

# SMART Podium ID422w Interactive Pen Display

## Installation and User's Guide

Extraordinary made simple™

**SMART**™

# Product Registration

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

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

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

Serial Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacture'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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08/2009

# Important Information

## Read This Section First

For proper installation, read this guide carefully and observe the following precautions.

### **WARNINGS**

- If the screen is damaged, do not touch any liquid that leaks from it. This liquid is an irritant. If the liquid makes contact with your skin, eyes or mouth, immediately rinse the area with running water for at least 15 minutes. Consult a physician if the liquid makes contact with your eyes or mouth.
- Do not open or disassemble the interactive pen display. You risk electrical shock from the high voltage inside the casing. Opening the casing also voids your warranty.
- Do not let children play with the tethered pen. They may accidentally remove the small tip, which can be a choking hazard.
- If the screen is damaged, be careful of glass fragments that can cut or injure.
- Do not disassemble the stand. You risk physical injury or damage to the stand. Disassembling the stand also voids your warranty.
- Do not operate the display stand incline adjustment levers when the interactive pen display is not mounted on the stand, and do not lift the stand by the adjustment levers. The stand is spring-loaded and without the weight of the interactive pen display, you risk injury or damage to the stand.

## CAUTIONS

- Avoid excessive vibration of the interactive pen display or the tethered pen. Hitting or dropping the interactive pen display can damage the protective plate or other components.
- Do not touch the screen with sharp, metallic objects that could scratch the screen's coating.
- Use only a damp cloth to clean the screen. Do not apply glass cleaner, organic solvents (such as alcohol), or even a mild detergent to the screen. If you use these cleaners, you may damage the screen's finish or the unit's electronics. Using such cleaners also voids the warranty.
- Use only a damp cloth or a cloth dampened with very mild detergent to clean the unit casing or tethered pen. Do not apply paint thinner, benzene, alcohol or other solvents to the casing. If you use these cleaners, you may damage the finish. Using such cleaners also voids the warranty.
- Use only the power adapter that came with the interactive pen display. Other adapters will not work properly, can damage the interactive pen display, and can create a fire hazard. Using a different power adapter also voids the warranty.
- Use only the tethered pen that came with the interactive pen display. Tethered pens or styluses from other products can damage the screen's protective coating. Also, they may not work properly.
- Do not use the interactive pen display in a facility control system or any other environment that requires extremely high reliability; the interactive pen display can interfere with or cause other electronic devices to malfunction, or other devices can interfere with or cause the interactive pen display to malfunction. Where use is prohibited, turn off the interactive pen display to prevent the possibility of it interfering with or causing other electronic devices to malfunction. SMART does not accept any liability for direct or consequential damages.
- If you transport the interactive pen display over a distance, we strongly urge you to completely repackage it using the original carton. We designed this packaging with optimal shock and vibration protection. If the original carton is no longer available, pack all components with as much padding as reasonably possible to protect the components from excessive vibration or shock. Do not include loose components in the packaging that could mark, scratch or otherwise damage the screen during the journey.
- Put the interactive pen display down carefully to ensure you do not damage the buttons.
- Do not place the interactive pen display on a surface that will mark, scratch or damage the screen.

### CAUTIONS – INTERACTIVE PEN DISPLAY

- Do not place sharp or heavy objects on the interactive pen display.
- Do not connect or disconnect the video or power cable if the interactive pen display or your computer is on. If you do, you can damage the screen and/or the computer video card.
- Do not block the interactive pen display's ventilation holes, as this can cause it to overheat.
- If you move the interactive pen display, adjust the display stand to its full upright position, and then use both hands to hold the display unit and the stand separately. Use the rotation lock screws to ensure the stand will not separate from the display unit.
- Do not expose your interactive pen display to high voltage electrostatic discharges or to a build-up of electrostatic charge on the screen. This can cause discoloration and blotches on the screen.
- If the interactive pen display is damaged, turn off the display, disconnect the power adapter in order to prevent further damage or personal injury.

### CAUTIONS – TETHERED PEN

- The tethered pen is a sealed unit that contains electronics but no batteries. If you attempt to open the tethered pen, you will damage these electronics. This will make the tethered pen unusable and void the warranty.
- Do not touch the screen with any instrument other than the supplied pen because other instruments may damage the screen's protective coating.
- Do not use a pen that has worn down to a sharp or angular tip, as it may damage the screen.
- Do not apply excessive pressure that can shorten the life of the pen.
- Do not immerse the pen in water.

### CAUTIONS – ENVIRONMENT

- Avoid setting up and using the interactive pen display in an area with excessive levels of dust, humidity and smoke or where it is exposed to direct sunlight, severe temperature changes, heat from other appliances, water or any other liquid. Operate the interactive pen display within a temperature range of 41°F and 95°F (5°C to 35°C) and a humidity range of 20% to 80% (non-condensing). However, you can store the interactive pen display within a temperature range of 14°F to 140°F (-10°C to 60°C) and a humidity range of 20% to 90% (non-condensing).

- Do not modify the power cord. Handle it carefully and avoid bending it excessively. Do not place the power cord in an area where it is likely to be stepped on or pinched by items placed on or against it. If you must run a cable over the floor, lay it in a flat, straight line, and secure it to the floor with tape or a cable management strip of contrasting color.
- The interactive pen display comes with a three-prong, grounding-type power plug (designed to fit into a grounding-type power outlet). If you can not insert the plug into a power outlet, contact an electrician to replace the power outlet. Do not modify the power plug.
- Place the interactive pen display in a location where users will have clear and direct access to the main power plug, as they must be able to disconnect the unit at all times. Always disconnect the interactive pen display before you install any devices or perform any maintenance.
- If possible, disconnect the interactive pen display before any thunderstorms. However, do not touch the unit or the unit's power plug during a thunderstorm, as there is a risk of electrical shock.
- Disconnect the interactive pen display if you will not use it for an extended period.
- If the interactive pen display requires replacement parts, use parts that are specified by SMART Technologies.
- Do not expose the interactive pen display to rain or moisture.

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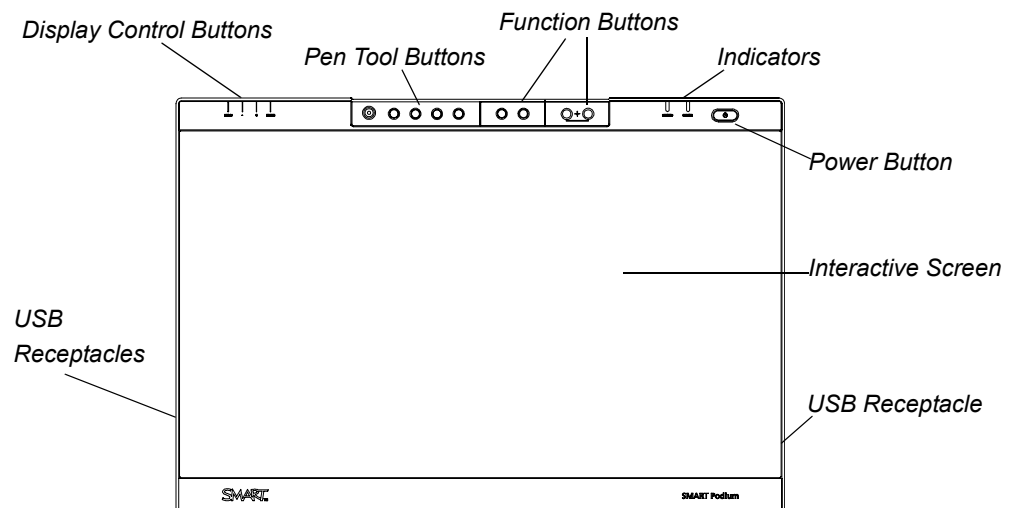


# Chapter 1

## Overview

The SMART Podium ID422w interactive pen display works with your computer and SMART Board™ drivers to create an interactive presentation environment. The SMART Podium ID422w includes dynamic and interactive tools for creating presentations and lessons. When you connect a projector or another monitor to the interactive pen display, you can control applications and create notes using the tethered pen, all while facing the audience.

### The Interactive Screen



The ID422w interactive pen display is a 22" (56 cm) liquid crystal display (LCD) interactive screen that acts as an input and output device. The native aspect ratio is 16:9 with flexible scaling options to support 4:3 and 16:10.

Connect it to a computer with a video card that supports full HD resolution (1920 × 1080) and a refresh rate no higher than 76 Hz.

#### **i** NOTE

For the interactive pen display to function properly, connect it to a computer with an appropriate video card. An inappropriate video card may damage the interactive screen.

## The Tethered Pen

By using the tethered pen on the interactive pen display, you can control and manipulate items on your screen, and write and erase digital ink. You can store the pen in the compartment on the top of the unit.

## The Pen Tool, Function and Display Control Buttons

Using the buttons on the interactive pen display, you can set the current function of the pen, instantly start software programs and configure the display settings.

Use the pen tool buttons to control the function of the pen tool. You can select from different digital ink colors and an eraser button.

Use the function buttons to right-click and to access specific SMART Board tools, such as SMART Notebook software, the Screen Capture toolbar, and the SMART Keyboard.

Use the on-screen display control buttons to configure the display's settings.

## Connection Panel

The interactive pen display connection panel has four receptacles:

- a USB receptacle for connecting the supplied USB cable
- a DVI-I video input receptacle for a video cable from your computer
- a DVI-I video output receptacle for a video cable to a projector or a monitor
- a power receptacle for the power cable.



### **IMPORTANT**

Set the DVI/VGA switch for the video connection you're using.

The interactive pen display also includes three USB A receptacles on the frame.

## Power

The interactive pen display uses a single 12V DC power supply, which comes with the unit.

### **i** NOTE

The interactive pen display switches to the appropriate voltage automatically.

## Power Saving

The SMART Podium ID422w conforms to the Video Electronics Standards Association (VESA®) power saving guidelines.

When you use the SMART Podium ID422w with a Display Power Management Signaling (DPMS) compliant computer and video card, the display automatically complies with the following power saving parameters.

When these power saving functions are in effect, the screen display is darker than usual.

Computer Mode	H-sync	V-sync	Video	Maximum Power Consumption	Power Lamp
Power ON	Yes	Yes	Active	54 W	Green
Standby mode	No	Yes	Blanked	2 W	Green/Amber*
Suspend mode	Yes	No	Blanked	2 W	Green/Amber*
Power OFF	No	No	Blanked	1 W	Amber

\* Depending on the specifications and settings of your computer and video card, the power light may only change to amber when in standby and suspend modes.

## Cables

The interactive pen display comes with four cables:

- DVI-D to DVI-D
- DVI-A to VGA
- USB A-B
- AC power cable

## Optional Accessories

For more information on optional accessories, contact your [authorized SMART reseller](#).

### Active USB Extension Cables (USB-XT)

You can connect up to four 16' (5 m) active USB extension cables to extend your interactive pen display's USB connection to a maximum of 64' (20 m).

### Cat 5 to USB Extender (CAT5-XT)

Use the SMART Cat 5 to USB extender to extend your interactive pen display's USB connection up to 120' (36.6 m) using RJ45 Cat 5 cable (not included). The extender includes two 6' (1.8 m) USB cables to connect your computer and your interactive pen display to the extender units.

## Chapter 2

# Installing the SMART Podium ID422w

This chapter tells you how to:

- determine the computer system requirements (page 6)
- set up the interactive pen display (page 7)
- install the interactive pen display (page 9)
- integrate a monitor or a projector (page 13)
- attach the pen (page 14)
- install SMART Board drivers and SMART Notebook software (page 15)
- match your computer's and interactive screen's resolutions (page 17)
- adjust the screen (page 21)
- orient the screen (page 23)
- secure the interactive pen display (page 24)
- remove and install the interactive pen display's stand (page 24)
- integrate the interactive pen display with other devices (page 25)

## System Requirements

Before installing the SMART Podium ID422w, make sure your computer meets the following minimum system requirements.

### For Windows operating systems

- Windows Vista®, Windows Vista 64-bit, Windows® XP, or Windows XP 64-bit operating system
- DVI or VGA video receptacle
- available USB receptacle

### For Mac operating system software

- Mac OS X operating system software 10.4 or later
- DVI or VGA video receptacle
- available USB receptacle

**NOTE**

ADC connectors require an ADC to DVI adapter (not included).

### Video Cards

The SMART Podium ID422w supports both digital (DVI) and analog (VGA) video signals. If you're updating your video card, complete the video card hardware and software installation before connecting the interactive pen display. If you have another display that is compatible with your video card, you can connect that display to the card in order to verify the video card is operating correctly.

Although you can quickly connect the interactive pen display to a video card with either DVI or VGA signals, a DVI signal generally results in better performance.

**NOTE**

Depending on the capabilities of your video card and operating system, you may be able to set up the interactive pen display as a mirrored, extended, or independent display. For more information, see your video card documentation.



## Monitors and Projectors

You can use the SMART Podium ID422w alone or with another display. You may connect a second device, such as an LCD projector or a monitor, to the SMART Podium ID422w DVI OUT receptacle. When using this receptacle, the second device mirrors the image on the interactive pen display. Complete the SMART Podium ID422w installation before connecting a second device.

### **i** NOTE

When you're working with more than one monitor, the SMART Podium ID422w maps to the monitors based on how your system is configured. By default, if you're in mirror mode, the pen tablet maps to the entire space on each monitor. For more information on configuring your computer and operating system for use with multiple monitors, see your hardware and operating system documentation.

## Setting Up the Interactive Pen Display

This section tells you how to:

- determine the best location for the interactive pen display (this page)
- set up your work area (page 8)
- change the angle of the interactive pen display (page 8)

### Determining the Best Location for the Interactive Pen Display

Install the interactive pen display in a cool, dry location without excessive levels of dust, humidity and smoke. Operate the interactive pen display in an environment within a temperature range of 41°F and 115°F (5°C to 45°C) and within a humidity range of 20% to 85% (non-condensing). You can store the interactive pen display within a temperature range of 14°F to 140°F (-10°C to 60°C) and a humidity range of 20% to 90% (non-condensing).

Take into consideration that the interactive pen display itself will generate heat whenever it is turned on. To maintain a consistent operating temperature, don't block or cover any of the ventilation holes on the back of the unit. Other external factors can affect the interactive pen display, such as the heat generated by control systems or other electronic equipment. Make sure there is adequate airflow around the unit.

Keep the computer keyboard and the mouse close to the interactive pen display because the pen won't have full functionality and maximum performance until you install SMART Board drivers and then open the SMART Board tools. You should also keep your computer within 16' (5 m) of the unit. This distance protects against signal degradation that occurs with a longer USB cable. The video cable also has length limitations, so you shouldn't use an RGB video cable longer than 50' (15 m).

To alleviate glare, you can use the attached tilt stand to angle the interactive pen display. Alternatively, use a tilt stand that conforms to the standard sizes set by VESA. When installing a VESA compliant stand, use M4 screws (1/16" or 4 mm wide with a 1/32" or 0.7 mm pitch) that are no longer than 1/4" (15 mm).

## Setting Up Your Work Area

To minimize fatigue, organize your work area so you can work comfortably. Position your interactive pen display, the pen and your keyboard for easy access without unnecessary reaching. You should be able to comfortably view the pen display and any other displays with a minimum of eye strain.

Because the interactive pen display surface will be a little higher than your desk, you can adjust the height of your desk or chair to assure comfortable use of the device.

You can also mount the SMART Podium ID422w onto articulated arms or other third-party stands meeting the VESA 100 specification for display stands.

## Changing the Angle of the Interactive Pen Display

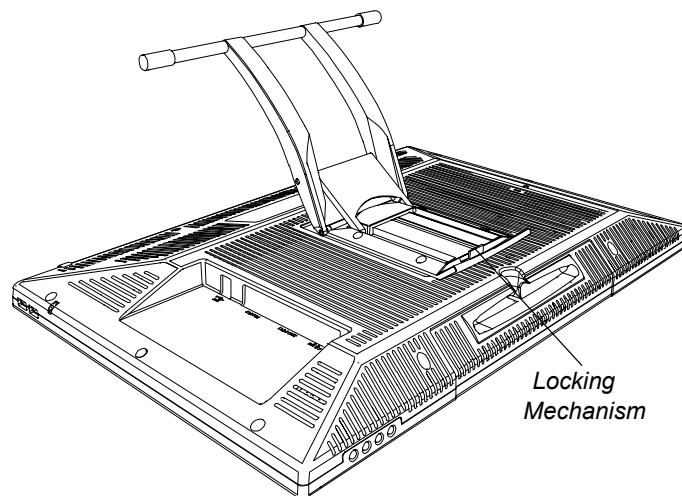
You can adjust the stand to change the angle of the interactive pen display.

### **i** NOTE

For information on how to remove or install the stand, see page 24.

### To change the angle of the interactive pen display

1. Hold the interactive pen display to support its weight while you adjust the stand.
2. Push the stand's locking mechanism toward the top of the interactive pen display, adjust the angle of the stand, and then release the locking mechanism.



## Installing the Interactive Pen Display

There are three primary stages to the installation process:

- Connecting the interactive pen display and your computer (this page)
- Installing the interactive pen display (page 11)
- Connecting the interactive pen display and your computer using the USB cable (page 12)

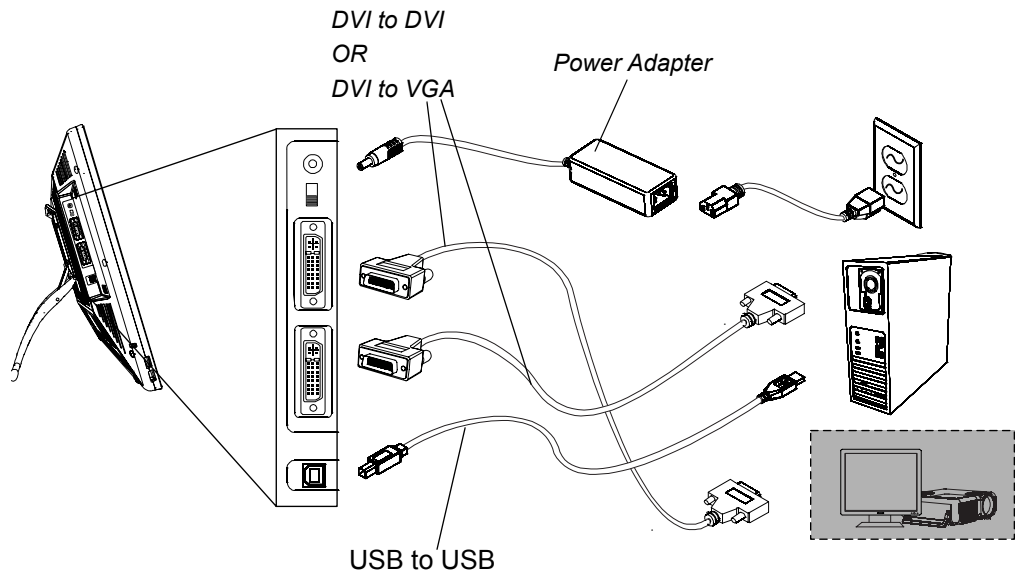
### Connecting the Interactive Pen Display and Your Computer

#### ⚠ CAUTION

Use only the cables provided with your interactive pen display. Other cables can damage the interactive pen display.

#### 👉 IMPORTANT

- Make sure your video card has a DVI or VGA connector, and that you correctly set the DVI/VGA switch for the video connector you are using.
- Do not attach the USB data cable until instructed to do so.



**To connect the  
interactive pen display  
and your computer  
video card**

1. Turn off your computer.

 **CAUTION**

Do not connect or disconnect the video or power cable if the interactive pen display or your computer is on. If you do, you can damage the screen and/or the computer video card.

2. If your computer has only one video connector, disconnect your monitor or add a second video card.
3. Determine if your computer has a digital (DVI) connector or an analog (VGA) connector, and then set the DVI/VGA switch on the connection panel for the video connection you're using.
4. Making sure to tighten the thumbscrews on the connectors, follow the instructions below for your video connector.
  - For DVI operation, connect the DVI to DVI video cable to the **DVI-I IN** receptacle on the interactive pen display and the DVI-D or DVI-I connector on your computer's video card.
  - For VGA operation, connect the VGA to DVI-A video cable to the **DVI-I IN** receptacle on the interactive pen display and the VGA connector on your computer's video card.
  - For ADC operation, connect one end of the DVI to DVI video cable to the ADC to DVI adapter, connect the other end of the cable to the **DVI-I IN** receptacle on the interactive pen display, and then connect the ADC adapter end to the ADC connector on your computer's video card.

 **NOTE**

If you're connecting the unit to an Apple ADC or mini-VGA connection, you must obtain an appropriate adapter. Adapters are available at retail outlets.

- For an Apple mini-VGA connector, connect the VGA end of the analog RGB cable to the mini-VGA adapter. Connect the DVI end of the cable to the **DVI-I IN** receptacle on the interactive pen display, and then connect the mini-VGA receptacle end to the mini-VGA on your computer's video card.

**To connect the  
interactive pen display  
and an AC power outlet**

1. Connect the power adapter to the interactive pen display, connect the adapter's power cable, and then connect the adapter to an AC outlet.
2. Turn on the interactive pen display.  
The Power indicator is amber.

## Installing the Interactive Pen Display

### IMPORTANT

Do not connect the USB data cable until instructed to do so.

### To install the interactive pen display

1. If you're using a second device, such as a projector or a monitor, follow the instructions on page 13 to connect the interactive pen display to the second device.

### CAUTIONS

- Do not connect or disconnect the video or power cable if the interactive pen display or your computer is on. If you do, you can damage the screen and/or the computer video card.
- Use only the power adapter that came with the SMART Podium ID422w. Other adapters will not work properly, can damage the interactive pen display, and can create a fire hazard. Using a different power adapter also voids the warranty.
- Make sure that the display refresh rate does not exceed 76 Hz.

### IMPORTANT

- Fully install the SMART Podium ID422w hardware (page 9) and software (page 15) before connecting a projector or monitor to the unit.

2. Turn on the computer and the interactive pen display.

The SMART Podium ID422w automatically installs as a default monitor.

3. If necessary, configure the display control panel settings for the proper size and color resolution. The maximum (native) resolution of the SMART Podium ID422w is 1920 × 1080 pixels. The display size and color resolution may be constrained by the capabilities of your video card. For more information, see the video card manufacturer's documentation.

### NOTE

If your computer supports a second display, and you're using the interactive pen display as a second display, you may need to enable the SMART Podium ID422w as your second display in your Display Properties (Windows computers) or Displays preferences (Mac computers).

4. If necessary, adjust the screen display settings (see page 19).

### IMPORTANT

To extend the life of the backlight, set your computer's power management settings to turn off the display when it is not in use for extended periods.

**i NOTES**

- If an image has fine striping (such as screen stripes), it may appear to flicker or display a wavy pattern.
- Don't apply excessive pressure on the display surface. It may cause the appearance of a wavy or pooling pattern. If this occurs, use less pressure on the interactive screen when working with the pen.
- When a still image is displayed for a long period of time, an after-image may remain for a short time. To prevent this, use a screen saver or other power management feature.

**💡 TIP**

For troubleshooting tips, see page 37.

## Connecting the USB Cable

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**To connect the interactive pen display and computer using the USB cable**

After you connect the hardware and install the software and the interactive pen display, you can connect the supplied USB cable to the USB receptacle on the interactive pen display and an available USB receptacle on your computer.

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**i NOTE**

If you must install drivers not provided by SMART Technologies, search for them in your operating system folders.

## Integrating a Monitor or a Projector

You can connect a projector or another monitor directly to the interactive pen display. With this setup, whatever you view on the interactive pen display also appears on the other display. When you connect a projector or a monitor, the video signal from the computer is automatically sent to the projector or monitor. Other integration options are available if you amplify the video signal.

Use a SMART approved projector, such as the UF55w or UX60 projectors. Alternatively, use a projector that can support VGA resolution and change the display resolution of the connected computer.

### NOTE

The display resolution of the connected computer must be set to a resolution supported by the projector.

### To connect a projector or monitor

1. Turn off the computer and the interactive pen display.
2. For DVI operation, connect a second DVI to DVI video cable (not included) to the **DVI-I OUT** receptacle located on the interactive pen display and the DVI-D or DVI-I **Video Input** connector on your projector or monitor.

For VGA operation, connect a second VGA to DVI-A cable (not included) to the **DVI-I OUT** receptacle located on the interactive pen display and the VGA **Video Input** connector on your projector or monitor.

### NOTE

For details about the projector's connectors, read the instructions that came with your projector.

## Attaching the Pen

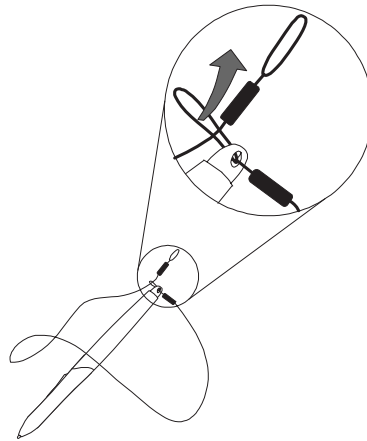
Use the tether to attach the pen to the interactive pen display, so the pen is always within reach.

### **i** NOTE

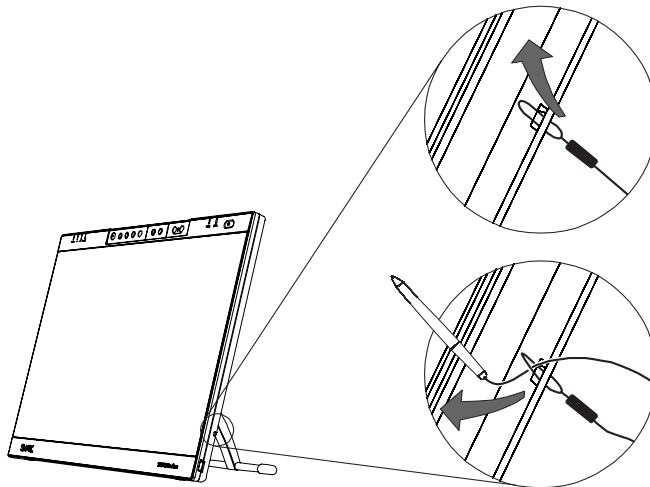
When you're not using the pen, put it in the storage compartment on the top of the interactive pen display (see page 34).

**To attach the tether to the pen and the interactive pen display**

1. Thread one loop through the opening at the end of the pen, slip the rest of the cord through the loop, and then carefully pull the cord until the loop is snug.



2. Thread the other loop through the opening on the back of the interactive pen display. Use either the left or the right opening.
3. Slip the pen and the rest of the tether through the loop. Carefully pull the pen until the loop is snug.





## Installing SMART Board Drivers and SMART Notebook Software

Your interactive pen display comes with a SMART Product drivers CD and SMART Notebook software CD, which you can use to install the software you need.

You can also download and install the complete installation of SMART Board drivers and SMART Notebook software from the [SMART Support website](#).

### NOTE

You'll need to use the computer's keyboard or mouse to perform the installation, because the pen doesn't work until the SMART Board tools are running.

### To install SMART Board drivers and SMART Notebook software

1. Turn on the computer and the interactive pen display.
2. Close all open applications on the computer.
3. To install SMART Board drivers, insert the SMART Products drivers CD into the CD drive.
4. For most systems, the CD is self-starting. If the CD doesn't start automatically:

On Windows computers, select **Start > Run**, and then type **x:\autorun.exe** (where **x**: is your CD drive).


OR

On Mac computers, open **Finder**, browse to your CD drive, and then double-click the install file.


5. Follow the on-screen instructions.

### IMPORTANT

Select the option to start the SMART Board tools automatically each time you start your computer. The SMART Board tools must be running for you to have full functionality and maximum performance when you use the interactive pen display. You will know the SMART Board tools are open if you can see the


SMART Board icon  in the notification area (Windows computers) or the Dock (Mac computers).

6. Repeat steps 3–5 with the SMART Notebook software CD to install SMART Notebook software.

7. After you install SMART Board drivers and SMART Notebook software, select the **SMART Board** icon  in the notification area (Windows computers) or the **SMART Board Tools** icon in the Dock (Mac computers). Select **Check for Updates**, and then update to the latest SMART software.
  8. After the software is installed and running, touch the pen to the interactive screen. The cursor should appear under the tip of the pen. If it doesn't, you may need to orient the screen (see page 23) or read the section entitled *Troubleshooting* on page 37.
- 

### NOTES

- If the SMART Board tools don't recognize the interactive pen display, disconnect and connect the USB connector manually, or use another USB receptacle on your computer.
- If the interactive pen display is your secondary monitor, you may need to enable it. Select **Control Panel > Display Properties** (Windows computers)

or **Apple**  **menu > System Preferences > Displays** (Mac computers).  
For more details, read the SMART Notebook software online Help.

## Matching the Resolution

Before the image output of the computer can display properly on the interactive screen, you must set the computer's resolution to the interactive screen's native resolution.

Set the resolution of the display to 1920 × 1080 pixels (full HD) and set the refresh rate to between 56 Hz and 76 Hz.



### IMPORTANT

Don't set the **Refresh Rate** to higher than 76 Hz.

If the **Refresh Rate** is higher than 76 Hz, you see a black screen.



### NOTES

- If you need to change the display settings on the computer, you must use the mouse.
- This procedure may vary depending on the version of your operating system, and your system preferences.
- Some Mac computers transmit video signals outside the 56 Hz to 76 Hz synchronization range. These models shouldn't be used with the SMART Podium ID422w.

#### To set the resolution (Windows computers)

1. Open the Windows Control Panel.
2. Click **Display**.  
  
The *Display Properties* dialog box appears.
3. Click the **Settings** tab.
4. Move the slider to **1920 × 1080**.
5. Click **OK**.

#### To set the resolution (Mac computers)

1. Select **Apple menu > System Preferences > Displays**.
2. On the **Display** tab, select **1920 × 1080**.
3. Close the dialog box.

## Adjusting the Screen

SMART Board drivers adjust your screen automatically. However, you can use the On-Screen Display (OSD) menu to change the screen.

### The Auto-Sync Function

If the interactive screen receives a signal with appropriate vertical and horizontal frequencies, it automatically synchronizes to the incoming signal. This auto-sync function adjusts the vertical and horizontal position, and the phase and pitch settings.

Auto-sync functions when the vertical frequency is between 56 and 76 Hz, and the horizontal frequency is between 30 and 80 kHz.

#### NOTES






- For optimal display quality, set your video card to the SMART Podium ID422w's native resolution of 1920 × 1080 pixels (full HD) (see page 17).
- If the SMART Podium ID422w doesn't automatically synchronize with the incoming signal, you can use the **Auto Adjust** (VGA Only) OSD option (see page 22).




### Manual Synchronization

Press the Menu button on the interactive pen display to open the OSD menu, and then use the OSD menu to fine-tune the screen display settings manually.

## On-Screen Display (OSD) Options

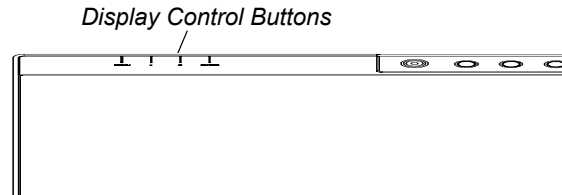
The following table provides a detailed description of the OSD options menu.

OSD Options	Functions
 Language	<ul style="list-style-type: none"> <li>• <b>Language</b> selects a language for the OSD menu.</li> </ul>
 OSD Position	<ul style="list-style-type: none"> <li>• <b>Vertical</b> adjusts the vertical position of the OSD menu.</li> <li>• <b>Horizontal</b> adjusts the horizontal position of the OSD menu.</li> <li>• <b>Transparency</b> changes the opaqueness of the OSD menu background.</li> </ul>
 Display	<ul style="list-style-type: none"> <li>• <b>Contrast</b> increases or decreases image contrast.</li> <li>• <b>Brightness</b> increases or decreases image brightness.</li> <li>• <b>Backlight</b> increases or decreases the backlight brightness level.</li> </ul>
 Color	<ul style="list-style-type: none"> <li>• <b>5000K</b>, <b>6500K</b> and <b>9300K</b> adjust the pen display color temperature, in degrees Kelvin.</li> <li>• <b>Direct</b> displays the colors directly from the video card without any adjustment.</li> <li>• <b>Custom</b> independently adjusts the red, green and blue display colors.</li> </ul>
 Scaling	<ul style="list-style-type: none"> <li>• <b>Full</b> resizes the image to fill the whole screen.</li> <li>• <b>Aspect</b> resizes the image to fill as much of the screen as possible while maintaining the correct aspect ratio.</li> <li>• <b>1:1</b> displays the image at the actual resolution.</li> </ul>

OSD Options	Functions
 Other	<ul style="list-style-type: none"> <li>• <b>Phase</b> (VGA only) synchronizes the signal timing of the interactive pen display to your graphics card. Use this adjustment when you experience an unstable or flickering image, or horizontal distortion lines.</li> <li>• <b>Pitch</b> (VGA only) changes the display data frequency to match your graphics card. Use this adjustment when you experience an unstable or flickering image, or vertical distortion lines.</li> </ul> <p><b>i NOTE</b></p> <p>When you adjust the phase and pitch in VGA mode, some computers and video cards may not allow the auto-sync function to work when you connect the interactive pen display. If some portion of text appears blurred, use the <b>Auto Adjust</b> option to automatically synchronize to the incoming signal.</p> <ul style="list-style-type: none"> <li>• <b>Vertical</b> (VGA only) changes the vertical position of the image. To automatically adjust the vertical position, use the <b>Auto Adjust</b> option.</li> <li>• <b>Horizontal</b> (VGA only) changes the horizontal position of the image. To automatically adjust the horizontal position, use the <b>Auto Adjust</b> option.</li> <li>• <b>Auto Adjust</b> automatically optimizes the interactive display image.</li> </ul>
 Reset	<ul style="list-style-type: none"> <li>• <b>Reset</b> returns the current display parameters to the factory default settings.</li> </ul>
 Exit	<ul style="list-style-type: none"> <li>• <b>Exit</b> closes the OSD menu without making changes.</li> </ul>

## Adjusting the Display

The OSD options enable you to optimize a variety of display settings at the touch of a button. Make adjustments using the display control buttons located on the upper left edge of the unit.




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### Display Control Buttons Functions

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<b>Menu</b> button	Press the <b>Menu</b> button to open or exit the OSD menu.
<b>– and +</b> selection buttons	Use these buttons to select an option and adjust the option settings. Press the <b>–</b> button to decrease a selected item value. Press the <b>+</b> button to increase it. When the option you want to adjust is selected, press the <b>Enter</b> button, and the current settings and adjustment sub-menu for that option appears.

**i NOTE**

Some settings may not be available when you're in DVI mode.

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<b>Enter</b> button	Press the <b>Enter</b> button to save your changes.
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---

### To adjust the screen

1. Press the **Menu** button on the interactive pen display to open the OSD menu.
2. Press the **–** and **+** buttons to select the option you want to adjust, and then press the **Enter** button.

**i NOTES**


- You can use the interactive pen display's **–** and **+** buttons to scroll.
- The available display options are described on page 19.

The menu for the option you chose appears.

3. Press the **–** and **+** buttons to alter the settings for the option.
  4. Press the **Enter** button to save your changes.
  5. Repeat steps 2–4 to perform more adjustments.
  6. Press the **Menu** button to exit the OSD menu.
-

**To use the  
Auto Adjust (VGA only)  
option**

1. Press the **Menu** button on the interactive pen display to open the OSD menu.

2. Press the **–** and **+** buttons to select the **Other** option , and then press the **Enter** button.

The Other menu appears.

3. Press the **–** and **+** buttons to select **Auto Adjust**.
4. Press the **Enter** button to save your changes and select another option.

OR

Press the **Menu** button to exit the OSD menu.

**i NOTES**

- The OSD menu closes automatically after a few moments of inactivity.
- You can also press the **Menu** button to close the OSD menu.
- Your settings save automatically when the OSD menu closes and appear the next time the unit receives a similar video signal. This is applicable to all display modes. If you change your settings, you can select **Reset** to return the SMART Podium ID422w to its original factory defaults.

### Adjusting Phase and Pitch (VGA Only)

Some computers and graphics cards may not allow **Auto Adjust** to function correctly when you first connect the screen. If the display doesn't fit within the LCD panel border or if some portion of the text appears blurred, adjust the phase and pitch.

**To adjust the  
phase and pitch  
(VGA only)**

1. Press the **Menu** button on the interactive pen display to open the OSD menu.

2. Press the **–** and **+** buttons to select the **Other** option, and then press the **Enter** button.

The Other menu appears.

3. Select the **Phase** option, and then use the **–** and **+** buttons to make the adjustment pattern show clearly.
4. Select the **Pitch** option, and then use the **–** and **+** buttons to evenly display the pattern of vertical stripes on the screen.
5. Press the **Enter** button to save your changes and select another option.

OR

Press the **Menu** button to exit the OSD menu.



## Orienting the Screen

To ensure that the pointer appears directly beneath the tethered pen when you touch the interactive screen, the computer needs to know the exact location of the image on the screen. You can ensure the accuracy of the pointer by orienting the screen, a procedure in which you use the tethered pen to touch a grid of red targets.

### **i** NOTE

If the image on the screen is distorted, match the resolution (page 17) and adjust the screen (page 18) before you orient the screen.

#### To orient the screen

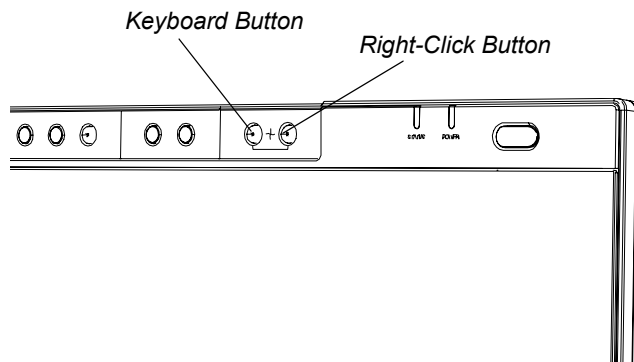
1. For Windows computers: Press the **SMART Board** icon  in the notification area, and then press **Orient**.

OR

For Mac computers: Press and hold the **SMART Board Tools** icon in the Dock, and then press **Open Orient**.

### **i** NOTES

- You can also open the orientation screen by pressing and holding the **Keyboard** and **Right-Click** buttons on the interactive pen display for several seconds.



- If the interactive pen display is your secondary monitor, you may need to press the SPACE BAR to move the orientation screen to your interactive pen display.

Targets appear on the screen.

2. Press the center of each target in the order indicated on the screen.

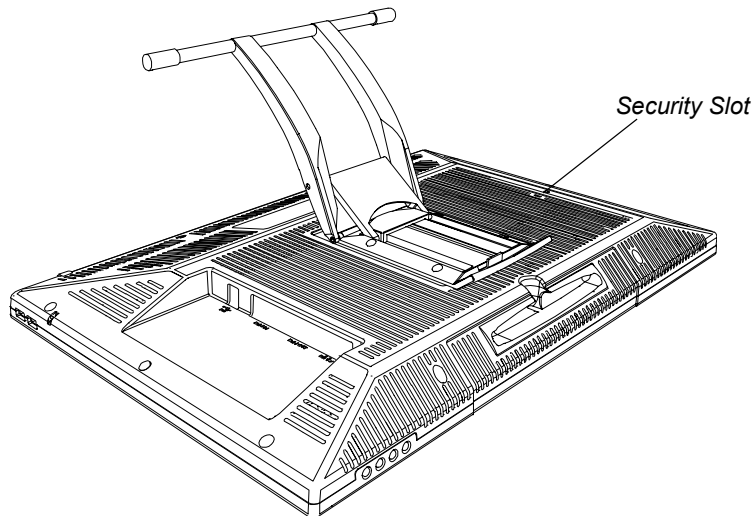
The computer registers the point on the screen where you remove your pen from the display surface.

**i NOTES**

- To effectively orient the interactive screen, press an area near each target, and then slide your pen to the center of each target's cross hairs before removing it. Keep your pen at a right angle to the screen.
- You can re-orient a target by pressing a function button or the LEFT ARROW key on the keyboard.
- If you want to close the orientation screen before finishing the orientation procedure, press the ESC key on the keyboard. Otherwise, the orientation screen closes after you press the last target.

## Securing the Interactive Pen Display

You can secure the interactive pen display by attaching a cable (not supplied) to the security slot that's in the back of the unit and an immovable object.



## Removing and Installing the Interactive Pen Display's Stand

If you want, you can remove the interactive pen display from its stand.

**▲ CAUTION**

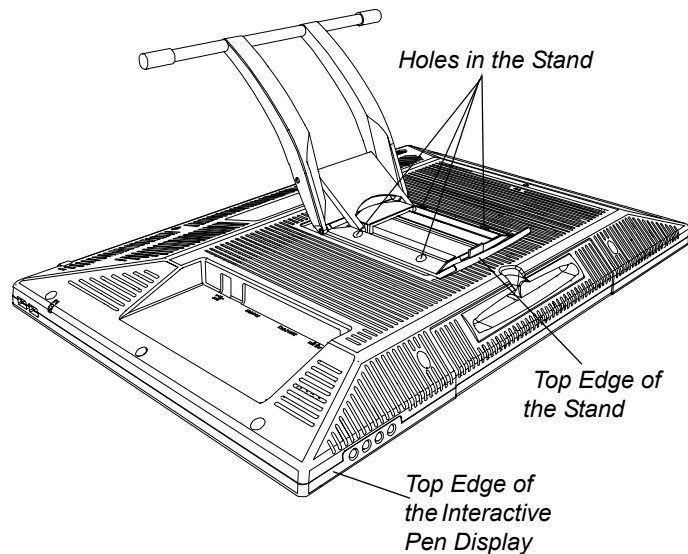
- Set the interactive pen display down carefully to ensure you do not damage the buttons.
- Do not place the interactive pen display on a surface that will mark, scratch or damage the screen.

**To remove the interactive pen display's stand**

1. Place the interactive pen display facedown on a flat surface.
2. Remove the four screws that attach the stand to the interactive pen display, and then remove the stand.

**To install the interactive pen display on the stand**

1. Place the interactive pen display facedown on a flat surface.
2. Align the four holes in the stand with the four holes in the back of the interactive pen display.



3. Insert and tighten the four screws.
4. Place the interactive pen display faceup, with its weight on the stand and the bottom edge of the interactive pen display.

## Other Integrations

Depending on the equipment and your expertise, you may want to integrate the interactive pen display with other devices. You can easily adapt the interactive pen display to expand the multimedia capabilities of the equipment in the room. For example, you can integrate your interactive pen display with a projector and a SMART Board interactive whiteboard.

**i NOTE**

If you want to use a video cable longer than 50' (15 m), you must boost the video signal with a video distribution amplifier.



## Chapter 3

# Using the Interactive Pen Display

This chapter tells you how to:

- touch the interactive screen (page 28)
- use the pen (page 28)
- use the function buttons (page 33)
- store the pen (page 34)

The interactive pen display is as easy to use as a pen on paper. By touching the tethered pen to the screen, you can interact with computer applications intuitively. You can also access additional tools and features using the pen tool buttons and function buttons.

### CAUTION

Use only the tethered pen that came with the interactive pen display. Pens or styluses from other products can damage the protective coating of the display. Also, they may not work properly.

### NOTE

You can use SMART Notebook software to make your presentations interactive and dynamic. For more details on what you can accomplish with SMART Notebook, see the SMART Notebook software online Help. While reading the online Help, keep in mind that:

- a pen touch on the interactive pen display is equivalent to a touch on the interactive whiteboard surface with a finger.
- the tethered pen and pen tool buttons function like the SMART Pen Tray tools on the interactive whiteboard.

## Touching the Interactive Screen

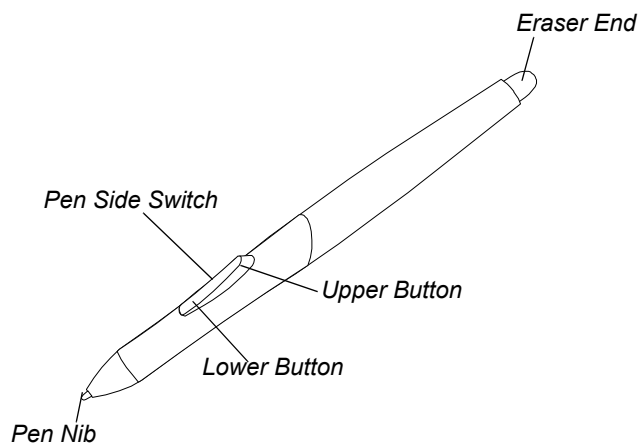
You can manipulate objects, select items, and write and erase digital ink by touching the interactive screen with the tethered pen.

## Using the Pen

The pen for the SMART Podium ID422w is an enhanced pen that senses the amount of pressure you apply to the tip. It is cordless and battery-free.

Hold the pen like you would a normal pen or pencil. As you work with the SMART Podium ID422w, you can rest your hand lightly on the display screen, just as if it were a drawing board or sheet of paper. You can tilt the pen in any way that feels most comfortable for drawing.

## Pen Components



- Pen nib
  - The pen activates as soon as it is within 3/16" (5 mm) of the display surface; you don't need to touch the pen tip to the display surface. This allows you to position the screen cursor without touching the pen tip to the interactive screen. When pressure is applied to the pen nib, the pen simulates a mouse click.
- Eraser
  - When you place the eraser end of the pen within 3/16" (5 mm) of the display surface, the interactive pen display senses the pen location.
- Pen side switch
  - The pen is equipped with a side switch that has two programmable functions. You can rock the switch in either direction to activate the button functions. You can use the switch whenever the pen nib is within 3/16" (5 mm) of the display surface. By default, the lower button is set to **pen** and the upper button is set to **right-click** (Windows only).


 **NOTE**

Make sure the programmable side switch is in a convenient location where you can toggle the switch with your thumb or forefinger, and where you won't accidentally press it while writing or drawing.

 **CAUTION**

Replace the pen nib when it wears down. If a pen nib wears down too far, you might scratch or damage the display surface.

 **NOTES**

- To customize the side switch functions and to change the eraser function, press the **SMART Board** icon  in the notification area (Windows computer) or the **SMART Board Tools** icon in the Dock (Mac computers). Select the **Control Panel > SMART Hardware Settings > Pen and Button Settings**, and then select the functions you want from the drop-down menus.
- When the pen isn't in use, place it in the pen storage compartment, or lay it flat on your desk. To maintain the sensitivity of your pen, don't store the pen in a container where it will rest on its tip.

## Basic Pen Operation

- |                        |   |
|------------------------|---|
| Pointing and selecting | <ul style="list-style-type: none"> <li>• Move the pen slightly above the interactive screen to position the screen cursor. You don't need to touch the display surface. The cursor jumps to the location where you place the pen. Press the pen tip on the display surface to make a selection.</li> </ul> <p><b>i NOTE</b></p> <p>If the screen cursor doesn't jump to a position close to the pen tip when you place the pen on the display surface, SMART Board drivers may not be installed or they may not be loading.</p>   |
| Clicking               | <ul style="list-style-type: none"> <li>• Tap the display surface once with the pen tip, or touch the pen to the display surface with enough pressure to register a click.</li> </ul> <p><b>💡 TIP</b></p> <p>To make navigating with the pen easier, configure the Windows operating system to select when the pen is over an icon and to launch the icon with a single click. To turn on this feature, open any folder, and then perform one of the following procedures:</p> <ul style="list-style-type: none"> <li>– On the Windows Vista operating system, select <b>Organize &gt; Folder and Search Options</b>, and then select <b>Single-click to open an item (point to select)</b> on the <b>General</b> tab.</li> <li>– On the Windows XP operating system, select <b>Tools &gt; Folder Options</b>, and then select <b>Single-click to open an item (point to select)</b> on the <b>General</b> tab.</li> </ul> |
| Double-clicking        | <ul style="list-style-type: none"> <li>• Quickly tap the display surface twice in the same place with the pen tip. Double-clicking is easier when the pen is perpendicular to the interactive screen. For information on fine-tuning the double-click area, see SMART Notebook software online Help.</li> </ul>   |
| Dragging               | <ul style="list-style-type: none"> <li>• Select an object, and then slide the pen tip across the display surface to the location you want.</li> </ul>   |
| Writing or Drawing     | <ul style="list-style-type: none"> <li>• Use the pen tip like a pen to write or draw in digital ink.</li> </ul>   |
| Erasing                | <ul style="list-style-type: none"> <li>• The pen's eraser works like the eraser on a pencil to remove digital ink.</li> </ul>   |



## Using the Pen Tool Buttons

Use the pen tool buttons to control how the interactive pen display responds to your interactive screen touches. You can use the pen tool buttons to select an object, right-click, write digital ink (in black, blue or red) or erase when you touch the screen.

### To select and use mouse modes



Press the **Select** button, and then press the tip of the tethered pen to the interactive screen. To double-click, press twice with the pen. To drag an object, press and hold the object with the tip of the pen, and drag it to its new location.

#### **i** NOTE

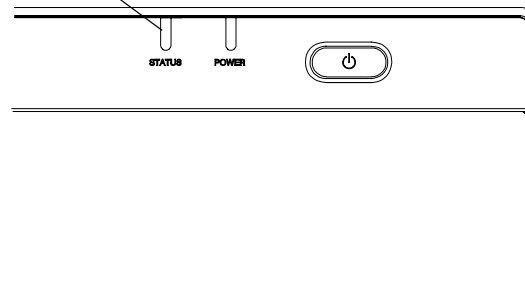
When you press the **Select** pen tool button, each screen press is interpreted as a left-click until you press a different pen tool button.

#### **💡** TIP

If the pointer doesn't appear directly under the tip of the tethered pen, orient the interactive pen display to improve the accuracy (see page 23).

The interactive pen display's **Status** indicator glows green when you press a pen tool button or a function button on the interactive pen display, or when the pen touches the interactive screen.

*Status Indicator*



## Writing and Saving Notes

---


### To write on the screen and save your notes



Press one of the digital ink pen tool buttons, and then write or draw on the interactive screen, just as you would write or draw on paper. A line of digital ink in the color you chose follows the tethered pen.

---

### **i** NOTES

- You can customize the pen tool buttons to adjust the color, thickness, line end and line style, and the transparency. For details on customizing these buttons, see the SMART Notebook software online Help.
- You can write notes over computer applications only if the SMART Board tools are running on the computer. You'll know the SMART Board tools are running if you can see the **SMART Board** icon  in the notification area (Windows computers) or the **SMART Board Tools** icon in the Dock (Mac computers).

When you write over an application, you can save your notes. However, the available save options depend on whether that program is Ink Aware. An Aware application recognizes your notes as a program component, but a non-Aware application doesn't. SMART Notebook is an example of an Aware application.

To save your notes as part of the file in an Aware application, save the file as you normally would. In some Windows applications, such as Microsoft® Word and Excel®, you can select additional toolbar options, such as saving your notes into a .notebook file or saving your notes as text.

If the interactive pen display is connected to a Windows computer, you can capture your notes and the application background, and then you can save them into a .notebook file for both Aware and non-Aware applications. For more details, see the SMART Notebook software online Help.

If your interactive pen display is connected to a Mac computer, you can capture the entire screen. For more details, see the SMART Notebook software online Help.

## Using the Eraser Button

When you press the **Eraser** button, you can use the tethered pen to erase your notes.

### To erase a note



1. Press the **Eraser** button.
2. Drag the pen over the note you want to erase.

#### **i** NOTE

You can change the size of the eraser. For more details, see the SMART Notebook software online Help.

## Using the Function Buttons

You can press the function buttons to launch:



- Screen Capture Toolbar – a set of tools you can use to capture an on-screen image and insert it into SMART Notebook.



- SMART Notebook – an application that helps you organize, save and share your notes.



- SMART Keyboard – a virtual keyboard that floats over your active application and lets you enter typed text at the cursor location.



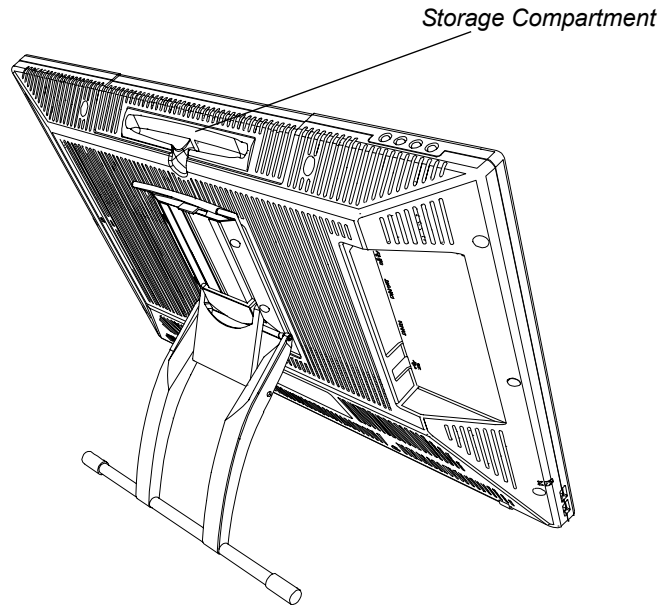
- Right-click function – when you press the **Right-Click** function button, the next pen contact with the interactive screen is interpreted as a right-click.

#### **i** NOTE

You can reconfigure each of the function buttons to perform other functions. For details on customizing these buttons, see the SMART Notebook software online Help.

## Storing the Pen

When you're not using the pen, put it in the storage compartment on the top of the unit.



## Chapter 4

# Maintaining the Interactive Pen Display

This chapter tells you how to:

- clean the interactive screen (this page)
- clean the unit casing and the pen (page 36)
- replace the pen nib (page 36)

## Cleaning the Screen

You should clean the interactive screen once a week because dirt and dust can stick to the screen.

---

### To clean the screen

Use an antistatic cloth. If necessary, slightly moisten the cloth with water. Apply only light pressure, and avoid making the surface wet.

#### CAUTION

Use only a damp cloth to clean the screen. Do not apply glass cleaner, organic solvents (such as alcohol), or even a mild detergent to the screen. If you use these cleaners, you may damage the screen's finish or the unit's electronics. Using such cleaners also voids the warranty.

---

## Cleaning the Unit Casing and the Pen

### To clean the unit casing and the pen

Use only a damp cloth or a cloth dampened with very mild detergent to clean the unit casing and tethered pen.

#### CAUTIONS

- Do not apply paint thinner, benzene, alcohol or other solvents to the casing. If you use these cleaners, you may damage the finish. Using such cleaners also voids the warranty.
- The tethered pen is a sealed unit that contains electronics but no batteries. If you attempt to open the tethered pen, you will damage these electronics. This will make the tethered pen unusable and void the warranty.
- Do not immerse the pen in liquid.
- Do not use a pen if the nib has worn down to a sharp or angular tip, as it may damage the screen. Replace the nib when you notice it becoming short or angular.

## Replacing the Pen Nib

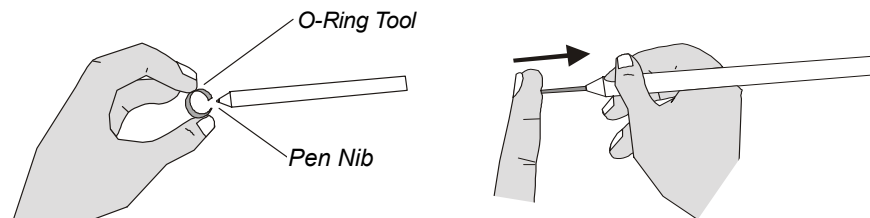
Your interactive pen display comes with five replacement pen nibs and an o-ring tool to assist in nib replacement. If you require more replacement nibs, contact your [authorized SMART reseller](#).

#### NOTE

If you misplace your o-ring tool, use a pair of tweezers or pliers to remove the nib.

### To replace the pen nib

1. Using the o-ring tool, grab the pen nib, and slide it straight out of the pen.
2. Insert a new nib straight into the barrel of the pen. Push the nib firmly until it stops.



## Chapter 5

# Troubleshooting

This chapter tells you how to:

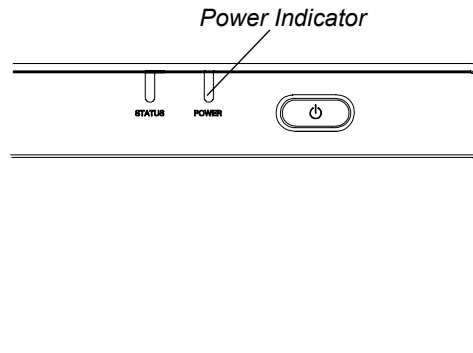
- check the interactive pen display's power (page 38)
- check the interactive pen display's status (page 40)
- troubleshoot pen problems (page 41)
- troubleshoot image problems (page 42)
- troubleshoot control and writing problems (page 45)
- troubleshoot Windows computer specific problems (page 46)
- troubleshoot Mac computer specific problems (page 46)

SMART designed this interactive pen display to work reliably, but if you're having trouble, we recommend you do the following:

- If the device driver failed to load properly, first perform the recommended action in any error message that may appear on your screen. If that doesn't solve the problem, review the troubleshooting procedures in this chapter.
- If you try the suggestions in this guide and are unable to resolve the problem, contact [SMART Technical Support](#) (see page 51).

## Checking the Interactive Pen Display's Power

The Power indicator shows whether power is reaching the interactive pen display.



<b>If the Power indicator is...</b>	<b>this indicates the interactive pen display is...</b>
green	turned on, and receiving a video signal from your computer.
amber	turned on, but isn't receiving a video signal from your computer.
off	turned off, or the power cable isn't properly connected to the power adapter or to an active AC outlet.



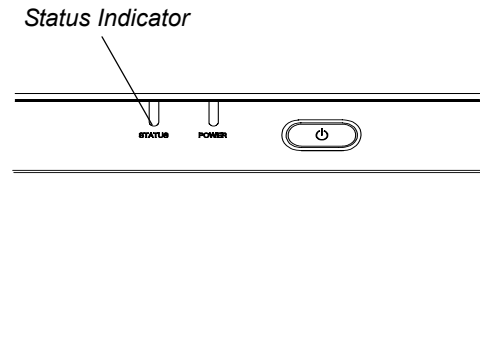
## Power Indicator Problems

If you encounter problems with the interactive pen display's Power indicator, refer to the following table:

Symptom	Solution
The Power indicator is green but you're unable to see an image on the display.	<ul style="list-style-type: none"> <li>• See <i>Image Problems</i> on page 42.</li> </ul>
The Power indicator is amber, the computer is on, and it isn't in Sleep or Power Management mode.	<ul style="list-style-type: none"> <li>• Make sure the length of the video cable doesn't exceed 50' (15 m).</li> <li>• Turn off your computer and make sure that:               <ul style="list-style-type: none"> <li>– the video cable is correctly connected to the interactive pen display and the computer.</li> <li>– the video cable isn't bent or broken and doesn't have bent or broken pins in either connector.</li> </ul> </li> </ul> <p><b>i NOTE</b> If you're using a video cable adapter, check those connections as well.</p> <ul style="list-style-type: none"> <li>– the video card in your computer is installed correctly, and is operating properly.</li> <li>• If the problem persists, see <i>Image Problems</i> on page 42.</li> </ul>
The Power indicator is off.	<ul style="list-style-type: none"> <li>• Make sure the interactive pen display is turned on.</li> <li>• Make sure the interactive pen display's power cable is connected properly.</li> <li>• If the Power indicator still doesn't illuminate, contact <a href="#">SMART Technical Support</a> (see page 51).</li> </ul>

## Checking the Interactive Pen Display's Status

The Status indicator shows whether the pen is interacting with the display.



If the Status indicator is...	this indicates that the tethered pen...
green	is touching the interactive screen or you're pressing a pen tool button, and the interactive pen display is communicating correctly with your computer.
off	isn't touching the interactive screen or the interactive pen display isn't communicating correctly with your computer.

### Status Indicator Problems

If you encounter problems with the interactive pen display's Status indicator, refer to the following table:

Symptom	Solution
The Status indicator doesn't turn green when you touch the pen to the interactive pen display.	<ul style="list-style-type: none"> <li>• Make sure the USB cable is properly connected to an active port on the computer and to the interactive pen display.</li> <li>• Make sure the computer's USB interface isn't disabled.</li> <li>• Make sure the display is registered in your computer as a USB device.</li> <li>• Make sure you're using the correct pen (not one from another display).</li> <li>• If you touch the pen to the interactive screen and the Status indicator still isn't green, contact <a href="#">SMART Technical Support</a> (see page 51).</li> </ul>

## Pen Problems

If you encounter problems with the tethered pen, refer to the following table:

Symptom	Solution
<p>You're unable to use the pen to select or write on the interactive pen display.</p> <p>OR</p> <p>When you write or draw with the pen, you see a pointer instead of digital ink.</p>	<ul style="list-style-type: none"> <li>Adjust the pen's <b>Tip Feel</b>. In the SMART Control Panel, select <b>SMART Hardware Settings &gt; Pen and Button Settings</b>, and then move the <b>Tip Feel</b> slider.</li> </ul>
<p>You're unable to double-click.</p>	<ul style="list-style-type: none"> <li>Adjust the double-click zone. In the SMART Control Panel, select <b>SMART Hardware Settings &gt; Mouse Settings</b>, and then adjust the mouse setting.</li> </ul>
<p>The switch doesn't work.</p>	<ul style="list-style-type: none"> <li>Make sure the lower and upper buttons on the switch are set to the functions you want. In the SMART Control Panel, select <b>SMART Hardware Settings &gt; Pen and Button Settings</b>, and then select the functions from the drop-down menus.</li> <li>If the problem persists, contact <a href="#">SMART Technical Support</a> (see page 51).</li> </ul>


## Image Problems

If you encounter problems with the SMART Podium ID422w interactive pen display, refer to the following tables. For additional information about color issues, see the documentation that came with your operating system or applications.

### General Display Problems

If you encounter problems with the display, refer to the following table:

Symptom	Solution
The display doesn't appear and the Power indicator is off.	<ul style="list-style-type: none"> <li>• Make sure the AC power cable is connected.</li> <li>• Make sure the SMART Podium ID422w power switch is turned on.</li> </ul>
The display doesn't appear and the Power indicator is green.	<ul style="list-style-type: none"> <li>• Use the <b>Display</b> OSD option to adjust the contrast, brightness, and backlight controls (see page 19).</li> <li>• Use the <b>Reset</b> OSD option to return the current display parameters to the factory default settings.</li> </ul>
The Power indicator is amber, and the "No Input Signal Go to Power Saving Mode" message appears.	<ul style="list-style-type: none"> <li>• Make sure your computer isn't in Power Management mode. To bring it out of Power Management mode, touch the pen tip to the display screen, move the mouse, or press any key on your keyboard.</li> <li>• Turn your computer and the interactive pen display off, and then make sure that: <ul style="list-style-type: none"> <li>– the video cable's connector pins aren't bent or broken.</li> <li>– the DVI/VGA switch is set correctly.</li> </ul> </li> </ul> <p><b>i NOTE</b> Restart your computer after changing the position of the switch.</p> <ul style="list-style-type: none"> <li>– the video card is installed correctly.</li> </ul>
The cable disconnect "No Input Signal Go to Power Saving Mode" message appears.	<ul style="list-style-type: none"> <li>• Make sure your computer is turned on.</li> <li>• Make sure you're using the video cable included with the SMART Podium ID422w.</li> <li>• Turn your computer and the interactive pen display off, and then make sure the video cable's connector pins aren't bent or broken.</li> </ul>

Symptom	Solution
The “OUT OF SCAN RANGE” message appears.	<ul style="list-style-type: none"> <li>• Make sure the input video signal frequency setting is 60 Hz which is compatible with the SMART Podium ID422w.</li> <li>• Make sure the video card’s resolution is 1920 × 1080 or lower.</li> <li>• Make sure the refresh rate (horizontal frequency) is 30 to 80 Hz.</li> </ul> <p> <b>TIP</b> On a single monitor system, connect a second monitor to change the refresh rate.</p> <ul style="list-style-type: none"> <li>• Make sure the refresh rate (vertical frequency) is 56 to 76 Hz.</li> <li>• Set the display properties to detect plug and play monitors.</li> </ul>
The screen flashes multiple times.	<ul style="list-style-type: none"> <li>• Make sure the refresh rate (vertical frequency) is 56 to 76 Hz.</li> <li>• Make sure you’re not using an input selector switch box.</li> </ul>
Color quality is inaccurate.	<ul style="list-style-type: none"> <li>• Use the <b>Reset</b> OSD option to return the current display parameters to the factory default settings.</li> </ul>
When an image appears for a long time without refreshing the screen, an after-image remains.	<ul style="list-style-type: none"> <li>• Use a screen saver or other power management feature.</li> </ul>

## VGA Display Problems

If you encounter problems with your interactive pen display with a VGA connection, refer to the following table:

Symptom	Solution
The display ripples or flickers.	<ul style="list-style-type: none"> <li>• Use the <b>Reset</b> OSD option to return the current display parameters to the factory default settings.</li> <li>• Use the <b>Other</b> OSD option to adjust the phase and pitch (VGA only) (see page 22).</li> <li>• Make sure the display adapter or video card matches the specifications for the SMART Podium ID422w.</li> <li>• Adjust the refresh rate in the Display Properties control panel.</li> </ul>
The display ripples or shows a wavy pattern. OR The display color isn't even.	<ul style="list-style-type: none"> <li>• Select <b>Auto Adjust</b> in the <b>Other</b> OSD option to automatically optimize the display screen image (VGA only) (see page 22). If necessary, use the <b>Other</b> OSD option to adjust the phase and pitch (VGA only) (see page 22).</li> <li>• Use the <b>Reset</b> OSD option to return the current display parameters to the factory default settings.</li> </ul>
The display isn't clear, and text or other portions of the screen appear blurred.	<ul style="list-style-type: none"> <li>• Make sure the video card's resolution is 1920 × 1080 or lower.</li> <li>• Select <b>1:1</b> in the <b>Scaling</b> OSD option to display the image at the actual resolution.</li> <li>• Select <b>Auto Adjust</b> in the <b>Other</b> OSD option to automatically optimize the display screen image (VGA only) (see page 22). If necessary, use the <b>Other</b> OSD option to adjust the phase and pitch (VGA only) (see page 22).</li> <li>• Turn off the SMART Podium ID422w, and then turn it on.</li> </ul>

Symptom	Solution
The display and LCD panel aren't lined up.	<ul style="list-style-type: none"> <li>Select <b>1:1</b> in the <b>Scaling</b> OSD option to display the image at the actual resolution.</li> </ul>
OR The display size isn't correct.	<ul style="list-style-type: none"> <li>Select <b>Auto Adjust</b> in the <b>Other</b> OSD option to automatically optimize the display screen image (VGA only) (see page 22). If necessary, use the <b>Other</b> OSD option to adjust the phase and pitch, and the vertical and horizontal positions (VGA only) (see page 22).</li> </ul>

**i NOTE**  
Some video cards may not show the size of the display correctly.

## Control and Writing Problems

If you encounter problems with writing and drawing on your interactive pen display, refer to the following table:

Symptom	Solution
The pointer doesn't accurately follow the movement of the pen.	<ul style="list-style-type: none"> <li>Orient the interactive pen display (see page 23).</li> </ul>
You're unable to write in digital ink.	<ul style="list-style-type: none"> <li>Make sure SMART Board drivers are installed.</li> <li>Make sure the SMART Board tools are running. You know the SMART Board tools are running when the SMART Board icon is in the notification area (Windows computers) or the Dock (Mac computers).</li> </ul>
Digital ink doesn't appear as you expect.	<ul style="list-style-type: none"> <li>Check the customizable pen settings in SMART Notebook software. For more information on setting digital ink properties, for example, color, line thickness, line style and transparency, refer to the SMART Notebook software online Help.</li> </ul>

## Windows Computer Specific Problems

If you encounter problems with your Windows operating system, refer to the following table:

Symptom	Solution
After you change the computer's mouse right-hand and left-hand settings, the pen doesn't function properly.	<ul style="list-style-type: none"> <li>Change the computer's mouse to the default right-hand and left-hand settings, and then restart Windows (for your tool settings to be correctly recognized.)</li> </ul>

## Mac Computer Specific Problems

If you encounter problems with your Mac operating system software, refer to the following table:

Symptom	Solution
At startup, a message states that the SMART Board drivers failed to load or the interactive pen display preferences aren't created.	<ul style="list-style-type: none"> <li>Make sure the Power indicator is on, and the USB interface cable is securely connected to an active USB receptacle on your computer or to a USB hub. For details, see <i>General Display Problems</i> on page 42.</li> <li>Connect the interactive pen display to a different USB port.</li> <li>Select <b>Finder &gt; Utilities &gt; System Profiles &gt; Content &gt; Hardware &gt; USB</b>, and make sure your USB pen display model is listed.</li> <li>Select <b>Finder &gt; Utilities</b>. Start the Disk Utility program, and run Repair Disk Permissions from the <b>First Aid</b> tab. If this doesn't resolve the problem, contact <a href="#">SMART Technical Support</a> (see page 51).</li> </ul>
Handwriting Recognition doesn't work correctly.	<ul style="list-style-type: none"> <li>Ink preferences may be damaged. Remove the damaged Ink preference files (see page 47).</li> </ul>



**To remove Ink files**

1. Start your computer in Administration mode.
2. Select the **Apple menu > System Preferences > Ink**, and then select to disable handwriting recognition.
3. Select **Finder > Home > Library > Preferences**, and then remove the following files:

```
com.apple.ink.framework.plist  
com.apple.ink.inkpad.plist  
com.apple.ink.inkpad.sketch
```

**NOTE**

You create these files again when you enable handwriting recognition.

4. Select the **Apple menu > System Preferences > Ink**, and then enable handwriting recognition.

If Ink still doesn't work correctly, contact Apple Support.

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## 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.

## Waste Electrical and Electronic Equipment Regulations (WEEE Directive)

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 Technologies products, we strongly encourage you to properly recycle the electronic product when it has reached end of its life. If you require further information, please contact your reseller or SMART Technologies for information on which recycling agency to contact.

## Restriction of Certain Hazardous Substances (RoHS Directive)

This product meets the requirements of the European Union's Restriction of Certain Hazardous Substances (RoHS) Directive 2002/95/EC.

Consequently, this product also complies with other regulations that have arisen in various geographical areas, and that reference the European Union's RoHS directive.

## Packaging

Many countries have regulations restricting the use of certain heavy metals in product packaging. The packaging used by SMART Technologies to ship products complies with applicable packaging laws.

## Covered Electronics Devices

Many U.S. states classify monitors as Covered Electronic Devices and regulate their disposal. Applicable SMART Technologies products meet the requirements of the Covered Electronic Devices regulations.

## China's Electronic Information Products Regulations

China regulates products that are classified as EIP (Electronic Information Products). SMART Technologies products fall under this classification and meet the requirements for China's EIP regulations.

## Appendix B

# Customer Support

## Online Information and 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	<a href="http://www.smarttech.com/contactsupport">www.smarttech.com/contactsupport</a>
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	<a href="mailto:support@smarttech.com">support@smarttech.com</a>

## Shipping and Repair Status

Contact SMART's Return of Merchandise Authorization (RMA) group, Option 4, +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).

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