



SMART Board™ 480 Interactive Whiteboard User's Guide

Extraordinary made simple™



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 Technical Support.

Serial Number: _____

Date of Purchase: _____

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.

Trademark Notice

SMART Board, SMART Notebook, DVIT, smarttech, the SMART logo and all SMART taglines are registered trademarks of SMART Technologies ULC in the U.S. and/or other countries. All third-party product and company names may be trademarks of their respective owners.

Copyright Notice

© 2011 SMART Technologies ULC. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language in any form by any means without the prior written consent of SMART Technologies ULC. Information in this manual is subject to change without notice and does not represent a commitment on the part of SMART.

Portions of the software that ships with this product are copyrighted by Intel Corporation.

Portions of the software that ships with this product are copyrighted by ParaGraph, a business unit of Vadem.

Patent No. US5448263; US6141000; US6337681; US6421042; US6563491; US6674424; US6747636; US6760009; US6803906; US6829372; US6954197; US7184030; US7236162; US7289113; US7342574; US7379622; US7532206; US7619617; US7626577; US7692625; US7751671; CA2058219; CA2386094; EP1297488; EP1739528; JP4033582; JP4052498; JP4057200; ZL0181236.0; and DE60124549. Other patents pending. 01/2011

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.

Content

Important information.....	i
Introducing your SMART Board 480 interactive whiteboard.....	1
Introduction.....	1
Features.....	1
How does your SMART Board interactive whiteboard work?	2
Computer requirements.....	3
Accessories and replaceable parts.....	3
Installation tips.....	3
Connecting your interactive whiteboard to a computer.....	5
Overview.....	5
Installing SMART Product Drivers	6
Orienting your interactive whiteboard	6
Using the interactive whiteboard.....	7
Maintenance and troubleshooting.....	9
Tips for trouble-free performance	9
Cleaning your interactive whiteboard.....	9
General troubleshooting	10
Transporting your interactive whiteboard.....	15
Contacting SMART technical support.....	15
Hardware environmental compliance	17
Customer support	18
Online information and support.....	18
Training.....	18
Warranty	18

Registration.....	18
Index.....	19

Chapter 1

Introducing your SMART Board 480 interactive whiteboard

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. The pen tray holds up to two pen tray pens.

Feature highlights

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.

Durable surface

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

How does your SMART Board interactive whiteboard work?

Your SMART Board interactive whiteboard and pen function as input devices for your computer, like a mouse, enabling you to work in any application on your connected computer from your interactive whiteboard's surface.

When you connect your interactive whiteboard to a computer with SMART Product Drivers, the following actions occur:

- The computer runs an application, and then sends the image to your projector.
- Your projector casts the image onto your interactive whiteboard.
- Your interactive whiteboard acts as your computer's monitor and its input devices enable you to control any application by touching the interactive surface.

When you install SMART Product Drivers on your computer, a Floating Tools toolbar appears over your desktop and any open application. By default, SMART Product Drivers interprets your touches and pen contact on the interactive surface as left mouse clicks. When you select a pen button on the Floating Tools toolbar, SMART Product Drivers interacts with the computer's mouse driver to change the pointer to a colored pen, which enables you to write over your desktop or any open application with digital ink. You can change pen settings, including the transparency, color and width of the ink. You can then save your notes to a file in SMART Notebook software or directly into any Ink Aware application. You can also customize other tools, such as the width of the eraser tool you use to erase your notes.

Computer requirements

To successfully power your interactive whiteboard and run SMART Product Drivers, your computer must meet certain minimum requirements. For your interactive whiteboard's computer requirements, see the *SMART Board 480 interactive whiteboard specifications* (smarttech.com/kb/154638).

Accessories and replaceable parts

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

Contact your [authorized SMART reseller](#) to order accessories and standard replaceable parts for your SMART Board 480 interactive whiteboard.

Installation tips

For the installation instructions for your SMART Board 480 interactive whiteboard, see its textless installation guide (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.



IMPORTANT

The combined USB cables connected from your interactive whiteboard to your computer should not exceed 5 m (16').

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 SMART 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

Overview

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 must install SMART Product Drivers 10.7 SP 1, or a later version, on your computer for your computer to respond to touch on the interactive whiteboard's surface. SMART Product Drivers includes the tools that you need to control computer applications, and to write over them in digital ink.

You can install SMART Product Drivers on any computer that meets certain minimum operating specifications using the software installation CD included with your SMART product. For your interactive whiteboard's system requirements, see the *SMART Board 480 interactive whiteboard specifications* (smarttech.com/kb/154638).


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 SMART Board 480 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 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.

Using the interactive whiteboard

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 double-press to open an application, it's the same as double-clicking your mouse to open an application on your computer. Similarly, each time you single-press 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.

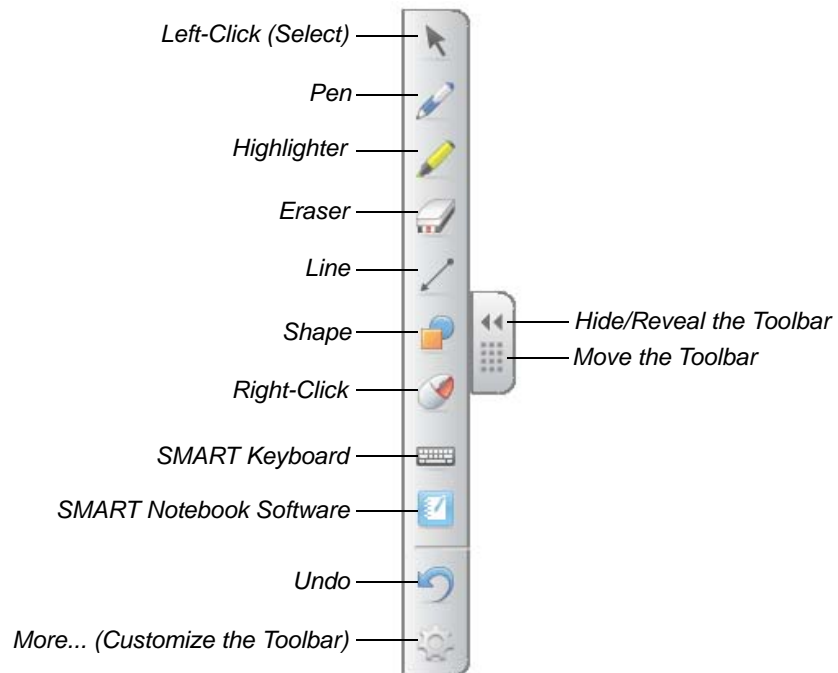
Using the Floating Tools toolbar

You must install and run SMART Product Drivers on your connected computer to have use of the Floating Tools toolbar. While you work on your interactive whiteboard, the toolbar floats over your desktop and any open application. Use your finger or the provided pen tray pen to select a tool from this customizable toolbar to click, write, erase and open SMART Notebook software on your interactive whiteboard.

For more information on how to use SMART Notebook software, see smarttech.com/support.

To open the Floating Tools toolbar

Press the **SMART Board** icon  in the notification area, and then press **Show Floating Tools**.



NOTES

- Some computer applications, such as SMART Notebook software, may include additional toolbars which allow you to control digital ink pens and other drawing tools.
- You're unable to use the Right-Click tool from the Floating Tools toolbar on your SMART Board 480 interactive whiteboard.
- You can move this toolbar to either the left or right side of the interactive surface.
- You can move this toolbar lower on your screen so younger students can reach it.
- You're unable to rotate this toolbar horizontally.

Chapter 3

Maintenance and troubleshooting

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.

Cleaning your interactive whiteboard

With proper care, your SMART Board 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.

General troubleshooting

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 your 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.

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.

Troubleshooting tips


This section describes some symptoms, causes and solutions for problems that you could experience with your SMART Board 480 interactive whiteboard.

Try the troubleshooting tips in the following table to quickly resolve most issues with your product.



i NOTE

These procedures vary, depending on your version of Windows operating system and your system preferences.

Symptoms	Cause	Solution
No image is projected on your interactive whiteboard, or a “No Input” message appears.	Your projector isn’t receiving a video signal.	<ul style="list-style-type: none"> • Check the video cable connections. • Ensure that the correct video input is selected on your projector. • Ensure that your projector is on, and that it’s connected to a power source. • If you’re using a laptop computer, turn on the external video connection. Refer to your laptop’s user’s guide for more information.
	Your computer is in standby mode.	Move the mouse, or touch the interactive surface or any key on your keyboard to bring your computer out of standby mode.
	Your computer is off.	Turn on your computer (or press your computer’s reset button), and then log on as usual.

Symptoms	Cause	Solution
The projected image is blurry, too large or doesn't completely fill your interactive whiteboard's screen.	Your projector's position, zoom and focus settings aren't adjusted.	Adjust the projector's position, zoom and focus settings. Refer to your projector's user's guide for more information.
	Your computer's video resolution settings don't match your projector's native resolution.	Consult your projector's user's guide for the correct computer video resolution, and then select Start > Control Panel > Display and change the video resolution to match your projector.
The SMART Board icon  doesn't appear in the notification area.	SMART Board Tools isn't running.	Start SMART Board Tools by selecting Start > All Programs > SMART Technologies > SMART Board Drivers > SMART Board Tools .
	SMART Product Drivers isn't installed.	Install SMART Product Drivers on your computer. For details about installing SMART Product Drivers, see page 6.
The orientation procedure doesn't proceed to the second point.	Your computer may be sending input to an application other than the interactive whiteboard's orientation screen.	Press ALT+TAB on your keyboard to adjust your operating system's focus to the interactive whiteboard's orientation screen.

Symptoms	Cause	Solution
The interactive surface doesn't respond when you touch it, the pointer moves erratically or gaps appear when you draw or write.	Your interactive whiteboard isn't oriented.	Orient your interactive whiteboard. For more information about orienting your interactive whiteboard, see page 6.
	SMART Board Tools isn't running.	Start SMART Board Tools by selecting Start > All Programs > SMART Technologies > SMART Board Drivers > SMART Board Tools .
	SMART Product Drivers isn't installed.	Install SMART Product Drivers on your computer. For details about installing SMART Product Drivers, see page 6.
	Not all components of SMART Product Drivers are installed on your computer.	Re-install SMART Product Drivers on your computer.

Symptoms	Cause	Solution
There is a small red ✕ on the SMART Board icon  .	SMART Product Drivers is unable to detect your interactive whiteboard.	Ensure that the USB cable is connected from your computer to your interactive whiteboard and that the cable isn't over-extended.
	SMART Board service isn't running.	<p>Start SMART Board service:</p> <ol style="list-style-type: none"> 1. In the notification area, press the SMART Board icon , and then press Control Panel. <p>The SMART control panel opens.</p> <ol style="list-style-type: none"> 2. Select About Software and Product Support > Tools > Diagnostics. <p>The <i>SMART Board Diagnostics</i> window opens.</p> <ol style="list-style-type: none"> 3. Select Service > Start. 4. Close the <i>SMART Board Diagnostics</i> window, and then close the SMART control panel.
	Not all components of SMART Product Drivers are installed on your computer.	Re-install SMART Product Drivers on your computer.

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](#).

Contacting SMART technical support

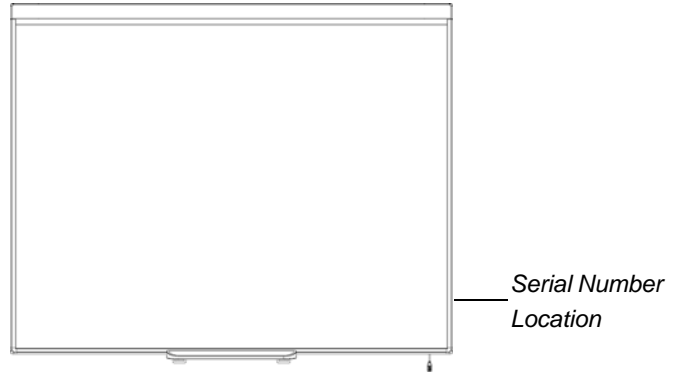
SMART technical support welcomes your call. However, if you experience difficulty with your SMART product, consider contacting your [authorized SMART reseller](#) first. Your reseller can often resolve the issue without delay.

Before you contact SMART technical 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.



Appendix A

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* ([smarttech.com/kb/154638](https://www.smarttech.com/kb/154638)).

Appendix B

Customer support

Online information and support

Visit smarttech.com/support to view and download user's guides, how-to and troubleshooting articles, software and more.

Training

Visit smarttech.com/trainingcenter for training materials and information about our training services.

Warranty

Product warranty is governed by the terms and conditions of SMART's "Limited Equipment Warranty" that shipped with the SMART product at the time of purchase.

Registration

To help us serve you, register online at smarttech.com/registration.

Index

A

- accessories, 3
 - USB cable, 3
- adjusting projected image, 10
- aspect ratio, 1

C

- cleaning, 9
 - erasing ink, 10
- computer
 - connecting to interactive whiteboard, 5
 - matching resolution to projector, 5
 - recommended settings, 5
 - refresh rate, 5
 - system requirements, 3
- contacting SMART
 - technical support, 15
- customer support, 17–18

D

- Digital Vision Touch (DViT) technology, 1
- documentation, 18
- dust, 9

H

- humidity, 9

I

- installation
 - connecting to computer, 5
 - SMART Board software, 6

L

- limited equipment warranty, 18

M

- maintenance, 9

O

- online support, 18
- orientation, 6

P

- parts, accessories, 3
- pens, 8
- projector
 - adjusting image, 10
 - resolution, 5

R

- registration, 18
- replacement parts, 3
- resetting your interactive whiteboard, 10
- resolution
 - computer, 5
 - projector, 5

S

- shipping box, 15

SMART Board software, 2
floating tools, 7
installing, 6
orienting your interactive whiteboard, 6

SMART Board 480 interactive
whiteboard

features, 1
how it works, 2
resetting, 10

SMART Notebook software, 1, 2

SMART technical support, 18
support, 17–18

T

technical support, 15, 18

training, 18
transporting, 15
troubleshooting, 9
troubleshooting articles, 18

U

USB

cable, 3
user's guides, 18

W

warranty, 18

SMARTTM

Toll Free 1.866.518.6791 (U.S./Canada)
or +1.403.228.5940
www.smarttech.com