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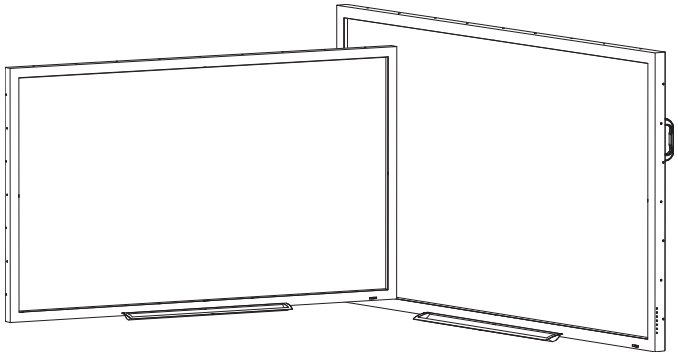

# SMART Board® 4000 series
## interactive flat panels

**USER'S GUIDE**

FOR MODELS SPNL-4055, SPNL-4065, SPNL-4075 AND SPNL-4084

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: _____

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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This product and/or use thereof is covered by one or more of the following U.S. patents:

www.smarttech.com/patents

09-2016

# Important information

**WARNING**

- Failure to follow the installation instructions shipped 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.

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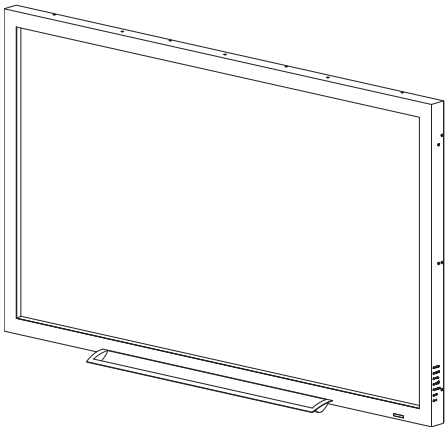
This chapter describes the features of your SMART Board® 4000 series interactive flat panel and provides information about product parts and accessories.

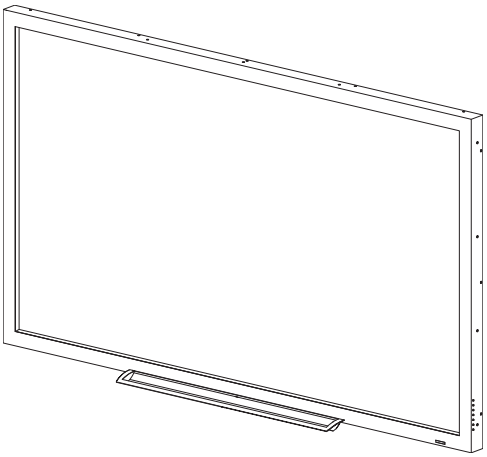
## SMART Board 4055 interactive flat panel feature highlights

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.

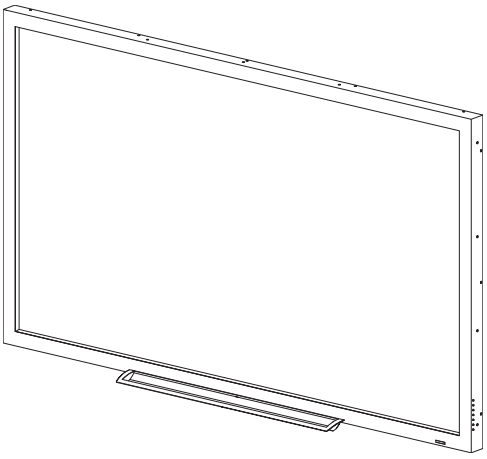
# SMART Board 4065 interactive flat panel feature highlights



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.

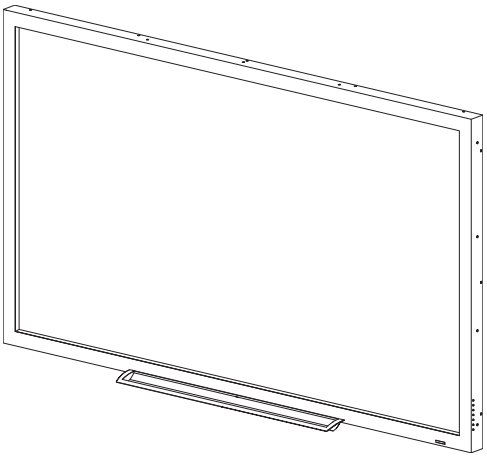
# SMART Board 4075 interactive flat panel feature highlights



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.

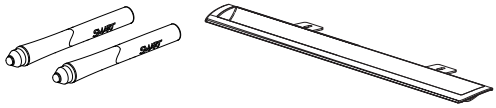
The 4K ultra-high-definition resolution display provides optimal image clarity and features low-friction coated glass that lets fingers glide smoothly over the surface, creating a natural touch experience. The SMART Board 4084 interactive flat panel virtually eliminates glare and provides an optimal 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.



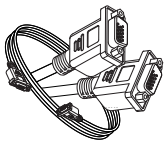
## Remote control

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




## Included cables

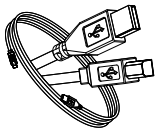
VGA - RGB video input



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 |
| 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 (smarttech.com/training) 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 (smarttech.com/support) 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 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.

**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* on page 5).
- 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-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-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-4075 | See the SMART Board 4000 series installation guide for more information. | 97.36–177.01 in-lb. (11–20 N·m) |
| SPNL-4084 | See the SMART Board 4000 series installation 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 *Chapter 3: Connecting power and devices* on page 11).

# 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 4075 | 189 lb (86 kg) |
| SMART Board 4084 | 238 lb (108 kg) |

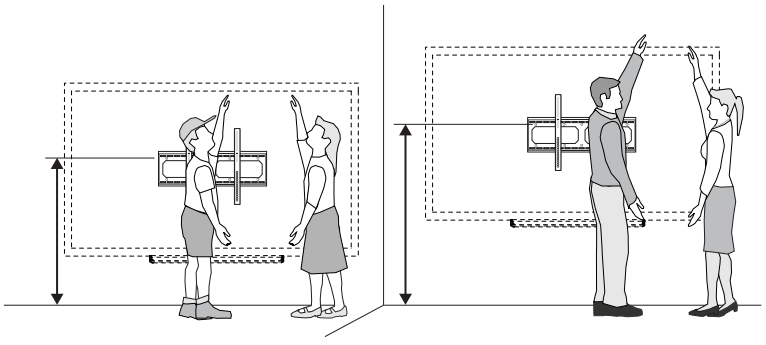
- Select a wall with a flat, regular surface and sufficient clearance to accommodate your interactive flat panel. Mount the interactive flat panel in a location that's central to your audience's viewing direction.

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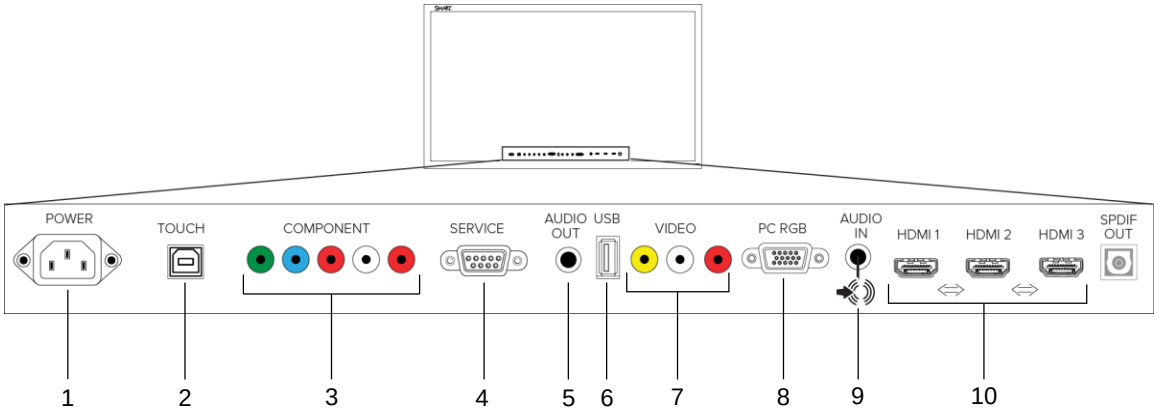
This chapter describes how to connect the interactive flat panel to power, computers and other devices.

## Connecting your interactive flat panel

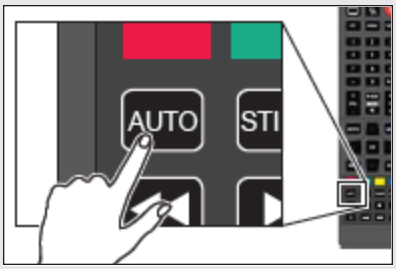
The connector panel is at the bottom of the interactive flat panel.

**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 |
| 2 | USB B receptacle | Computer to interactive flat panel touch interface |
| 3 | Video in | Component video receptacle |
| 4 | Service port | **WARNING**<br>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 *Multi Media mode* on page 28) |
| 7 | Video in | Composite video receptacle |

| No. | Connector | Details |
|---|---|---|
| 8 | Video in | PC-RGB (VGA)<br>**IMPORTANT**<br>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.<br> |
| 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* on the next page).
- Check the panel settings (see *Panel settings* on the next page).
- 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.

## Recommended computer screen resolution

**NOTE**

SMART recommends using 3840 × 2160, 1920 × 1080 or 1280 × 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)
1920 × 1080
1600 × 1200
1280 × 1024
1360 × 768
1280 × 960
1280 × 768
1280 × 720*
1024 × 768
800 × 600
640 × 480

## Windows 7, 8 and 10 operating systems

### To configure your 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. See *Recommended computer screen resolution* on the previous page for more information.
4. Click **OK**.

   Your computer applies the new screen resolution

## OS X operating system software

### To configure your Mac computer's screen resolution

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

   The *System Preferences* dialog box appears.
2. Click **Displays**.
3. Select a screen resolution from the list. Refer to *Recommended computer screen resolution* on the previous page for more information.

   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 7, 8 or 10 operating systems

### 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 *Appendix A: Calibrating your interactive flat panel* on page 37 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.

## OS X operating system software

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**.

Chapter 4

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

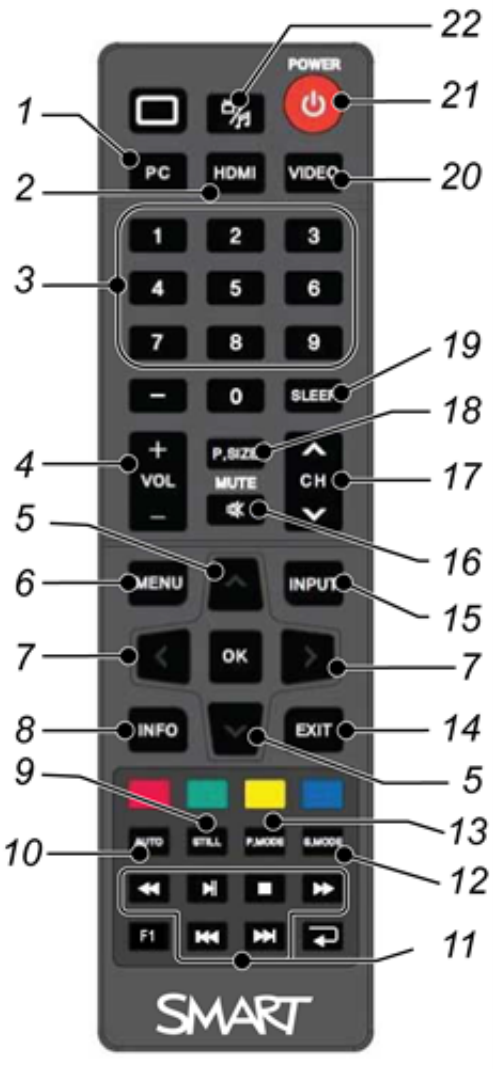
# Using the control panel

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 |

| No. | Button | Details |
|---|---|---|
| 6 | MENU | Display the on-screen display menu |
| 7 | [Left and right buttons] | • Select an option in the on-screen display menu<br>• Use the right button to increase a value<br>• Use the left button to decrease a value |
| 8 | INFO | Display the current video source |
| 9 | STILL | Turn still picture mode on or off |
| 10 | AUTO | Automatically adjusts the VGA video input<br>**IMPORTANT**<br>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<br>Standard<br>Mild<br>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<br>Warm<br>Cold | Sets the color temperature |

## Sound

| Option | Value | Function |
|---|---|---|
| Surround | [N/A] | Turns the surround sound on or off |

| Option | Value | Function |
|---|---|---|
| Sound Mode | Music<br>Standard<br>User<br>News<br>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 |
| Screen Mode | 16:9<br>4:3<br>Zoom1<br>Zoom2<br>Full | Sets the image size |
| Reset | [N/A] | Resets all Setup options |
| Software Update | [N/A] | **NOTE**<br>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<br>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 |

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

## Sound settings

| Option | Value | Function |
|---|---|---|
| Sound Mode | Standard<br>Music<br>Movie<br>Sports<br>User | Sets the audio mode |
| Balance | 0–100 | 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<br>RAW | Sets the digital sound output |
| EQ | 120 Hz<br>500 Hz<br>1.5 K Hz<br>5 K HZ<br>10 K Hz | Sets the parametric equalizer adjustments for specific frequency bands |
| Internal speaker | [N/A] | Turns the internal speaker 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 |
| Screen Mode | 16:9<br>4:3<br>Zoom1<br>Zoom2<br>Full | Sets the image size |
| Reset | [N/A] | Resets all Setup options |
| Software Update | [N/A] | **NOTE**<br>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. 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

### 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 *Connecting your interactive flat panel* on page 11.
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 the interactive flat panel 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.

### 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.

**CAUTION**

- 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

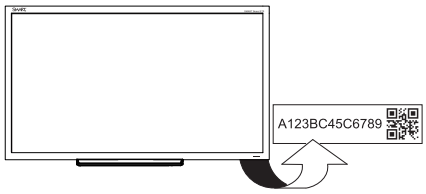
# Troubleshooting your interactive flat panel

Locating the serial number ..... 31
Resolving common touch control and resolution issues with Windows and Mac operating systems ..... 32
Resolving image issues ..... 35

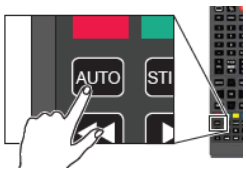
This chapter provides information necessary for solving simple issues that occur with your interactive flat panel. If issues persist, or aren't covered in this chapter, contact SMART Support (smarttech.com/support) or your authorized SMART reseller (smarttech.com/where).

## Locating the serial number

If you contact SMART Support, 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 |
|---|---|---|
| Resolution and/or touch inaccuracies<br><br>**NOTE**<br>The recommended resolutions for the interactive flat panel are:<br>• 3840 × 2160 (for SPNL-4075 and SPNL-4084 using HDMI and a computer that supports 4K UHD)<br>• 1920 × 1080<br>• 1280 × 720<br><br>See *Configuring your computer's screen resolution* on page 14 for more information and settings. | The display's resolution is not set to the recommended setting. | Press the **Auto** 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* on page 14. |
| The interactive flat panel doesn't turn on. | The interactive flat panel isn't connected to a power source. | Connect your interactive flat panel to a power outlet. |
| | The interactive flat panel is in Sleep mode. | Press the Power button on the menu control panel or on the remote control. |

| Problem | Cause | Solution |
|---|---|---|
| Touch isn't working as expected. | The USB cable between the computer and the interactive flat panel could be loose. | Check all cable connections. |

| Problem | Cause | Solution |
|---|---|---|
| | 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. |
| | Bright lights are interfering with the interactive flat panel. | Close blinds or shades or dim all halogen lights and LEDs. |
| | Your interactive flat panel isn't calibrated properly. | Your interactive flat panel may need to be re-calibrated.<br>See *Appendix A: Calibrating your interactive flat panel* on page 37 for more information.<br>**IMPORTANT**<br>The interactive flat panels are pre-calibrated and oriented at the factory. Calibration should be performed only by an administrator. |
| | Pen and touch setting may not be selected. | 1. For Windows operating systems, open **Control Panel** > **Pen and Touch**.<br>2. Select the **Touch** tab.<br>3. Ensure that the following options are selected:**Use your finger as an input device** and **Enable multi-touch gestures and inking**.<br>4. Click **Apply** and/or **OK**. |
| | 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 **Devices and Printers**. |
| | If you're using multiple displays, the pen and touch settings may be incorrect. | |
| | The screen may be dirty. | Wipe the screen with a lint-free, non-abrassive cloth. |

# Resolving image issues

| Problem | Causes | 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. |
| | The HDMI cable could be too long. | Ensure that the length of HDMI cable doesn't exceed 9' (3 m). |
| | | 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* on page 14 to select the correct screen resolution. |

Appendix A

# Calibrating your interactive flat panel

If your SMART Board 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 *Configuring touch and display settings for your interactive flat panel* on page 13).
- Calibration should only be performed by an administrator.

## Calibrating your interactive flat panel with Windows 7, 8 and 10

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 http://windows.microsoft.com/en-ca/windows7/getting-more-out-of-your-tablet-pc).

**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 7, 8 and 10 operation systems (see step *Setting up multiple displays* on page 16).

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 Mac operating system software

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.

Appendix B

# 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

Remote contains 2 AAA batteries. Recycle or dispose of batteries properly.

## More information

See smarttech.com/compliance for more information.

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