

Installation Guide

Rear Projection SMART Board[™] 2000i Interactive Whiteboard



Registration Benefits

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

Register online at www.smarttech.com/registration.

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

Serial Number	
Date of Purchase	

FCC Warning

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

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Important Information

Please read this manual carefully before setting up and using the *Rear Projection* SMART Board™ 2000i interactive whiteboard.

WARNING



The projector inside the unit is a high brightness light source. Don't look directly into the beam of light. Prevent children from looking directly into the beam.

WARNING



To reduce the risk of fire or electric shock, don't expose this product to rain or moisture.

WARNING

(For European customers only)



Use the 2000i with European TN and TT power distribution systems only. The 2000i isn't suitable for older, IT-type power distribution systems found in some European countries. "This system (IT-type) is widely used isolated from earth, in some installations in France, with impedance to earth, at 230/400V, and in Norway, with voltage limiter, neutral not distributed, at 230V line-to-line." (IEC 60950:1999)

Contact qualified personnel if you're uncertain of the type of power system available where you're installing the 2000i.

CAUTION



The projector inside the 2000i has been designed for use under normal operating conditions only. Normal operating conditions are defined as product use that does not exceed eight hours per day and 260 days per year. Exceeding these operating conditions could cause projector damage. Damage caused by such extended use will not be covered by the product warranty.

Other Precautions

For operating safety and to avoid damage to the cabinet and its parts, please read the following information carefully.

- Move the unit with care. Quick stops, excessive force and movement over uneven surfaces can overturn the unit.
- If you transport the 2000i, ship it only in an upright position and never lay the interactive
 whiteboard facedown. In addition, ensure that the projector is secure, or remove the projector
 and package it with as much padding as reasonably possible to protect it from vibration or
 shock.
- If you transport the 2000i over a long distance, completely repackage it using the original packaging. This packaging was designed with optimal shock and vibration protection. If the original packaging isn't available, pack all the components with as much padding as reasonably possible to protect them from vibration or shock.
- Clean the interactive whiteboard surface regularly so dust doesn't build up on the surface and adversely affect the operation of the 2000i.

- Don't touch the rear surface of the screen or apply isopropyl alcohol, water or acetone to it.
 These fluids will damage the diffusion coating, resulting in a permanent deterioration in display quality.
- If you inadvertently smudge the rear surface of the screen, dab it carefully with a soft cloth and alcohol-free glass cleaner. Don't spray glass cleaner directly on the back of the screen; spray it lightly on the cloth, and then gently dab the rear surface until the marks are removed.
- The 2000i uses digital cameras located inside the screen frame. Don't allow excess glass cleaner to flow into the crack between the frame and the writing surface because the cleaner could damage these cameras.
- Lock the casters and extend the anti-tip feet after you set up the cabinet so it remains stationary while in use.
- Avoid setting up and using the 2000i in an area with excessive levels of dust, humidity or smoke.
- Avoid exposing the 2000i to extreme heat or cold. The operating temperature range is from 41°F to 84°F (5°C to 29°C) with up to 80% humidity (non-condensing). The shipping and storage temperature range is from 14°F to 95°F (-10°C to 35°C) with up to 80% humidity (non-condensing).
- Make sure a power outlet is near the 2000i and remains accessible during use.
- Use safe practices when you're connecting the unit's power cord to a power outlet. For example, make sure your hands are dry and don't insert the plug into a dusty outlet.
- If possible, disconnect the 2000i's power cord from the power outlet before thunderstorms. However, don't touch the 2000i or its power cord during a thunderstorm as there is a risk of electrical shock.
- If you won't use the 2000i for an extended period, disconnect the unit's power cord from the power outlet.
- Disconnect the unit's power cord from the power outlet before you install or service any components.
- This product comes with a three-prong, grounding-type power plug (designed to fit into a grounding-type power outlet). If you can't insert the plug into a power outlet, contact an electrician to replace the power outlet. Don't modify the power plug.
- Don't modify the power cord. Handle it carefully and avoid bending it excessively. Don't place
 the power cord in an area where it's 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.
- If your SMART product requires replacement parts, use parts that are specified by SMART Technologies ULC.

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About the 2000i

The 2000i is a *Rear Projection* SMART Board interactive whiteboard with an integrated LCD projector and a 66" (167.6 cm) diagonal interactive screen.

A mirror system reflects the projected image onto the back of the interactive whiteboard screen, eliminating the shadows that can occur with a front projection system. If you've purchased the X-Port™ 20 option, you can switch between different projector input sources (host computer, VCR, DVD player and guest laptop) with the press of a control panel button.

SMART's DViT™ (Digital Vision Touch) technology uses digital cameras to track objects on the interactive whiteboard. Each camera recognizes the position of a pen tray tool or your finger and sends this information to the computer. You can perform any normal computer operation, such as opening or closing an application, scrolling through a file, or opening your browser, simply by touching the screen.

Features of the 2000i

- A touch sensitive, rear projection interactive whiteboard that enables you to do everything you
 can do at a computer workstation. You can write over any application in digital ink using a pen
 tray pen or your finger, and save the notes to a Notebook™ file for reference and distribution.
- Integrated NEC VT595 projector with short-throw lens
- Audio system
- Pen tray (including four pens and an eraser)
- Control panel with projector, volume and source switching controls. The control panel also provides button-press access to Notebook software and Floating Tools.
- Videoconferencing/laptop shelf
- Handle that adjusts the height of the screen from 69" (175.3 cm) to 83" (210.8 cm)
- Audio jacks at the rear of the unit let you connect the audio output from a laptop, VCR, DVD player or room audio system
- Minimal floor space requirements: the 2000i fits through most standard doorways for room-toroom mobility

The NEC VT595 Projector

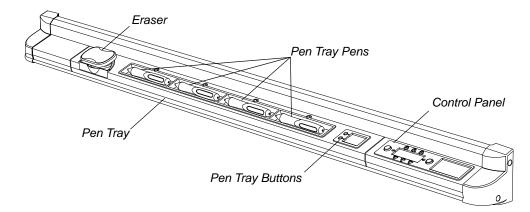
The VT595 projector has XGA resolution (1024 x 768) and is adapted for use in the 2000i.



Don't move the ring that surrounds the short-throw, customized projector lens, even though the NEC VT595 user's manual states that you should use this ring to obtain the best focus. You must disregard this information. If you move the ring, you will damage the lens.

NOTE: See page 11 for information on adjusting the projector focus.

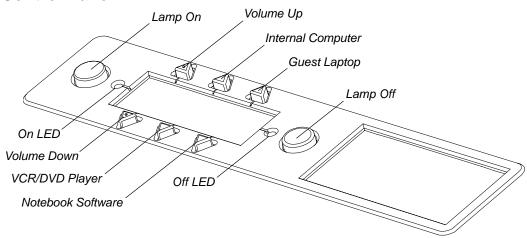
Pen Tray Features



Using a pen tray pen, you can write over the computer image with digital ink. You can use SMART Board software to change any of these pens to highlighters, assign a new color, or alter their width. You can also change the size of the area erased by the pen tray eraser.

You can press the top pen tray button to make the SMART Keyboard appear for on-screen typing. You can press the bottom button to make the next contact with the interactive whiteboard a right-click. You can also reconfigure these buttons to perform other functions.

Control Panel



You can use the control panel to start the 2000i, put the 2000i into Standby mode, change the display source for the projector, adjust the volume of the internal sound system and start Notebook software.

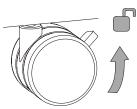
Setting Up the 2000i

Use this section of the manual to find out how to:

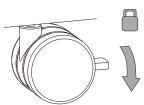
- position the 2000i (this page)
- install and connect the computer (page 4)
- install the videoconferencing/laptop shelf (page 5)
- connect a guest laptop (page 6)
- connect a VCR or DVD player (page 6)
- connect an external monitor or projector (page 8)
- connect an external sound system (page 8)

Positioning the 2000i

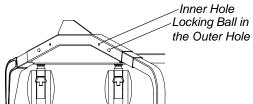
- 1. Remove the unit from its shipping carton.
- 2. Unlock the casters by pressing up on the caster-lock tab.



- 3. Move the unit to the required location. Leave enough space around the unit to comfortably perform assembly and connection procedures.
- 4. Lock the casters by pressing down on the caster-lock tab.

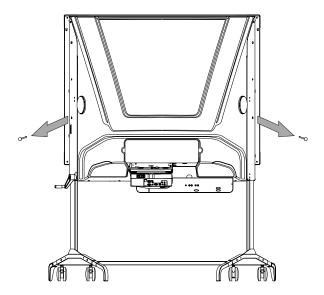


5. Extend all four of the anti-tip feet. You'll see two holes on the outer side of each leg. To extend the feet, depress the locking ball in the inner hole and pull the leg out until the locking ball engages in the outer hole.



6. Remove the bag that surrounds the projector.

7. Remove the locking pins from either side of the 2000i.



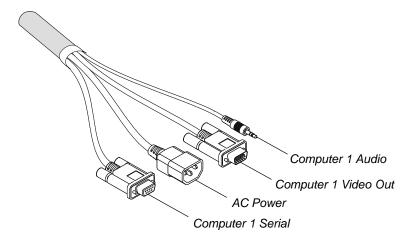
IMPORTANT



You must remove the locking pins before you proceed with the installation or adjust the unit's height.

Installing and Connecting a Computer

When you install the internal computer, use the bundle of cables that hangs down towards the storage tray.



To install and connect a computer

- 1. Slide the computer into place above the computer straps, and then use the straps to secure it.
 - **NOTE:** The straps allow you to roll the cabinet from room to room without removing the computer. However, these straps won't secure the computer during cabinet shipment. If you need to transport the 2000i, remove the computer before you ship it.
- 2. Connect the Computer 1 Video Out cable to the computer's video receptacle.

- 3. Connect the Computer 1 Audio cable to the computer's audio line OUT receptacle.
- 4. Connect the Computer 1 Serial cable to an available serial receptacle on the computer.

NOTE: If the computer doesn't have an available serial receptacle, connect the provided SMART USB adapter between the Computer 1 Serial cable and the USB receptacle on the computer.

5. Connect the mouse and keyboard cables (not supplied) to the PS/2 mouse receptacle and the PS/2 keyboard receptacle on the computer.

NOTE: If you connect these cables to a laptop instead of the resident computer, route the cable harness through the strap on the rear of the laptop shelf to ensure the laptop doesn't slide.

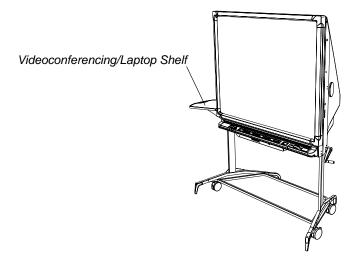
To connect the power cables

- 1. Connect the computer's AC power cable to an available power outlet.
- 2. Connect the 2000i's AC power cord to the country-specific AC cord in the accessory box. Then connect this AC cord to an available power outlet.

Installing the Videoconferencing/Laptop Shelf

You can position the videoconferencing/laptop shelf just above the height-adjustment handle (for laptop use), or higher on the frame (for use with a videoconferencing camera).

NOTE: If you want to use the videoconferencing/laptop shelf to support a guest laptop or a peripheral device, you can install the shelf on either side. However, if you intend to use a laptop as the primary computer and place the laptop on the videoconferencing/laptop shelf, install the shelf on the left side (when viewed from the front).



To install the videoconferencing/laptop shelf

- 1. Remove the plastic hole covers at the location where you want to mount the shelf.
- 2. Hook the shelf to the keyholes, and then push the shelf firmly down.
- 3. Push the captive thumbscrew at the bottom of the shelf into the thumbscrew hole and tighten.

Connecting a Guest Laptop

You can connect and control a laptop computer by touching the interactive screen only if you purchase and install the X-Port 20 switch option for the 2000i or install and run LinQ™ software.

The X-Port 20 unit is an RS-232 serial switch that establishes a serial connection with a laptop, enabling you to both write over the displayed laptop image with a pen tray pen and control the laptop by touching the screen. In addition, the X-Port 20 unit allows you to switch between the laptop, the resident computer and a VCR/DVD player using the control panel at the front of the 2000i. Complete instructions for installing the X-Port 20 switch and connecting a guest laptop are in the *X-Port 20 Switch Installation Guide* that comes with the X-Port 20 switch's option kit.

NOTE: When you connect cables to a laptop, route the cables through the strap on the rear of the laptop shelf to ensure the laptop does not slide.

LinQ software enables you to link the 2000i to a laptop on the same network. For more information, see page 21.

Connecting a VCR and/or a DVD Player

You can connect both a VCR and DVD player to the projector, provided you use a composite video connection for the VCR and an S-video connection for the DVD player. With each press of the **VCR/DVD Player** button, the projector alternates between the two players. There is a three-second delay before the alternate display source appears.

Although there is only a single external audio connection, you can link the VCR and DVD player audio connections. This linked audio connection makes the audio source switch automatically when you switch the video sources.

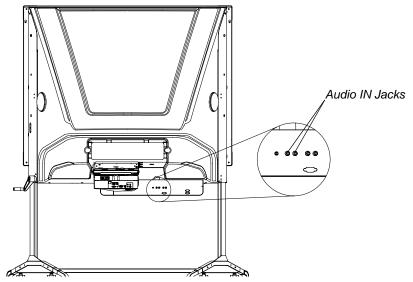
When you switch to another source (such as the internal computer), and then press the **VCR/DVD Player** button, the last active video source appears.

To connect a VCR to the 2000i

Connect an RCA composite video cable (not supplied) to the Video Output jack on the VCR.
This jack may be labeled "To Monitor." Connect the other end of the cable to the Video IN
receptacle on the projector.

NOTE: If you're using an S-video cable, connect it to the VCR's **S-video OUT** receptacle and connect the other end directly to the projector's **S-video IN** receptacle. Of course, if you connect the VCR to the projector's **S-video IN** receptacle, you won't be able to use an S-video cable to connect a DVD player.

Connect standard RCA audio cables (not supplied) from the VCR's RCA Audio (or Audio OUT) outputs to the two Audio IN jacks on the rear of the 2000i. Keep the right and left channel connections correct for stereo sound.



NOTE: You can't connect the audio cables from both a VCR and a DVD player to the connection panel at the same time. However, you can link the DVD player and VCR audio connections as described below.

3. Connect the VCR's power cable to an available power outlet.

To connect a DVD player to the 2000i

- Connect an S-video cable (not supplied) to the DVD player's S-video OUT receptacle.
 Connect the other end of the cable to the projector's S-video IN receptacle.
- Connect standard RCA audio cables (not supplied) from the DVD player's RCA Audio (or Audio OUT) outputs to the two Audio IN jacks on the rear of the 2000i. Keep the right and left channel connections correct for stereo sound.

NOTE: You can't connect the audio cables from both a VCR and a DVD player to the connection panel at the same time. However, you can link the DVD player and VCR audio connections, as described below.

3. Connect the DVD player's power cable to an available power outlet.

To link VCR and DVD player audio connections

- 1. If there is a tape in the VCR, remove it.
- Connect standard RCA audio cables (not supplied) from the DVD player's RCA Audio (or Audio OUT) outputs to the RCA Audio (or Audio IN) inputs on the VCR. Keep the right and left channel connections correct for stereo sound.
- Connect standard RCA audio cables (not supplied) from the VCR's RCA Audio (or Audio OUT) outputs to the two Audio IN jacks on the rear of the 2000i. Keep the right and left channel connections correct for stereo sound.

When you switch video sources, the audio source for the cabinet speakers also switches. If it doesn't switch, see the instructions you received with the VCR for additional steps.

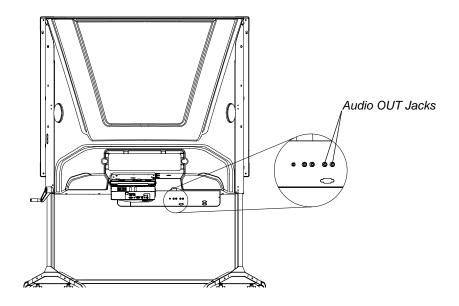
Connecting an External Monitor or Projector

You can output the projector's Computer 1 IN signal to an external monitor or projector. Connect an HD DB15 video cable (not supplied) from the **Monitor OUT** connector on the back of the projector to the external projector or monitor.

NOTE: You can't output the projector's Computer 2 (DVI-I) IN signal.

Connecting an External Sound System

Connect standard RCA audio cables (not supplied) from the external sound system's **RCA Audio** inputs to the two **Audio OUT** jacks on the rear of the 2000i. Keep the right and left channel connections correct for stereo sound.



Finalizing the Installation

With the computer and projector on, finish installing the 2000i by:

- configuring the computer settings (this page)
- selecting the projector's picture settings (page 10)
- adjusting the projected image (page 10)
- installing SMART Board software on the connected computer (page 14)
- configuring the computer port (page 15)
- orienting the interactive whiteboard (page 15)

Configuring the Computer Settings

For optimal configuration, use the following recommended settings for the computer inside the 2000i.

Recommended Settings

Set the computer to turn off the monitor 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).

When the computer is the 2000i's active display source, the computer stops sending an RGB video signal to the projector after the period of inactivity. This triggers the projector to wait for approximately five minutes and then go into Standby mode.

NOTE: If the input source for the projector is the video source (either composite or S-video), the projector won't go into Standby mode.

To change the settings in the Windows® operating system, access the **Properties** dialog box for the display and adjust the energy saving features and the power management properties. For Macintosh computers, adjust the settings in the **System Preferences** application. For more information on changing these settings, see the instructions that came with the operating system.

NOTE: You can't adjust the power settings on Windows NT® 4.0 systems.

Matching the Computer Resolution to the Projector Resolution

The projector resolution is 1024×768 (XGA), and you must ensure the computer's resolution matches this. If the computer resolution is set to anything other than this optimal resolution, you may not see the entire image, or the image may be too small to fill the screen, even with further adjustments. For more information on changing the computer's resolution, see the instructions that came with the operating system.

NOTE: You may need to adjust the computer's refresh rate to obtain the best results. Set the computer to an initial refresh rate of 60 Hz and adjust this rate up or down until you've determined the ideal refresh rate. For more information on changing the computer's refresh rate, see the instructions that came with the operating system.

Selecting the Projector's Picture Settings

The NEC VT595 projector has six picture settings, each optimized for a specific purpose. To obtain the best picture for the 2000i, select a picture setting of **High-Bright**.

NOTE: The **High-Bright** option provides the brightest image, but it also reduces the life of the lamp. To display an acceptable image without reducing the lamp's life, select the **Presentation** picture setting.

To select the projector's picture settings

- 1. Press the **Menu** button on the projector's remote control.
 - The *Picture* submenu displays the current picture settings, including the contrast and brightness.
- 2. Select **Preset** and press the **Enter** button.
- 3. Select High-Bright and press Enter.
- 4. Press the **Exit** button to close the menu.

Adjusting the Projected Image

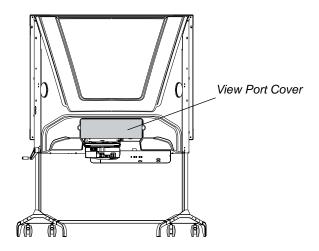
CAUTION



Don't adjust the ring that surrounds the short-throw, customized projector lens, even though the NEC VT595 user's manual states that you should use this ring to obtain the best focus. You must disregard this information. If you move the ring, you will damage the lens.

You may need to adjust the projector to obtain a focused image that fits on the screen. Complete the following procedures only as required.

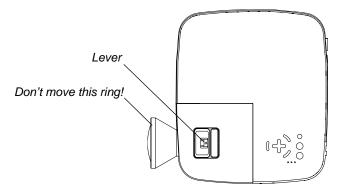
NOTE: If you need to adjust the image roll, adjust the image laterally or adjust the image size, you must watch the image on the back of the screen while making adjustments. You'll also need to remove the view port cover to access the adjustment hardware at the rear of the unit and to examine the image position while making adjustments. To remove the view port cover, grasp it in the middle of each short edge, and then pull it away from the unit.



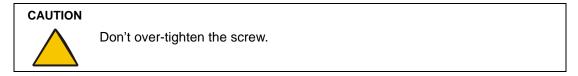
NOTE: When you first connect the projector, you may need to fine-tune the image. To optimize the image in RGB mode automatically, press the **Auto Adjust** button on the projector's remote control. This will eliminate vertical banding, flickering, video noise, dot interference and cross talk.

To adjust the projector focus

1. Locate the lever at the bottom of the upside-down projector. Using the supplied hex key, gently loosen the screw in the center of the lever.



2. Adjust the focus by moving the lever, and then gently tighten the screw.

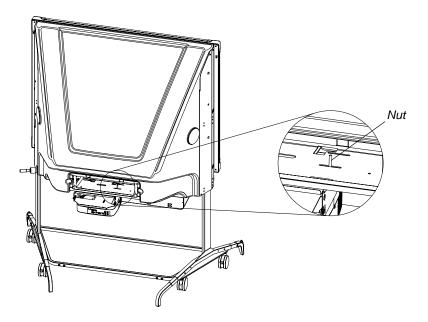


To adjust the image roll



- 1. If you've not done so already, remove the view port cover (page 10).
- 2. Crouch behind the projector and look at the projected image through the view port.

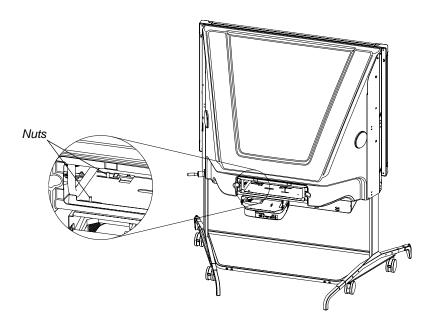
3. While carefully observing the bottom edge of the image at the right side, use the supplied 7/16" nut driver to gently loosen or tighten the nut that's located on the right side of the projector plate, as required.





To adjust the image laterally

- 1. If you've not done so already, remove the view port cover (page 10).
- 2. Crouch behind the projector and look at the projected image through the view port.
- 3. Using the supplied 7/16" nut driver, gently loosen the two nuts located on the left side of the projector plate.



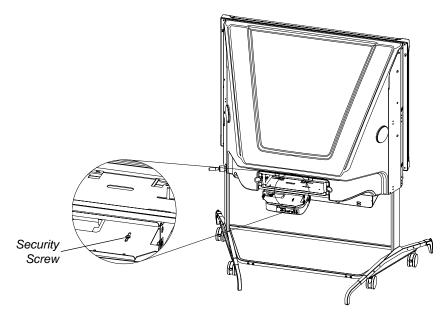
4. Slide the projector plate to the right or left, and then gently tighten the two nuts.

To adjust the image size

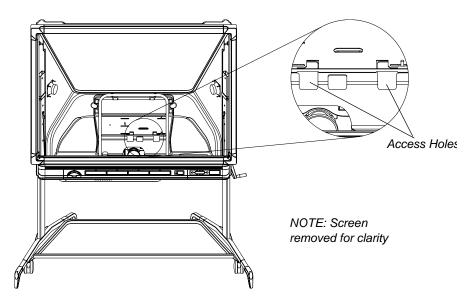


- 1. If you've not done so already, remove the view port cover (page 10).
- 2. Crouch behind the projector and look at the projected image through the view port.
- 3. Using the security key from the accessory kit, gently loosen the three TORX M4 security screws that secure the projector to the projector plate.

NOTE: You'll find these screws on top of the projector plate: one at the back of the projector and two at the front. You'll access the screws through a slot at the back of the plate and two holes at the front, as shown in the two figures below.



To access the two screws at the front of the projector, you must reach through the view port to the front of the projector, and maneuver the security key through the two access holes in the projector cover.



As you maneuver the security key through these two access holes, watch the key from the back to see when it engages with the screws.

- 4. Carefully slide the projector backward or forward to alter the image size.
- 5. When the image is the correct size, gently tighten the three screws that you loosened in step 3.



To move the image vertically

- Crouch down, facing the screen. Look underneath the pen tray and locate the electronics tray. You'll see a large access hole covered with a plastic cap on the right side of the electronics tray.
- 2. Remove the plastic cap that covers the access hole. If the cap seems tight, insert a screwdriver into the small opening at the top of the cap and carefully pry the cap off.
- 3. To adjust the image vertically, gently loosen or tighten the nut inside the access hole with the supplied 7/16" nut driver.

CAUTION



Don't turn the nut more than two full turns in a clockwise direction. Turning the nut too far clockwise may crush the spring that is an essential part of the adjustment mechanism.

4. Replace the plastic cap you removed in step 2.

Installing SMART Board Software

You can install SMART Board software on any computer using the supplied software CDs.

TIP



During the installation, select the option to start the SMART Board tools automatically when you start the computer. This ensures that the interactive whiteboard is fully functional whenever you start the computer.

When SMART Board tools are open, the SMART Board icon appears in the notification area (Windows computers) or in the Dock (Macintosh computers).

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To install SMART Board software

1. If you haven't done so already, turn on the computer and the projector. To turn on the projector, press the Lamp On button on the control panel.



IMPORTANT If you're using a USB adapter and the computer can't find the appropriate driver for it, unplug the USB adapter from the computer, install SMART Board software and then reconnect the USB adapter.

> If the Found New Hardware wizard appears, point the wizard to the SMART Board software CD so it can locate the correct driver.

- 2. Close all open applications on the computer.
- 3. Insert the SMART Board software CD into the CD drive.
 - (Windows operating systems) The installation starts automatically. Follow the on-screen instructions. If the CD doesn't start automatically, select Start > Run, type x:\autorun.exe (where x: is your CD drive) and press ENTER.
 - (Macintosh computers) Double-click the SMART Board Install CD icon that appears on the desktop. A Finder window opens. Double-click the SMART Board Software icon and follow the on-screen instructions. You may require an administrator's password to complete the installation.

Configuring the Computer Port

After you install SMART Board software and connect the interactive whiteboard, the screen becomes fully interactive. However, sometimes SMART Board software can't detect the port that the interactive whiteboard is connected to. If the screen isn't touch sensitive, configure the port in SMART Board software. If the interactive whiteboard is connected with a USB adapter, you'll have to disconnect the USB connector from the computer, and then reconnect it. For more information, see the SMART Board software Help.

Orienting the Interactive Whiteboard

Although the interactive whiteboard has a default orientation, you may want to perform an orientation to ensure the greatest possible level of accuracy as the computer tracks your contact with the screen. For more information, see the SMART Board software Help.

Basic Operations

This section shows you how to:

- start the 2000i (this page)
- put the 2000i into Standby mode (page 18)
- turn off the 2000i (page 19)
- use the interactive whiteboard (page 20)
- change the projector display source (page 22)
- adjust the volume (page 23)
- adjust the height of the interactive whiteboard (page 24)

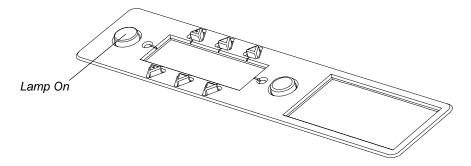
WARNING



Lock the casters and extend the anti-tip feet before you use the unit. Otherwise, the 2000i could tip over.

Starting the 2000i

If the 2000i is in Standby mode, press the **Lamp On** button on the control panel to restore power to the projector lamp.



If the projector or computer are turned off, you need to perform additional steps.

To turn on the 2000i

- 1. If necessary, turn on the projector by pressing the main power switch on the projector.
- 2. If necessary, turn on the computer.

To start the 2000i

The following table explains how you can restore the 2000i to a fully operational state.

What You See	What You Should Do	
The screen is black and the Lamp On LED is blinking intermittently (short flashes between long pauses)	The projector is in Standby mode (with the lamp off).	
	Press the Lamp On button on the control panel. The Lamp On LED indicator blinks quickly as the lamp warms up. After approximately 60 seconds, a No Input message appears (see below) or the screen is restored to its last active state.	
A No Input message appears and the Lamp	The projector lamp is on but you've selected an inactive display source or the computer is off or in Standby mode.	
On LED is steadily illuminated	Press a key on the connected keyboard to activate the computer.	
marim atou	OR	
	Press a source button on the control panel to select an active source. If the No Input message remains, turn the computer on (or press the computer's reset button) and log on as usual using the connected keyboard.	
The screen is black and the Lamp On LED is blinking slowly	No action is necessary. The projector lamp is turning on, and the logon screen will appear after approximately 60 seconds.	
The screen is black and the Lamp Off LED is blinking rapidly	The projector lamp is in Reversible Standby mode. If you don't press a button to restore the image, after three minutes the On LED indicator blinks slowly for 60 seconds as the lamp turns off and cools down. At this point, follow the first set of instructions in this table to restore the 2000i to an operational state.	
The logon screen appears	The projector lamp is still on, so you can log on as usual using the connected keyboard.	
The Lamp On LED continues to blink intermittently, even though it's been pressed to start the system	normally. Examine the projector status LED indicator, and then conseven the troubleshooting section of the NEC VT595 user's manual.	
The Lamp Off and On LEDs are both flashing constantly	The system can't detect a projector. Check that the projector is connected properly.	

Putting the 2000i into Standby Mode

CAUTION



The projector inside the 2000i has been designed for use under normal operating conditions only. Normal operating conditions are defined as product use that does not exceed eight hours per day and 260 days per year. Exceeding these operating conditions could cause projector damage. Damage caused by such extended use isn't covered by the product warranty.

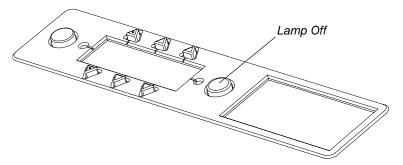
At the end of a session, log off the computer (for security) and put the 2000i into Standby mode to turn off the projector lamp and conserve the lamp's life.

To maintain normal operating conditions, make sure the projector is in Standby mode outside of normal, daily (eight hour) operation. In Standby mode, the lamp is turned off, and the projector remains on.

You can also configure the computer's power management settings so that the computer stops sending a video signal after a period of idle time, turning off the projector lamp. For more information, see page 9.

To put the 2000i into Standby mode

- 1. Log off the computer (at the end of a session) or shut down the computer (at the end of the day).
- Press the Lamp Off button to put the projector into Reversible Standby mode for three minutes.



The projector lamp remains on for three minutes so you can immediately restore the image by pressing any button on the control panel. After three minutes have elapsed, the lamp cools down for 60 seconds and then turns off.

To skip Reversible Standby mode, press and hold the **Lamp Off** button for three seconds, and then release the button. The lamp cools down for 60 seconds and then turns off.

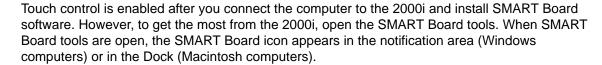
Turning off the 2000i

If you won't use the 2000i for an extended period, turn off the projector.

To turn off the projector

- 1. Shut down the computer.
- 2. Press and hold the **Lamp Off** button for three seconds. The lamp turns off immediately and enters a 60-second cool-down period.
- 3. When the cooling fan stops, turn off the main power switch on the back of the projector.
- 4. Disconnect the 2000i power cable from the power outlet.

Using the SMART Board Interactive Whiteboard



SMART Board software also allows you to customize the pen tray tools. You can change the eraser size and the color and transparency of the pen tools.

Using the pen tray tools

₹.

Using a pen tray pen, you can write over the computer image with digital ink. You can use SMART Board software to change any of these pens to highlighters, assign a new color, or alter their width. You can also change the size of the area erased by the pen tray eraser. For more information on customizing the pen tray tools, see the SMART Board software Help.

NOTE: The supplied pens have black tips because the digital cameras that detect contact with the interactive surface can more readily detect dark objects. If you use a different pen, choose one with a dark tip.

Using the pen tray buttons

You can press the top pen tray button to make the SMART Keyboard appear for on-screen typing. Press the bottom button to make the next contact with the interactive screen a right-click. You can also reconfigure these buttons to perform other functions. For more information on using and customizing the pen tray buttons, see the SMART Board software Help.

SMART Board tools

The SMART Board tools provide all the interactive features beyond basic touch control and pen tray button use. You can use the SMART Board tools to configure the pen and tool capabilities and access SMART Video Player, SMART Recorder and the on-screen keyboard.

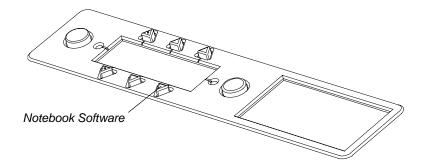
NOTE: The available tools vary between operating systems.

The SMART Board tools must be running before you can use the pen tray pens and eraser. If you want to write on the interactive whiteboard with a pen tray pen, make sure the SMART Board icon appears in the notification area (Windows computers) or Dock (Macintosh computers).

Notebook software

Notebook software enables you to create a variety of notes and import graphics, text, clip art and entire files from any other application into the Notebook file. It can also capture anything you write on the interactive whiteboard over any application. For more information, see the SMART Board software Help.

To launch Notebook software, press the **Notebook Software** button on the control panel.



NOTE: This button works only when SMART Board software is installed and running on the computer (see page 14).

Using Floating Tools

Floating Tools are a virtual version of the pen tray tools. For example, press the **Pen** button and then touch and drag on the screen to produce a line of digital ink. The Floating Tools also include a number of features that you won't find in the pen tray, such as producing a spotlight, capturing your notes and restoring cleared notes. For more information on using the Floating Tools, see the SMART Board software Help.

To open the Floating Tools, press and hold the **Notebook** button for three seconds, or press the **SMART Board** icon in the notification area (Windows computers) or in the Dock (Macintosh computers), and select **Floating Tools**.

LinQ software

Using LinQ software, you can link the laptop to a SMART interactive product. After you establish the connection, you can use LinQ software to show the laptop's video output on the interactive screen.

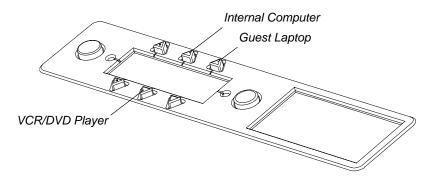
To establish a communication link between the 2000i and the laptop, you must:

- install and run LinQ software on the laptop computer
- be connected to the same network as the 2000i's internal computer
- run the mobile device manager software on the 2000i's internal computer

For more information on LinQ software and the mobile device manager, see www.smarttech.com/support/software/index.asp.

Changing the Display Source for the Projector

You can use the three source buttons on the control panel to change the video and audio input source for the projector and cabinet audio amplifier. Choose from the internal computer, a connected guest laptop or external computer (X-Port 20 switch option only) and a VCR or DVD player.



NOTE: Switching input sources takes a few seconds, and all the buttons on the control panel are disabled during that time.

To switch to the connected VCR or DVD player

Press the VCR/DVD Player button on the control panel.

If both a VCR (composite RCA connection) and a DVD player (S-video connection) are connected to the projector, pressing this button switches between the two. There is a three-second delay before the alternate source appears.

When you press the **VCR/DVD Player** button, you switch to the input source that was last active. For example, if you view a DVD and then switch to the computer, pressing the **VCR/DVD Player** button switches the display source to the DVD player.

To switch to the internal computer

Press the **Internal Computer** button on the control panel.

To switch to a guest computer (X-Port 20 switch option only)

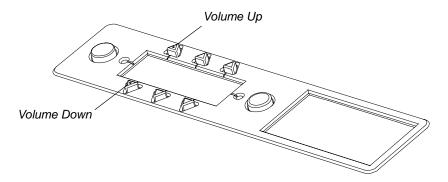
Press the **Guest Laptop** button on the control panel.

NOTE: You can switch to a connected guest laptop or external computer by pressing the Guest Laptop button only if you have the X-Port 20 unit installed. For complete details regarding guest laptop connections and switching, see the *X-Port 20 Installation Guide*, which is included in the kit. Alternatively, you can link to the laptop using LinQ software (page 21).

Adjusting the Volume

To increase the volume, press and hold the **Volume Up** button on the control panel.

To decrease the volume, press and hold the **Volume Down** button on the control panel.

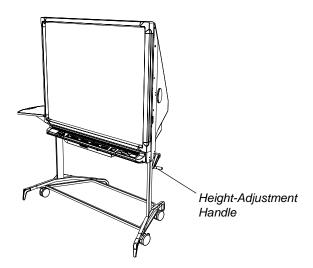


To restore the default volume level (no sound), press and hold both **Volume** buttons simultaneously.

Adjusting the Height of the Interactive Whiteboard

It's easy to raise or lower the interactive whiteboard to accommodate users of different heights—even while the system is in operation. The 2000i has a height adjustment range of 14" (35.6 cm) so that anyone can comfortably touch or write on the screen.

To gauge the height of the unit as you turn the height-adjustment handle, or to adjust it to a particular height, watch the height finder located on the side of the unit, just above the height-adjustment handle.



To adjust the height of the interactive whiteboard

To raise the screen, turn the height-adjustment handle clockwise. The maximum height is 83" (210.8 cm).

To lower the screen, turn the height-adjustment handle counterclockwise. The minimum height is 69" (175.3 cm) from the floor. Be careful not to lower the interactive whiteboard on top of the computer on the storage tray.

Maintaining the 2000i

This section shows you how to:

- clean the interactive whiteboard and other components (this page)
- clean the projector (page 26)
- clean the projector's filter (page 26)
- replace the projector's lamp and filter (page 27)
- restore the projector's settings (page 29)
- calibrate the cameras (page 30)

Cleaning the Interactive Whiteboard and other Components

Before you clean the interactive whiteboard, turn off the computer. If you touch the screen when the computer is in any other state, you may activate program components or scramble desktop icons. Put the projector into Standby mode so you can see dirt and streaks on the screen.

Clean the screen surface regularly so dust buildup doesn't disrupt the operation of the 2000i. Don't spray glass cleaner directly onto the screen surface. Instead, spray the cleaner lightly on a cloth and then gently wipe the screen surface.

The cameras are well protected from dust and dirt, so you should clean the lenses only occasionally. When you do so, don't spray glass cleaner directly onto the lens. Instead, spray the cleaner onto a cotton-tipped swab and rub it gently on the lens. If excess glass cleaner flows into the crack between the frame and the screen, the fluid could damage the cameras.

If there is permanent marker ink on the screen, you can remove it by completely covering it with the ink from a dry-erase marker (but not a low-odor marker), and then wiping the screen with a soft cloth. If any trace of the original permanent ink remains, spray a cloth with standard, alcohol-free glass or whiteboard cleaner, and gently wipe clean.

The back of the interactive whiteboard screen is well protected from handling by its location on the inside of the unit. However, if it must be dusted, or if a mark has been made on its surface, dab it gently with a soft cloth that's sprayed with standard, alcohol-free glass cleaner. Don't apply the cleaner directly to the surface.

CAUTION



Don't, under any circumstances, apply isopropyl alcohol, water or acetone to the rear surface of the interactive screen. These fluids damage the diffusion coating, resulting in a permanent deterioration in display quality.

Periodically dust the mirrors and unit components using a soft cloth. To clean the mirrors, use a standard, alcohol-free glass cleaner.

Cleaning the Projector

Clean the projector and its lens periodically.

To clean the projector

- 1. Shut down the computer and the projector.
- 2. Wipe the projector's casing with a damp cloth. If necessary, use a mild detergent. Don't use a strong detergent or a solvent, such as alcohol or thinner.
- 3. Carefully wipe the lens with lens paper.

CAUTION



Be careful not to scratch or mark the lens.

Cleaning the Projector's Filter

The projector's filter protects the inside of the projector from dust. Clean this filter after every 100 hours of operation. After every 100 hours of operation, a "Please Clean Filter" message appears on the screen.

CAUTIONS



Clean the outside of the filter cover only.

Don't operate the projector when the filter cover is detached.

To clean the filter

- Using a vacuum cleaner, clean the filter through the filter cover, as described in the NEC VT595 user's manual.
- 2. To clear the "Please Clean Filter" message, reset the filter hours as follows.
 - i. Press the **Menu** button on the projector's remote control.
 - ii. Press the down arrow to highlight the **Reset** option, and press the **Enter** button.
 - iii. Press the down arrow to highlight the **Clear Filter Hours** option, and press **Enter**. A message appears asking for confirmation.
 - iv. Select Yes, and press Enter.
 - v. Press the **Exit** button twice to close the menu.

Replacing the Projector Lamp and Filter

When the lamp nears the end of its life, a message appears prompting you to replace it. When the lamp reaches the end of its life, the projector automatically goes into Standby mode and stays in Standby mode until you replace the lamp.

CAUTION



Replace the projector lamp only with the NEC VT85LP lamp (SMART part number 01-00227). These lamps are available from NEC or SMART. Don't use any other lamps.

You can view the remaining lamp time as a percentage of its expected life and the length of time the lamp has been in use.

To view the lamp hour meter

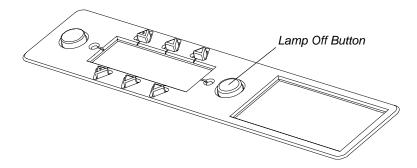
- 1. Press the **Menu** button on the projector's remote control.
- 2. Press the down arrow to highlight the **Information** option.

The *Information* submenu displays the remaining lamp time as a percentage of its expected life and the length of time the lamp has been in use.

3. Press the **Exit** button to close the menu.

To replace the projector lamp and filter

- 1. If you need better access to the rear of the cabinet, retract the anti-tip feet and unlock the wheels by raising the caster tab locks on each wheel. Then roll the unit away from the wall, press the caster tab locks down to lock the wheels, and extend the anti-tip feet.
- 2. Using the height-adjustment handle, raise the unit to allow easier access to the projector.
- 3. Shut down the computer. Press and hold the **Lamp Off** button on the control panel for approximately three seconds. The screen turns black. Release the button and the projector lamp turns off in 60 seconds.

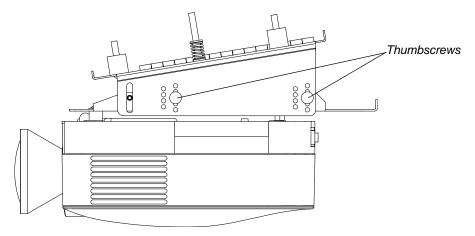


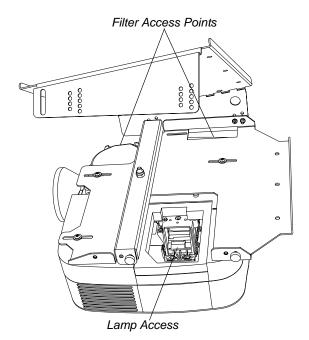
WARNING



After you turn off the projector, allow at least one minute to elapse before you perform the following steps. Don't touch or replace the projector lamp (which will be very hot) for at least an hour.

- 4. Disconnect the 2000i from the power outlet.
- 5. Note the lettered and numbered positions of the two thumbscrews on the left side.
- 6. While a second person supports the projector, remove the two thumbscrews and carefully allow the projector to swing down. Keep the thumbscrews nearby, as you'll need them later.





- 7. Replace the filter as described in the NEC VT595 user's manual.
- 8. Replace the projector lamp as described in the NEC VT595 user's manual.
- 9. Replace the projector by reversing steps 1 through 6.

To clear the lamp hour meter

- 1. Press the **Menu** button on the projector's remote control.
- 2. Press the down arrow to highlight the **Reset** option and press the **Enter** button.
- 3. Press the down arrow to highlight the Clear Lamp Hours option and press Enter.
 - A message appears asking for confirmation.
- 4. Select **Yes** and press **Enter**.
- 5. Press the **Exit** button twice to close the menu.

Restoring Projector Settings

If the optimal projector settings are accidentally altered, use the following procedure to restore them.

To restore the projector's optimal settings

- 1. Press the **Menu** button on the projector's remote control.
- Select Preset and press the Enter button on the projector's remote control. Select High-Bright and press Enter.

NOTE: The **High-Bright** option provides the brightest image, but it also reduces the life of the lamp. To display an acceptable image without reducing the lamp's life, select the **Presentation** picture setting.

- 3. Press the down arrow to highlight the **Setup** option and press **Enter**.
- 4. Press the down arrow to highlight the Auto Keystone option, select Off and press Enter.
- Select the Installation tab.
- 6. Press the down arrow to highlight the **Orientation** option, select **Ceiling Rear** and press **Enter**.
- 7. Select the **Options** tab.
- 8. Press the down arrow to highlight the Auto Adjust option, select Normal and press Enter.

NOTE: When the projector's auto adjust setting is normal, it automatically determines the best resolution for the current RGB input signal, compensating for resolution differences among various input devices (such as guest laptops).

- 9. Press the down arrow to highlight the **Fan Mode** option, select **Auto** and press **Enter**. Although this is a default setting, it's important enough to warrant special mention.
 - **NOTE:** All other settings are the NEC factory default settings. See the NEC VT595 user's manual for a full description of on-screen menus and settings.
- 10. Press the Exit button twice to close the menu.

Calibrating the Cameras

Each digital camera in the interactive screen is calibrated to recognize the position of a pen tray tool or your finger on the screen's surface and to send this information to SMART Board software. The software then interprets the information as mouse clicks or digital ink in the appropriate location.

If the cameras become misaligned for any reason, you may notice gaps in your writing, or an area of the screen may become unresponsive to your touch. Fortunately, you can fix this problem by performing a calibration procedure. For more information, see the SMART Board software Help.

Waste Electrical and Electronic Equipment Regulations

Waste Electrical and Electronic Equipment (WEEE) 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 may 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.

Customer Support

Online Support

Visit 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 for training materials and information about our training services.

Contacting SMART Technical Support

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

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

Online: www.smarttech.com/contactsupport

Telephone: +1.403.228.5940 or

Toll Free 1.866.518.6791 (Canada/U.S.)

(Monday to Friday, 5 a.m. – 6 p.m. Mountain Time)

Fax: +1.403.806.1256

E-mail: support @smarttech.com

When you phone Technical Support, it will be helpful if you have access to your 2000i during the call. The support representative may ask you for the following information:

- · the serial number of the unit
- the version of the software that's causing the problem and the version of your computer's operating system (if applicable)

General Inquiries

Address: SMART Technologies

1207 – 11 Ave SW, Suite 300 Calgary, AB T3C 0M5

CANADA

Switchboard: +1.403.245.0333 or

Toll Free 1.888.42.SMART (Canada/U.S.)

Fax: +1.403.228.2500

E-mail: 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

A User Registration card was included with your 2000i. To help us serve you, fill in and mail this card to SMART Technologies ULC or register online at www.smarttech.com/registration.

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