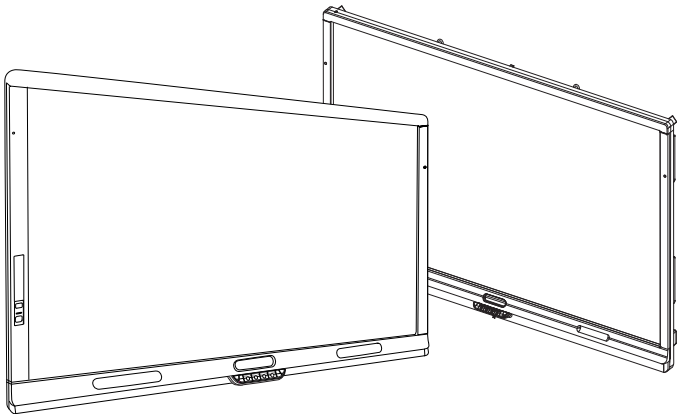


SMART Board® 8000i-G4 series
interactive flat panels

SETUP AND MAINTENANCE GUIDE

FOR MODELS 8070i-G4-SMP AND 8084i-G4-SMP

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.

Serial number: _____

Date of purchase: _____

02/2015

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.
- 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 only VESA®-approved mounting hardware.
- 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

CAUTION

- Do not install or remove the I/O extension module or an OPS computer while the interactive flat panel is turned on.
- Before you clean your SMART product, shut down or disconnect the computer. Otherwise, you may scramble the desktop icons or inadvertently activate applications when you wipe the screen.
- Avoid setting up and using the SMART product in an area with excessive levels of dust, humidity and smoke.
- Make sure an electrical socket is near your SMART product and remains easily accessible during use.
- The external power supply needs to meet the Limited Power Source (LPS) requirements of CSA/UL/IEC/EN 60950-1, when required.

- This SMART product should be used only with European TN and TT power distribution systems.

  It is not suitable for older, IT-type power distribution systems found in some European countries. "This system (IT-type) is widely used isolated from earth, in some installations in France, with impedance to earth, at 230/400V, and in Norway, with voltage limiter, neutral not distributed, at 230V line-to-line." (IEC 60950:1999)

  Contact qualified personnel if you're uncertain of the type of power system available where you're installing your SMART product.

- You must connect the USB cable that came with your SMART Board® interactive flat panel to a computer that has a USB compliant interface and that bears the USB logo. In addition, the USB source computer must be compliant with CSA/UL/EN 60950 and bear the CE mark and CSA and/or UL Mark(s) for CSA/UL 60950. This is for operating safety and to avoid damage to the SMART Board interactive flat panel.

IMPORTANT

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

Model	Power requirements
8070i-G4-SMP	100–240V, 8.9–4.5A, 50/60Hz, 310W
8084i-G4-SMP	100–240V, 50/60Hz, 530W

- For additional requirements and other information, refer to your interactive flat panel's specifications (see *Specifications* on page 10).

Contents

Chapter 1

Welcome

This chapter introduces you to your SMART Board interactive flat panel and this guide.

About your interactive flat panel

Your SMART Board interactive flat panel features SMART's proprietary DViT® (Digital Vision Touch) technology on an LCD screen with e-LED backlight which enables you to select, write and erase on the interactive surface. You can do everything on the interactive flat panel that you can do at your computer by touching the surface, and you can use an array of gestures within applications.

Features

Your interactive flat panel includes several features:

- Touch-enabled interactivity
- Gesture support
- Dual user support
- Presence detection
- Audio
- SMART software

Touch-enabled interactivity

You can do everything on your interactive flat panel that you can do at your computer—open and close applications, meet with others, create new documents or edit existing ones, visit websites, play and manipulate videos and so on—by touching the interactive surface.

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.

Object awareness enables you to pick up a pen, and then write, select or erase without replacing the pen.

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 pens and draw on the screen at the same time, enabling greater collaboration.

Presence detection

Your interactive flat panel has two presence detection sensors on its frame that can detect people up to 16' (5 m) away. When the sensors detect people in the room, the interactive flat panel turns on. When the sensors no longer detect people in the room, the interactive flat panel turns off.

Audio

Your interactive flat panel includes two 10 W integrated front-firing speakers for presenting audio from connected input sources.

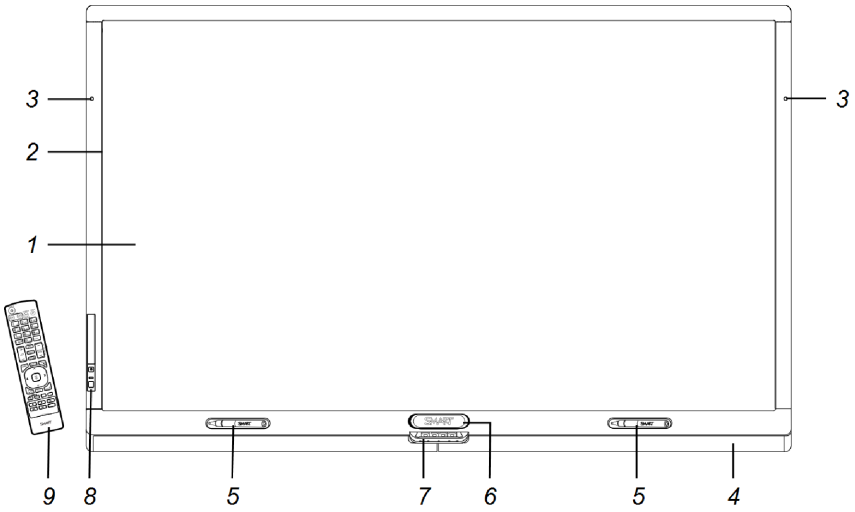
SMART software

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

Software	Description
SMART Product Drivers	SMART Product Drivers enables connected computers to detect input from your 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.
SMART Meeting Pro® software	SMART Meeting Pro software enables you to use your interactive flat panel in a meeting room. You can write or draw on a digital whiteboard, present content on your desktop and connect to individuals and other meeting rooms using integrated conferencing software.

Components

Your 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	Speakers
5	Pen (×2)
6	Eraser
7	Color select module
8	Front control panel
9	Remote control

NOTE

Components not pictured include the I/O extension module for external PCs, connector panels (see *Connector panels* on page 18) and the menu control panel (see *Menu control panel* on page 43).

Screen

The active screen area specifications vary by model:

Models	Diagonal	Width	Height	Aspect ratio
8070i-G4-SMP	70" (178 cm)	61" (154.9 cm)	34 3/8" (87.2 cm)	16:9
8084i-G4-SMP	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 screen* on page 50.

DViT cameras and reflective tape channel

In the corners of the 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 51.

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 screen because they will interfere with the DViT cameras.
- Do not place anything in the channel because it will interfere with the DViT cameras.

Presence detection sensors

The 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.

NOTES

- For information on cleaning your sensors, see *Cleaning the presence detection sensors* on page 50.
- Presence detection settings can be changed with the on-screen display menu.

- If ECO Standby mode is enabled for SMART Board 8070i-G4-SMP interactive flat panels, presence detection functionality is limited.
- For more information on the on-screen display menu settings relevant for presence detection, see page 72 for SMART Board 8070i-G4-SMP interactive flat panels or page 80 for SMART Board 8084i-G4-SMP interactive flat panels.

Speakers

Your interactive flat panel includes two 10 W integrated front firing speakers. You can connect external speakers if desired (see *Connecting external speakers* on page 24).

Pens and eraser

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

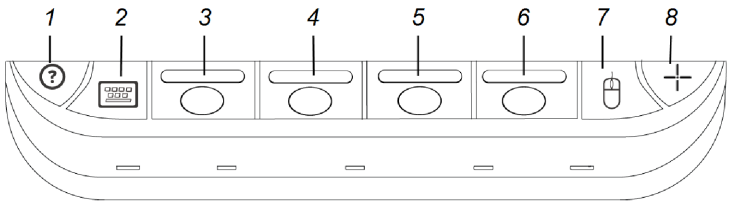
The bottom bezel of the interactive flat panel includes magnetic holders for the pens and the eraser. Removing a pen or the eraser from the holders activates it and enables you to either draw or erase digital ink.

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

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

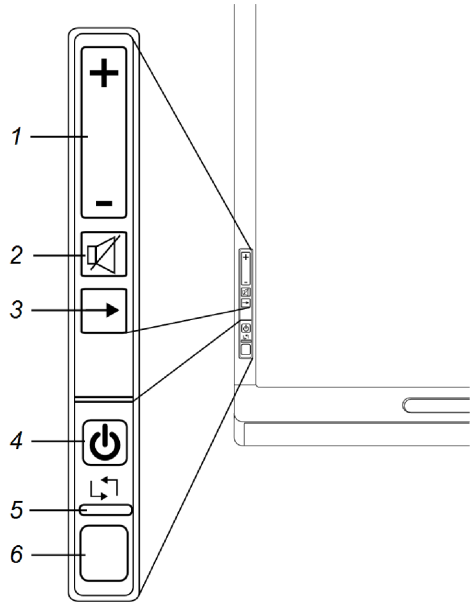


No.	Name
1	Help
2	On-screen keyboard
3	Black pen color
4	Red pen color
5	Green pen color

No.	Name
6	Blue pen color
7	Right-click
8	Orient

Front control panel

The front control panel contains the volume control, Mute, Input Select and Power/Standby buttons, as well as the status light and the remote control sensor.



No.	Name
1	Volume control
2	Mute button
3	Input Select button
4	Power/Standby button / power light
5	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, mute and input buttons 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 56.

For information on disabling the front control panel for multiple interactive flat panel installations, see page 72 for SMART Board 8070i-G4-SMP interactive flat panels or page 81 for SMART Board 8084i-G4-SMP interactive flat panels.

Remote control

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

For more information on the remote control, see *Using the remote control* on page 38.

I/O extension module

The I/O extension module is a module that you can install in the OPS slot located on the back of your interactive flat panel. When installed, the I/O extension module enables you to connect a computer to your interactive flat panel using the supplied USB and HDMI cables.

Differences between models

SMART Board 8000i-G4 series interactive flat panels include the following models:

- SMART Board 8070i-G4-SMP interactive flat panel
- SMART Board 8084i-G4-SMP interactive flat panel

The following table presents the key differences between these models:

Item	8070i-G4-SMP	8084i-G4-SMP
Screen size (diagonal)	70" (178 cm)	84" (213.4 cm)
Computer connections	2	3

Item	8070i-G4-SMP	8084i-G4-SMP
Video and audio inputs	HDMI (×3)[1]	HDMI (×3)[1]
	DisplayPort	DispalyPort
	VGA (×2)	VGA
	DVI-D	DVI-D
	Component video	Component video
	Composite video	Composite video
	S-video	
	Stereo 3.5 mm	Stereo 3.5 mm
	Dual RCA audio (×2)	Dual RCA audio (×2)
Video and audio outputs	VGA	DVI-D
	Stereo 3.5 mm (×3)	Stereo 3.5 mm (×4)
	Dual RCA audio	
	Speaker wire connector	Speaker wire connector
Guide icons	8070i	8084i

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 interactive flat panel. It includes the following information:

- How to mount your interactive flat panel
- How to connect power and devices, including computers
- How to set up your interactive flat panel and room computer
- What users can do with your interactive flat panel
- How to maintain your interactive flat panel for years of use
- How to troubleshoot issues with your interactive flat panel

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

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

Other documentation and resources

In addition to this guide, there are resources for individuals who install, maintain and use interactive flat panels.

Specifications

Your interactive flat panel's specifications define the product's dimensions, weights, recommended operating and storage temperatures, power requirements and consumption and other important information for installation and maintenance.

Model	Specifications
8070i-G4-SMP	smarttech.com/kb/170502
8084i-G4-SMP	smarttech.com/kb/170451

Installation instructions

Your interactive flat panel comes with installation instructions. These installation instructions explain how to unpack, assemble and mount your interactive flat panel and how to connect it to computers and other devices. If you misplaced these installation instructions, you can download a PDF version from smarttech.com/kb/170513.

To use your interactive flat panel with a connected computer, you need to install SMART software on the computer (see *SMART software* on page 3). If you need to deploy SMART software to multiple computers on your network, refer to the system administrator's guide (see smarttech.com/kb/170518).

Cabling guides

Cabling guides are available to explain how to connect your interactive flat panel to computers and other devices and how to route cables:

Model	Cabling guide
8070i-G4-SMP	smarttech.com/kb/170514
8084i-G4-SMP	smarttech.com/kb/170515

Help

SMART software includes extensive Help which explains how to use both your interactive flat panel and the software.

To view SMART software Help on your interactive flat panel

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

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

2. Press **Help Center**.

   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.

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

Training

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

Knowledge base

The Support center (smarttech.com/support) includes a knowledge base that you can refer to when performing maintenance on your interactive flat panel or troubleshooting issues with your interactive flat panel.

Chapter 2

Mounting your interactive flat panel

You can either mount your interactive flat panel on a wall, as documented in this chapter, or install it on a stand as documented in the installation instructions provided with the stand.

To mount your interactive flat panel on a wall, you require a team of professional installers equipped with a lifting device.

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

WARNING

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

Before mounting your interactive flat panel

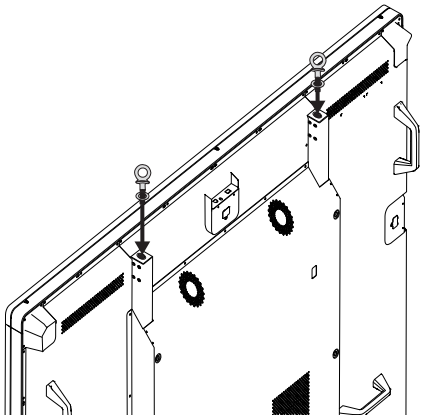
Do the following before mounting your interactive flat panel:

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

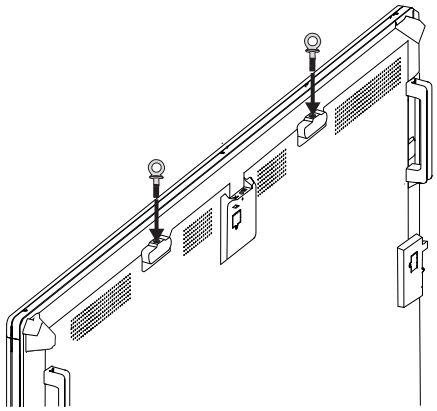
- Refer to local building codes to ensure the wall can support the weight of the interactive flat panel and mounting equipment.

Models	Weight (lb.)	Weight (kg)
8070i-G4-SMP	205	93
8084i-G4-SMP	260	118.3

- Attach the included eyebolts and washers to assist in mounting, and remove them after you mount the interactive flat panel.



8070i-G4-SMP



8084i-G4-SMP

WARNING

Do not attempt to mount or carry the interactive flat panel using your own strength because it could fall and cause personal injury. Attach a lifting device to the included eyebolts to lift and carry the interactive flat panel.

CAUTION

Hand-tighten the eyebolts. If you over-tighten the eyebolts and damage the threads, you will be unable to remove the eyebolts.

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

Models	Mounting plate
8070i-G4-SMP	800 mm × 400 mm
8084i-G4-SMP	600 mm × 400 mm

- Use M8 screws to fasten the wall bracket.

  The following table presents the recommended screw length and fasten force for the different models:

Models	Screw length[1]	Fasten force
8070i-G4-SMP	23 mm + x mm < M8 < 29 mm + x mm	97.36–123.91 in-lb. (11–14 N m)
8084i-G4-SMP	23 mm + x mm < M8 < 29 mm + x mm	Max. 10.6 in-lb. (1.2 N m) **CAUTION** Do not over-tighten the screws.

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

- Because the receptacles might not be easily accessible after the installers mount the interactive flat panel, consider connecting cables for power, computers and other devices while the interactive flat panel is still in its packaging or is suspended from a lifting device (see *Connecting power and devices* on page 17).
- Before turning on the interactive flat panel 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 51.

Choosing a location

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

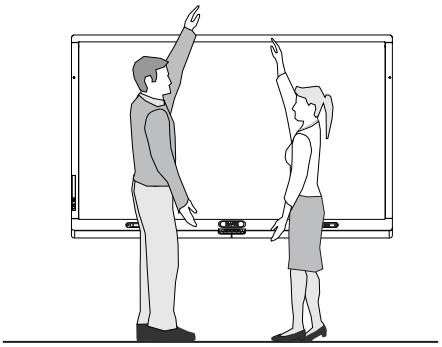
- Do not install the interactive flat panel in a location where a door or gate could hit it.
- Do not install the interactive flat panel in an area where it will be subjected to strong vibrations or dust.
- Do not install the interactive flat panel near where the mains power supply enters the building.
- Ensure adequate ventilation or provide air conditioning around the interactive flat panel so that heat can flow away from the unit and the mounting equipment.

[1] Where x is the total thickness of the wall bracket and washer.

- If you mount the interactive flat panel in a recessed area, leave at least 4" (10 cm) of space between the interactive flat panel and the recessed walls to enable ventilation and cooling.

Choosing a height

Consider the general height of the user community when you choose the height for the interactive flat panel.

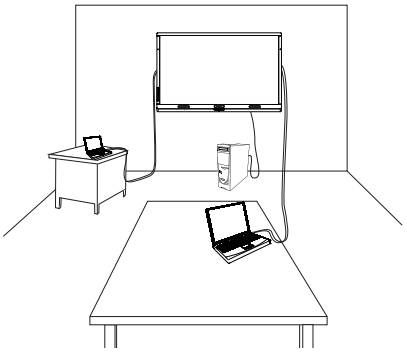


Chapter 3

Connecting power and devices

This chapter includes information on connecting your interactive flat panel to power, computers and other devices.

In a typical installation, you connect your interactive flat panel to a room computer and up to one guest laptop (SMART Board 8070i-G4-SMP interactive flat panels) or to a room computer and up to two guest laptops (SMART Board 8084i-G4-SMP interactive flat panels). You can also connect external speakers, DVD players, document cameras and other devices.



NOTES

- This chapter assumes that you installed the I/O extension module (see *Installation instructions* on page 10).
- The connections in this chapter are based on the default USB mappings. However, you can customize these mappings (see page 73 for SMART Board 8070i-G4-SMP interactive flat panels or page 81 for SMART Board 8084i-G4-SMP interactive flat panels).

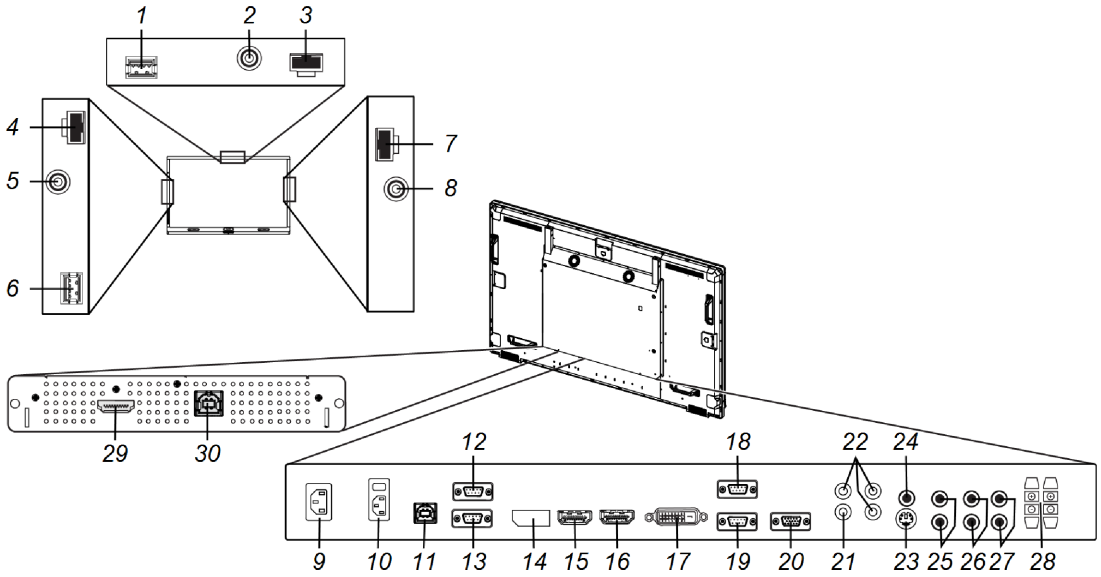
Connector panels

There are connector panels on the top, left, right and bottom of your interactive flat panel as well as on the I/O extension module.

8070i

SMART Board 8070i-G4-SMP interactive flat panel connector panels

The following diagram and table present the connectors on SMART Board 8070i-G4-SMP interactive flat panels:



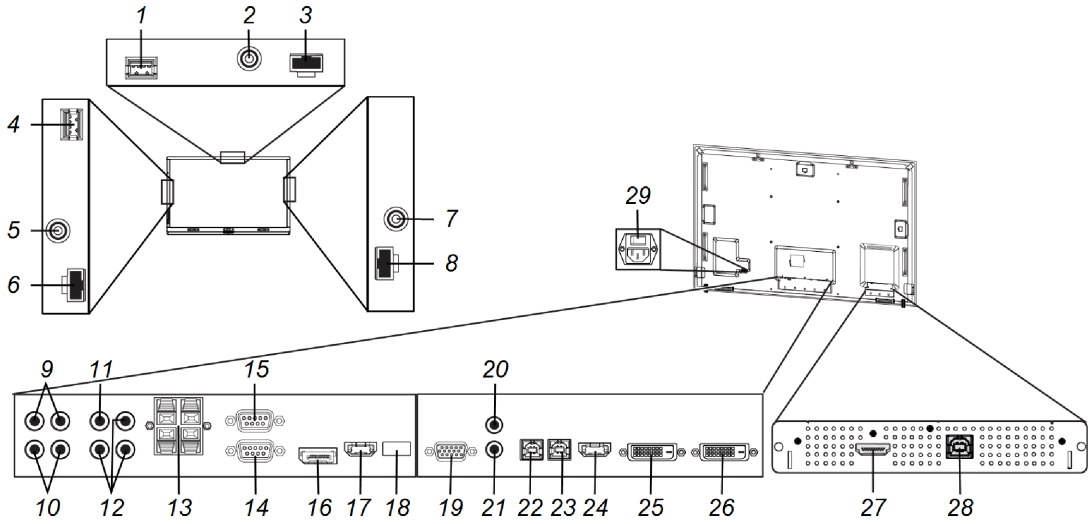
No.	Type	Details	Identifier
Top connector panel			
1	USB	USB 3.0 Type-A receptacle	
2	Audio out	Stereo 3.5 connector	
3	DC power	19V DC Molex® Micro-Fit 2-pin connector	
Left connector panel			
4	DC power	19V DC Molex Micro-Fit 2-pin connector	
5	Audio out	Stereo 3.5 mm connector	
6	USB	USB 2.0 Type-A receptacle	
Right connector panel			
7	DC power	19V DC Molex Micro-Fit 2-pin connector	
8	Audio out	Stereo 3.5 mm connector	

No.	Type	Details	Identifier
Bottom connector panel			
9	AC power	AC power pass-through	
10	AC power	AC power inlet and switch	
11	USB	USB 2.0 Type-B receptacle	USB2
12	Room control in	RS-232 connector	
13	Room control out / pass-through	RS-232 connector	
14	Video in	DisplayPort connector	DPORT
15	Video in	HDMI connector	HDMI1
16	Video in	HDMI connector	HDMI2
17	Video in	DVI-D connector	DVI
18	Video in	VGA connector	VGA1
19	Video in	VGA connector	VGA2
20	Video out	VGA connector	
21	Video in	Composite video receptacle	DVD/HD
22	Video in	Component video (Y, Pb/Cb, Pr/Cr) receptacles	VIDEO
23	Video in	S-video connector	S-VIDEO
24	Audio in	Stereo 3.5 mm connector	AUDIO1
25	Audio in	Dual RCA audio receptacles	AUDIO2
26	Audio in	Dual RCA audio receptacles	AUDIO3
27	Audio out	Dual RCA audio receptacle	
28	Audio out	Speaker wire connectors	
I/O extension module			
29	Video in	HDMI connector	HDMI3/PC
30	USB	USB 2.0 Type-B receptacle	USB1

8084i

SMART Board8084i-G4-SMP interactive flat panel connector panels

The following diagram and table present the connectors on SMART Board 8084i-G4-SMP interactive flat panels:



No.	Type	Details	Identifier
Top connector panel			
1	USB	USB 3.0 Type-A receptacle	
2	Audio out	Stereo 3.5 connector	
3	DC power	19V DC Molex Micro-Fit 2-pin connector	
Left connector panel			
4	USB	USB 2.0 Type-A receptacle	
5	Audio out	Stereo 3.5 mm connector	
6	DC power	19V DC Molex Micro-Fit 2-pin connector	
Right connector panel			
7	Audio out	Stereo 3.5 mm connector	
8	DC power	19V DC Molex Micro-Fit 2-pin connector	
Bottom connector panel			
9	Audio in	Dual RCA audio receptacles	AUDIO2
10	Audio in	Dual RCA audio receptacles	AUDIO3
11	Video in	Composite video receptacle	Composite
12	Video in	Component video (Y, Pb, Pr) receptacles	Component

No.	Type	Details	Identifier
13	Audio out	Speaker wire connectors	
14	Room control in	RS-232 connector	
15	Room control out / pass-through	RS-232 connector	
16	Video in	DisplayPort connector	DPORT
17	Video in	HDMI connector	HDMI2
18	Service	USB 2.0 Type-A receptacle	
19	Video in	VGA connector	VGA
20	Audio in	Stereo 3.5 mm connector	AUDIO1
21	Audio out	Stereo 3.5 mm connector	
22	USB	USB 2.0 Type-B receptacle	USB2
23	USB	USB 2.0 Type-B receptacle	USB3
24	Video in	HDMI connector	HDMI1
25	Video in	DVI-D connector	DVI-D
26	Video out	DVI-D connector	
I/O extension module			
27	Video in	HDMI connector	HDMI3/PC
28	USB	USB 2.0 Type-B receptacle	USB1
Back of the interactive flat panel			
29	AC power	AC power inlet and switch	

Connecting power

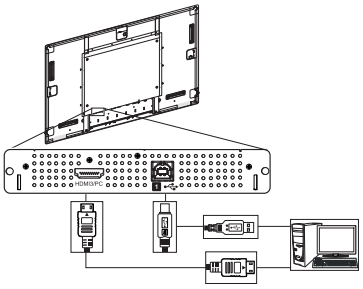
Connect the supplied power cable from the AC power inlet on the bottom connector panel (SMART Board 8070i-G4-SMP interactive flat panels) or on the back of the interactive flat panel (SMART Board 8084i-G4-SMP interactive flat panels) to a power outlet.

NOTE

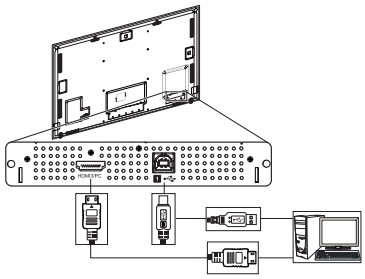
Refer to your interactive flat panel's specifications for power requirements and power consumption information (see *Specifications* on page 10).

Connecting the room computer

Using the supplied USB and HDMI cables, connect the room computer to the USB1 receptacle and the HDMI3/PC connector on the I/O extension module, which is located on the back of your interactive flat panel.



8070i-G4-SMP



8084i-G4-SMP

NOTE

SMART Board 8084i-G4-SMP interactive flat panels support 4K UHD (3840 × 2160). However, you can only connect computers and other devices that output this resolution to the HDMI1 and HDMI2 connectors on the bottom connector panel, not the HDMI3/PC connector on the I/O extension module. You can customize the USB mappings to map the USB1 receptacle on the I/O extension module to the HDMI1 or HDMI2 connectors on the bottom connector panel (see page 81).

Connecting cables for laptops

You can install cables that enable users to connect laptops to your interactive flat panel from another location in the room, such as on a conference table. By installing these cables, you make use of connectors that might not be accessible when your interactive flat panel is wall-mounted.

You can then run the cables across floors or behind walls to the conference table.

WARNING

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

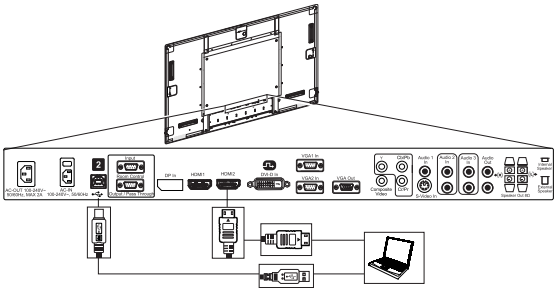
8070i

Connecting laptop cables to SMART Board 8070i-G4-SMP interactive flat panels

You can connect up to one laptop to a SMART Board 8070i-G4-SMP interactive flat panel.

For this laptop:

- Connect a USB cable to the USB2 receptacle on the bottom connector panel.
- Connect an HDMI cable to the HDMI2 connector on the bottom connector panel.



NOTE

You can use the provided CAT 5 USB extender to extend the USB connection between the interactive flat panel and a laptop.

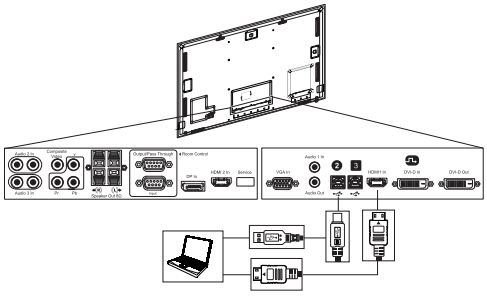
8084i

Connecting laptop cables to SMART Board 8084i-G4-SMP interactive flat panels

You can connect up to two laptops to a SMART Board 8084i-G4-SMP interactive flat panel.

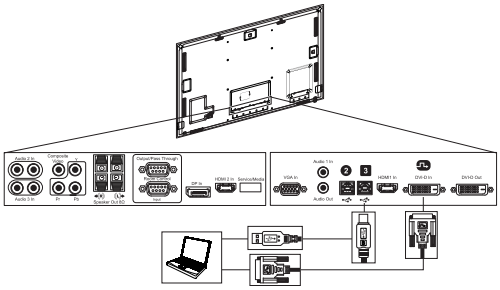
For the first laptop:

- Connect a USB cable to the USB2 receptacle on the bottom connector panel.
- Connect an HDMI cable to the HDMI2 connector on the bottom connector panel.



For the second laptop:

- Connect a USB cable to the USB3 receptacle on the bottom connector panel.
- Connect a DVI cable to the DVI-D connector on the bottom connector panel.



NOTE

You can use the provided CAT 5 USB extender to extend the USB connection between the interactive flat panel and a laptop.

Connecting external speakers

Your interactive flat panel includes two 10 W speakers below the screen. You can connect external speakers using the stereo 3.5 mm connectors on either side of the interactive flat panel.

Alternatively, you can use the speaker wire connectors on the bottom connector panel.

Connecting other devices

You can connect other devices such as DVD players and document cameras to your interactive flat panel using the video and audio input connectors on the bottom connector panel.

NOTES

- For SMART Board 8070i-G4-SMP interactive flat panel, users can specify the current audio by selecting it in the on-screen display menu or by pressing the **AUDIO INPUT** button on the remote control (see page 71).
- For SMART Board 8084i-G4-SMP interactive flat panels, video input connectors are mapped to audio input connectors:

Video	Audio
VGA	AUDIO1 (stereo 3.5 mm)
DVI-D	AUDIO2 (dual RCA audio)
Component video	AUDIO3 (dual RCA audio)

You can change these mappings in the on-screen display menu (see page 78).

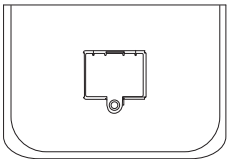
Disabling the USB receptacles

The top and left connector panels include USB Type-A receptacles. You can disable these receptacles so that they can't access computers connected to the interactive flat panel.

CAUTION

- Disconnect the power supply for the interactive flat panel before you disable the USB receptacles.
- Complete the following procedure in a static-free environment to prevent electrostatic shock and damage to the interactive flat panel.

To disable the USB receptacles



1. Locate the rectangular cut-out on the back of the top connector panel.
2. Remove the screw securing the cut-out with a Phillips screwdriver. Retain the screw and cut-out.
3. Locate the black jumper on the circuit board inside the panel.
4. Pull the black jumper off of the circuit board with pliers.

   CAUTION

   To prevent damage, do not touch the circuit board with the pliers.

   NOTE

   You can install the jumper again to enable the USB receptacle.

5. Repeat steps 1 to 4 for the left connector panel.

Chapter 4

Setting up your interactive flat panel and room computer

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

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

After connecting your room computer to the interactive flat panel (see *Connecting the room computer* on page 22) and mounting the interactive flat panel (see *Mounting your interactive flat panel* on page 13), you can turn on both devices.

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

1. Turn on your room computer.
2. Turn on your interactive flat panel by flicking the power switch beside the AC power inlet.
3. Press the **Power/Standby** button on the front control panel.
4. Press the **Input Select** button on the front control panel until the input source is HDMI3/PC.

> **TIP**
> Alternatively, you can press the power and input buttons on the remote control (see *Remote control buttons* on page 39).

Installing SMART software

To take full advantage of your interactive flat panel's features, you must download and install SMART software on your room computer.

Downloading and installing SMART software

To download and install SMART software

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 software.

Deploying SMART software to multiple computers

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

- Your organization has multiple interactive flat panels, each with its own room computer.
- You want to deploy SMART software to users' laptops so that they can use their laptops with your interactive flat panel.

To deploy SMART software to multiple computers, refer to the appropriate system administrator's guide (see *Installation instructions* on page 10).

Running the connection wizard

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

To run the 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.

3. Select the interactive flat panel from the list of connected SMART interactive products, and then press **Next**.

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.

Chapter 5

Using your interactive flat panel

This chapter explains how to use the key features of your interactive flat panel.

Turning on and turning off your interactive flat panel

You can turn on and turn off your interactive flat panel using the front control panel or the remote control.

NOTE

If presence detection is enabled, the interactive flat panel turns on and turns off automatically (see *Using presence detection* on page 33).

8070i

Turning on and turning off SMART Board 8070i-G4-SMP interactive flat panels

To turn on your interactive flat panel

1. Turn on your computer.
2. Press the **Power/Standby** button on the front control panel.

   OR

   Press the **POWER ON** button on the remote control.

   Your computer's logon screen or desktop appears on your 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 on the bottom connector panel is turned off. To find the main power switch, see *Connector panels* on page 18.

To turn off your interactive flat panel

1. Turn off your computer.
2. Press the **Power/Standby** button on the front control panel.

   OR

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

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Turning on and turning off SMART Board 8084i-G4-SMP interactive flat panels

To turn on your interactive flat panel

1. Turn on your computer.
2. Press the **Power/Standby** button on the front control panel.

   OR

   Press the **POWER** button or the **MONITOR ON** button on the remote control.

   Your computer's logon screen or desktop appears on your 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 on the back of the interactive flat panel is turned off. To find the main power switch, see *Connector panels* on page 18.

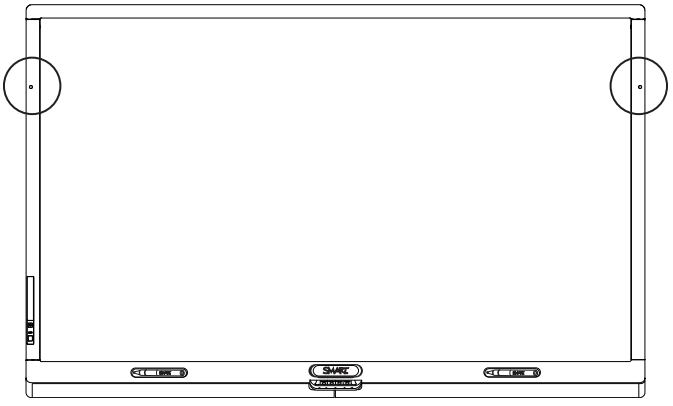
To turn off your interactive flat panel

1. Turn off your computer.
2. Press the **Power/Standby** button on the front control panel.

   OR

   Press the **POWER** button or the **MONITOR OFF** button on the remote control.

Using presence detection



Your 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-SMP 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 72 for SMART Board 8070i-G4-SMP interactive flat panels or page 80 for SMART Board 8084i-G4-SMP interactive flat panels.

For information on cleaning your sensors, see *Cleaning the presence detection sensors* on page 50.

Using your interactive flat panel with the room computer

Users will most often use the interactive flat panel with the room computer you set up in the previous chapter (see *Setting up your interactive flat panel and room computer* on page 27).

Using SMART software

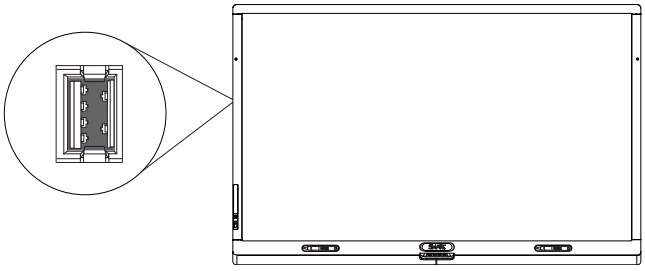
The SMART software installed on the room computer allows users to do the following:

- 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 interactive flat panel, refer to the Help (see *Help* on page 11).

Using the USB receptacle

You can connect a USB drive or device to the USB Type-A receptacles on the left connector panel of your interactive flat panel, and then access it from the room computer.



NOTES

- The room computer must be connected to the USB1 receptacle on the I/O extension module.
- You can disable the USB receptacle (see *Disabling the USB receptacles* on page 24).

To use the USB receptacle

1. If the room computer's display isn't visible on the interactive flat panel, change to the HDMI3/PC input source (see *Changing input sources* on page 37).
2. Connect a USB device to the USB Type-A receptacle.
3. Use the room computer to access the content on your USB device.

Using your interactive flat panel with guest laptops

Users can connect up to one guest laptop to SMART Board 8070i-G4-SMP interactive flat panels or up to two guest laptops to SMART Board 8084i-G4-SMP interactive flat panels using the cables you installed (see *Connecting cables for laptops* on page 22).

Connecting a guest laptop directly to your interactive flat panel

When a user connects a guest laptop to the interactive flat panel, the laptop's desktop is displayed on the interactive flat panel and touch interactivity is enabled if SMART software is installed (see *Installing SMART software* on page 28).

NOTE

If SMART software isn't installed, you can connect the laptop to the interactive flat panel through a SMART GoWire cable (see *Connecting a guest laptop through a SMART GoWire cable* on the next page).

To connect a guest laptop to the HDMI2 input source

1. Connect the USB cable from the interactive flat panel's USB2 receptacle to the guest laptop.
2. Connect the HDMI cable from the interactive flat panel's HDMI2 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 HDMI2.

> **TIP**
> Alternatively, you can press the **Input** button on the remote control (see *Remote control buttons* on page 39).

To connect a guest laptop to the DVI-D input source (SMART Board 8084i-G4-SMP interactive flat panels only)

1. Connect the USB cable from the interactive flat panel's USB3 receptacle to the guest laptop.
2. Connect the DVI cable from the interactive flat panel's DVI-D 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 DVI-D.

> **TIP**
> Alternatively, you can press the **Input** button on the remote control (see *Remote control buttons* on page 39).

Connecting a guest laptop through a SMART GoWire cable

If you want to connect a laptop that doesn't have SMART software installed, you can use a SMART GoWire cable. The SMART GoWire cable enables you to have touch control of the laptop and use SMART Meeting Pro PE software without installing the software on the laptop.

> **IMPORTANT**
> Your interactive flat panel supports the SMART GoWire cable with SMART Meeting Pro PE software only. It does not support the SMART GoWire cable with SMART Notebook® collaborative learning software.

To connect a SMART GoWire cable

1. Connect the guest laptop to the interactive flat panel as described in *Connecting a guest laptop directly to your interactive flat panel* on the previous page.

2. Disconnect the USB cable from your laptop, and then connect it to the SMART GoWire cable's USB receptacle.

   NOTE

   If the SMART GoWire cable isn't connected to your interactive flat panel through a USB cable, you have access to SMART Meeting Pro PE software on your laptop for five minutes, and then the software closes.

3. Connect the SMART GoWire cable's USB connector to your laptop.

   The *AutoPlay* dialog box appears.

4. Select **Start SMART Meeting Pro PE**.

   SMART Meeting Pro PE software starts. You have touch control of your laptop on your interactive flat panel and can use SMART Meeting Pro PE software while your laptop is connected to your interactive flat panel.

To disconnect a SMART GoWire cable

1. If required, save your SMART Meeting Pro software file to your laptop. You can save the file as an .fcw file.

   NOTE

   You can open an .fcw file on a computer that has SMART Meeting Pro software or SMART Meeting Pro PE software or that is connected to a SMART product through a SMART GoWire cable.

2. Close SMART Meeting Pro PE software.
3. Disconnect the SMART GoWire cable from your laptop and the USB cable.

Changing input sources

You can connect the interactive flat panel to a room computer, one or two guest laptops and other devices (see *Connecting power and devices* on page 17).

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-SMP interactive flat panels has buttons for each input source (**HDMI1**, **HDMI2**, **HDMI3/PC** and so on). Press one of these input source buttons to display the connected device's input.

Using the remote control

The infrared remote control enables you to turn on and turn off your interactive flat panel, change the input source, change the volume 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.

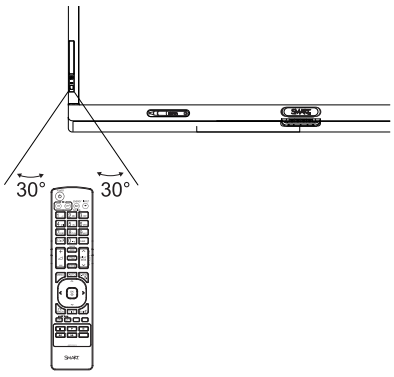
If the remote control doesn't respond, see *Resolving remote control issues* on page 62.

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

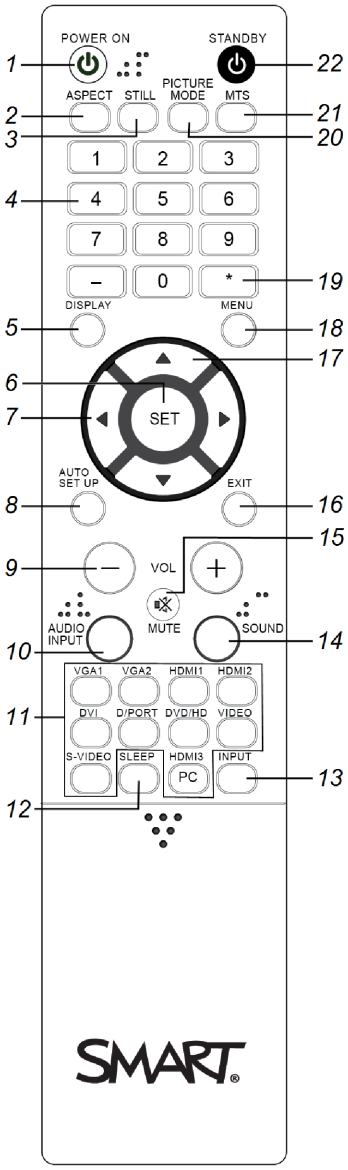
The remote control might not function when the infrared remote control sensor is blocked or when it is in direct sunlight or strong lighting.

Remote control buttons

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

8070i

SMART Board 8070i-G4-SMP interactive flat panel remote control

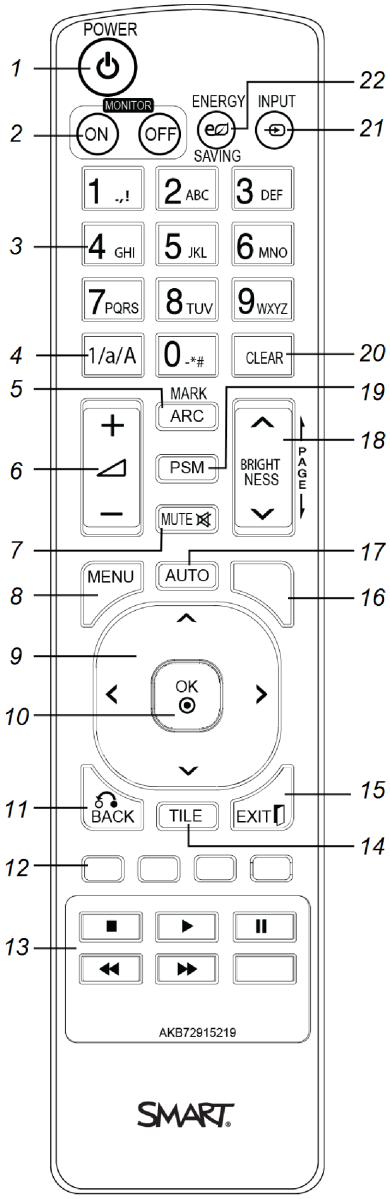


No.	Name	Description
1	POWER ON	Turn on the interactive flat panel
2	ASPECT	Select the aspect ratio
3	STILL	Turn on or off the still picture mode

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
10	AUDIO INPUT	Select the audio input source
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
15	MUTE	Mute audio inputs for the interactive flat panel
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)

8084i

SMART Board 8084i-G4-SMP interactive flat panel remote control



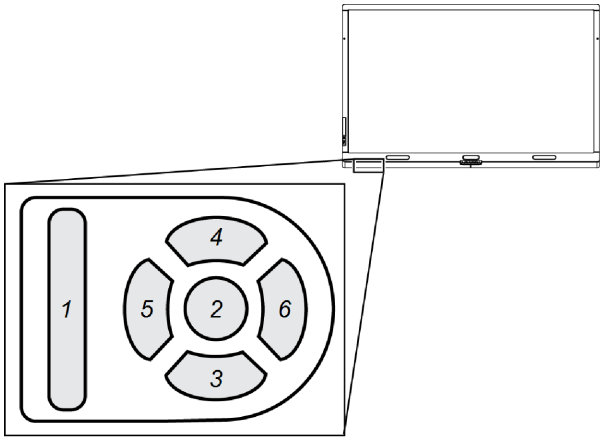
No.	Name	Description
1	POWER	Turn on or off the interactive flat panel
2	MONITOR	Alternate between different interactive flat panel modes (on, off and Standby) depending on how you configure Standby mode
3	[Number buttons]	Press buttons on the number pad to set and change passwords, or to customize or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

Menu control panel

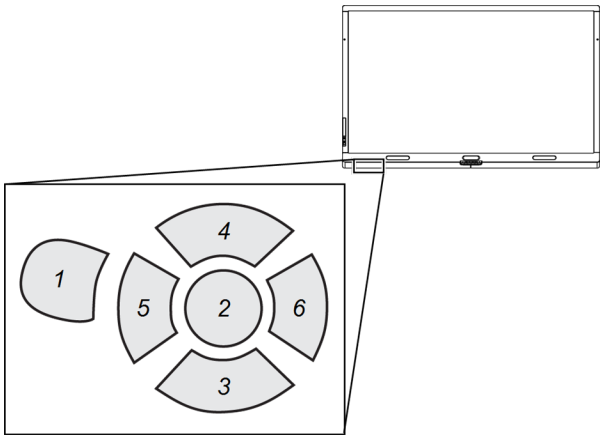
As an alternative to using your remote control to navigate the on-screen display menu, you can use the menu control panel located on the bottom of the interactive flat panel.

SMART Board 8070i-G4-SMP interactive flat panels



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

SMART Board 8084i-G4-SMP interactive flat panels



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

Chapter 6

Maintaining your interactive flat panel

If you properly maintain your interactive flat panel, it will provide years of use.

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 the SMART software you installed to use your interactive flat panel (see *Installing SMART software* on page 28). 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 11).

NOTE

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

Updating firmware

Your interactive flat panel uses firmware on its processor. After you update SMART software, a new firmware file could be saved on your computer. When you connect a computer with this file to your interactive flat panel, 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 your interactive flat panel is connected to your computer.
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 your interactive flat panel* below).

Calibrating your interactive flat panel

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 your interactive flat panel

1. Open SMART Settings (see *Opening SMART Settings* on page 45).
2. Press **SMART Hardware Settings**.

3. If you have more than one SMART product connected, select the interactive flat panel.

   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 your interactive flat panel* below).

Orienting your interactive flat panel

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

To orient your 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 your interactive flat panel* on page 47).

Replacing batteries in the remote control

The 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 the 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 screen

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

CAUTION

- Do not use permanent or dry-erase markers on the screen. If dry-erase markers are used on the screen, remove the ink as soon as possible with a lint-free, non-abrasive cloth.
- Do not rub the screen with a dense or rough material.
- Do not apply pressure to the screen.
- Do not use cleaning solution or glass cleaner on the interactive flat panel screen, because they can deteriorate or discolor the screen.
- Avoid touching the reflective tape between the screen and the bezel, and ensure that this strip stays dry. Damage to this strip affects touch interactivity.

To clean the 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

The 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 your 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

Your interactive flat panel requires 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 your interactive flat panel see *Removing your interactive flat panel* on the next page.

CAUTION

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

Preventing condensation

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

- Temperature extremes with high humidity
- Rapid changes in humidity, which can occur when you operate the product near water, such as a 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).

Checking the interactive flat panel installation

Inspect your interactive flat panel installation frequently to ensure that it remains securely installed.

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

If you find an issue, refer to a professional installer.

Removing your interactive flat panel

To safely remove your interactive flat panel, use four or more professional installers.

WARNING

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

IMPORTANT

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

To remove your interactive flat panel

1. Turn off your interactive flat panel and unplug the power cable from the wall outlet.
2. Remove all accessible cables and connectors.
3. Attach the eyebolts for your lifting equipment. For more information, see *Before mounting your interactive flat panel* on page 13.
4. Lift your interactive flat panel from its mounting location.

   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.
   - 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.

Transporting your interactive flat panel

Save your original packaging so that you can repack your interactive flat panel 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 interactive flat panel only in original or replaced packaging. Transporting your interactive flat panel without correct packaging voids your warranty and could lead to product damage.

Chapter 7

Troubleshooting your interactive flat panel

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

Locating the interactive flat panel serial number

When you contact SMART Support, you might be asked to provide the interactive flat panel serial number. The easiest way to locate this serial number is using the on-screen display menu (see page 71 for SMART Board 8070i-G4-SMP interactive flat panels or page 82 for SMART Board 8084i-G4-SMP 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 21).
		The main power is off.	Flick the power switch to turn the main power on (see page 18).
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 your interactive flat panel with the required cables (see page 22).
		The interactive flat panel isn't set to the correct video input source.	• Select the computer's input source (typically HDMI3/PC) 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 46).
Solid green	Flashing green	The interactive flat panel detects a computer, but SMART Product Drivers isn't installed or isn't running (see page 60).	Install SMART Product Drivers or connect a SMART GoWire cable (see page 36).
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-SMP 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-SMP 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 (ideally 1080p for SMART Board 8070i-G4-SMP interactive flat panels or 4K UHD for SMART Board 8084i-G4-SMP interactive flat panels) 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-SMP interactive flat panels) or **AUTO** (on SMART Board 8084i-G4-SMP 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-SMP interactive flat panels) or **AUTO** (on SMART Board 8084i-G4-SMP interactive flat panels) on the remote control.
The image isn't centered on the screen.		Press **AUTO SETUP** (on SMART Board 8070i-G4-SMP interactive flat panels) or **AUTO** (on SMART Board 8084i-G4-SMP 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-SMP interactive flat panels) or **AUTO** (on SMART Board 8084i-G4-SMP 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-SMP interactive flat panels) or **AUTO** (on SMART Board 8084i-G4-SMP 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-SMP interactive flat panels) or **AUTO** (on SMART Board 8084i-G4-SMP 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 74 for SMART Board 8070i-G4-SMP interactive flat panels or page 80 for SMART Board 8084i-G4-SMP 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 11).
	SMART Product Drivers isn't current.	Update SMART Product Drivers (see page 46).
	There's no USB connection from the computer to the interactive flat panel.	Verify the connections (see page 22).
	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 22).
The SMART Board icon doesn't appear.	SMART Product Drivers isn't installed.	• Download and install SMART Product Drivers from smarttech.com/downloads. • Connect the computer or laptop to the interactive flat panel with a SMART GoWire cable (see page 36).
	SMART Product Drivers isn't running.	Start SMART Board Tools following the steps in the Help (see page 11).
The SMART Board icon 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 64).
	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. 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 USB1 receptacle on the I/O extension module.

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 48.)
	The desktop isn't centered on the screen.	• Press **AUTO SETUP** (on SMART Board 8070i-G4-SMP interactive flat panels) or **AUTO** (on SMART Board 8084i-G4-SMP 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 47).
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 audio issues

IMPORTANT

Ensure you can see the computer's desktop and have touch control and digital ink before using this table. If not, resolve those issues before completing the steps in the table below.

Symptom	Causes	Solution
Sound doesn't play when you play a sound file.	The computer is muted.	Turn off the mute setting.
	The computer's volume is too low.	Turn up the volume on the computer.
	The interactive flat panel is muted.	Turn off the mute setting using the remote control or the front control panel.
	The interactive flat panel's volume is too low.	• Use the remote control to turn up the volume on the interactive flat panel. • Use the volume control on the front control panel.
	The wrong audio input is selected for the video input.	Select the correct audio input (see page 71 for SMART Board 8070i-G4-SMP interactive flat panels or page 78 for SMART Board 8084i-G4-SMP interactive flat panels).

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 21).
	You're outside the range of the infrared remote control sensor.	Move to within the range of the infrared remote control sensor (see page 38).
	The remote control batteries need to be replaced.	Replace the batteries (see page 49).
	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 72 for SMART Board 8070i-G4-SMP interactive flat panels or page 80 for SMART Board 8084i-G4-SMP 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 72 for SMART Board 8070i-G4-SMP interactive flat panels or page 80 for SMART Board 8084i-G4-SMP 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 72 for SMART Board 8070i-G4-SMP interactive flat panels or page 80 for SMART Board 8084i-G4-SMP 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.
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 72 for SMART Board 8070i-G4-SMP interactive flat panels or page 80 for SMART Board 8084i-G4-SMP interactive flat panels).

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 45) 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 45).
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

You can access the on-screen display menu using either the remote control (see *Remote control buttons* on page 39) or the menu control panel (see *Menu control panel* on page 43).

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.

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SMART Board 8070i-G4-SMP 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.

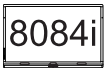
Option	Values	Function	Notes (if any)
• H-POSITION	0–100	Sets the horizontal position of the image within the screen area	You can modify this option only if the currently selected video input is VGA.
• V-POSITION	0–100	Sets the vertical position of the image within the screen area	You can modify this 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			
• BALANCE	L50–R50	Balances the left and right volume	
• TREBLE	L50–R50	Sets the high frequency sound	
• BASS	L50–R50	Sets the low frequency sound	

Option	Values	Function	Notes (if any)
• LINE OUT	FIXED VARIABLE	Sets the audio line out	
• HDMI3/PC LINE OUT	FIXED VARIABLE	Sets the audio line out for the room computer (HDMI3/PC)	
• AUDIO INPUT	DPORT USB IN1 IN2 IN3	Sets the audio input source	Alternatively, you can press the **AUDIO INPUT** button on the remote control.
• LEFT SPEAKER	ON OFF	Enables or disables the left speaker	
• RIGHT SPEAKER	ON OFF	Enables or disables the right speaker	
• AUDIO RESET	[N/A]	Resets all options in the *AUDIO* menu to their default values	
OSD			
• LANGUAGE	[Languages]	Sets the on-screen display menu's language	
• 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	

Option	Values	Function	Notes (if any)
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.
• 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	

Option	Values	Function	Notes (if any)
▸ 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)	
• 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	

Option	Values	Function	Notes (if any)
• 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	



SMART Board 8084i-G4-SMP 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	

Option	Values	Function	Notes (if any)
• 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	
▸ 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	

Option	Values	Function	Notes (if any)
• 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	
▸ 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			
• Sound Mode	Standard User Setting	Sets the sound mode	Alternatively, you can press the **PSM** button on the remote control to access this option.
▸ User EQ			
• 100 Hz	-10–10	Sets the sound equalization at 100 Hz	You can modify this option only if you select **User Setting** in *Sound Mode*.

Option	Values	Function	Notes (if any)
• 300 Hz	-10–10	Sets the sound equalization at 300 Hz	You can modify this option only if you select **User Setting** in *Sound Mode*.
• 1 kHz	-10–10	Sets the sound equalization at 1 kHz	You can modify this option only if you select **User Setting** in *Sound Mode*.
• 3 kHz	-10–10	Sets the sound equalization at 3 kHz	You can modify this option only if you select **User Setting** in *Sound Mode*.
• 10 kHz	-10–10	Sets the sound equalization at 10 kHz	You can modify this option only if you select **User Setting** in *Sound Mode*.
• Reset	[N/A]	Resets all options in the *User EQ* menu to their default values	You can modify this option only if you select **User Setting** in *Sound Mode*.
• Virtual Surround	On Off	Enables or disables virtual surround sound	
▸ Clear Voice II			
• Clear Voice II	On Off	Enables or disables the Clear Voice II feature	
• Level	-3–3	Sets the value for the Clear Voice II feature	You can modify this option only if you select **On** in *Clear Voice II*.
▸ AV Sync.			
• AV Sync.	On Off	Enables or disables audio-visual synchronization	
• Speaker	-5–15	Sets the speaker level for audio-visual synchronization	You can modify this option only if you disable speaker bypass.
• Bypass	[N/A]	Enables or disables speaker bypass	
▸ Sound Setting			
• Balance	L50–R50	Balances the left and right volume	
• Speaker	Internal External Off	Enables the internal speakers (see *Speakers* on page 6), enables the external speakers or disables audio altogether	
• Line Output	Fixed Variable	Sets the audio line out	
• HDMI3/PC Line Output	Fixed Variable	Sets the audio line out for the room computer (HDMI3/PC)	

Option	Values	Function	Notes (if any)
▸ Audio Input			
• Audio In 1	HDMI3/PC HDMI1 HDMI2 DPORT DVI-D VGA Component Composite Disable	Specifies a video input to map to AUDIO1 or disables AUDIO1	The video input you select must be unique for AUDIO1.
• Audio In 2	HDMI3/PC HDMI1 HDMI2 DPORT DVI-D VGA Component Composite Disable	Specifies a video input to map to AUDIO2 or disables AUDIO2	The video input you select must be unique for AUDIO2.
• Audio In 3	HDMI3/PC HDMI1 HDMI2 DPORT DVI-D VGA Component Composite Disable	Specifies a video input to map to AUDIO3 or disables AUDIO3	The video input you select must be unique for AUDIO3.
• USB Audio	HDMI3/PC HDMI1 HDMI2 DPORT DVI-D VGA Component Composite Disable	Specifies a video input to map to the USB audio input or disables the USB audio input	The video input you select must be unique for the USB audio input.
• HDMI3/PC	Analog Digital	Specifies whether the HDMI3/PC audio input is analog or digital	
TIME			
▸ Clock			
• Date	1–31	Specifies the current date	

Option	Values	Function	Notes (if any)
• 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.
• 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*.

Option	Values	Function	Notes (if any)
• 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*.
• 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)	

Option	Values	Function	Notes (if any)
• 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	
▸ 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.

Option	Values	Function	Notes (if any)
• 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 interactive flat panel

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

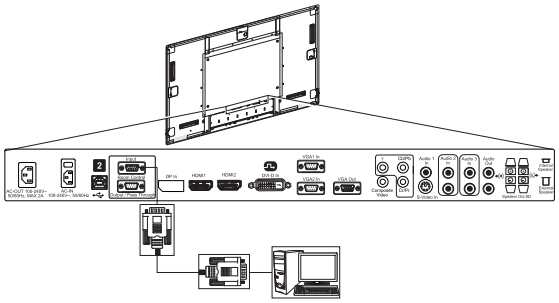
Connecting and configuring a room control system

Connect a computer to the room control input on the interactive flat panel to remotely select video inputs, turn 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 panel

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



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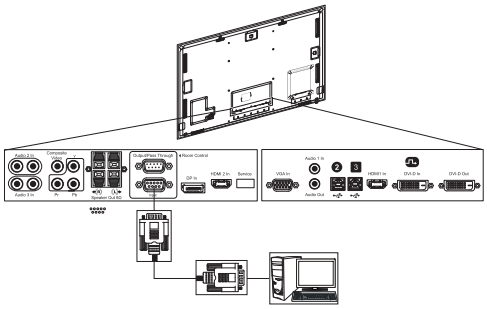

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IMPORTANT

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

To connect a computer to multiple 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.
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 panel.
2. Turn on the computer, and then start the serial communications program or terminal emulation program.
3. Activate local echo.
4. Configure the serial interface settings using the following values, and then press ENTER.

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

   A command prompt (>) appears on the following line.

   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 panel.

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-SMP 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
```

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SMART Board 8070i-G4-SMP interactive flat panel commands

The following tables contain commands for SMART Board 8070i-G4-SMP 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

Audio control

Use the following commands to identify audio control settings.

Command	Response	Possible values	Standby mode
get audioinput	audioinput=*[Value]*	• IN1 • IN2 • IN3 • USB • HDMI • DPORT • HDMI3/PC_ANALOG • HDMI3/PC_DIGITAL	No
get balance	balance=*[Value]*	0–100	No
get bass	bass=*[Value]*	0–100	No
get hdmi3/pc_lineout	hdmi3/pc_lineout=*[Value]*	• fixed • variable	No
get leftspeaker	leftspeaker=*[Value]*	• on • off	No
get lineout	lineout=*[Value]*	• fixed • variable	No
get mute	mute=*[Value]*	• on • off	No
get rightspeaker	rightspeaker=*[Value]*	• on • off	No
get treble	treble=*[Value]*	0–100	No
get volume	volume=*[Value]*	0–100	No

Use the following commands to assign audio control settings.

Command	Possible values	Response	Standby mode
set audioinput *[Value]*	• =IN1 • =IN2 • =IN3 • =USB • =HDMI[2] • =DPORT[3] • =HDMI3/PC_ANALOG • =HDMI3/PC_DIGITAL[4]	audioinput=*[Value]*	No
set balance *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	balance=*[Value]*	No
set bass *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	bass=*[Value]*	No
set hdmi3/pc_lineout *[Value]*	• =fixed • =variable	hdmi3/pc_lineout=*[Value]*	No
set leftspeaker *[Value]*	• =on • =off	leftspeaker=*[Value]*	No
set lineout *[Value]*	• =fixed • =variable	lineout=*[Value]*	No
set mute *[Value]*	• =on • =off	mute=*[Value]*	No
set rightspeaker *[Value]*	• =on • =off	rightspeaker=*[Value]*	No
set treble *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	bass=*[Value]*	No
set volume *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	volume=*[Value]*	No

[2] "=HDMI" is only available for the HDMI1 and HDMI2 video inputs.
[3] "=DPORT" is only available for the DPORT video input.
[4] "=HDMI3/PC_ANALOG" and "=HDMI3/PC_DIGITAL" are only available for the HDMI3/PC video input.

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
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

Command	Response	Possible values	Standby mode
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 °C]*	No
get tempsensor2	tempsensor2=*[Value]*	*[Temperature in °C]*	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

Command	Possible values	Response	Standby mode
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
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

8084i

SMART Board 8084i-G4-SMP interactive flat panel commands

The following tables contain commands for SMART Board 8084i-G4-SMP 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

Command	Response	Possible values	Standby mode
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
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

Command	Possible values	Response	Standby mode
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
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

Audio control

Use the following commands to identify audio control settings.

Command	Response	Possible values	Standby mode
get audioeq100	audioeq100=*[Value]*	-10–10	No
get audioeq300	audioeq300=*[Value]*	-10–10	No
get audioeq1k	audioeq1k=*[Value]*	-10–10	No
get audioeq3k	audioeq3k=*[Value]*	-10–10	No
get audioeq10k	audioeq10k=*[Value]*	-10–10	No
get audioin1	audioin1=*[Value]*	• VGA • DVI • Component • Composite • DPort • HDMI1 • HDMI2 • HDMI3/PC • Disable	No
get audioin2	audioin2=*[Value]*	• VGA • DVI • Component • Composite • DPort • HDMI1 • HDMI2 • HDMI3/PC • Disable	No
get audioin3	audioin3=*[Value]*	• VGA • DVI • Component • Composite • DPort • HDMI1 • HDMI2 • HDMI3/PC • Disable	No
get balance	balance=*[Value]*	0–100	No
get hdmi3/pclineout	hdmi3/pclineout=*[Value]*	• fixed • variable	No
get leftspeaker	leftspeaker=*[Value]*	• on • off	No
get lineout	lineout=*[Value]*	• fixed • variable	No
get mute	mute=*[Value]*	• on • off	No

Command	Response	Possible values	Standby mode
get opsaudio	opsaudio=*[Value]*	• digital • analog	No
get rightspeaker	rightspeaker=*[Value]*	• on • off	No
get speakersw	speakersw=*[Value]*	• internal • external • off	No
get usbaudio	usbaudio=*[Value]*	• VGA • DVI • DPort • HDMI1 • HDMI2 • HDMI3/PC • Disable	No
get volume	volume=*[Value]*	0–100	No

Use the following commands to assign audio control settings.

Command	Possible values	Response	Standby mode
set audioeq100 *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =–10–10	audioeq100=*[Value]*	No
set audioeq300 *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =–10–10	audioeq300=*[Value]*	No
set audioeq1k *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =–10–10	audioeq1k=*[Value]*	No
set audioeq3k *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =–10–10	audioeq3k=*[Value]*	No
set audioeq10k *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =–10–10	audioeq10k=*[Value]*	No
set audioin1 *[Value]*	• =VGA • =DVI • =Component • =Composite • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disable	audioin1=*[Value]*	No

Command	Possible values	Response	Standby mode
set audioin2 *[Value]*	• =VGA • =DVI • =Component • =Composite • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disable	audioin2=*[Value]*	No
set audioin3 *[Value]*	• =VGA • =DVI • =Component • =Composite • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disable	audioin3=*[Value]*	No
set balance *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	balance=*[Value]*	No
set hdmi3/pclineout *[Value]*	• =fixed • =variable	hdmi3/pclineout=*[Value]*	No
set leftspeaker *[Value]*	• =on • =off	leftspeaker=*[Value]*	No
set lineout *[Value]*	• =fixed • =variable	lineout=*[Value]*	No
set mute *[Value]*	• =on • =off	mute=*[Value]*	No
set opsaudio *[Value]*	• =digital • =analog	opsaudio=*[Value]*	No
set rightspeaker *[Value]*	• =on • =off	rightspeaker=*[Value]*	No
set speakersw *[Value]*	• =internal • =external • =off	speakersw=*[Value]*	No
set usbaudio *[Value]*	• =VGA • =DVI • =DPort • =HDMI1 • =HDMI2 • =HDMI3/PC • =Disable	usbaudio=*[Value]*	No
set volume *[Value]*	• + *[Incremental value]* • - *[Incremental value]* • =0–100	volume=*[Value]*	No

NOTE

You must specify unique values for **set audioin1**, **set audioin2**, **set audioin3** and **set usbaudio**.

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
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

Command	Response	Possible values	Standby mode
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
get resolution	resolution=*[Value]*	*[Resolution]*	No
get serialnum	serialnum=*[Value]*	*[Serial number]*	No
get tempsensor1	tempsensor1=*[Value]*	*[Temperature in °C]*	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
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

Command	Possible values	Response	Standby mode
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
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.

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