

SMART Board®
480
interactive whiteboard

## **User guide**

SB480







#### Learn more

This guide and other resources for SMART Board 480 interactive whiteboards are available in the Support section of the SMART website (<a href="mailto:smarttech.com/support">smarttech.com/support</a>). Scan this QR code to view these resources on your mobile device.

#### FCC warning

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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## Important information

Before you install and use your SMART Board 480 interactive whiteboard, read and understand the safety warnings and precautions in this user's guide and the included warnings document. The included warnings document describes the safe and correct operation of your SMART Board interactive whiteboard and its accessories, helping you to prevent injuries and equipment damage.

#### Note

In this document, the term "interactive whiteboard" refers to your interactive whiteboard and its accessories and options.

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# Chapter 1 Introducing your SMART Board 480 interactive whiteboard

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#### Introduction

Your SMART product is a wall-mounted, front projection interactive whiteboard. It enables you to do everything that you can do at your computer—open and close applications, scroll through files, hold meetings with others, create new documents or edit existing ones, visit websites, play video clips and more—by touching the interactive surface with your finger or the included pen. When you connect your interactive whiteboard to a computer and a projector, your computer image displays on the interactive surface. You can write over any application in digital ink, and then save these notes to a file in SMART Notebook® collaborative learning software for future reference and distribution.

Your SMART Board 480 interactive whiteboard is a full-speed USB 1.1 bus powered device with no external power supply. Because USB is the primary connectivity mode, your interactive whiteboard receives power from the computer through the included 3 m (9' 10") USB cable. There's no power switch on your interactive whiteboard. It's always running when your computer is turned on.

#### **Features**

Your SMART Board 480 interactive whiteboard is durable and reliable. It features a rugged, hardened interactive surface, a damage-resistant pen and SMART's proprietary DViT® (Digital Vision Touch) technology. Your interactive whiteboard measures 195.6 cm (77") diagonally and has a 4:3 aspect ratio.

#### **DViT technology**

Two digital cameras, one in each of the interactive whiteboard's top corners, track the position of your finger or the pen as it moves across the interactive surface.

#### Multitouch gestures

Your interactive whiteboard supports multitouch gestures (Windows<sup>®</sup> only). You can use two fingers to resize an object on a page, to rotate an object, to zoom in and out and more.

#### **Dual touch**

Your interactive whiteboard supports dual touch (Windows only). Two users can use their fingers to simultaneously perform mouse functions.

#### **Dual write**

Your interactive whiteboard has limited support for dual write (Windows only). Two users can use their fingers to simultaneously write on the interactive whiteboard.

#### **Durable surface**

The interactive surface is scratch-resistant, dent-resistant and optimized for projection.

## How does your SMART Board interactive whiteboard work?

Your interactive whiteboard functions as an input device for your computer, enabling you to work in any application on your connected computer. You need two additional components to use your interactive whiteboard: a computer and a digital projector. These components work together as follows:

- Your computer runs an application and sends the image to your projector.
- Your projector casts the image onto your interactive whiteboard.
- Your interactive whiteboard detects contact with its screen and sends each contact point, along with Pen tool information, to the connected computer.

SMART Product Drivers translates the information into mouse clicks and digital ink.

When you touch your interactive whiteboard's surface, the touch of your finger becomes a mouse click and you can control your computer from your interactive whiteboard. When you use a pen tool, SMART Product Drivers changes the pointer to a colored pen, which enables you to write over your desktop or any open application with digital ink.

When you install SMART Product Drivers, a SMART Ink's dynamic (floating) toolbar appears on your desktop. You can change pen settings such as the transparency, color and width of the ink. You can then save your notes to a file in SMART Notebook software. You can also customize other tools, such as the width of the eraser tool you use to erase your notes.

#### Windows computers

SMART Notebook collaborative learning software includes SMART  $Ink^{\mathsf{TM}}$  and SMART Product Drivers. SMART Ink works with SMART Product Drivers to enable you to write on your screen in digital ink using your interactive product's pen or your finger.

#### Note

SMART Notebook software doesn't display the SMART Ink toolbar because it includes its own ink tools that you can use to write directly in your file.

You can press SMART Ink to select ink properties and to perform common tasks such as capturing your notes.

SMART Ink includes SMART Ink Notes which enable you to write in digital ink anywhere on your desktop. When you write outside of the open windows on your computer, a SMART Ink Note appears and you can write inside the note.

SMART Ink also includes the SMART Ink Document Viewer, which enables you to view your PDF files and to write over them in digital ink.

For more information on using SMART Ink, see the *SMART Ink user's guide* (docs.smarttech.com/kb/170191).

### Computer requirements

To successfully power your interactive whiteboard and run SMART Product Drivers, your computer must meet certain minimum requirements. The SMART Board 480 is supported on a computer with a Windows® or Linux® operating system. For a complete list of computer requirements, go to <a href="mailto:smarttech.com/downloads">smarttech.com/downloads</a> and browse to the latest SMART Notebook software release notes applicable to your computer's operating system.

## Accessories and replacement parts

For a full list of items that you can order for your SMART Board 480 interactive whiteboard, go to smarttech.com/accessories.

For a list of replacement parts for your SMART Board 480 interactive whiteboard, refer to the service parts diagram.

Contact your authorized SMART reseller (<u>smarttech.com/wheretobuy</u>) to order accessories and standard replacement parts for your SMART Board 480 interactive whiteboard.

## Installation tips

For the installation instructions for your SMART Board 480 interactive whiteboard, see the *SMART Board 480 interactive whiteboard installation guide* (docs.smarttech.com/kb/154700).

#### Extending your USB cable

The USB cable included with your SMART Board 480 interactive whiteboard is within the limit defined by the USB standard for maximum length. Your interactive whiteboard has a built-in 1.5 m (5') USB cable and a 3 m (9' 10") USB cable is also included.

However, if this cable isn't long enough to reach from your computer to your interactive whiteboard, you can use a bus-powered hub, such as the active USB extension cable (Part No. USB-XT) to extend your USB connection.

#### Avoiding electromagnetic interference (EMI)

You can take some precautions to prevent EMI to your interactive whiteboard:

- Don't route USB cables parallel to power cables.
- Cross USB cables over power cables at a 90° angle to reduce the risk of interference on the USB cables.
- Don't route USB cables close to common sources of EMI, such as electric motors or fluorescent lighting ballasts.
- Don't bend USB cables sharply.
- Don't use USB plug adapters or passive USB wall plates.

## Chapter 2 Connecting your interactive whiteboard to a computer

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Your SMART Board 480 interactive whiteboard's USB interface enables you to connect your interactive whiteboard to your computer. Because the included USB cable provides both a digital signal and power from your computer to your interactive whiteboard, you don't need an additional power supply.

#### (!) Important

Your SMART Board 480 interactive whiteboard system supports one interactive whiteboard per computer connection on a primary display only.

## Matching your computer's resolution to your projector's resolution

Ensure that the resolution settings for your projector and computer match. If your computer's resolution doesn't match the projector's native resolution, the image doesn't properly fill your interactive whiteboard's surface and can shimmer or appear distorted.

Set the projector to its optimal image resolution by following the instructions included with your projector, and then set your computer's resolution to match. If you need help changing your computer's resolution, see the instructions included with your operating system.

You might need to adjust your computer's refresh rate to obtain the best results. Set the computer to an initial refresh rate of 60 Hz, and then adjust this rate up or down to determine the ideal refresh rate. For more information on changing your computer's refresh rate, see the instructions included with your operating system.

## Installing SMART Product Drivers

You can install SMART Product Drivers on any computer that meets certain minimum operating specifications using the software installation DVD included with your SMART product or from smarttech.com/downloads.

#### Note

You must install the latest version of SMART Product Drivers on your computer in order to write in digital ink and to use touch on the interactive whiteboard's surface.

For a complete list of computer requirements, go to <u>smarttech.com/downloads</u> and browse to the latest SMART Product Drivers download page.

#### (!) Important

- Disconnect the SMART Board 480 interactive whiteboard from your computer while you install SMART Product Drivers.
- There are no status lights on your SMART Board 480 interactive whiteboard. SMART Product Drivers must be installed to view the interactive whiteboard's status.

## Orienting your interactive whiteboard

After you install SMART Product Drivers on your computer, orient your interactive whiteboard. Orienting your interactive whiteboard ensures the greatest possible level of writing and touch accuracy. Orient your interactive whiteboard any time your projector or interactive whiteboard has been moved since you last used it, or whenever the mouse pointer isn't properly aligned with the pen or your finger when you touch the interactive surface.

#### To orient your interactive whiteboard

1. On the interactive surface, click the **SMART Board** icon in the notification area, and then select **Orient**.

The *Orientation* screen opens.

- 2. Pick up the pen from the pen tray.
- 3. Beginning at the first target on the screen, touch the center of the target firmly with the tip of the pen and hold the pen steady until the target moves to the next point.

4. Repeat step 3 until you arrive at the last point.

#### Note

The orientation procedure consists of four touches.

5. At the last point, touch the center of the target, pause and release the pen.

The *Orientation* screen closes.

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When you touch your interactive whiteboard's surface, the interactive whiteboard registers the horizontal and vertical (or x and y) coordinates on the interactive surface. Your computer's mouse driver interprets those coordinates and moves the pointer to the corresponding point on the projected image.

To open an application on your interactive whiteboard, press twice consecutively on the application's icon. When you press twice to open an application, it's the same as double-clicking your mouse to open an application on your computer. Similarly, each time you press once on your interactive whiteboard's surface, it's the same as a single left click.

#### Note

If necessary, move the mouse or touch the interactive whiteboard's surface or press any key on your keyboard to bring your computer out of standby mode.

## Using SMART Ink

If SMART Ink is installed on the connected computer, the dynamic (floating) toolbar for SMART Ink appears on the screen. You can use this toolbar to change the pen's color, thickness or other properties temporarily, or use some of SMART Ink's tools such as screen capture, spotlight, screen shade, and so on.

To learn more about using SMART Ink and its toolbar, visit the <u>SMART Ink</u> support page. Here are a few quick links to get you started:



- Turning SMART Ink on or off
- Open the toolbar
- Close the toolbar (keep SMART Ink on, but hide the floating toolbar)
- Using presentation tools, such as Spotlight, Magnifier, and Screen Shade

#### Note

SMART Notebook software doesn't display the SMART Ink toolbar because it includes its own ink tools that you can use to write directly in your file.

## Using gestures

Your interactive whiteboard supports multitouch gestures, dual touch, and dual write with your Windows computer.

#### (!) Important

Gestures, dual touch, and dual write require the Windows 7 or later operating systems with the latest version of SMART Product Drivers and SMART Notebook software (smarttech.com/downloads).

Multitouch gestures enable you to use pre-determined commands on your interactive whiteboard without using the keyboard or mouse. With a series of two-finger touches on your interactive whiteboard screen, you can navigate pages, change the look of an object and more.

Dual touch enables two users to touch the interactive whiteboard and to simultaneously perform mouse functions.

Dual write enables two users to use their fingers to write on the interactive whiteboard at the same time.

#### Note

Dual write has limited functionality with your SMART Board 480 interactive whiteboard.

#### Enabling gestures, dual touch and dual write

Before you use these features, enable your interactive whiteboard to recognize them.

#### To enable gestures, dual touch and dual write

Press the SMART Board icon in the notification area, and then press SMART Settings.
 The SMART Settings window appears.

- 2. Press **SMART Hardware Settings**.
- 3. Select **Mouse and Gesture Settings** from the drop-down menu.
- 4. Select Multitouch Mode.
- 5. Press Apply.
- 6. Press OK.

#### Single-finger gestures

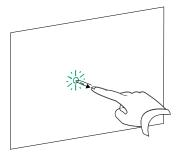
You can perform some gestures using one finger, including selecting an object and double-clicking. Single-finger gestures include the following:

#### Selecting and deselecting an object (clicking)

Quickly press and release the interactive surface to select or deselect an object or option. This performs a standard mouse click.

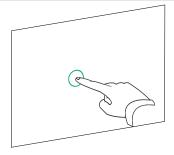
#### Note

This gesture starts programs if your operating system is set to start applications on a single click.



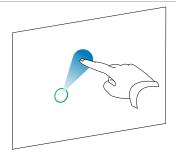
#### Displaying menu options (rightclicking)

Press and hold the screen with your finger. In SMART Notebook software, Windows and Microsoft® Office programs, the right-click menu appears.



### Dragging an or window

Press and hold an object or scroll bar on the object, scroll bar, screen. Keep your finger on the screen and slowly move the object or scroll bar. When you reach the position you want, release your finger.

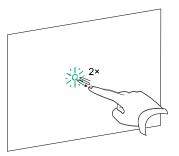


#### Double-clicking

Quickly press and release the interactive surface twice in the same spot. This performs a standard double-click.

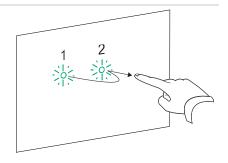
#### Note

This gesture starts programs if your operating system is set to start applications on a doubleclick.



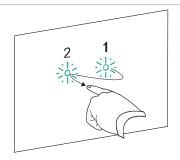
#### Displaying the next page

Press the screen, and then quickly press again directly to the right of that point to display the next page.



#### Displaying the previous page

Press the screen, and then quickly press again directly to the left of that point to display the previous page.



#### Multi-finger gestures

You can perform some gestures using two or more fingers, including scaling, scrolling and manipulating objects. Multi-finger gestures include the following:

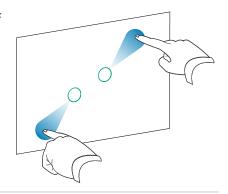
Displaying

Using two fingers on the same hand, press and hold the screen with one finger and then menu options press the screen directly to the right of that point with a second finger.

(rightclicking) Release the first finger from the screen, and then select a menu item with any finger.

### area or object

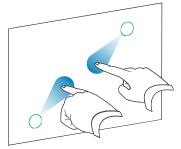
**Enlarging an** Use one finger on each hand to press in the center of the area or object, and then drag your fingers away from each other.



### scale of an object

**Reducing the** Use one finger on each hand to press the screen at opposite ends of the area or object, and then drag your fingers toward each other.

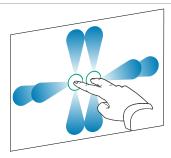
> This gesture either scales an object on a page, or the entire page, depending on the application.



#### Scrolling horizontally or vertically

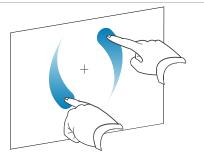
Use two fingers on the same hand to press the

Keeping your fingers on the screen, move up, down, left or right on the page. Release your fingers when you're satisfied with the view.



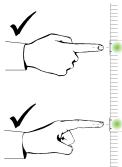
#### Rotating an object

Place one finger on either side of the object you want to rotate. Keep one finger stationary, and quickly move your second finger around the object. Release your fingers from the screen when you're satisfied with the angle.

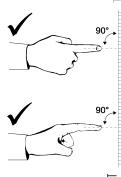


#### Best practices for gestures and tools

Follow these guidelines when you use gestures and tools with your interactive product.



Hold your fingers perpendicular (90°) to the interactive surface at the contact point.



Keep your thumb and other fingers away from the interactive surface. They can generate unintentional commands.



Keep your other hand, elbows and loose clothing away from the interactive surface. They can generate unintentional commands.

For "click" commands, quickly tap your finger on the interactive surface. Also, make sure you lift your finger far enough away from the interactive surface between presses so that your finger is out of the interactive whiteboard cameras' view.

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## Tips for trouble-free performance

Your SMART Board interactive whiteboard is durable, but take care to prevent any damage to it and its parts:

- Replace the pen when the nib wears out.
- Don't touch the interactive surface with sharp or pointed objects.
- Don't use adhesive tape on the interactive surface.
- Don't set up and use your interactive whiteboard in an area with excessive levels of dust, humidity, or smoke.
- Don't use low-odor dry-erase markers because they can be very difficult to erase. Use standard (high-odor) dry-erase markers that show a warning to use them only in well-ventilated areas.

## Cleaning your interactive whiteboard

With proper care, your interactive whiteboard will provide years of trouble-free service. Follow these tips to keep your interactive whiteboard clean.

- To clean dust, dirt and finger grease, wipe the writing surface with a damp cloth or sponge. Use mild soap, if required.
- Don't spray cleaner directly onto the interactive surface. Instead, spray a light amount of cleaner on a cloth and then gently wipe the interactive surface.
- Don't allow excess cleaner to flow onto the frame's reflective surfaces.
- Don't touch the digital cameras located in the top corners of the frame. Don't attempt to clean the digital cameras without specific instructions from SMART Technologies.
- If ink is accidentally used on your interactive whiteboard, remove the ink as soon as possible. Ink becomes more difficult to remove the longer it stays on the display surface.

#### / Caution

Do not use harsh chemicals or abrasive cleaners on your interactive whiteboard.

#### (!) Important

- Before you clean your interactive whiteboard, disconnect its USB cable.
- To view dirt or streaks more easily, set your projector to standby (lamp off) mode.

## Transporting your interactive whiteboard

Save your original SMART Board interactive whiteboard packaging so that it's available if you need to transport your interactive whiteboard. When required, repack your interactive whiteboard with all of the original packaging. This packaging was designed with optimal shock and vibration protection. If your original packaging is no longer available, you can purchase the same packaging directly from your authorized SMART reseller (smarttech.com/wheretobuy).

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## Tips and resources for troubleshooting

You can use these tips and resources when troubleshooting the interactive whiteboard.

#### Adjusting the projected image

If your projector isn't installed in a fixed location, you can correct many image problems by shifting your projector so that the projected image fits squarely on the interactive surface. Optimally, each side of the image should extend almost to the edge of the interactive surface.

For more information on your projector, go to smarttech.com/support.

#### Resetting the interactive whiteboard

You can reset your interactive whiteboard by disconnecting and then reconnecting the USB cable. This turns the power off and back on, restarting all components of your interactive whiteboard.

#### Preventing USB cable issues

To troubleshoot some common cable routing issues, try disconnecting accessories such as USB hubs and USB extension cables that are connected to your interactive whiteboard. Also ensure that the USB cable length does not exceed 3 m (9' 10").

The basic system consists of the SMART Board 480 interactive whiteboard, USB cable, computer hardware, computer operating system and SMART Product Drivers. You can try isolating and replacing each component to identify the cause of the connectivity issue.

#### Using the connection wizard

SMART Settings includes a connection wizard for troubleshooting problems with the connection between the computer and interactive whiteboard.

For example, you may need to configure a serial port manually in the following situations:

- The computer's operating system doesn't support plug and play.
- The Found New Hardware wizard doesn't appear.
- You connected the interactive whiteboard to a power source after you started your computer.
- The Ready light remains red after you start SMART Board Tools.

#### To troubleshoot connections

1. Click the SMART Board icon in the notification area (Windows) or menu bar (Mac) and select **SMART Settings**.

#### Note

If your computer isn't currently connected to an interactive whiteboard, the SMART Board icon includes an X in the lower-right corner.

2. Click Connection Wizard.

The SMART Connection Wizard appears.

3. Follow the on-screen instructions.

#### **Using SMART Diagnostics**

With SMART Diagnostics, you can troubleshoot a variety of camera problems and configure many of the camera settings for the interactive whiteboard.

See > About SMART Diagnostics

## Troubleshooting the interactive whiteboard and related SMART products

The Support section of the SMART website includes information about resolving a variety of common problems with the interactive whiteboard and related SMART products.

See > support.smarttech.com/docs/sb480troubleshooting

## Getting support and finding the serial number

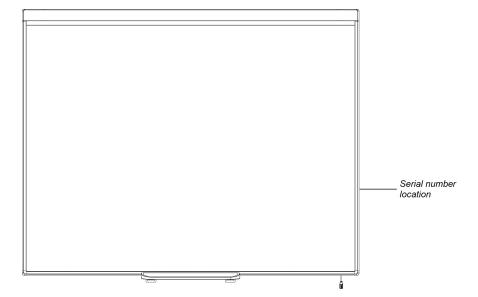
SMART Support welcomes your call. However, if you experience difficulty with your SMART product, consider contacting your authorized SMART reseller (<a href="mailto:smarttech.com/wheretobuy">smarttech.com/wheretobuy</a>) first. Your reseller can often resolve the issue without delay.

Before you contact SMART Support, ensure the following:

- You know the serial number of your interactive whiteboard.
- The computer specifications and operating system meet the minimum system requirements for SMART Product Drivers.
- The USB cable is connected properly to your computer and interactive whiteboard.
- Device drivers are installed on your operating system.
- The interactive surface and bezels aren't optically obstructed.
- You oriented your interactive whiteboard.

#### To determine your interactive whiteboard's serial number

Look on the lower right edge of your interactive whiteboard's frame when you're facing the front of your interactive whiteboard. The serial number is also on the back of the interactive whiteboard. The format of the serial number is SB480-xx-xxxxxx.



## 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. For your interactive whiteboard's environmental compliance information, see the SMART Board 480 interactive whiteboard specifications (docs.smarttech.com/kb/154638).

#### **SMART Technologies**

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smarttech.com/contactsupport