

SMART Board®
4000
series interactive flat panels

## **User guide**

SPNL-4055 | SPNL-4065 | SPNL-4075 | SPNL-4084





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October 20, 2022

## Important information

## (!) Warning

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

## Important information

- Disconnect all the interactive flat panel's power cables from the wall outlet and seek assistance from qualified service personnel if 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
  - o Structural damage, such as cracking, occurs
  - The interactive flat panel behaves unexpectedly when you follow operating instructions

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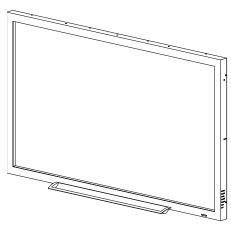
# Chapter 1 About your interactive flat panel

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This chapter describes the features of your SMART Board® 4000 series interactive flat panel and provides information about product parts and accessories.

# SMART Board 4055 interactive flat panel feature highlights

Designed for classrooms, the SMART Board® 4055 interactive flat panel combines a premium touch experience with the power of SMART Notebook® collaborative learning software on a 55" (139.7 cm) display.

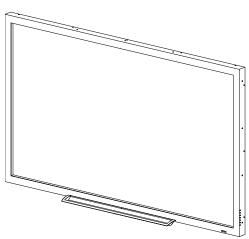


The high-definition LED display features low friction coated glass that enables fingers to glide smoothly over the surface, creating a natural touch experience. The interactive flat panel virtually eliminates glare and provides an optimal view from any angle in the classroom. It delivers an unparalleled viewing and writing experience and offers the best value for classrooms. With eight simultaneous touch points for Windows, multiple students can use gestures, like zoom, rotate and flip, at the same time.

## SMART Board 4065 interactive flat panel feature highlights

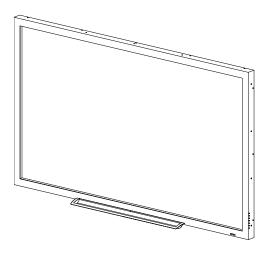
Designed specifically for classrooms, the SMART Board 4065 interactive flat panel combines a premium touch experience with the power of SMART Notebook collaborative learning software on a 65" (164.5 cm) display.

The high-definition LED display features low-friction coated glass that lets fingers glide smoothly over the surface, creating a natural touch experience. The SMART Board 4065 interactive flat panel virtually eliminates glare and provides an optimal view from any angle in the classroom. It delivers an unparalleled viewing and writing experience, and offers the best value for classrooms. With eight simultaneous touch points for Windows, multiple students can use gestures, like zoom, rotate and flip, at the same time.



# SMART Board 4075 interactive flat panel feature highlights

Designed specifically for classrooms, the SMART Board 4075 interactive flat panel combines a premium touch experience with the power of SMART Notebook collaborative learning software on a 75" (190.5 cm) LED display.

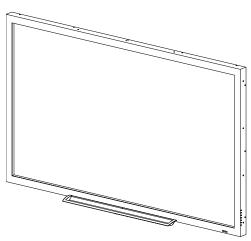


The interactive flat panel's 4K ultra-high-definition display provides optimal image clarity and features low-friction coated glass that lets fingers glide smoothly over the surface, creating a natural touch experience. The SMART Board 4075 interactive flat panel virtually eliminates glare and provides an optimal view from any angle in the classroom. It delivers an unparalleled viewing and writing experience, and offers the best value for classrooms. With 10 simultaneous touch points for Windows operating systems and one touch point for Mac computers, multiple students can use gestures, such as zoom, rotate and flip, at the same time.

# SMART Board 4084 interactive flat panel feature highlights

Designed specifically for classrooms, the SMART Board 4084 interactive flat panel combines a premium touch experience with the power of SMART Notebook collaborative learning software on a 84" (213.4 cm) display.

The 4K ultra-high-definition resolution display provides optimal image clarity and features low-friction coated glass that lets fingers glide smoothly over the surface, creating a natural touch experience. The SMART Board 4084 interactive flat panel virtually eliminates glare and provides an optimal view from any angle in the classroom. It delivers an unparalleled viewing and writing experience, and offers the best value for classrooms. With 10 simultaneous touch points for Windows operating systems and one touch point for Mac



computers, multiple students can use gestures, such as zoom, rotate and flip, at the same time.

## Included accessories

The following accessories are included with your interactive flat panel.

## Pen and pen tray

Two pens are included with your interactive flat panel.



## Remote control

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



## Included cables

VGA - RGB video input



Power cable for your region: AU/NZ, NA, UK or EU



USB cable - touch interface



## Other documentation and resources

In addition to this guide, SMART provides a variety of resources for people who install and use interactive flat panels.

## **Specifications**

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

Model	Specifications
SPNL-4055	smarttech.com/kb/170809

Model	Specifications
SPNL-4065	smarttech.com/kb/170802
SPNL-4075	smarttech.com/kb/171098
SPNL-4084	smarttech.com/kb/170998

## Installation instructions

The interactive flat panel comes with installation instructions. These installation instructions explain how to unpack, assemble and mount the 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/170799.

## **Training**

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

## Knowledge base

The Support center (<u>smarttech.com/support</u>) includes a knowledge base that you can refer to while maintaining or troubleshooting your interactive flat panel.

## Chapter 2 Mounting your interactive flat panel

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To mount your SMART Board 4000 series interactive flat panel on a wall, you require a team of professional installers.

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



## (i) Warning

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

## Before mounting the interactive flat panel

Perform these tasks before mounting your interactive flat panel:

- Review the environmental requirements in the interactive flat panel's specifications (see Specifications).
- · 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.

Model	Weight
SPNL-4055	116 lb 13 oz (53 kg)
SPNL-4065	153 lb (69.4 kg)
SPNL-4070	173 lb. (78.4 kg
SPNL-4075	189 lb (86 kg)
SPNL-4084	238 lb (108 kg)

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

Model	Mounting plate
SPNL-4055	600 mm × 400 mm
SPNL-4065	600 mm × 400 mm
SPNL-4070	800 mm × 400 mm
SPNL-4075	1000 mm × 600 mm
SPNL-4084	600 mm × 600 mm

• Use M8 screws to fasten the wall bracket.

## ♠ Caution

Do not over-tighten the screws.

Model	Screw length	Fasten torque
SPNL-4055	25 mm where the total wall mount bracket and washer thickness is less than 7 mm.	97.36–177.01 in-lb. (11–20 N·m)
SPNL-4065	30 mm where the total wall mount bracket and washer thickness is less than 7 mm.	97.36–177.01 in-lb. (11–20 N·m)
SPNL-4070	See the <u>SMART Board 4000 series installation</u> guide for more information	97.36–177.01 in-lb. (11–20 N·m)
SPNL-4075	See the <u>SMART Board 4000 series installation</u> <u>guide</u> for more information.	97.36–177.01 in-lb. (11–20 N·m)
SPNL-4084	See the <u>SMART Board 4000 series installation</u> guide for more information.	97.36–177.01 in-lb. (11–20 N·m)

• Because the receptacles might not be easily accessible after the installers mount the interactive flat panel, consider connecting cables for power, computers and other devices while the interactive flat panel is still in its packaging (see <u>Connecting power and devices</u>).

## Choosing a mounting location

Consider the following when you select a location for the interactive flat panel:

- Choose a location for the interactive flat panel that's far from bright light sources, such as windows and strong overhead lighting. IR lighting can cause issues with the performance of the cameras and can lead to unintentional or missed touches.
- The wall must be strong enough to support the interactive flat panel and the mounting equipment. See the table below for the weights of the various 4000 series interactive flat panel models:

Model	Weight
SMART Board 4055	116 lb (53 kg)
SMART Board 4065	153 lb (69.4)
SMART Board 4070	173 lb. (78.4 kg
SMART Board 4075	189 lb (86 kg)
SMART Board 4084	238 lb (108 kg)

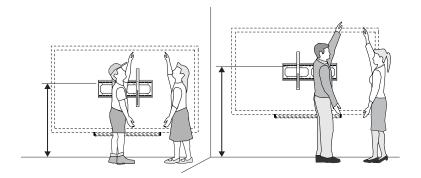
 Select a wall with a flat, regular surface and sufficient clearance to accommodate your interactive flat panel. Mount the interactive flat panel in a location that's central to your audience's viewing direction.

For mobile or adjustable installation options, contact your authorized SMART reseller (smarttech.com/where).

## Choosing a mounting height

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

The flat panel height is based on the midpoint between the reach of the students and the teacher.



# Chapter 3 Connecting power and devices

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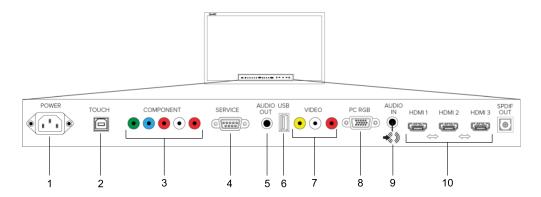
This chapter describes how to connect the interactive flat panel to power, computers and other devices.

## Connecting your interactive flat panel

The connector panel is at the bottom of the interactive flat panel.

#### Note

The power, PC-RGB (VGA) and USB cable are included with your interactive flat panel.



No.	Connector	Details
1	AC power	AC power pass-through

No.	Connector	Details
2	USB B receptacle	Computer to interactive flat panel touch interface
3	Video in	Component video receptacle
4	Service port	Do not use this connector. This service connector for the interactive flat panel must be used only by a qualified technician.
5	Audio out	Audio receptacle (SPNL-4075 and SPNL-4084)
6	USB A	Media port (see <u>Multi Media mode</u> )
7	Video in	Composite video receptacle
8	Video in	PC-RGB (VGA)  Important  If the display flickers or is not sized correctly, press the Auto button to resolve the issue. Ensure that you use the recommended resolution for best performance.
9	Audio in	Stereo 3.5 mm connector (from computer)
10	Video in	HDMI®

## Cable management

When you connect cables to the interactive flat panel from a computer and other peripheral devices, ensure that the cables aren't a trip hazard. Use channels and raceways to safely secure and hide cables. Contact your authorized SMART reseller for these accessories.

## (!) Important

Do not connect the power cable to a power outlet until you have connected all cables to the interactive flat panel.

## Configuring touch and display settings for your interactive flat panel

If you're using multiple displays or a laptop connected to the interactive flat panel, ensure that they are set up correctly.

Check the graphics card configuration (see Graphics card configuration).

Check the panel settings (see Panel settings).

Calibrate or clear previously set calibration data.

## Graphics card configuration

If you're using an unsupported graphics card configuration, you may experience display problems or issues with touch accuracy. For example, you may experience issues if your graphics card scaling option is set to something other than full-screen.

## (!) Important

If you're using an ATI video card, go to the ATI Catalyst Control panel's **Flat Panel** menu, select **Pixel Format** and change it to RGB 4:4:4 timing.

## Panel settings

Ensure that you set Screen Mode to 16:9 or Full, and that you select the correct input source.

## To select input

Press **Input** on the interactive flat panel's side panel or remote control, and then use the arrows to select the correct input source.

#### To set Screen Mode

1. Press **Menu** on the remote control or on the side panel.

The on-screen display menu appears.

- 2. Press the up and down buttons and select **Setup**.
- 3. Press the right button on the remote control or VOL- to select **Screen Mode**.
- 4. Select **16:9** if not already selected.

## Configuring your computer's screen resolution

When you connect a computer to the interactive flat panel, you may have to adjust the computer's screen resolution to achieve the best image quality and touch performance.

#### Note

SMART recommends using  $3840 \times 2160$ ,  $1920 \times 1080$  or  $1280 \times 720$  screen resolutions for best image quality and touch performance.

The interactive flat panel can use the following screen resolutions:

 3840 × 2160 (for SPNL-4075 and SPNL-4084 when using HDMI and a computer that supports 4K UHD) • 1280 × 960

• 1920 × 1080

1280 × 7681280 × 720

• 1600 × 1200

• 1024 × 768

• 1280 × 1024

• 800 × 600

• 1360 × 768

• 640 × 480

## Windows operating systems only

 $\blacksquare$ 

## To configure your Windows computer's screen resolution

#### Note

This procedure varies depending on your version of the Windows operating system and your system preferences.

- 1. Right-click the desktop and then select **Screen Resolution**.
- 2. From the *Display* drop-down menu, select your interactive flat panel.
- 3. From the Resolution drop-down menu, select a screen resolution.
- 4. Click **OK**.

Your computer applies the new screen resolution

## macOS operating system software only



## To configure your Mac computer's screen resolution

1. Select the **Apple** (**4**) menu > **System Preferences**.

The System Preferences dialog box appears.

- 2. Click Displays.
- 3. Select a screen resolution from the list.

Your computer applies the new screen resolution.

## Setting up multiple displays

When you use your interactive flat panel with multiple displays (your computer has an additional monitor or a built-in display), you must ensure that your display settings are configured properly for your operating system.

## Windows operating systems

## Windows operating systems only



## To set up the interactive flat panel as your touch screen

#### **Notes**

- Ensure that the display resolution has been set to recommended settings before calibration.
- Calibration may not be required. See Calibrating your interactive flat panel for more information.
- 1. Click Start > Control Panel > Tablet PC Settings.

The Tablet PC Settings dialog box appears.

- 2. In the Display tab, select your interactive flat panel from the display drop-down menu.
- 3. Click Setup.

The *Identify pen or touch input screens* dialog box appears.

4. Click Touch input.

A message appears on the interactive flat panel: "Touch this screen to identify it as the touchscreen."

5. If necessary, press ENTER until the message appears on your touch screen.

- 6. Tap your touchscreen two or three times until the text changes.
- 7. Press ENTER to skip any remaining screens until the window closes.

#### Note

Do not touch any further touch screens as the correct association between the selected display and touch screen will be lost.

#### 8. Click OK.

## (!) Important

If you have difficulty with the above procedure, set up your interactive flat panel as the primary monitor (or main display) and try again. You can switch your main display back to its original setting after you have successfully identified the interactive flat panel as the touch screen.

## macOS operating system software

## macOS operating system software only



When you use your interactive flat panel in a multiple display environment (that is, your computer has an additional monitor or a built-in display), you must ensure that the display settings are configured properly for the operating system.

## To extend the desktop

- 1. Make sure the additional display is properly connected and turned on.
- 2. From the **Apple** menu, choose **System Preferences**.
- 3. From the View menu, choose Displays.
- 4. Click the Arrangement tab.
- 5. Clear the Mirror Displays check box.

## To mirror the desktop

- 1. Make sure the additional display is properly connected and turned on.
- 2. From the Apple menu, choose System Preferences.
- 3. From the View menu, choose Displays.
- 4. Click the Arrangement tab.
- 5. Select Mirror Displays.

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This chapter describes the basic operation and setup of your interactive flat panel.

## Using the on-screen display menu

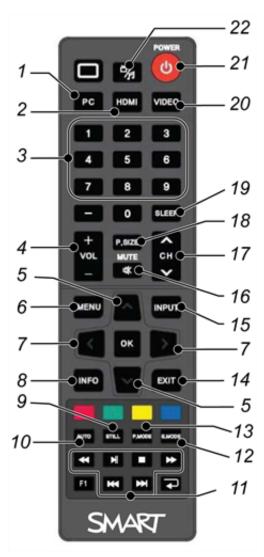
## Using the control panel

Use the control panel on the right side of your interactive flat panel to access the on-screen display menu and adjust settings.

Button	Details
Power	Turn the interactive flat panel on or turn off
UP	Move the highlighted area up to select items in the on-screen display menu
DOWN	Move the highlighted area down to select items in the on-screen display menu
VOL +	Move the highlighted area left to select items in the on-screen display menu, increase the audio output level or increase a value
VOL -	Move the highlighted area right to select items in the on-screen display menu, decrease the audio output level or decrease a value
MENU	Display the on-screen display menu
INPUT	Select a video input for the interactive flat panel

## Using the remote control

Use the remote control to access on-screen menus and to change the interactive flat panel's settings.



No.	Button	Details
1	PC	Selects the VGA input
2	HDMI	Select the HDMI input
3	[Number buttons]	Press buttons on the number pad to change channels
4	VOL +/-	Increase or decrease the audio output level
5	[Up and down buttons]	Select a menu option in the on-screen display menu
6	MENU	Display the on-screen display menu

No.	Button	Details
7	[Left and right buttons]	<ul> <li>Select an option in the on-screen display menu</li> <li>Use the right button to increase a value</li> <li>Use the left button to decrease a value</li> </ul>
8	INFO	Display the current video source
9	STILL	Turn still picture mode on or off
10	AUTO	Automatically adjusts the VGA video input
		Important This automatically adjusts the image to match the settings the display adapter is sending. In most cases, this will solve touch issues. You can adjust the display settings of the interactive flat panel if needed.
11	[Media buttons]	For use in Multi Media mode
12	S.MODE	Switch between stereo and mono sound
13	P.MODE	Switch between color modes
14	EXIT	Close the on-screen display menu
15	INPUT	Switch video inputs
16	MUTE	Mute the sound
17	CH +/-	Change channels
18	P.SIZE	Select the video aspect ratio
19	SLEEP	Set the sleep timer
20	VIDEO	Select the RCA input
21	Power	Turns the interactive flat panel on or off
22	Multi Media button	Display the Multi Media mode

## On-screen display menu for SPNL-4055, SPNL-4065 and select SPNL-4084

## Note

SMART Board 4084 interactive flat panels can have one of two versions of on-screen display (OSD) menu.. This section applies to SMART Board 4084 panels with a serial number in the range of M101IW02E3001 to M101IW12E3126.

You can access the on-screen display (OSD) menu by pressing **MENU** on the side panel of your interactive flat panel or on the remote control. To exit the OSD menu, press **MENU** on the interactive flat panel's side panel, or press **EXIT** on the remote control.

## **Picture settings**

Option	Value	Function
Picture Mode	Custom Standard Mild Vivid	Sets the picture mode
Brightness	0-100	Sets the overall brightness of the image and background
Contrast	0-100	Sets the brightness of the image in relation to the background
Tint	0-100	Sets the tint of the screen
Color	0-100	Sets the image color intensity
Sharpness	0-100	Sets the image sharpness
Color Temp	Normal Warm Cold	Sets the color temperature

## Sound settings

Option	Value	Function
Surround	[N/A]	Turns the surround sound on or off
Sound Mode	Music Standard User News Movie	Sets the audio mode
Auto Volume	[N/A]	Turns the automatic volume adjustment on or off

## **Setup settings**

Option	Value	Function
Menu Language	[Languages]	Sets the on-screen display menu's language
Menu Trans.	[N/A]	Sets the on-screen display menu's transparency

Option	Value	Function
Screen Mode	16:9 4:3 Zoom1 Zoom2 Full	Sets the image size
Reset	[N/A]	Resets all Setup options
Software Update	[N/A]	Note  Software updates should be performed only by a system administrator. Please contact your authorized SMART reseller if you require further assistance.

## Time settings

Option	Value	Function
Time mode	Automatic Manual	Sets the time mode
Time	[N/A]	Sets the time manually
Sleep Time	[N/A]	Sets the sleep timer
On Timer	[N/A]	Turns on the On Time function
On Time	[N/A]	Sets a time when the interactive flat panel turns on
Volume	0-100	Sets the volume when the interactive flat panel turns on
Off Timer	[N/A]	Turns on the Off Time function
Off Time	[N/A]	Sets a time when the interactive flat panel turns off

## On-screen display menu for SPNL-4075 and select SPNL-4084

## Note

There are two versions of the SMART Board 4084 on-screen display (OSD) menu. This section applies to SMART Board 4084 panels with a serial number of M101IW12E3127 and greater.

You can access the OSD menu by pressing **MENU** on the side panel of the interactive flat panel or on the remote control. To exit the OSD menu, press **MENU** on the interactive flat panel's side panel, or **EXIT** on the remote control.

## Picture settings

Option	Value	Function
Picture Mode	Standard Dynamic Mild User	Sets the picture mode
Color temperature	Medium Warm Cool User	Sets the color temperature
Screen (when connected with VGA)	[N/A]	Sets the size and position of the picture
Aspect ratio	Full 4:3 16:9 Zoom 1 Zoom 2 Just scan	Sets the aspect ratio
Color range (when connected with HDMI)	0 ~ 255 16 ~ 235	Sets the image color intensity

## Sound settings

Option	Value	Function
Sound Mode	Standard Music Movie Sports User	Sets the audio mode
Balance	-50-+50	Sets the audio balance
Auto Volume	[N/A]	Turns the automatic volume adjustment on or off
Surround sound	[N/A]	Turns surround sound on or off
SPDIF mode	PCM RAW	Sets the digital sound output

Option	Value	Function
EQ		
120 Hz	0–100	Sets the parametric equalizer adjustments for 120 Hz
500 Hz	0–100	Sets the parametric equalizer adjustments for 500 Hz
1.5 K Hz	0–100	Sets the parametric equalizer adjustments for 1.5 kHz
5 K Hz	0–100	Sets the parametric equalizer adjustments for 5 kHz
10 K Hz	0–100	Sets the parametric equalizer adjustments for 10 kHz
Internal speaker	[N/A]	Turns the internal speaker on or off

## Setup settings

Option	Value	Function
OSD		
Language	[Languages]	Sets the on-screen display menu's language
Transparency	0 25 50 100	Sets the on-screen display menu's transparency
Time	5 15 30 45 60	Sets the time to display the on-screen display menu
ECO mode	0–100	Sets ECO mode
Auto Sleep	off on	Turns auto sleep on or off
Auto Power	last off on	Sets auto power
Firmware Ver.	[N/A]	Displays the scaler and FRC firmware versions
Software Update	[N/A]	Note  Software updates should be performed only by a system administrator. Contact your authorized SMART reseller if you require further assistance.

## Multi Media mode

You can play video files, view images and listen to music stored on a USB drive on your SMART Board 4000 series interactive flat panel. Use the remote control to pause, fast-forward and rewind videos.

## Compatible file formats

The interactive flat panel can play the following file types.

### **Video**

Category	Code
MPEG1	MPEG1
MPEG2	MPEG2
MPEG4	AVC MPEG-4 Visual DivX5 DivX4 DivX3 XviD MS-MEG4 V3 WMV3
MJPEG	M-JPEG

## **Audio**

- AC-3
- AAC
- MP3
- PCM

## **Images**

- JPEG
- BMP
- PNG
- GIF
- TIFF

## Accessing content on a USB drive

#### To access content on a USB drive

- 1. Turn on the interactive flat panel.
- 2. On the remote control, press the **Multi Media** button.
- 3. Connect a USB drive to the USB A receptacle on the bottom connector panel. See <u>Connecting your</u> interactive flat panel.
- 4. Using the remote control, select a file.
- 5. Press the **Play** button on the remote control to play or view the file.

## Cleaning the interactive flat panel

Follow these instructions to clean your SMART Board 4000 series interactive flat panel without damaging its anti-glare coating or other product components.

## Cleaning the screen

## **↑** 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.

### To clean the screen

- 1. Press the power button to turn off the display.
- 2. Wipe the screen with a lint-free, non-abrasive cloth.

## Preventing condensation

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

- Temperature extremes with high humidity
- Rapid changes in humidity, which can occur when you operate the product near water (such as a pool, kettle or air conditioner ventilator)
- Direct exposure to sunlight
- Cold air output from an air conditioner towards the bottom of the interactive flat panel.

## To evaporate condensation from the interactive flat panel

- 1. Remove the humidity source from the interactive flat panel, if possible.
- 2. Turn off the interactive flat panel.
- 3. Remove any moisture from the interactive flat panel with a smooth, dry cloth.
- 4. Leave the interactive flat panel turned off for 48 hours.

## Cleaning the touch sensors

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

## 

- Do not use compressed air to clean the sensors or borders.
- Do not use water or cleaning agents to clean the touch sensors.
- Don't apply too much pressure when cleaning the interactive flat panel because you can damage the plastic causing performance issues.

#### To clean the IR transmitters and sensors

- 1. Using a clean lint-free cloth, gently wipe the protective plastic between the screen and the frame around the perimeter the interactive flat panel screen.
- 2. If dirt still remains, use 50% isopropyl alcohol (IPS) solution to clean the protective plastic between the screen and the frame.

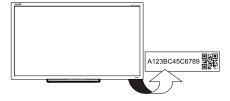
# Chapter 5 **Troubleshooting your interactive flat panel**

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This chapter provides information necessary for solving simple issues that occur with your interactive flat panel. If issues persist, or aren't covered in this chapter, contact SMART Support (smarttech.com/support) or your authorized SMART reseller (smarttech.com/where).

## Locating the serial number

If you contact your reseller, you might be asked to provide the interactive flat panel's serial number. The serial number is located under the front right bezel.



## Resolving common touch control and resolution issues with Windows and Mac operating systems

Problem	Cause	Solution
The interactive flat panel doesn't respond to touch.	The USB cable between the computer and the interactive flat panel could be loose.	Check all cable connections.
П	The interactive flat panel may need to be turned off and then turned on.	Turn the interactive flat panel off and then turn it on.

Problem	Cause	Solution
п	The required drivers for Windows operating system were not installed.	Ensure that Windows automatically installed the required device drivers. The interactive flat panel and AFO TCM10X-700 HID should be listed under Windows <b>Devices and Printers</b> .
п	The required drivers for macOS operating system software were not installed.	Ensure that the UPDD drivers are installed (see smarttech.com/downloads).  Also ensure the Apple security settings allow touch to work.
When you touch the interactive flat panel, the pointer doesn't appear in the correct place.	The display's resolution is not set to the recommended setting.  Note  The recommended resolutions for the interactive flat panel are:  • 3840 × 2160 (for SPNL-4075 and SPNL-4084 using HDMI and a computer that supports 4K UHD)  • 1920 × 1080  • 1280 × 720  See Configuring your computer's screen resolution for more information and settings.	Press the <b>Auto</b> button on the remote control. This adjusts the image to match the settings the display adapter is sending. In most cases this will help or solve touch issues. You can manually adjust display settings if needed. See Configuring your computer's screen resolution.
п	Your interactive flat panel isn't calibrated properly.	Your interactive flat panel may need to be re-calibrated.  See Calibrating your interactive flat panel for more information.  (Important  The interactive flat panels are pre-calibrated and oriented at the factory. Calibration should be performed only by an administrator.
Touch events occur even when you aren't touching the interactive flat panel.	Bright lights are interfering with the interactive flat panel.	Close blinds or shades or dim all halogen lights and LEDs.

## Resolving image issues

Problem	Cause	Solution
When the video source is HDMI, the image and audio are low quality.	The cable between the HDMI source and the interactive flat panel could be loose.	Check all cable connections.

## ${\it Chapter}\ 5\ {\it Trouble shooting\ your\ interactive\ flat\ panel}$

Problem	Cause	Solution
П	The HDMI cable could be too long.	Ensure that the length of HDMI cable doesn't exceed 23' (7 m).
п	Т	Use a certified active HDMI extender for longer cables.
The image is poor quality and/or doesn't fit on the screen.	The computer's screen resolution is incorrect.	See Configuring your computer's screen resolution to select the correct screen resolution.

# Appendix A Calibrating your interactive flat panel

If your SMART Board 4000 series interactive flat panel has an inaccurate touch or the touch is not working, you may need to calibrate it. Follow the instructions below to calibrate your SMART Board interactive flat panel.

## (!) Important

- The SMART Board interactive flat panel is factory calibrated. We recommend that you resolve touch inaccuracy through configuration before calibration (see <u>Configuring touch and display settings for your interactive flat panel</u>).
- Calibration should only be performed by an administrator.

## Calibrating your interactive flat panel with Windows operating systems

## Windows operating systems only



When you calibrate the IFP for the first time in Windows 7, the screen uses 16 reference points. Initial calibration applies to all users of the interactive flat panel. Later calibrations use only 4 points and apply only to your user account (see <a href="windows.microsoft.com/en-ca/windows7/getting-more-out-of-your-tablet-pc">windows.microsoft.com/en-ca/windows7/getting-more-out-of-your-tablet-pc</a>).

### To calibrate your interactive flat panel

1. Open Control Panel > Tablet and PC Settings.

#### Note

If you're using multiple monitors, ensure that you have identified the interactive flat panel as the touch screen with Windows operation systems (see <u>Setting up multiple displays</u>).

- 2. Ensure that the **Display** tab is visible. Select the interactive flat panel from the display drop down menu
- 3. Click Calibrate.

4. Tap each crosshair as they appear.

### Note

It may take several attempts to register your tap.

5. Click **OK** on the **Tablet and PC** settings page to save the changes.

#### Note

If you make a mistake (such as tapping somewhere other than the crosshair), repeat the procedure.

#### Tip

To clear your calibration data, click **Reset**.

# Calibrating your interactive flat panel with macOS operating system software

## macOS operating system software only



Before you calibrate your interactive flat panel, ensure that you have installed the required drivers. See smarttech.com/E70and40xxSoftware for product drivers and software.

## To calibrate your interactive flat panel

1. Press the Notebook icon and select **SMART settings**.

The SMART Settings dialog box appears.

2. In the Tasks area, press Orient/Align the SMART product.

The orientation screen appears.

3. If the orientation screen appears on your computer, click **Next**.

OR

If the orientation screen appears on your interactive flat panel, press the cross.

4. Press and hold the cross until a circle appears around the cross and the circle turns dark blue.

5. Press and hold each cross as it appears.

## (!) Important

If you're using multiple displays, the orient screen automatically moves to the next display. If this other display is not an interactive flat panel, touch screen press ESC. If you accidentally touch the flat panel while the orient screen is on this display, you will have to repeat the procedure above.

## Certification and compliance

## Hardware environmental compliance

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

## Waste Electrical and Electronic Equipment (WEEE)

Electrical and electronic equipment contain substances that can be harmful to the environment and to human health. The crossed-out wheeled bin symbol indicates that products should be disposed of in the appropriate recycling stream and not as regular waste.

#### **Batteries**

The remote contains two AAA batteries. Recycle or dispose of batteries properly.

#### More information

See <u>smarttech.com/compliance</u> for more information.

## **SMART Technologies**

smarttech.com/support
smarttech.com/contactsupport