

# Installation and User's Guide

## SMART Board™ interactive display frame

**SMART**<sup>™</sup>

# Product Registration

If you register your SMART product, we'll notify you of new features and software upgrades.

Register online at [www.smarttech.com/registration](http://www.smarttech.com/registration).

Keep the following information available in case you need to contact Technical Support:

**Serial Number** \_\_\_\_\_

**Date of Purchase** \_\_\_\_\_

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Patent No. US6320597; US6326954; US6741267; US6803906; US6947032; US6954197; US6972401; US7151533; US7236162; US7411575; CA2453873; EP1297488; ES2279823; ZL0181236.0; and DE60124549. Other patents pending. 12/2008

## Important Information

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### WARNING



- Failure to follow the installation instructions shipped with your SMART Board product, including the installation of all the supplied fasteners, could result in personal injury and damage to the product.
- Do not add any extra weight or excessive pressure to the pencil ledge.
- Do not mount your flat panel on the wall or remove it from the wall if your SMART Board product is attached to it.
- Use only the power supply that comes with the SMART Board product. Other power supplies may create a safety hazard or damage the equipment.
- The external power supply (when required) needs to meet the Limited Power Source (LPS) requirements of CSA/UL/IEC/EN 60950-1.
- Ensure that any cables extending across the floor to your SMART Board product are properly bundled and marked to avoid a trip hazard.
- Make sure an electrical socket is near your SMART Board product and remains easily accessible during use.
- To reduce the risk of fire or electric shock, do not expose the SMART Board product to rain or moisture.
- Do not open or disassemble the SMART Board product. Opening the casing voids your warranty.



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# Introduction

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Your SMART Board interactive display frame transforms your flat panel into an interactive whiteboard. It features SMART's proprietary DVIT™ (Digital Vision Touch) technology so that you can select, write and erase on the interactive surface. You can control computer applications, make notes in digital ink, write over videos and graphs and save all your work.

The SMART Board interactive display frame consists of corner blocks and bezels, a pencil, a controller box and SMART Notebook software. The interactive display frame fits easily on a variety of commercial flat panel brands, sizes and models. The glass-free design preserves the high-definition image of the flat panel.

## CAUTION



- Read your flat panel manufacturer's support documentation before writing on the flat panel. Ensure that you can safely apply pressure to your flat panel's surface and that it is suitable for writing on.
- Because the pencil directly contacts the flat panel's surface, write with light pressure on the surface. Writing with excessive force can damage the flat panel. SMART Technologies is not responsible for damage to your flat panel incurred by improper use.
- Replace the pencil nib when it wears down. If a pencil nib wears down too far, you might scratch or damage the flat panel's anti-glare coating.
- Do not touch the flat panel's screen with sharp or pointed objects such as fingernails, keys, pens or jewelry.

## Features

- DVIT (Digital Vision Touch) technology Two digital cameras located in each of the lower corner blocks track the position of the pencil or your finger as it moves across the flat panel surface.
- Pencil The interactive display's pencil both writes and erases digital ink. This battery-operated pencil is designed for daily use.
- Design The glass-free, unobtrusive design preserves your flat panel's viewing angle and high-resolution image.

## Computer Requirements

Your interactive display frame includes SMART Notebook software, as well as SMART Board Drivers software. To fully use all the features of your interactive display frame, install the software and drivers on a connected computer. For more information about using SMART Notebook, see the software's online Help files.

To run SMART Notebook software, your computer must meet the following specifications:

### Windows® operating systems

- An Intel® Pentium® II, 450 MHz processor or faster
- 256 MB RAM (512 MB recommended)
- 180 MB of free hard disk space for minimum SMART Notebook installation (840 MB for full installation with Gallery collections)
- A high speed, USB 2.0 compliant interface
- Windows XP SP2 or Windows Vista® operating system
- Internet Explorer® Internet browser 6.0 or later
- Adobe® Flash® player 8 or later
- DirectX® application programming interface 8.1 or later required for SMART Video Player

### Mac operating system software

- A 700 MHz processor (1 GHz or faster recommended) PowerPC G3, G4 or G5 processor or Intel processor (universal binary)
- 256 MB RAM (512 MB recommended)
- 85 MB of free hard disk space for minimum SMART Notebook installation (825 MB for full installation with Gallery collections)
- A high speed, USB 2.0 compliant interface
- Mac OS X 10.4.11 or 10.5.4 operating system software
- Safari® application program 1.3.2 or later
- Adobe Flash player 8 or later



## **Other Accessories**

Contact your authorized [SMART reseller](#) to order any of the following accessories for your interactive display frame.

### **USB Extender Cables**

If you want to extend the length of the included 16' (5 m) USB cable between your interactive display frame and your computer, you can connect up to four 16' (5 m) SMART Active USB Extension Cables (Part No. USB-XT) to extend your interactive frame's USB connection to a maximum of 64' (20 m).

### **Cat 5 to USB Extender**

Use the SMART Cat 5 to USB Extender (Part No. Cat5-XT) to extend your interactive frame's USB connection up to 120' (36.6 m) using an RJ45 Cat 5 cable (not included). The extender includes two 6' (1.8 m) USB cables to connect your computer and your interactive frame to the extender units.

### **Additional Pencil Nibs**

The pencil nib gradually wears down with normal use. Replace the nib regularly to prevent damage to your flat panel. Your product includes additional nibs, which are also available from your authorized [SMART reseller](#). See page 21 for information on replacing the pencil nib.

### **Colored Pencils**

Your interactive display frame includes a pencil that writes in black digital ink on the flat panel. A pencil pack, consisting of a red, a blue and a green pencil is also available from your authorized [SMART reseller](#).

## Environmental Requirements

Before installing your SMART Board interactive display frame, review the following environmental requirements.

Environmental Requirement	Parameter
<b>Operating Temperature</b>	41°F to 95°F (5°C to 35°C)
<b>Storage Temperature</b>	-40°F to 120°F (-40°C to 49°C)
<b>Humidity</b>	5% to 80% relative humidity, non-condensing
<b>Water and Fluid Resistance</b>	<ul style="list-style-type: none"> <li>• Intended for indoor use</li> <li>• Don't pour or spray liquids directly on the electronic components</li> </ul>
<b>Electrostatic Discharge (ESD)</b>	<ul style="list-style-type: none"> <li>• Designed to withstand electrostatic shock</li> <li>• EN61000-4-2 severity level 3 for direct and indirect ESD (±4 kV Contact / ±8 kV Air)</li> </ul>
<b>Conducted and Radiated Emissions</b>	<ul style="list-style-type: none"> <li>• FCC part 15 Class A</li> <li>• EN55022 / CISPR 22</li> <li>• KN55022</li> </ul>
<b>Flammability Rating</b>	<ul style="list-style-type: none"> <li>• Electronics and connectors: UL 94-V0</li> <li>• Plastic enclosures, pencil ledge and other mechanical parts: UL 94-HB</li> <li>• USB 2.0 cable: UL VW-1 / CSA FT4</li> </ul>
<b>Quality Assembly</b>	<ul style="list-style-type: none"> <li>• All cables: IPC/WHMA-A-620 Class 2 workmanship standards for <i>Requirements and Acceptance for Cable and Wire Harness</i></li> <li>• Digital cameras, controller box and pencil PCBs: IPC-A-610 standards for <i>Acceptability of Electronic Assemblies</i>, to Class 2 specifications (Dedicated Service Electronic Parts)</li> </ul>

## **Cleaning Your Interactive Display Frame**

The digital cameras located in the bottom corners of the frame are well protected from dust and dirt by protective windows. In extremely dusty environments, use a dry or slightly damp cloth, or spray an alcohol-free household glass cleaner, such as Windex® glass cleaner, on a cotton-tipped swab and rub it gently on the frame. Never use abrasive erasers or harsh chemicals.

Follow these tips to keep your flat panel's surface clean:

- See your flat panel manufacturer's support documentation for specific instructions on caring for your panel.
- Don't use permanent or dry-erase markers on the flat panel's screen.
- If dry-erase markers are used on the flat panel, remove the ink as soon as possible. See your flat panel manufacturer's support documentation for specific instructions on cleaning your flat panel's surface.
- Never use abrasive erasers or harsh chemicals.

# Installing Your SMART Board interactive display frame

To install your interactive display frame on your flat panel, you must:

1. Ensure that your shipping box contains all the parts you require (this page). If you're missing any of the items below, contact your authorized [SMART reseller](#).
2. Attach the corner blocks and bezels to your installed panel and assemble the pencil (page 8).
3. Connect the interactive display frame to the controller box and computer, and then install SMART software (page 13).

## Unpacking Your Interactive Display Frame Shipping Box

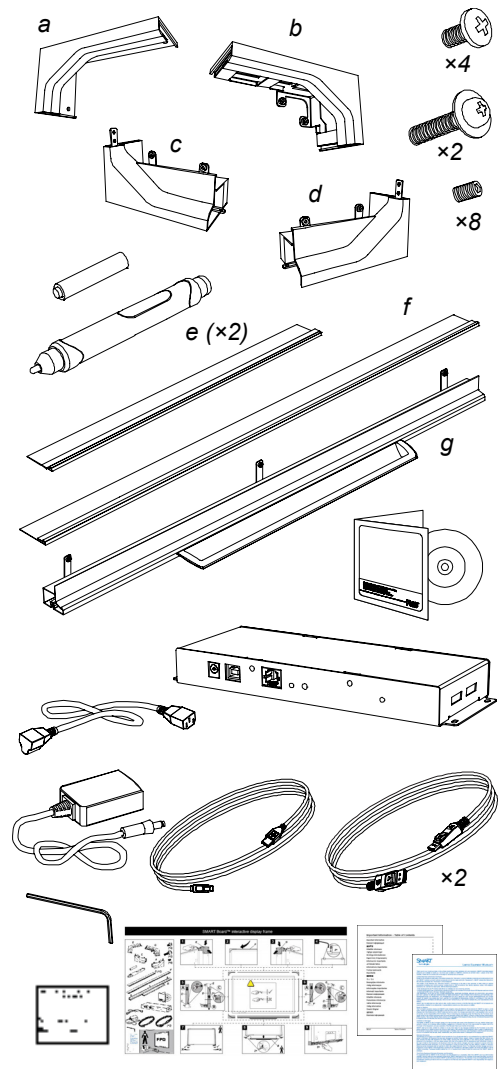
Before you begin, make sure that you have all the items you need to install your SMART Board interactive display frame. The following items are included in your shipping box:

- four pan-head screws
- two washer-head screws
- eight set screws
- four corner blocks with captive thumb screws (a, b, c, d)
- two side bezels (e)
- top bezel (f)
- bottom bezel with pencil ledge (g)
- AAA battery
- pencil
- software discs
- controller box
- country-specific power cable
- power supply
- 16' (5 m) high speed, USB 2.0 cable
- two 10' (3 m) DisplayPort cables
- hex key
- product documentation, including an installation guide, a registration card, important information and your product warranty

**NOTE:** Additional fasteners and two extra nibs are provided.

You will also need the following items (not included):

- appropriate mounting hardware for your controller box
- a Phillips® No. 1 screwdriver



## Installing the Interactive Display Frame Components on Your Flat Panel

Before you can install your interactive display frame, install your flat panel on a wall or stand.

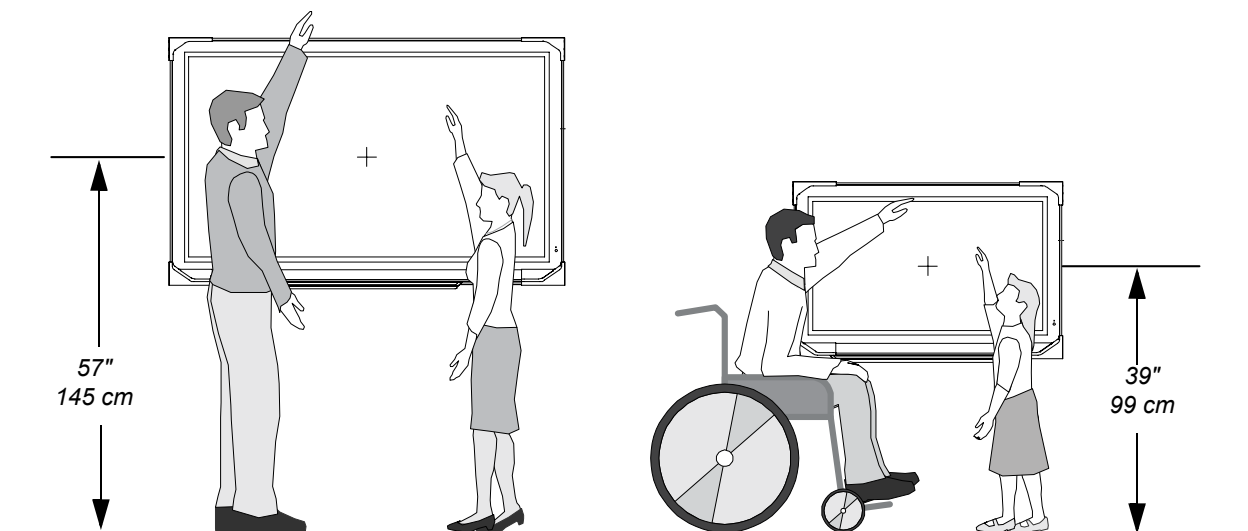
### WARNING



Do not mount your flat panel on the wall or remove it from the wall if your interactive display frame is attached to it.

### To install the flat panel

Use the illustration below to determine the appropriate height for your flat panel.



Follow the instructions in your flat panel installation guide or your floor stand installation guide. With the assistance of another person, mount the flat panel onto a wall mount or floor stand.

Your interactive display frame consists of four blocks and four bezels that install on a wall- or stand-mounted flat panel. Perform the following steps to attach them to your flat panel.

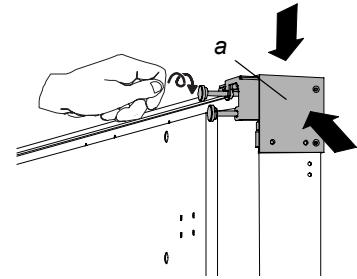
### WARNING



- Failure to follow the installation instructions that shipped with your SMART Board interactive display frame, including the installation of all the supplied fasteners, could result in personal injury and damage to the product.
- Follow the instructions that came with your flat panel, and ensure that you comply with all the manufacturer's safety warnings.
- SMART recommends that you do not use a table stand with the interactive display frame.
- To prevent personal injury or damage to the product, ensure that you install all of the fasteners as instructed.

## To install the interactive frame on your flat panel

1. Slide the top-left corner block (a) onto the top-left corner of your flat panel. Ensure that it fits snugly against the side and top of the flat panel, and then tighten the thumb screws on the back of the block.

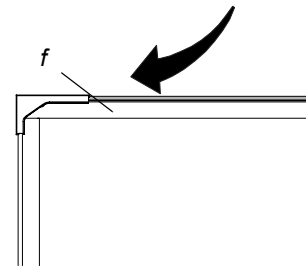


### CAUTION

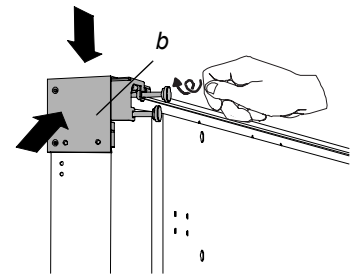


Do not over-tighten the thumb screws, because this could damage the components. Stop tightening the screw if the metal flange holding the thumb screw begins to bend.

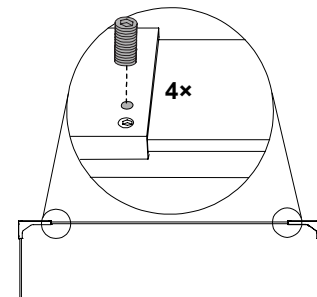
2. Slide the top bezel (f) securely into the corner block that you attached in the previous step.



3. Slide the top-right corner block (b) onto the top-right corner of your flat panel. Ensure that the block fits snugly against the side and top of the flat panel and that the top bezel rests securely inside the block. Tighten the thumb screws on the back of the block.



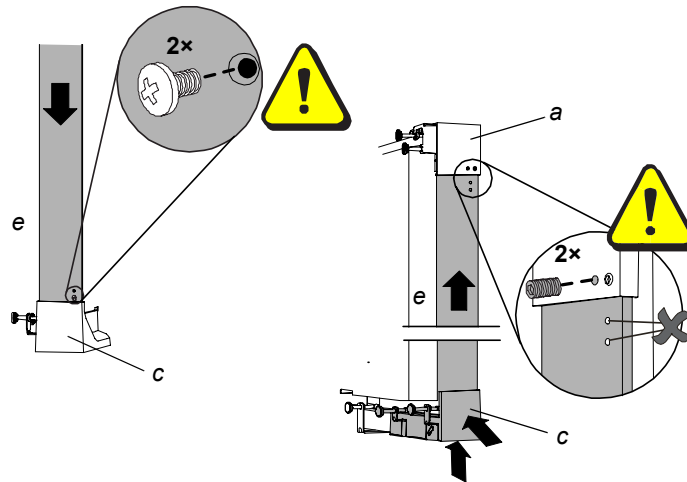
4. Secure the top portion of the frame by inserting four set screws into the holes in the top blocks, if they aren't already inserted, and then tighten the screws with the provided hex key.



- To assemble the left portion of the frame, insert one of the side bezels (e) into the bottom-left corner block (c), and then insert two pan-head screws in the bottom two holes. Slide the side bezel into the top-left block (a), and secure it by inserting two set screws in the block.

**NOTES**

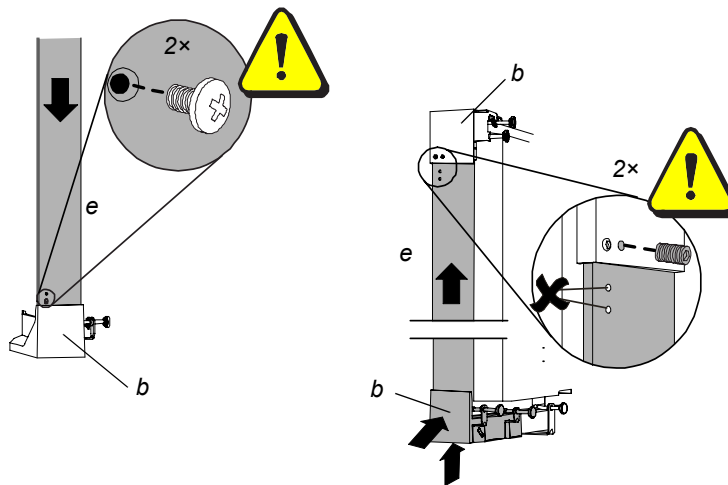
- Ensure that the bottom block fits securely against the front and bottom of the flat panel.
- You don't need to install set screws in the top two holes of the side bezel (e). Install the screws in the top-left corner block (a) as directed in step 5.



- To assemble the right portion of the frame, insert the remaining side bezel (e) into the bottom-right corner block (d), and then insert two pan-head screws in the bottom two holes. Then, slide the side bezel into the top-right block (b), and secure it with two set screws.

**NOTES**

- Ensure that the bottom block fits securely against the front and bottom of the flat panel.
- You don't need to install set screws in the top two holes of the side bezel (e). Install the screws in the corner block as directed in step 6.

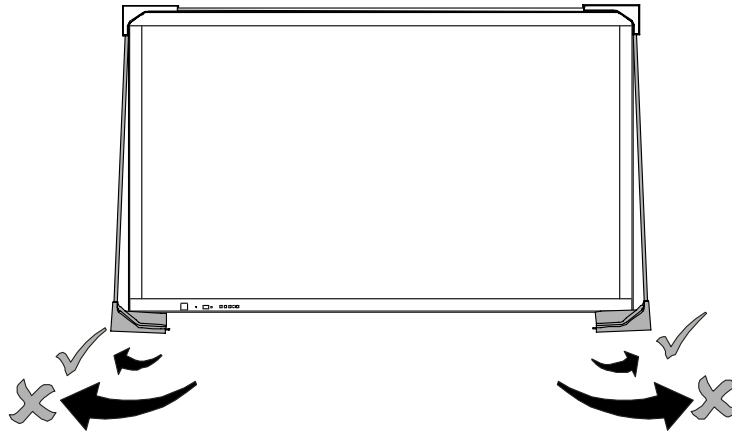


7. With the help of another person, gently pull the two bottom blocks away from the bottom corners of your flat panel.

**CAUTION**



Do not pull the sides out too far, because you could damage the side bezels.

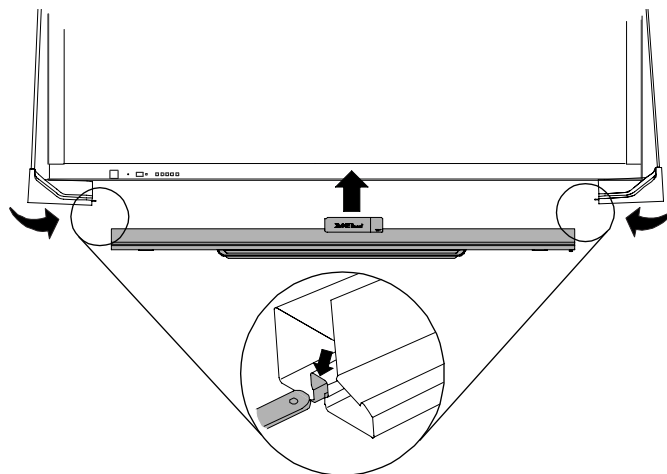


8. Fit the bottom bezel between the two bottom blocks, and then carefully release the blocks. Ensure that the metal tabs on the blocks slide into the T-shaped channel in the bottom bezel.

**IMPORTANT**



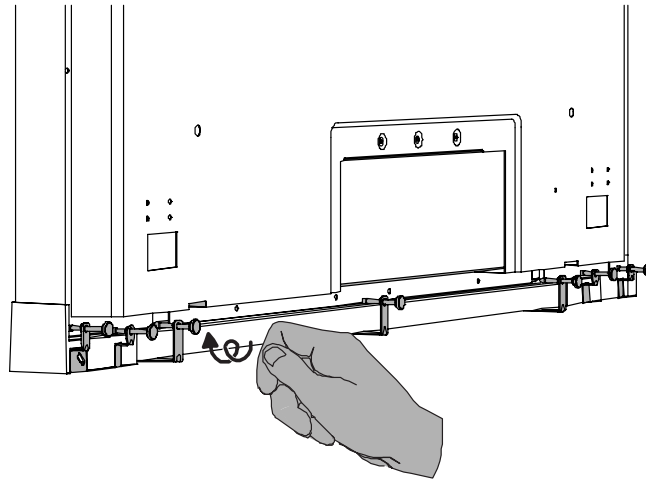
Support the entire lower section of the frame until you install the fasteners in step 10.



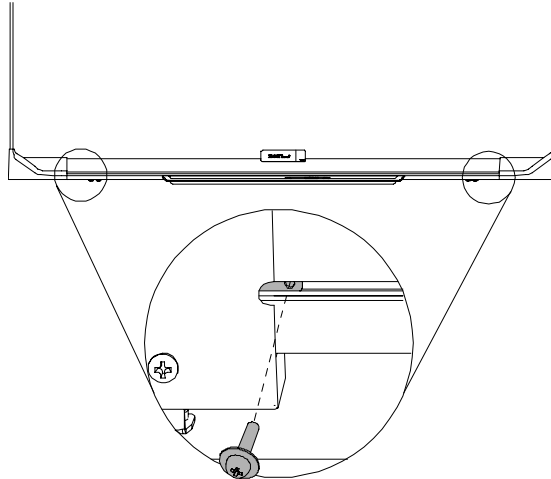


9. Press the corner blocks so that they rest securely against the sides of the flat panel's frame, and then tighten the seven thumb screws along the bottom of the interactive frame.

**NOTE:** If objects on the back of the flat panel display interfere with the position of a thumb screw, loosen the screw and slide it in its metal flange along the bottom bezel to a better position.

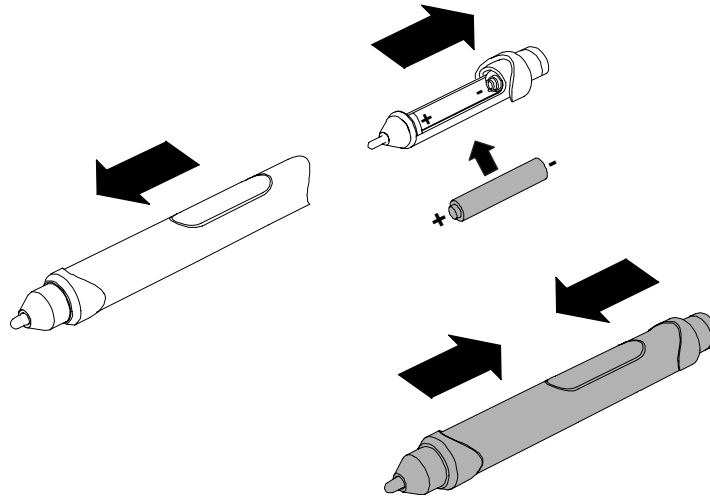


10. Secure the bottom bezel to the corner blocks using the two included washer-head screws.



### To assemble the pencil

1. Grasp the eraser end of the pencil in one hand and the top of the pencil in the other hand, and then carefully pull the two sections apart.
2. Insert the included AAA battery into the battery compartment, matching the markings on the holder to the markers on the battery.
3. Carefully push the two sections of the pencil together, and then place it on the interactive display frame's pencil ledge.



#### CAUTION



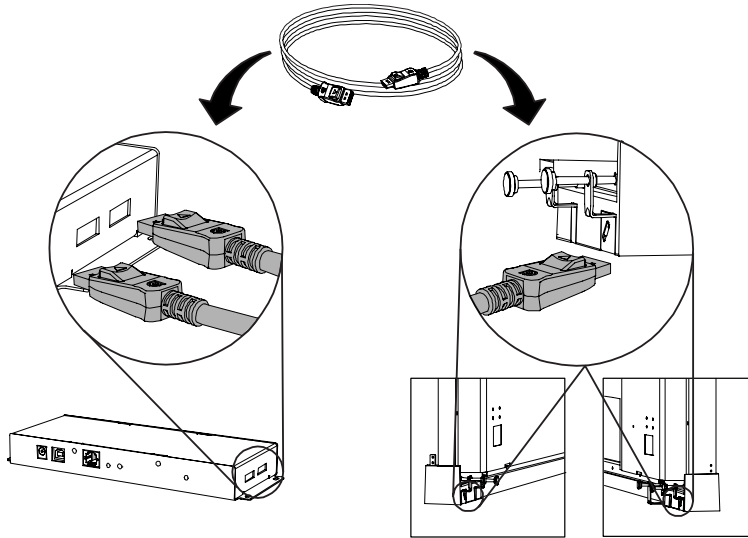
Use the pencil carefully. Dropping it may break it.

## Connecting Your Interactive Display Frame to a Computer

Before you can use your flat panel display as an interactive product, you must connect it through the controller box to a computer with SMART Notebook software installed. Follow the steps below to connect your interactive display frame.

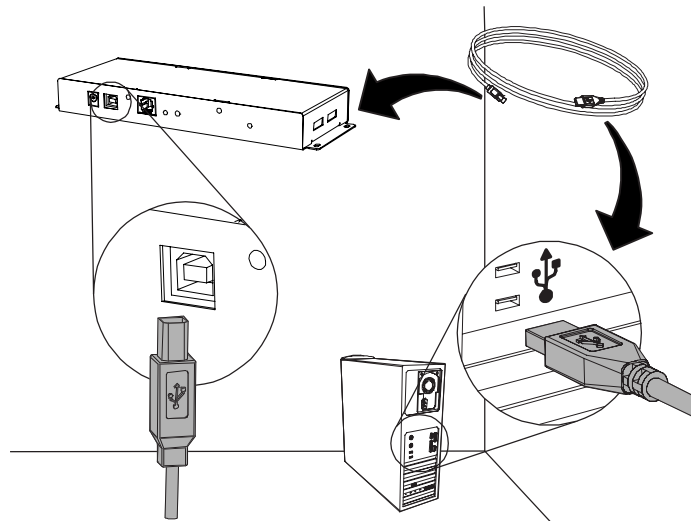
### To connect your interactive display frame

1. Connect the two DisplayPort cables to the ports on the side of the controller box, as illustrated. Connect the other end of each cable to the connections on the back of each of the interactive frame's bottom corner blocks.



2. Connect the USB cable from the controller box to your computer.

**NOTE:** Your computer must have a USB 2.0 receptacle.



3. Connect the power cable to the power supply, and then connect the controller box to a wall outlet.
4. If required, mount the controller box on a wall, shelf or nearby table using the appropriate hardware.

**NOTE:** Hardware to mount the controller box is not included with your SMART interactive display frame.

**IMPORTANT**



Make sure you can see the diagnostic and status LEDs on the controller box so that you can use these lights to help troubleshoot any problems.

5. Use the included CDs to install SMART Notebook software and SMART Board Drivers software on your computer, and then update your software to the latest version from the [SMART website](#).

OR

Download the latest software versions from the [SMART website](#).

**NOTES**

- SMART recommends that you update your SMART Notebook software to the latest version. Click the **SMART Board Tools** icon in your computer's notification area (Windows computers) or Dock (Mac computers). Select **Check for Updates**, and then follow the on-screen instructions to update your software.
- Before you can activate your SMART Notebook software, you must obtain a product key. To obtain a product key, go to the [SMART website](#) and register your interactive display frame. Type the hardware product serial number from your interactive display frame, and then follow the on-screen instructions.

# Calibrating and Orienting Your SMART Board interactive display frame

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Digital cameras in the bottom corners of the interactive display frame track the position of the pencil or your finger on the flat panel's screen, and then send the information to the installed SMART software. SMART software then interprets this information as mouse clicks, electronic ink or ink removal in the appropriate location.

Before you can use your flat panel as an interactive product, you must calibrate it. This process ensures that the cameras accurately track your finger and the pencil on the panel's screen.

The first time you connect your SMART Board interactive display frame, if you don't see a pop-up bubble telling you to calibrate the flat panel, use your computer's mouse to open the *SMART Connection Wizard*. Use the wizard to test your pencil nib and eraser to ensure that they're working correctly. After you test your pencil and eraser, use your computer's mouse to click **Calibrate** and start the calibration process. After you calibrate your interactive display frame, the flat panel screen is touch sensitive.

You can access the calibration and orientation features at any time from SMART Notebook's control panel to further refine the cameras' tracking precision.

The following procedures guide you through the *SMART Connection Wizard*.

## Using the SMART Connection Wizard to Test Your Pencil

Your SMART Board interactive display frame comes with a battery-powered pencil. When you touch the writing surface with an object, digital cameras located in the lower corner blocks detect and register the horizontal and vertical (or x,y) coordinates of that object on the flat panel's surface. By default, the tip of the pencil creates digital ink on the flat panel, and the back of the pencil erases digital ink. Touch the writing surface to use your finger as a mouse.

<b>IMPORTANT</b>	<ul style="list-style-type: none"><li>• Replace the pencil's AAA battery when the <i>Low Battery</i> warning bubble appears on your flat panel's screen.</li><li>• SMART software must be running on your computer before you can use the pencil's digital ink and eraser features.</li></ul>
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<b>TIP</b>	For best results, hold your pencil perpendicular to the writing surface so that your palm doesn't block the cameras' view. As you write, lift your pencil off the flat panel's surface so that you don't create extra lines between strokes.
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<b>CAUTION</b>	Use the pencil carefully. Dropping it may break it.
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Use the *SMART Connection Wizard* to make sure the pencil's tip and eraser are working correctly.

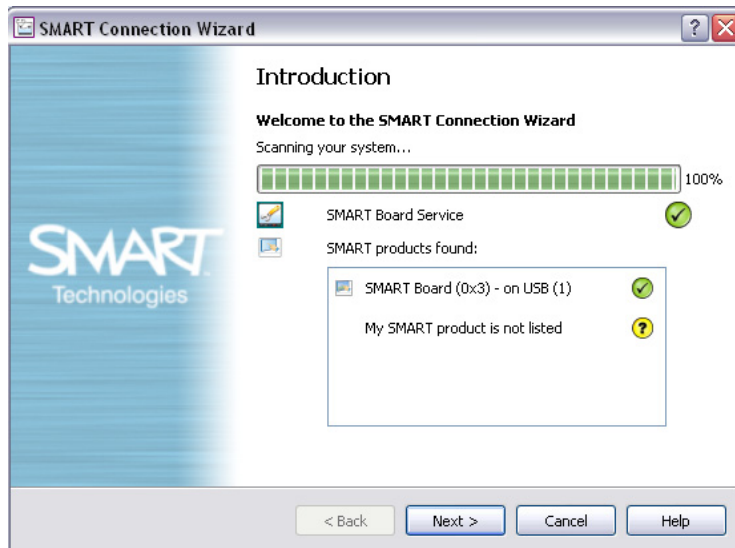
## To test your interactive display frame pencil

1. Open SMART Notebook's control panel, and then select **Connection Wizard**.

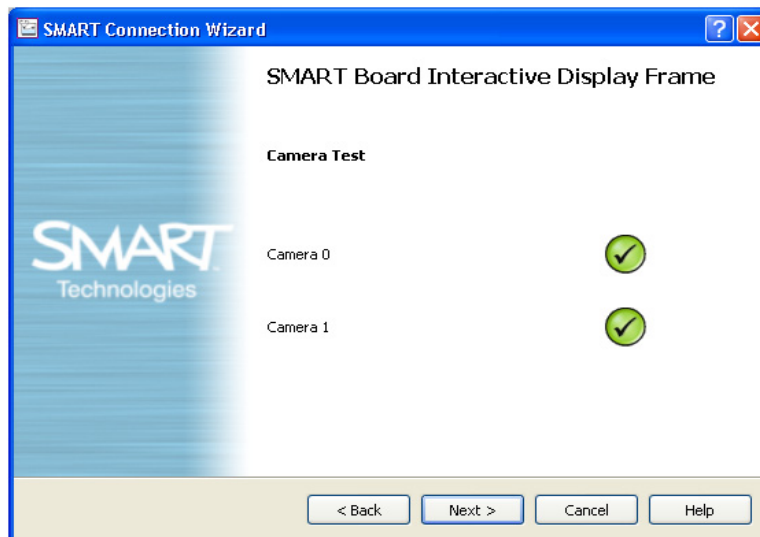
**NOTE:** You can also access the calibration feature by selecting **SMART Hardware Settings**, selecting your product, clicking **Advanced Settings**, and then clicking **Calibrate**. If you access the feature this way, proceed to step 5.

The *SMART Connection Wizard* appears and scans your system for the appropriate SMART hardware product. This may take several moments.

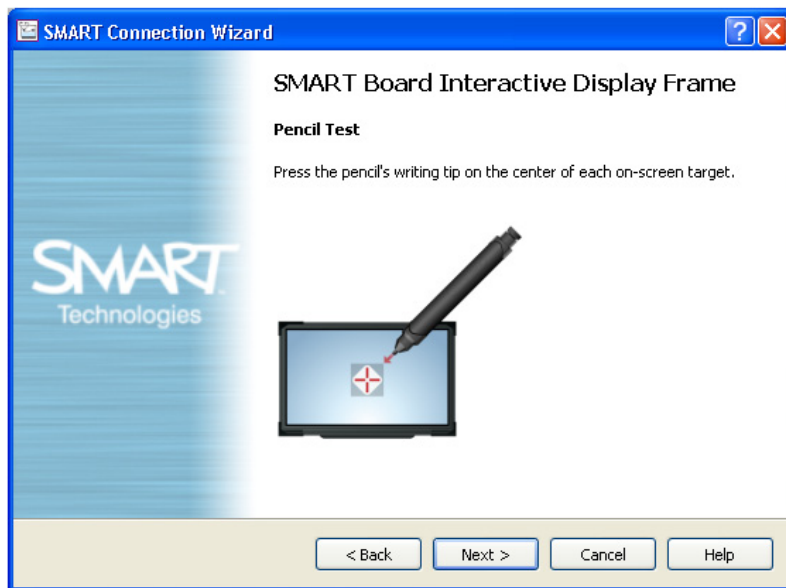
Your interactive display frame appears as **SMART Board (0x3) - on USB** in the list with a check mark beside it, as shown.



2. Select your interactive display frame, and then click **Next** (Windows computers) or **Continue** (Mac computers).
3. If your cameras are working correctly, they appear in a list with a check mark beside each camera. Click **Next** (Windows computers) or **Continue** (Mac computers).



4. Tap the pencil nib on the picture of the target.



A message appears, indicating that your pencil is working correctly.



5. Tap the eraser on the picture of the target to ensure that the eraser doesn't work in the pencil test, and then click **Next** (Windows computers) or **Continue** (Mac computers).

The *Eraser Test* window appears.

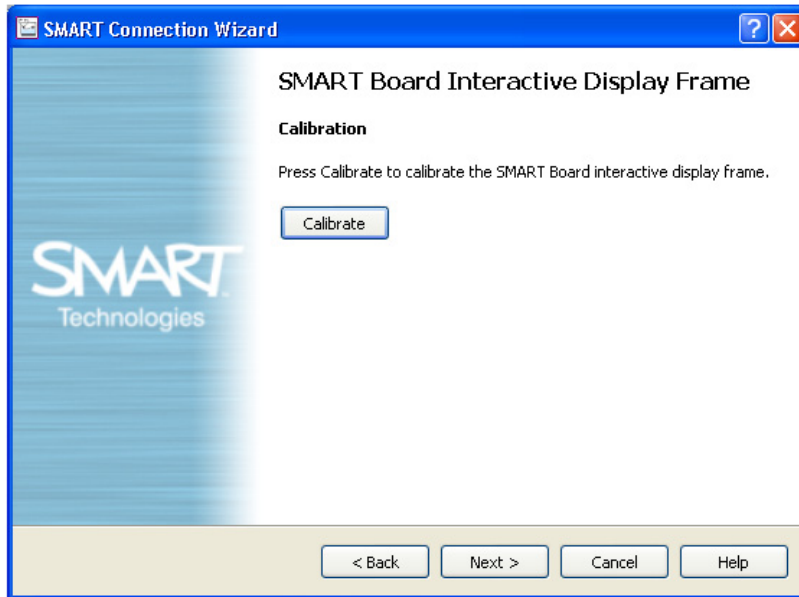
6. Press the pencil's eraser on the picture of the target.

A message appears, indicating that your eraser is working correctly.

7. Tap the pencil nib on the picture of the target to ensure that the pencil doesn't work in the eraser test, and then click **Next** (Windows computers) or **Continue** (Mac computers).

Your pencil test is complete.

The *Calibration* window opens. This may take a few moments while your system sets up.





## Using the *SMART Connection Wizard* to Calibrate Your Interactive Display Frame

If you haven't used your interactive display frame before, you must calibrate the cameras. If the unit was moved or jolted, a warning bubble may also appear recommending that you perform a calibration.

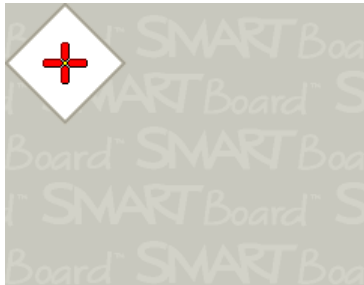
Use the *SMART Connection Wizard* to calibrate your cameras.

### To calibrate your interactive display frame

1. After you use the *SMART Connection Wizard* to test your pencil and eraser, you can calibrate your interactive display frame.

Click **Calibrate**.

The *Calibration* window opens.



#### IMPORTANT



The *Calibration* window may take a few moments to open. Do not touch the flat panel surface until you see the screen above.

2. Use the pencil nib to press the 15 red targets as they appear on the screen. Move the nib to the center of each target, and then wait until the target turns green before you lift the pencil. When you lift the pencil, the target moves to the next calibration point. Continue until you have pressed all the targets. At the end of the procedure, you hear a beep.

When you have pressed all the targets, the *Calibration* window disappears.

#### NOTES

- When you calibrate your interactive display frame, keep your pencil at a right angle to the panel.
  - You can re-calibrate a target by pressing the left arrow key on the keyboard, or by holding the eraser close to the flat panel and then clicking the eraser.
3. Click **Finish** to close the *SMART Connection Wizard*.

## Orienting Your Interactive Display Frame

If your finger or pencil doesn't accurately align with the mouse pointer or digital ink when you touch the panel, perform an orientation procedure to ensure greater precision.

### To orient your interactive display frame

1. Open SMART Notebook's control panel, and then select **Orient/Align the SMART Product**.

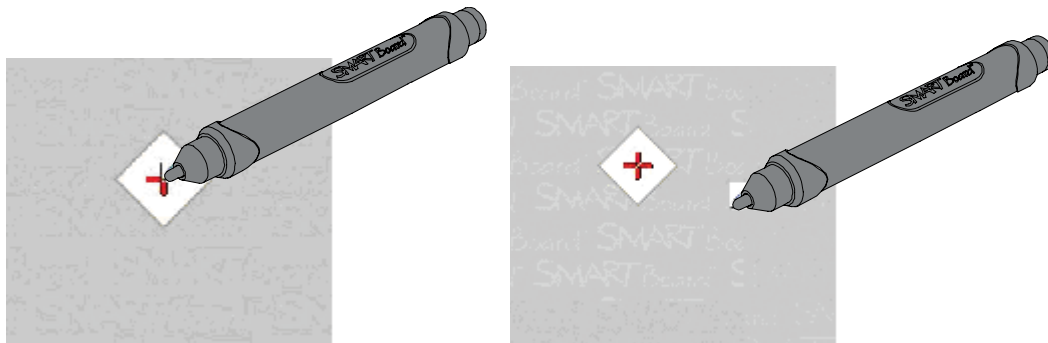
The orientation screen appears.

2. Press the center of the targets as they appear on the screen. The computer registers the point on the interactive whiteboard where you remove your finger or pencil from the flat panel's surface.

You can select a 4-, 9-, 12- or 20-point orientation procedure. For greatest accuracy, select the 20-point orientation setting. To change the orientation settings, see the following procedure.

#### NOTES

- To effectively orient the interactive screen, press an area near each target, and then slide the pencil or your finger to the center of each target before lifting your pencil or finger.
- Keep your pencil or finger at a right angle to the panel's screen.
- You can re-orient a target by pressing the left arrow key on the keyboard.
- To cancel the orientation procedure, press ESC. Otherwise, the orientation screen closes after you press the last target.



*Good Orientation Point*

*Poor Orientation Point*

### To select a different orientation setting

1. Open SMART Notebook's control panel. Select **SMART Hardware Settings**, and then select **Orientation/Alignment Settings** from the drop-down list for your SMART product.
2. Select the desired setting, and then press **OK**.
3. Perform an orientation procedure so that the precision change takes effect.

# Maintaining Your SMART Board interactive display frame

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Follow these recommendations to prevent damage to the flat panel's anti-glare coating and other product components.

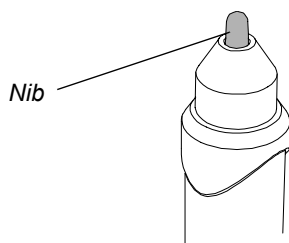
- Don't touch the panel's screen with sharp or pointed objects. Write with light pressure on the surface, and don't scratch the panel's surface with your fingernails, keys or jewelry.
- Never use abrasive erasers or harsh chemicals when cleaning. See page 5 for more information on cleaning your interactive frame.
- See your flat panel manufacturer's support documentation for specific instructions on caring for your panel.
- Avoid setting up and using your interactive display frame in an area with excessive levels of dust, humidity or smoke.
- Ensure that your SMART Board interactive display frame is connected to a high speed, USB 2.0 computer interface that's recognized by the operating system and isn't being used by another application.
- Make sure that you install a fresh battery in your pencil when the low battery warning appears. Rechargeable batteries aren't recommended.

## Replacing Your Pencil Nib

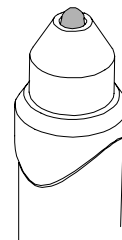
### CAUTION



Replace the pencil nib when it wears down. If a pencil nib wears down too far, you might scratch or damage the flat panel's anti-glare coating.



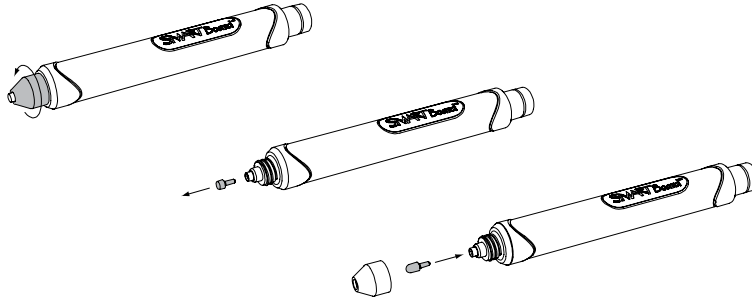
*New Pencil Nib*



*Worn Pencil Nib*

### To replace the pencil nib

1. Carefully unscrew the cap surrounding the pencil nib.
2. Pull gently on the nib to remove it from the pencil.
3. Insert the new nib, and then replace the cap.



### Replacing Your Pencil Battery

Replace the pencil's AAA battery when the *Low Battery* warning appears on your screen.

#### To replace the pencil battery

With a new battery, follow the procedure on page 12 to disassemble the pencil, insert the battery and reassemble the pencil.

### Configuring Your Computer Settings

For optimal configuration, use the following settings for the computer supporting your SMART Board interactive display frame.

#### Recommended Settings

Configure your computer's power management settings to turn off the display after one hour of inactivity and to put the hard disk(s) into **Standby** mode after two hours. This extended period prevents the computer from shutting down unexpectedly (for example, during presentations or meetings that have gaps in computer activity).

For more information on changing these power management settings, see the instructions included with your operating system.

## Transporting Your Interactive Display Frame

If you need to remove your panel from a wall or floor stand, be sure to remove the SMART Board interactive display frame first. Save your original packaging so that you can repack your interactive frame with as much of the original packaging as possible. 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 [SMART reseller](#).

**CAUTION**



If you need to move the unit while it is attached to a floor stand, do not press, pull or push directly on the frame components. Handle only the back of the flat panel or the floor stand.

# Troubleshooting Your SMART Board interactive display frame

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If you experience any difficulty with your SMART Board interactive display frame or pencil, first refer to the *SMART Connection Wizard's* troubleshooting procedures to help you identify and resolve potential issues with the cameras, pencil or eraser.

## To run the *SMART Connection Wizard's* troubleshooting procedures

1. Click the **SMART Board** icon in your computer's notification area (Windows computers) or Dock (Mac computers), and then select **Control Panel**.

The *Control Panel* appears.

2. Click **Connection Wizard**.

The *SMART Connection Wizard* appears and scans your system for SMART hardware products. This may take several seconds.

3. Once the wizard has scanned your system, your interactive display frame appears in the list with a check mark beside it. Select your product, and then click **Next** (Windows computers) or **Continue** (Mac computers).
4. Follow the on-screen instructions to test your pencil and calibrate your interactive frame.

If the *SMART Connection Wizard* doesn't resolve your problem, try resetting your interactive display frame (below), or check the troubleshooting tips on page 27.

## Resetting Your Interactive Display Frame

If your interactive display frame behaves erratically or becomes unresponsive (possibly because of an electrostatic discharge, a power interruption or some other event), you can often restore normal operation by resetting the interactive display frame.

To reset the interactive display frame, press the **Reset** button on the controller box or disconnect and then connect the power cable to the controller box. This restarts all components of the interactive frame. All data (including orientation data) stored in the controller box is retained.

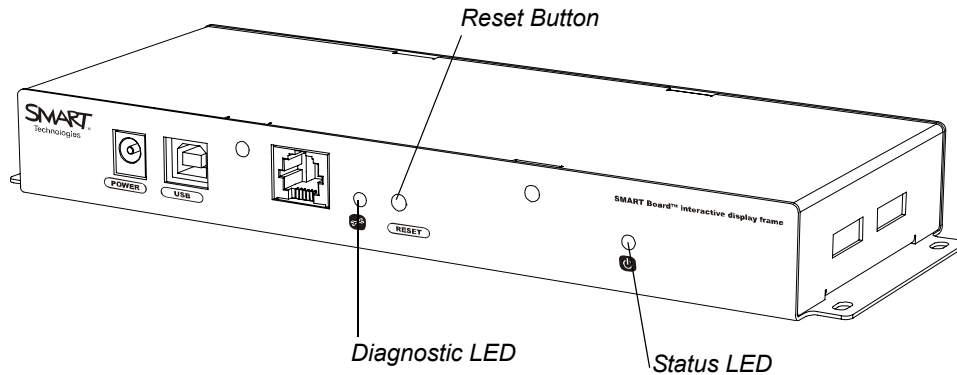
### TIP



The **Reset** button on the controller box is recessed. To press it, use a pointed object such as a pen or paper clip.

## Troubleshooting Using the LED Status and Diagnostic Lights

The controller box has two lights that you can use to help determine the condition of the interactive display frame.



Diagnostic LED	Status LED	System Condition	Resolution
Off	Off	System is turned off or power cable is disconnected.	Connect the power cable to the controller box.
Off	Flashing green	Software is starting or system is initializing.	Don't touch your panel until initializing is complete.
Green OR Alternating green and orange	Green	System is functioning within normal parameters.	None
Flashing green	Green	No SMART software detected.	Start SMART software.
Green OR Alternating green and orange	Red	Error detected.	Run the <i>SMART Connection Wizard's</i> troubleshooting procedures to determine the cause.
Flashing red	Red	No USB connection.	Check the cable between the controller box and computer.
Flashing green	Red	No SMART software detected.	Start SMART software, and then run the <i>SMART Connection Wizard's</i> troubleshooting procedures.
Flashing orange	Red	SMART software isn't responding.	Restart your computer.

Diagnostic LED	Status LED	System Condition	Resolution
Green OR Alternating green and orange	Flashing orange	System is updating firmware.	Wait for the update to finish.
Flashing green	Flashing orange	No USB connection.	Check the cable between the controller box and computer. <b>NOTE:</b> Do not disconnect the cable. Disconnecting the cable may cause memory loss.
Red	Flashing orange	Corrupted firmware.	Run the <i>SMART Firmware Upgrade Wizard</i> .
Off	Flashing orange	Computer is in <b>Standby</b> mode.	Turn on the computer.

If the lights on your controller box don't match the ones listed above, contact [SMART Technical Support](#).



## Troubleshooting Tips

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Symptom	Cause	Suggestion
There is no image on your panel, or a "No Input" message appears.	<p>Your computer is in <b>Standby</b> mode or the display input is incorrect.</p> <p>OR</p> <p>Your computer is off.</p> <p>OR</p> <p>Your computer isn't connected to your interactive display frame.</p>	<p>If you're using a laptop, switch on the external video connection or change the display input. Consult your laptop's manual.</p> <p>Move the mouse or touch any key on your keyboard to bring your computer out of <b>Standby</b> mode.</p> <p>Turn your computer on (or press the computer's reset button), and then log on as usual.</p> <p>Check the cable connections to the computer and all components.</p>
The panel image is blurry, too large or doesn't completely fill the panel.	Your computer's video resolution settings don't match your panel's native resolution.	Consult your panel's manual for the correct computer video resolution, and then change the video resolution to match your panel.
You can't write in digital ink or erase digital ink with the pencil.	<p>The pencil nib is worn out.</p> <p>OR</p> <p>The pencil's battery is weak or dead.</p> <p>OR</p> <p>The battery orientation is backwards.</p>	<p>Replace the pencil nib (page 22).</p> <p>Replace the old battery with a new one (page 22).</p> <p>Remove the battery. Insert it correctly inside the battery compartment (page 12).</p>

Symptom	Cause	Suggestion
Your panel doesn't respond when you touch it, you notice gaps in your writing, or an area of the panel's screen doesn't respond to your touch.	Your interactive whiteboard isn't oriented properly. OR Excessive light in the room is affecting the interactive whiteboard's performance. OR SMART software isn't installed. OR Your computer might be running too many applications. OR Your computer doesn't meet the minimum requirements (page 2).	Orient your interactive whiteboard (page 19).  Close any blinds and shades, or turn off all halogen and LED lights.  Install SMART software.  Close some open applications.  Upgrade your computer or replace it with a more powerful computer.
The <b>SMART Board</b> icon doesn't appear in the notification area (Windows computers) or Dock (Mac computers).	SMART software isn't running.	Double click the <b>SMART Board Tools</b> icon on your desktop, or open the <b>SMART Board Drivers</b> folder in your list of programs, and then select <b>SMART Board Tools</b> .

## Updating Your Interactive Display Frame Firmware

Follow these steps to update your SMART Board interactive display frame firmware:

### To update the interactive display frame firmware

1. Open Windows Explorer and select **Program Files > SMART Technologies > SMART Board Drivers > SMARTFirmwareUpdater.exe** (Windows computers).  
OR  
Open Finder and select **Applications > SMART Board Drivers > SMARTFirmwareUpdater.app** (Mac computers).  
The *SMART Firmware Upgrader Wizard* opens.
2. Select **SMART Board interactive display frame (SC11)** in the product upgrade list, and then click **Next**.
3. Follow the on-screen instructions to update your interactive display frame to the latest firmware.

## Contacting SMART Technical Support

[SMART Technical Support](#) welcomes your call. However, if you experience difficulty with your SMART product, you might want to contact your local reseller first. Your [SMART reseller](#) might be able to resolve the issue without delay.

Before contacting SMART Technical Support, make note of your interactive whiteboard's serial number, and then write it on the inside cover of this manual (if you printed it).

### To determine your interactive display frame's serial number

The serial number is located on the bottom of both lower corner blocks, as well as on the controller box.

The serial number matches your SMART Board interactive display frame's model number and has the following format: PX4xx-xxxxxxx (eg., PX450-012345, where "50" is your panel's size group).

# Regulatory Compliance

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## Waste Electrical and Electronic Equipment Regulations

Waste Electrical and Electronic Equipment regulations apply to all electrical and electronic equipment sold within the European Union.

When you dispose of any electrical or electronic equipment, including SMART products, we strongly encourage you to contact your local WEEE recycling agency for recycling and disposal advice.

Your SMART product required the extraction and use of natural resources for its production. It might contain hazardous substances. By disposing of electrical and electronic equipment appropriately, you lower the impact of these substances upon health and the environment and reduce the pressure on natural resources. Recycling agencies can reuse or recycle most of the materials from your product.

Please think about how you intend to dispose of any product that has a WEEE symbol or accompanying WEEE guidelines.



If you need more information on the collection, reuse and recycling of electrical and electronic equipment, please contact your local WEEE recycling agency.

Alternatively, contact your local reseller or SMART Technologies for information on the environmental performance of our products.

## Restriction of Certain Hazardous Substances (RoHS) Directives

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

This product meets the requirements of the European Union's Restriction of Certain Hazardous Substances (RoHS) Directive 2002/95/EC, as well as the People's Republic of China's Control of Pollution Caused by Electronic Information Products (China RoHS).

Subsequently, this product also complies with other, less stringent directives that have arisen in various geographical areas, and that incorporate the European Union's RoHS directive as a basis.

For more information, refer to your local regulations or visit [www.smarttech.com](http://www.smarttech.com).

# Customer Support

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## Online Support

Visit [www.smarttech.com/support](http://www.smarttech.com/support) to view and download user's guides, how-to and troubleshooting articles, software and more.

## Training

Visit [www.smarttech.com/trainingcenter](http://www.smarttech.com/trainingcenter) for training materials and information about our training services.

## Technical Support

If you experience difficulty with your SMART product, please contact your local reseller before contacting SMART Technical Support. Your local reseller can resolve most issues without delay.

NOTE: To locate your local reseller, visit [www2.smarttech.com/st/en-US/Where+to+Buy](http://www2.smarttech.com/st/en-US/Where+to+Buy).

All SMART products include online, telephone, fax and e-mail support:

**Online:** [www.smarttech.com/contactsupport](http://www.smarttech.com/contactsupport)

**Telephone:** +1.403.228.5940 or  
Toll Free 1.866.518.6791 (U.S./Canada)  
(Monday to Friday, 5 a.m. – 6 p.m. Mountain Time)

**Fax:** +1.403.806.1256

**E-mail:** [support@smarttech.com](mailto:support@smarttech.com)

## Shipping and Repair Status

Contact SMART's Return of Merchandise Authorization (RMA) group, Option 5, +1.866.518.6791, for shipping damage, missing part and repair status issues.

## General Inquiries

**Address:** **SMART Technologies**  
3636 Research Road NW  
Calgary, AB T2L 1Y1  
CANADA

**Switchboard:** +1.403.245.0333 or  
Toll Free 1.888.42.SMART (U.S./Canada)

**Fax:** +1.403.228.2500

**E-mail:** [info@smarttech.com](mailto:info@smarttech.com)

## **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 [www.smarttech.com/registration](http://www.smarttech.com/registration).





## SMART Technologies

Corporate Headquarters

3636 Research Road NW

Calgary, AB T2L 1Y1

CANADA

[www.smarttech.com/support](http://www.smarttech.com/support) [www.smarttech.com/contactsupport](http://www.smarttech.com/contactsupport)

Support +1.403.228.5940 or Toll Free 1.866.518.6791 (U.S./Canada)