No
get colortemp	colortemp=*[Value]*	0–100	No

Command	Response	Possible values	Standby mode
get contrast	contrast=*[Value]*	0–100	No
get displaymode	displaymode=*[Value]*	• standard • ambient • vivid • ISF_Expert1 • ISF_Expert2	No
get gamma	gamma=*[Value]*	• high • medium • low • 1.9 • 2.2 • 2.4	No
get hsharpness	hsharpness=*[Value]*	0–50	No
get hsize	hsize=*[Value]*	*[Dependent on the video signal]*	No
get phase	phase=*[Value]*	*[Dependent on the video signal]*	No
get saturation	saturation=*[Value]*	0–100	No
get sharpness	sharpness=*[Value]*	0–50	No
get tint	tint=*[Value]*	0–100	No
get vsharpness	vsharpness=*[Value]*	0–50	No

Use the following commands to assign video control settings.

Command	Possible values	Response	Standby mode
set ambient *[Value]*	=0–1023	ambient=*[Value]*	No
set blacklevel *[Value]*	• =high • =low	blacklevel=*[Value]*	No
set brightness *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	brightness=*[Value]*	No
set brightness *[Video input]* *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	brightness *[Video input]*=*[Value]*	No
set colortemp *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	colortemp=*[Value]*	No
set contrast *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	contrast=*[Value]*	No

Command	Possible values	Response	Standby mode
set displaymode *[Value]*	• =standard • =ambient • =vivid • =ISF_Expert1 • =ISF_Expert2	displaymode=*[Value]*	No
set gamma *[Value]*	• =high • =medium • =low • =1.9 • =2.2 • =2.4	gamma=*[Value]*	No
set hsharpness *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–50	hsharpness=*[Value]*	No
set hsize *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =*[Range of values dependent on the video signal]*	hsize=*[Value]*	No
set phase *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =*[Range of values dependent on the video signal]*	phase=*[Value]*	No
set saturation *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	saturation=*[Value]*	No
set sharpness *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–50	sharpness=*[Value]*	No
set tint *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	tint=*[Value]*	No
set vsharpness *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–50	vsharpness=*[Value]*	No

System information

Use the following commands to identify system information settings.

Command	Response	Possible values	Standby mode
get aspectratio	aspectratio=*[Value]*	• justscan • 16:9 • 4:3	No
get autopoweroff	autopoweroff=*[Value]*	15–240	No

Command	Response	Possible values	Standby mode
get fancontrol	fancontrol=*[Value]*	• auto • 25 • 50 • 75 • 100 • off	No
get fbc	fbc=*[Value]*	• on • off	No
get fwinfotouch	fwinfotouch=*[Value]*	*[User defined value]*	No
get fwvericp	fwvericp=*[Value]*	*[Firmware (ICP) version number]*	Yes
get fwvermpu	fwvermpu=*[Value]*	*[Firmware (MPU) version number]*	Yes
get fwverscr	fwverscr=*[Value]*	*[Firmware (Scaler) version number]*	Yes
get hposition	hposition=*[Value]*	*[Dependent on the video signal]*	No
get language	language=*[Value]*	• Arabic • Chinese (Simplified) • Danish • Dutch • English (UK) • English (US) • Finnish • French • French (Canada) • German • Hungarian • Italian • Japanese • Korean • Norwegian • Portuguese (Brazil) • Portuguese (Portugal) • Russian • Spanish • Spanish (Mexico) • Swedish • Turkish	No
get modelnum	modelnum=*[Value]*	*[Model number]*	No
get monitorid	monitorid=*[Value]*	1–100	No
get proximity	proximity=*[Value]*	• on • off	No
get proximitydetected	proximitydetected=*[Value]*	• yes • no	No
get proximityreenable	proximityreenable=*[Value]*	1–10	No
get readystatebrightness	readystatebrightness=*[Value]*	0–100	No

Command	Response	Possible values	Standby mode
get resolution	resolution=*[Value]*	*[Resolution]*	No
get serialnum	serialnum=*[Value]*	*[Serial number]*	No
get tempsensor1	tempsensor1=*[Value]*	*[Temperature in ºC]*	No
get testmode	testmode=*[Value]*	• on • off	No
get upgradeicp	upgradeicp=*[Value]*	• on • off	No
get upgrademain	upgrademain=*[Value]*	• on • off	No
get videomute	videomute=*[Value]*	• on • off	No
get vposition	vposition=*[Value]*	*[Dependent on the video signal]*	No
get welcome	welcome=*[Value]*	• on • off	No
get welcometimeout	welcometimeout=*[Value]*	5–30	No

Use the following commands to assign system information settings.

Command	Possible values	Response	Standby mode
set aspectratio *[Value]*	• =justscan • =16:9 • =4:3	aspectratio=*[Value]*	No
set autopoweroff *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =15–240	autopoweroff=*[Value]*	No
set factoryreset *[Value]*	=yes	factoryreset=*[Value]*	Yes
set fancontrol *[Value]*	• =auto • =25 • =50 • =75 • =100 • =off	fancontrol=*[Value]*	Yes
set fbc *[Value]*	• =on • =off	fbc=*[Value]*	No
set fwinfotouch *[Value]*	=*[User defined value]*	fwinfotouch=*[Value]*	No
set fwvericp *[Value]*	=*[Firmware (ICP) version number]*	fwvericp=*[Value]*	Yes
set hposition *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =*[Range of values dependent on the video signal]*	hposition =*[Value]*	No

Command	Possible values	Response	Standby mode
set language *[Value]*	• =Arabic • =Chinese (Simplified) • =Danish • =Dutch • =English (UK) • =English (US) • =Finnish • =French • =French (Canada) • =German • =Hungarian • =Italian • =Japanese • =Korean • =Norwegian • =Portuguese (Brazil) • =Portuguese (Portugal) • =Russian • =Spanish • =Spanish (Mexico) • =Swedish • =Turkish	language=*[Value]*	No
set lyncroom *[Value]*	=reset	lyncroom=*[Value]*	No
set modelnum *[Value]*	=*[Model number]*	modelnum=*[Value]*	No
set monitorid *[Value]*	=1–100	monitorid=*[Value]*	No
set opsfail *[Value]*	• =on • =off	opsfail=*[Value]*	No
set proximity *[Value]*	• =on • =off	proximity=*[Value]*	No
set proximitydetected *[Value]*	• =yes • =no	proximitydetected=*[Value]*	No
set proximityreenable *[Value]*	=1–10	proximityreenable=*[Value]*	No
set readystatebrightness *[Value]*	=0–100	readystatebrightness=*[Value]*	No
set testmode *[Value]*	• =on • =off	testmode=*[Value]*	No
set upgradeicp *[Value]*	• =on • =off	upgradeicp=*[Value]*	No
set upgrademain *[Value]*	• =on • =off	upgrademain=*[Value]*	No
set videomute *[Value]*	• =on • =off	videomute=*[Value]*	No
set vposition *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =*[Range of values dependent on the video signal]*	vposition=*[Value]*	No
set welcome *[Value]*	• =on • =off	welcome=*[Value]*	No

Command	Possible values	Response	Standby mode
set welcometimeout *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =5–30	welcometimeout=*[Value]*	No

Service information

Use the following commands to identify service information settings.

Command	Response	Possible values	Standby mode
get failurelog	failurelog=*[Value]*	• normal • power • displayfan • opsfan • inverter • temperature	No
get statereporting	statereporting=*[Value]*	• on • off	No
get totalhours	totalhours=*[Value]*	0–40000	No

Use the following commands to assign service information settings.

Command	Possible values	Response	Standby mode
set failurelog *[Value]*	=normal	failurelog=*[Value]*	No
set statereporting *[Value]*	• =on • =off	statereporting=*[Value]*	No

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 and Battery regulations (WEEE and Battery Directives)

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 remote control contains 1.5V AAA batteries. Recycle or dispose of batteries properly.

More information

See smarttech.com/compliance for more information.

Index

A

AAA batteries 42
air conditioning 14, 45
ambient lighting 67, 94
aspect ratio 4, 68, 74, 88, 96
audio
  maintaining 45-46
  troubleshooting 60-61
audio processor 8

B

backlight 72
batteries 42, 101
black level 66, 73, 86, 94
Bridgit software 8
brightness 66, 72, 86, 94

C

cable raceways 8
cables, using long VGA 68
calibration 23, 40, See also orientation
cameras
  about 4, 7
  cleaning 43, 45
  troubleshooting 59
cameras, DViT See DViT technology
CAT 5 USB extender 19
chemicals 44
cleaning
  cameras 45
  DViT camera windows 43
  microphones 45
  presence detection sensors 43
  reflective tape 43
  screen 43
  speakers 46
color select module 5
color temperature 66, 72, 86, 94
component video 85, 93
composite video 85, 93
computer See room computer
condensation 45
connection wizard 23
Consumer Electronics Control 77
contrast 66, 72, 87, 95
control panels
  front See front control panel
  menu See menu control panel

D

date and time 74
deployment See software deployment
differences between systems 9
digital pan, tilt and zoom 7
DisplayPort 77, 85, 93
documentation 10
doors 14
dry-erase markers 43
dual user support 2
dust 14, 44-45
DVI-D 71, 77, 85, 93
DViT technology 3

E

ECO Standby mode 27, 69, 76, 81, 84, 92, See also Standby mode
eraser 5
eyebolts 15, 46

F

factory reset 71
fans 70, 91
field of view 7
firmware updates 38
firmware versions 88
front control panel
  about 6
  disabling 70, 77, 97
  using with the remote control 30

G

gamma 73, 95
gates 14
gestures 2
glass cleaner 43

H

hardware installation 46
hardware removal 46
HDMI 17, 19, 71, 77, 85, 93
heat 70, 89
Help 5, 12
humidity 44-45

I

identifier 70, 97
installation
  hardware See hardware installation
  software See software installation
installation instructions 11
interactive flat panels 3

K

keyboard See on-screen keyboard
knowledge base 12

L

languages 68, 75, 89, 97
laptops
  connecting cables for 19
  using 28
lifting devices 15
lights 51
local building codes 14

M

maintenance 37
markers 43
menu control panel 35
microphones
  about 8
  cleaning 45
  troubleshooting 60
Microsoft Lync 71, 77
mute See audio

O

on-screen display menu 65
on-screen keyboard 5
orientation 5, 23, 41, See also calibration

P

packaging 47
pens
  about 5
  replacing nibs 42
permanent markers 43
Picture Wizard II 74
power 14, 16, 21, 25, 81, 84, 92
power lights 51
presence detection sensors
  about 2, 4, 27
  cleaning 43

configuring 70, 89, 97
troubleshooting 58
privacy 7

R

recessed areas 14
reflective tape channel 4, 43
release notes 11
remote control
about 7, 29
batteries 42
buttons 31
sensor 30
troubleshooting 58
remote management 79
resolution 68, 89, 98
right-click 5
room computer
connecting 16
using 28
room control 79
RS-232 79

S

S-Video 85
saturation 87, 95
sensors 70, 89
serial number 89, 98
serial numbers 50
sharpness 66, 72, 87, 95
shutters, camera 7
SMART Ink
about 8
installing 22
updating 38
using on laptops 28
SMART Meeting Pro PE software
about 8
installing 22
updating 38
using on laptops 28
SMART Meeting Pro software
about 8
installing 22
updating 38
SMART Product Drivers
about 8
installing 22
updating 38
using on laptops 28
SMART Product Update 38
SMART Room Systems 71, 77
SMART Settings 38
smoke 44
software deployment 23
software installation 22
software updates 38
sound See audio
speakers
about 8
cleaning 46
troubleshooting 61
specifications 10
Standby mode 25, 32-33, 69, 76, 81, 84, 92, See also ECO Standby mode
status lights 51
sunlight 45
Support center 12
system administrator's guides 11

T

temperature See heat
time 74
tint 66, 72, 87, 95
training 12
transportation 47
TruMotion 74

U

updates
firmware 38
software 38

USB cables and connectors 17, 19, 71, 77, 85, 93

V

vacuum cleaners 44
ventilation 14, 44
VGA 67, 71, 77, 85, 93
vibration 47
vibrations 14
volume 61

W

wall stand kits 8
water 44
WEEE and Battery Directives 101
welcome screen 27, 76, 89, 98

SMART TECHNOLOGIES

smarttech.com/support

smarttech.com/contactsupport

smarttech.com/kb/170764