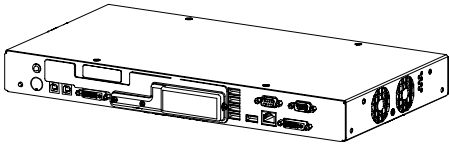


PLEASE THINK BEFORE YOU PRINT



SMART Hub SE240 and VE220 Administrator's Guide

Extraordinary made simple™

SMART™

Product Registration

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

Register online at www.smarttech.com/registration.

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

Serial Number: _____

Date of Purchase: _____

FCC Warning

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

Trademark Notice

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Patent No. US5448263; US6141000; US6320597; US6326954; US6337681; US6741267; US6747636; US7151533; US7289113; US7499033; US7626577; CA2058219; and CA2252302. Other patents pending.

03/2010

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Chapter 1

Welcome

The SMART Hub SE240 and SMART Hub VE220 are devices you connect to SMART Board™ interactive whiteboards, SMART Board *for Flat-Panel Displays* interactive overlays, SMART Board interactive display frames, Actalyst™ digital signage and SMART Podium™ interactive pen displays.

The SMART Hub SE240 has the following features:

- Whiteboard capability for writing and drawing digital ink
- SMART Bridgit™ software for collaborating with others
- Digital ink features for working with computer and video source input on your SMART products' displays

The SMART Hub VE220 has the following features:

- Whiteboard capability for writing and drawing with digital ink
- Easy upgrade to the SMART Hub SE240
- User-friendly design
- Easy-to-maintain hardware



NOTE

SMART Bridgit isn't included with the SMART Hub VE220.



IMPORTANT

To ensure your hub functions as expected, immediately update its firmware to [version 3.0.X.X](#) for the SMART Hub SE240, or [version 3.0.X.X](#) for the SMART Hub VE220.

About This Guide

This guide explains how to install and configure your hub (or multiple hubs), how to secure network and conferencing settings and how to upgrade your SMART Hub VE220 to a SMART Hub SE240.

This guide is intended for IT administrators and others experienced with installing computer hardware and configuring and administering computer networks. To use this guide, you must be familiar with systems and protocols such as SNMP, TFTP, SMTP, DHCP, DNS, IP and Subnets. You also need administrative privileges and access to a hub.

NOTE

For hub installation information see the *SMART Hub SE240 Installation and User's Guide*, ([document 122178](#)), or the *SMART Hub VE220 Installation and User's Guide*, ([document 135648](#)).

SMART Hub Features

Your hub's compact size allows you to integrate it into your boardroom or classroom easily. You can mount the hub in four ways:

- 19" (48.3 cm) rack mounting
- wall mounting
- table top or shelf mounting
- under-shelf mounting

The SMART Hub SE240 includes connectors for:

- SMART products
- speakers
- up to two computers and two video sources
- other peripheral devices (including USB storage devices)

The SMART Hub VE220 includes connectors for:

- SMART products
- one computer
- other peripheral devices (including USB storage devices)

Computer Input Formats

- VGA
- XGA
- SXGA
- MAC
- SVGA
- WXGA
- SXGA+

Computer Output Formats

- SVGA
- WXGA
- 720p
- 1080p
- XGA
- SXGA
- 1080i

Firmware Features

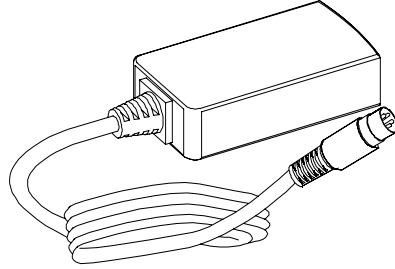
Your hub's main firmware features include whiteboarding for writing and drawing with digital ink, and saving documents for later use.

Standard Accessories

SMART provides the following accessories with your hub. If you need to purchase replacements, contact your [authorized SMART reseller](#).

Power Supply

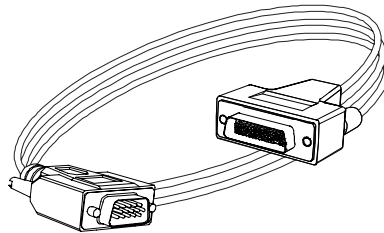
SMART provides a 12V, 5.0A power supply and the cable you need to connect it to a power outlet (depending on your region).



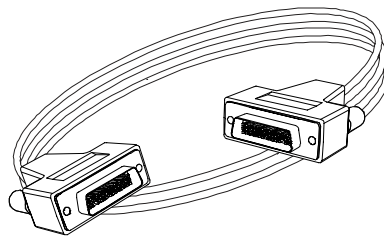
Cables and Adapters

SMART provides the following cables:

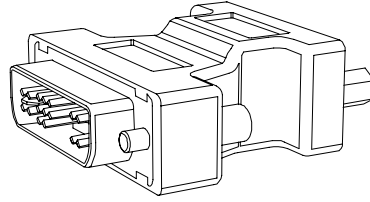
- 6' (1.8 m) DVI male to VGA male cable to connect the Extended Control Panel (ECP) from the DVI-out port.



- 6' (1.8 m) DVI male to DVI male cable to use if the display supports DVI ports.



- DVI male to VGA female adapter to connect the SMART Hub SE240 to a projector or display using a VGA cable. Use this adapter if you use an Actalyst interactive overlay or a SMART Board interactive display frame.



Chapter 2

Configuring Your Hub

This chapter contains information on the following topics:

- *Orienting Your SMART Product* on page 8
- *Connecting Your Computer to a Hub* on page 8
- *Connecting Video Sources to Your Hub* on page 10
- *Configuring the Display Settings* on page 11
- *Configuring Your Network and Conferencing Settings* on page 11
- *SMART Bridgit Software* on page 14
- *Configuring Room Control Settings* on page 17
- *Connecting to Computers and Video Sources* on page 22
- *Configuring Language and General System Settings* on page 23
- *Disabling Your System Hardware Features* on page 24
- *Configuring your TFTP/SNTP Servers* on page 24
- *Initializing Synchronization* on page 25
- *Configuring SNTP Settings* on page 26
- *Configuration Settings and Files* on page 27
- *Exporting and Importing Configuration* on page 31
- *Securing Configuration Settings* on page 32

Orienting Your SMART Product

When your SMART product uses its default orientation data, the touch point on the screen corresponds to the projected image, provided the projected image fills the entire interactive screen. However, the projected touch point might be offset from the actual touch point in some situations. Resolve this issue by orienting your SMART product.



IMPORTANT

- Before orienting your hub, download the latest version of firmware for your hub from the [SMART Support website](#).
- Orient your SMART product with your hub before orienting it with other connected computers.

To orient your SMART product with your hub

1. Select **System > Settings**.

The *Settings* dialog box appears.

2. Press **Orient**.

The orientation screen appears.

3. Using a pen tray pen, press and release the center of the first target.

4. Repeat step 3 for each target.

The orientation data saves to your hub's memory.

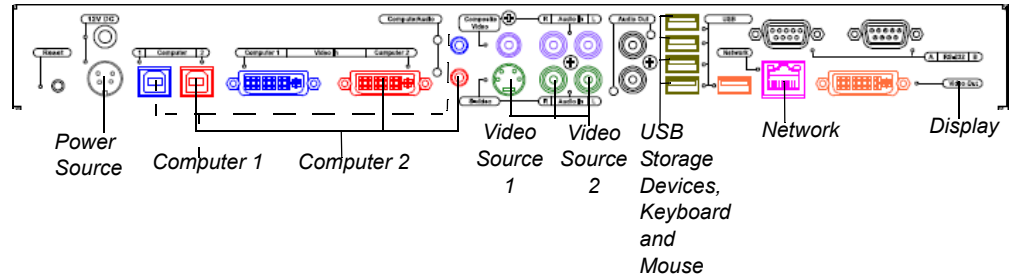
Connecting Your Computer to a Hub

You can connect two computers to the SMART Hub SE240, and one computer to the SMART Hub VE220 to view input on your SMART product's display. Both models enable you to:

- Write and draw in digital ink.
- Freeze the display.
- Take screen captures.
- Use the on-screen keyboard and right-click features of your hub firmware.

To connect your hub to a computer

Connect the computer to the SMART Hub SE240 using the appropriate cables and connectors.



i NOTE

The SMART product and audio connections are optional.

To configure your hub for the computer

1. Select **System > Settings**.
The *Settings* dialog box appears.
2. Press **Input Configuration**.
3. In the *Input device name* box, type a name for the computer.
4. In the *Input Type* list, select **Analog** or **Digital**.

h IMPORTANT

- Select **Analog** if you are using a VGA/DVI-I cable, or if you are using a DVI/DVI cable with a VGA/DVI adapter.
- Select **Digital** if you are using a DVI/DVI cable.
- If the setup is incorrect, your hub will not work with a Mac computer.

5. Press **Apply All**.

A *Picture Settings* dialog box appears allowing you to change your hub's brightness or contrast. Press **Adjust Settings**, **OK**, **Cancel** or **Reset** accordingly.

Connecting Video Sources to Your Hub

IMPORTANT

This section applies to the SMART Hub SE240 only.

You can connect up to two video sources to your SMART Hub SE240. Video sources include DVD players, VCRs and similar devices. After connecting a video source to your SMART Hub SE240, you can view its input on your SMART product's interactive screen and do the following:

- Draw digital ink notes.
- Freeze the display.
- Take screen captures.

To connect a video source

Connect the video source to the SMART Hub SE240 using the appropriate cables and connectors.

NOTE

Audio connections are optional.

Video Source	Video (A)	Audio (B)
1	4-pin mini-DIN connector S-video	RCA audio connector set 1
2	RCA video connector	RCA audio connector set 2

To configure your hub for the video source

1. Select **System > Settings**.
The *SMART Hub SE240 Settings* dialog box appears.
2. Press **Input Configuration**.
3. Press **S-Video** if you're configuring your hub for the first video source, or press **Composite** if you're configuring your hub for the second video source.
4. In the *Input device name* box, type a name for the video source.
5. Press **Apply All**.

Configuring the Display Settings

You can configure your hub's resolution and time-out settings to work with your SMART product's display.

To configure the display settings

1. Select **System > Settings**.

The *Settings* dialog box appears.

2. Press **Display Configuration**.

TIP

The top portion of the *Display Configuration* tab shows information about the projector or display connected to your hub. You can refresh this information by pressing **Refresh**.

3. Select a resolution in the *Resolution* list.
4. Select additional options, including how many minutes you want your hub to wait before it enters sleep mode, shuts down the projector, or displays the device's control strip.
5. Press **Apply All**.

Configuring Your Network and Conferencing Settings

Connect your hub to a network to take advantage of its networking features such as e-mailing Whiteboard files.

IMPORTANT

You must be familiar with basic networking, Simple Network Management Protocol (SNMP) and Simple Mail Transfer Protocol (SMTP) to complete the following procedures. If you aren't familiar with these concepts, consult an information technology professional in your organization.

To configure basic networking settings

1. Select **Systems > Settings**.

The *Settings* dialog box appears.

2. Press **Network** for the VE220, or **Network and Conferencing** for the SE240, and then type a name for your hub in the *Device name/network ID* box.
3. Press the **Network Address** tab, and then select the **Use DHCP (automatically detect network settings)** option to configure networking settings automatically.

OR

Select the **Manually specify network settings and addresses** option to configure networking settings manually, and then type the appropriate information (as supplied by your network administrator) in the :

- *IP address*
- *Subnet mask*
- *Default gateway*
- *DNS server 1*
- *DNS server 2*

4. Press **Apply All**.

 **TIP**

You can reset your unit to ensure your settings are applied.

To configure e-mail (SMTP) settings

1. Select **System > Settings**.

The *Settings* dialog box appears.

2. If you have a SMART Hub SE240, select **Network and Conference**, and then press **E-Mail (SMTP)**.

OR

If you have a SMART Hub VE220, select **Network**, and then press **E-Mail (SMTP)**.

3. Type the name of your SMTP server in the *SMTP server name* box, and then type the port number of your SMTP server in the *Port number* box.

 **NOTE**

The SMTP's default port number is 25.

4. Type the domain name of the SMTP server in the *Domain name* box.

 **NOTES**

- Select the **Enable file export by e-mail** check box to enable file export by e-mail.
- Select the **Enable RJ45 Ethernet port** check box to enable the networking features on the *Administration* tab.

5. Press **Apply All**.

To configure network management (SNMP) settings

1. Select **System > Settings**.

The *Settings* dialog box appears.

2. If you have a SMART Hub SE240, select **Network and Conference**, and then press **Management, Room Control**.

 NOTE

The Room Control feature isn't available with the SMART Hub VE220.

3. Select **Use the settings as the SNMP read/write strings** to use the general settings for the SNMP read/write strings.

OR

Select **Manually assign SNMP read/write strings**, and then enter the appropriate information (as supplied by your network administrator) to manually assign the SNMP read/write strings.

- *Read community string*
- *Write community string*

4. If you have a SMART Hub SE240, select the **Enable remote management of SMART Hub SE240** checkbox.

OR

If you have a SMART Hub VE220, select the **Enable remote management of SMART Hub VE220** checkbox.

 NOTE

In SNMP, community strings are text strings that act as s. “Get” requests are only valid if their community strings match the value in the *Read community string* box, and “Set” requests are only valid if their community strings match the value in the *Write community string* box.

5. Type the IP address to which your hub should send traps (as supplied by your network administrator) in the *Trap destination address* box.

 NOTE

Traps are unsolicited, asynchronous events that devices such as the SMART Hub uses to indicate status changes.

6. Press **Apply All**.

i NOTE

To fully utilize the SNMP features, download the SMART Hub's Management Information Base (MIB) files from www.smarttech.com/SE240firmware for the SMART Hub SE240, or www.smarttech.com/VE220firmware for the SMART Hub VE220. SNMP management software uses MIB files to interpret the devices that it monitors.

SMART Bridgit Software

👉 IMPORTANT

This section applies to the SMART Hub SE240 only.

SMART Bridgit software is a client/server application that lets you collaborate with anyone, anywhere in the world. Using SMART Bridgit, you can:

- Share your display.
- View other participants' displays.
- Communicate with others through chat.
- Use your SMART product to write digital ink notes.

👉 IMPORTANT

To use your hub's SMART Bridgit features, do one of the following:

- Purchase and install SMART Bridgit software.
- Purchase a subscription for the SMART Bridgit service.
- Install a trial version of SMART Bridgit for 30 days, and then purchase the server software or service from an [authorized SMART reseller](#).
- Be invited to a meeting by a person or organization with SMART Bridgit software.

For more information on these options, see the [SMART Bridgit page](#) of the SMART Support website.

Configuring SMART Bridgit Software

To configure SMART Bridgit software

1. Select **System > Settings**.
The *SMART Hub SE240 Settings* dialog box appears.
 2. Press **Network and Conference**, and then press the **Conferencing** tab.
 3. Select the **Enable conferences with Bridgit software** check box.
 4. In the *Bridgit server* box, type the URL of the SMART Bridgit server (for example, **bridgit.yourcompany.com**).
 5. In the *Default meeting* box, type a default, easy-to-identify name for all SMART Bridgit meetings created with your hub.
 6. In the *Viewing Password* box, type a that participants must enter to view SMART Bridgit meetings.
 7. In the *Creation Password* box, type a password that participants must enter to create SMART Bridgit meetings, and then press **Apply All**.
-

Creating a SMART Bridgit Meeting

IMPORTANT

- This section applies to the SMART Hub SE240 only.
- You must connect your hub to a network and configure it to use SMART Bridgit software.

SMART Bridgit meetings start automatically once you configure SMART Bridgit.

TIP

For more information on SMART Bridgit, see the *SMART Bridgit 4.0 Software User's Guide* ([document 142511](#)).

To change the meeting's name and

Select System > Change Meeting Name and Password to change the meeting's name and .

NOTE

If you're a meeting owner, you also have the option of removing current attendees from the meeting.

To share your display

Press **Share Screen** at the top of your screen.

A blue border appears around your display.

i NOTE

If you and another participant are in the same SMART Bridgit meeting, the meeting's owner must approve your request before you can share your display.

To stop sharing your display

Select **Stop Sharing**.

The blue border around your display disappears.

Configuring the SMART Bridgit Software Meeting Settings

If you're the owner or presenter of a SMART Bridgit meeting, you can configure whether other participants can:

- Write digital ink notes when you're sharing your display.
 - Share their displays.
 - Chat.
 - Request remote control when you're sharing your display.
-

To configure the SMART Bridgit meeting settings

1. Select **System > Advanced Settings** at the top of your screen.

The *Meeting Options* dialog box appears.

2. Select the **Allow others to draw** check box to allow participants' notes when you're sharing your display.
 3. Select the **Allow others to share their display** check box to allow participants to share their displays.
 4. Select **Allow others to use chat** check box to allow participants to chat.
 5. Select the **Allow others to use remote control** check box to allow participants to request remote control when you're sharing your display, and then press **OK**.
-

Leaving a SMART Bridgit Meeting

You can leave a SMART Bridgit meeting at any time.

To leave a SMART Bridgit meeting

Select **Settings > Leave Meeting**.

NOTE

When prompted to disconnect the remaining participants, press **Yes**. The meeting ends and the other participants are disconnected. If you press **No**, only you disconnect, but the meeting continues.

Configuring Room Control Settings

IMPORTANT

This section applies to the SMART Hub SE240 only.

You can control the SMART Hub SE240 externally with a computer or room control system using a TELNET session established over a TCP/IP network connection or through a serial (RS-232) connection. This allows you to select inputs, control audio volume, request information such as projector lamp usage or network settings and complete other tasks.

This section describes how to configure the SMART Hub SE240 for external control using a computer or room control system, and the commands you use to change and view the projector or display settings.

Enabling and Using Room Control Settings through the Serial Interface

To enable and use the SMART Hub SE240's room control settings, complete the following procedures:

1. Connect the computer or room control system to the SMART Hub SE240.
2. Enable your hub's room control mode.
3. Configure the connected computer or room control system's serial interface.
4. Program your room control system to use the hub's room control commands.

To connect the computer or room control system to your hub

Connect your hub to the computer or room control system using the female RS-232 connector.

i NOTE

The female RS-232 connector is for room control only.

To enable your hub's room control mode

1. Select **System > Settings**.

The *SMART Hub SE240 Settings* dialog box appears.

2. Select **Administration**, and then select the **Enable room control with RS-232** check box.
3. Press **Apply All**.

To configure your serial interface settings

You can't configure the SMART Hub SE240's serial interface settings. Therefore, configure your computer's serial communication program, such as Microsoft® HyperTerminal or your room control system's serial communication settings, to the following values.

Setting	Value
Data rate	9600 bps
Data bits	8
Parity	None
Stop bits	1
Flow control	None

To verify that the serial interface is in room control mode

1. Turn on your communication program.
2. Configure your communication program as documented in the previous section.
3. Press ENTER.

If your configuration is correct and the SMART Hub SE240 is in room control mode, the > character appears.

Enabling and Using Room Control Settings through TELNET

IMPORTANT

This section applies to the SMART Hub SE240 only.

Instead of connecting the SMART Hub SE240 to room control through the serial interface, you can connect through TELNET.

To connect the computer or room control system through TELNET

1. Connect your hub and the computer or room control system to the same network.
2. Select **System > Settings**.
The *SMART Hub SE240 Settings* dialog box appears.
3. Select **Network and Conference**, and then press **Management, Room Control**.
4. Select the **Enable room control via TELNET** check box.
5. In the *Port number* text box, type the port number for TELNET.

NOTE

TELNET's default port number is 23.

6. Press **Apply All**.

Command Summary for Your SMART Hub SE40

IMPORTANT

This section applies to the SMART Hub SE240, TELNET and RS-232 only.

The SMART Hub SE240 responds to the following types of commands:

- Power state
- Input selection
- Video and audio
- System information

NOTES

- Press ENTER after each command.
- Commands aren't case-sensitive.


Power State Commands

Command	Description
on	Turns on the SMART Hub SE240.
off	Turns off the SMART Hub SE240 (only with a projector).
get powerstate	<p>Requests the SMART Hub SE240 power state.</p> <p>Possible returned values when using your hub with a SMART UF55, SMART UF55w, UX60 or Unifi™ projector:</p> <ul style="list-style-type: none"> • startup • on • shutdown • off <p>Possible returned values when not using your hub with a SMART UF55, SMART UF55w, UX60 or Unifi projector:</p> <ul style="list-style-type: none"> • on • standby

Input Selection Commands

Command	Description
set input dvi-1	Selects the first computer input.
set input dvi-2	Selects the second computer input.
set input composite	Selects the composite video source input.
set input s-video	Selects the S-video source input.
set input whiteboard	Selects Whiteboard.
get input	Requests the hub's current input.

Video and Audio Commands.

Command	Description
set brightness {+ or -}	Increases or decreases the brightness in increments.
set brightness {0 – 100}	Sets the brightness to an absolute value from 0 (off) to 100 (full brightness).
get brightness	Requests the hub's current brightness setting.
set contrast {+ or -}	Increases or decreases the contrast in increments.
set contrast {0 – 100}	Sets the contrast to an absolute value from 0 (minimum contrast) to 100 (maximum contrast).
get contrast	Requests the hub's current contrast setting.
set volume {+ or -}	Increases or decreases the volume in increments.
set volume {0 – 30}	Sets the volume to slightly audible mode.
get volume	Requests the hub's current volume setting.
set mute {on or off}	Turns your hub's mute feature on and off.
get mute	Requests the current mute setting.
set display {on or off}	Turns the display's video output feature on and off.
set timeout {0, 5, 10, 30 or 60}	Modifies the sleep setting.
 NOTE Setting it to 0 turns sleep mode off.	
factory reset	Resets the settings to factory defaults.
type ?	Requests a list of commands.

System Information Commands

Command	Description
<code>get lamphrs</code>	Requests the number of hours that the projector lamp has been in use (from 0 to 3000).
	<p>i NOTE</p> <p>This command only returns a value if the SMART Hub SE240 is connected to a UF, UX or Unifi projector.</p>
<code>get syshrs</code>	Requests the number of hours that the system has been in use.
<code>get ipaddr</code>	Requests the IP address.
<code>get macaddr</code>	Requests the MAC address.
<code>get fwver</code>	Requests the firmware version.

Connecting to Computers and Video Sources

IMPORTANT

This section applies to the SMART Hub SE240 only.

You can connect your hub to up to two computers and two video sources.

After connecting your hub to a computer or video source, you can view the computer or video source's input on your SMART product's interactive screen.

i NOTE

You can connect a computer with SMART Notebook™ software version 9.7 SP1 or later to your hub and use the digital ink features of the software. Your hub doesn't support earlier versions of SMART Notebook.

To view a connected computer's input

Press one of the computer input buttons on the sidebar.

The computer's input appears.

i NOTE

The default label of the first DVI input button is **Computer One**, and the default label of the second DVI input button is **Computer Two**. You can change these labels.

To view a connected video source's input

Press one of the video source input buttons on the sidebar.

The video source's input appears.

i NOTE

The default label of the S-video input button is **Video One**, and the default label of the composite input button is **Video Two**. You can change these labels.

Configuring Language and General System Settings

The hub's user interface is set to English by default. You can change the language to one of the following:

- French
- German
- Italian
- Spanish

To set the hub's user interface language

1. Select **System > Settings**.

The *Settings* dialog box appears.

2. Select **System and Language**.
3. In the *Language* list, select your preferred language.
4. Press **Apply All**.

You can view your hub's system information, including the firmware version, Internet Protocol (IP) address and Media Access Control (MAC) address.

To view system information

1. Select **System > Settings**.

The *Settings* dialog box appears.

2. Press **System and Language**.

The system information displays.

Disabling Your System Hardware Features

Disable your system hardware features if you want to disable your network port, secure your settings or prevent anyone from using the hub to connect to a corporate network.

To disable your system hardware settings

1. Select **System > Settings**.
The *Settings* dialog box appears.
2. Press **Administration**.
3. Clear the **Enable RJ45 Ethernet port** check box to disable networking features.
4. Clear the **Enable USB storage device support** check box to disable USB storage device features.
5. Press **Apply All**.

Configuring your TFTP/SNTP Servers

Your Trivial File Transfer Protocol (TFTP) server is the repository for your hub's firmware and configuration files. Your hub can check the TFTP server to see if any new files are available, and then download and install any new files accordingly.

To configure your hub, you must enter a domain name or IP address for the TFTP server, in addition to the port number.

A Simple Network Time Protocol (SNTP) server is used for time configuration. Through the SNTP service, administrators can also check for updates at specific times, and define the time they want to update.



IMPORTANT

You must be familiar with basic networking, TFTP and SNTP to complete the following procedures. If you are not familiar with these concepts, refer this guide to an information technology professional in your organization.

TFTP Server Configuration

A TFTP server must be set up on a network server. The system administrator decides which TFTP server to use for the operating system they're running on their server.

You only need a few requirements to configure your TFTP. Create a folder named **SMART** under the TFTP server's root directory. This is where you can locate the synchronized SE/VE files.

Configuration Files

The central configuration file located in the SMART folder holds all of the information required to synchronize the hubs.

Inside the SMART folder, create a text file and name it **Hub_SE240_firmware.cfg** for the SMART Hub SE240, or **Hub_VE220_firmware.cfg** for the SMART Hub VE220. Then place the file in the SMART directory located on the TFTP server.

The content in the text files must follow the same file format as the settings configuration files. Each line must contain a "key=value" pair. Refer to the *Configuring SNMP Settings* on page 26 for a list of keys and their corresponding values, as all actions are based on these pairs. To find these pairs, follow these instructions:

- Ignore lines with nothing but white space.
- Ignore lines with # signs in front as they are comments.

Initializing Synchronization

Once you've configured your TFTP server settings, you must create a synchronization event by initiating synchronization, or scheduling an update.

Firmware Updates

You have to configure your firmware updates. To do so, add **_TFTP_APP_NAME=<name of bin file>** to the **Hub_SE240_firmware.cfg** or **Hub_VE220_firmware.cfg** file.

For example, to update new SE240 firmware to a newer version, put **Hub_SE240_firmware.cfg** contents into the **SMART** folder. This is the TFTP server/firmware location configuration file. It identifies what version of firmware the hub should load when it connects to the TFTP server.



IMPORTANT

This file must be named **Hub_SE240_firmware.cfg** or **Hub_VE220_firmware.cfg**.

The next time your hub checks the TFTP server for data, it sees that the TFTP should be running the version identified by **Hub_SE240_app_v2.4.3.0_09-06-03.bin**.

If it isn't, it downloads the file from the SMART folder on the TFTP server and reboots after the new firmware installs.

Updating Your Hub's Firmware

To update your hub's firmware

Press your hub's **Update Now** button.

You can also schedule your hub to perform daily updates at specific times.

Configuring SNTP Settings

As with TFTP, you must set up an SNTP server on a separate computer, and then configure the hubs to communicate with the SNTP server through a specified domain/IP computer address and port number.

Once you've configured the SNTP server, the current time will show the time according to the SNTP server. Once the hubs' time is set, the configuration determines when the TFTP updates will occur.

To update SNTP/TFTP configurations

1. Select **System >Settings**.

The *Settings* dialog box appears.

2. If you have a SMART Hub SE240, press **Network and Conference**.

OR

If you have a SMART Hub VE220, press **Network**.

3. Press **Update (SNTP/TFTP)**.
 4. Type a name for the server in the *SNTP server* box in the SNTP settings, and then type **123** in the *Port number* box.
 5. Type a name for the server in the TFTP server box in the TFTP settings, and then type **69** in the *Port number* box.
-

Configuration Settings and Files

NOTE

Some of these settings don't apply to the SMART Hub SE240. They apply to the SMART Hub VE220 only.

Key	Value	Description
Language	<ul style="list-style-type: none"> • English • Français • Italiano • Español • Deutsch 	Sets system to a specified language.
In1EDID	<ul style="list-style-type: none"> • Analog • Digital 	Configures the EDID data on the Computer Input #1 to return analog or digital data.
In2EDID	<ul style="list-style-type: none"> • Analog • Digital 	Configures the EDID data on the Computer Input #2 to return analog or digital data.
OutputFormat	<ul style="list-style-type: none"> • SVGA (800 × 600), 60 Hz • XGA (1024 × 768), 60 Hz • WXGA (1360 × 768), 60 Hz • WXGA (1280 × 800), 60 Hz • SXGA (1280 × 1024), 60 Hz • 720p (1280 × 720), 50 Hz • 1080i (1920 × 1080), 50 Hz • 1080p (1920 × 1080), 50 Hz • 1080p (1920 × 1080), 30 Hz 	Configures the output resolution.
SleepTimeout	<ul style="list-style-type: none"> • 5 minutes • 10 minutes • 15 minutes • 30 minutes • 45 minutes • 60 minutes • No timeout 	Sets the elapsed time before the video output enters sleep mode.

Key	Value	Description
ShutdownTimeout	<ul style="list-style-type: none"> • 15 minutes • 30 minutes • 45 minutes • 60 minutes • No timeout 	Sets the elapsed time before a configured projector turns off.
bridBridgitServer	User defined	Provides the server's name. For example, bridgit.smarttech.com (SE240 only).
bridViewPassword	User defined	Shows the for the SMART Bridgit server (SE240 only).
bridCreatePassword	User defined	Creates a meeting for the SMART Bridgit server (SE240 only).
bridDefaultConf	User defined	Default SMART Bridgit meeting name, unless otherwise specified (SE240 only).
bridEnabled	<ul style="list-style-type: none"> • false • true 	Enables SMART Bridgit conferencing (SE240 only).
DVI1Label	User defined	DVI #1 Input label
DVI2Label	User defined	DVI #2 Input label (SE240 only).
SVideoLabel	User defined	S-Video Input label (SE240 only).
CompositeLabel	User defined	Composite Input label (SE 240 only).
SMTP Enable	<ul style="list-style-type: none"> • false • true 	Enables SMTP support.
SMTPServer	User defined	Uses the SMTP server. For instance mail.smarttech.com .
SMTPPortNum	User defined	Use 25 as the default number for the SMTP port.
TFTPServer	User defined	Use the TFTP server to configure your hub.

Key	Value	Description
TFTPPortNum	User defined	Use 69 as the TFTP port number.
SNTPServer	User defined	Use the SNTP server. For instance, time-a.nist.gov .
SNTPPortNum	User defined	Use 123 as the SNTP port number.
SNMPEnable	<ul style="list-style-type: none"> • false • true 	Enables SNMP support.
AUTO_UPDATE_MODE	0: Disabled 1. 00:00:00 2. 04:00:00 3. 08:00:00 4. 12:00:00 5. 16:00:00 6. 20:00:00	Time in SNTP at which your hub checks the TFTP server for updated settings or configuration information.
SNMPUseSettingsP/W	<ul style="list-style-type: none"> • false • true 	Uses the settings instead of manually configuring the read/write community strings.
SNMPSysContact	User defined	System contact information.
SNMPSysLocation	User defined	System location information.
SNMPReadCommunityString	User defined	SNMP read community string.
SNMPWriteCommunityString	User defined	SNMP write community string.
SNMPTrapAddress	User defined	Sends your SNMP traps to this location.
RmCtlTelnetEnable	<ul style="list-style-type: none"> • false • true 	Enables TELNET room control (SE240 only).
RmCtlTelnetPortNum	User defined	Uses 23 as the port's default number.
EthernetEnable	<ul style="list-style-type: none"> • false • true 	Enables the Ethernet port.
USBStorageEnable	<ul style="list-style-type: none"> • false • true 	Enables USB storage support.

Key	Value	Description
RoomcontrolEnable	<ul style="list-style-type: none"> • false • true 	Enables room control (SE240 only).
SettingsReqP/W	<ul style="list-style-type: none"> • false • true 	Creates a to modify settings from the settings menu.
SettingsLmtdAccess	<ul style="list-style-type: none"> • false • true 	Enables limited access to settings without a .
SettingsPassword	User defined	Creates a settings to gain limited access to the above settings.
DisplayControlFile	<ul style="list-style-type: none"> • None • Automatically detect • SMART\NEC42_50_60XP10S cript.lua • SMART\UF55_UX60Script.lua • SMART\UF45Script.lua • User defined 	Uses this file to control attached displays.
ImportDisplayFile	User defined	Import this file's name into the hub.
_TFTP_APP_NAME	User defined	Download and run this application.
_PRODUCT_KEY	SE-xxxxx-xxxxx-xxxxx-xxxxx	Uses the product key number to upgrade your VE220 (or several VE220s), to an SE240.
_ACTIVATION_KEY	xxxx-xxxxx-xxxxx-xxxxx-xxxx	Uses the activation key specific to your SMART Hub VE220 to obtain a product key number.

Exporting and Importing Configuration

If you have more than one hub, you can configure one unit, export the configuration settings to a USB storage device, and then import the configuration settings to the other units.

NOTES

- Procedures vary depending on whether you have a SMART Hub SE240 or a SMART Hub VE220.
- The export process doesn't include orientation data on the USB storage device.

To export configuration settings to a USB storage device

1. Connect a USB storage device to your hub.
2. Select **System > Settings**.

NOTE

If a is required to change the configuration settings, type the in the box at the bottom of the menu, and then press **OK**.

3. Press **Administration**, and then ensure the *Enable USB storage device support* check box is selected.
4. Press **Export Settings**.
The *Settings* dialog box appears.
5. Select either the **SMART Hub SE240 system settings** check box or the **SMART Hub VE220 system settings** check box.
6. Select the **E-mail Contacts** check box to import/export contacts.
7. Press **OK**, and then press **OK** again.

To import configuration settings from a USB storage device

1. Connect the USB storage device to your hub.
2. Select **System > Settings**.
3. Press **Administration**, and then ensure the *Enable USB storage device support* check box is selected.
4. Press **Import Settings**.
The *Settings* dialog box appears.
5. Select the **SMART Hub SE240 system settings** check box or the **SMART Hub VE220 system settings** to import configuration settings, and the **E-mail Contacts** check box to import your contacts.
6. Press **OK**.
The *Settings* dialog box appears.
7. Press **Restart** to end the current session and start a new session using the imported configuration settings.

Securing Configuration Settings

You can assign a *a* to protect the configuration settings.

To apply a *a* to configuration settings

1. Select **Systems > Settings**.
The *Settings* dialog box appears.
 2. Press **Administration**.
 3. Select the *Require to access system settings* check box to require users to enter a *a* to change the configuration settings.
The *Settings* dialog box appears.
- i NOTE**
If the *Require to access system settings* check box was previously selected, press **Set Password** to open the *Settings Administrator Password* dialog box.
4. Type the *a* in the *Password* and *Confirm* boxes, and then press **OK**.
 5. Select the **Enable limited access to settings without** check box to allow users to change the display settings and language settings, but not change other settings.
 6. Press **Apply All**.

Chapter 3

Using Your Hub

This chapter contains information on the following topics:

- *Basic Tools* on page 34
- *System Help* on page 35
- *Starting Your Hub Session* on page 35
- *Whiteboarding* on page 36
- *Saving or E-Mailing a File* on page 37
- *Using Your SMART Product with Computer Inputs* on page 38

Basic Tools

Sidebar

For the SMART Hub SE240, the sidebar menu allows you to move between SMART Bridgit meetings, computer and video source sessions and Whiteboarding. See the *Using Your SMART Hub VE220 Quick Reference* ([document 144102](#)) if you have a SMART Hub VE220.

For the SMART Hub VE220, the sidebar helps you navigate between features. See the *Using Your SMART Hub SE240 Quick Reference* ([document 124621](#)) if you have a SMART Hub SE240.

Page Sorter

The page sorter helps you navigate through your pages.

i NOTE

To minimize the sidebar, press the **Collapse** button. To move the sidebar, press the **Move Toolbar** button.

SMART Keyboard

If there's no keyboard connected to your hub, you can use SMART's on-screen keyboard to type information.

To access the SMART Keyboard

Press the **Keyboard**  button.

The SMART Keyboard appears.

i NOTE

The button appears at the right end of many text boxes, and on the sidebar when you're in Computer mode.

Right-Click

If you connect a computer to your hub and there's no mouse connected, you can simulate a right-click by pressing the interactive whiteboard's **Right-Click** button, and then pressing the interactive screen with your finger.

Volume Adjustment

If your hub is connected to speakers, adjust the volume by pressing **Volume**.

Adjust the volume by moving the slider up to increase the volume, or down to decrease the volume.



i NOTE

You can also control volume adjustment through the volume button on the SystemOn Module connected to the pen tray.

System Help

Your hub includes Help.

To view Help

1. Select **System > Help**.
2. Press a help topic to view the associated information.


Starting Your Hub Session

There are three ways to start a new session.

Situation	Procedure
Your SMART product is turned off.	Turn on your SMART product as documented in the user's guide.
Your SMART product is turned on, but the display is blank.	Swipe your finger or a pen tray pen across your SMART product's display.
Your hub has timed out and is in Sleep mode.	Swipe your finger or a pen tray pen across your SMART product's display.


Whiteboarding

Whiteboard allows you to capture notes and drawings in digital ink on your SMART product. Use Whiteboard for brainstorming, note-taking and other activities for which you want to use your SMART product's digital ink tools without connecting to a computer.

To create a file Press the **New File**  button.

A new file opens.

To open a file


1. Connect the USB storage device that contains the Whiteboard file to your hub, and then press the **File Open**  button.

The *File browser* dialog box appears.

2. Select the USB storage device's drive letter in the *Look In* list, and then browse to and select the file.


3. Press **Open**.

The file opens.

To add a page Press the **Add Page**  button.

A new page appears after the current page.

To delete a page

1. Select the page you want to delete, and then press the **Delete Page**  button.

A delete page confirmation appears.

2. Press **OK** to delete the page.


Saving or E-Mailing a File

You can save your file on a USB storage device or e-mail it in one of the following formats:

- Whiteboard file (.notebook)
- JPEG archive (.zip)
- Portable Document Format (.pdf)


After saving a file on a USB storage device, you can open, view and edit on a computer with SMART Notebook or SMART Meeting Pro™ software.

To save a file

1. Connect a USB storage device to your hub.
2. Press the **Save**  button.
3. Select the USB storage device's drive letter in the *Look In* list.
4. Browse to the folder where you want to save the file.



NOTE

Press the **New Folder**  button to create a new folder for the file.

5. Type a file name in the *File Name* box.
6. Select a file type in the *Save as type* list.
 - Whiteboard file (.notebook)
 - JPEG archive (.zip)
 - Portable Document Format (.pdf)




NOTE

If you select **JPEG Archive (.zip)**, your hub saves each page in the Whiteboard file as a JPEG image and then archives them in a single zip file.

7. Press **Save**.
-

To e-mail a file

1. Press the **E-mail**  button.

The *File Browser* dialog box appears.

2. Select the recipient in the *Recipient* list.

OR

Type the recipient's e-mail address in the *E-mail address* box.

i NOTES

- Add a new recipient or edit the list of recipients by pressing the appropriate button in the upper right corner of the *E-mail* dialog box.
- If you're using the on-screen keyboard to type e-mail addresses, press **SHIFT + 2** for the @ symbol.

3. In the *Save as type* list, select a file type.

- Whiteboard file (.notebook)
- JPEG archive (.zip)
- Portable Document Format (.pdf)

i NOTE

If you select **JPEG Archive (.zip)**, your hub saves each page in the Whiteboard file as a JPEG image and then archives them in a single zip file.

4. Press **Send E-mail**.


Using Your SMART Product with Computer Inputs

When viewing computer input, you can draw digital ink notes on the display. If you want to save your digital ink notes, you can take a screen capture of the display.

To draw digital ink notes on the display

1. Pick up a pen tray pen.

OR


Press the **Pen**  button on the sidebar.

2. In the pen toolbar, select the appropriate color and thickness options, and then draw digital ink.

To erase digital ink


1. Pick up the eraser from your SMART product's pen tray.

OR

Press the **Eraser**  button on the sidebar.

2. Erase your digital ink notes.
-

To clear the display

Press the **Clear**  button.

Digital ink notes disappear from the display.

To freeze the display

Press the **Freeze**  button.

The display freezes.

To capture the display

Press the **Capture**  button.

The last page in the page sorter contains a screen capture of the display.

Chapter 4

Maintaining Your SMART Hub

This chapter contains information on the following topics:

- *Enabling Your Hub's Audio Feature* on page 42
- *Updating the SMART Hub SE240's Firmware* on page 43
- *Upgrading to a SMART Hub SE240* on page 44

Enabling Your Hub's Audio Feature

If you want to access your hub's audio feature, you need to remove your hub's cover plate.

IMPORTANT

This section applies to the SMART Hub VE220 only.

To remove the hub's cover plate

1. Using a Phillips No. 1 screwdriver, remove the two screws securing the hub's cover plate.
2. Pry the plastic cover off of the hub with a flat-headed screwdriver, or a similar device.

NOTE

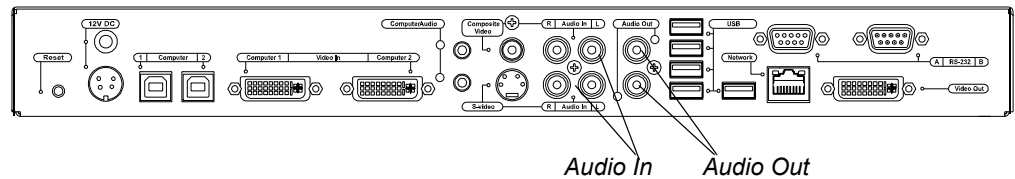
An adhesive glue holds the plastic plate to the hub. Don't use a lot of force when removing the plate.

You now have access to the hub's audio feature.

To enable the hub's audio feature

Once you've removed the hub's cover plate, connect a 3.5 mm audio cable to Port one, as per the diagram below. Only the Audio In and Audio Out ports are enabled on this hub.

Do not use cables in any of the other ports.



Updating the SMART Hub SE240's Firmware

SMART periodically releases firmware updates that introduce new functions or correct known issues with existing functions.

You can update your hub's firmware using a USB storage device.

To determine if an update is required

1. Select **System > Settings**.
The *Settings* dialog box appears.
2. Press **System & Language**.
The current version of the firmware appears in the *System Information* section of the tab.
3. Go to www.smarttech.com/SE240firmware for the SMART Hub SE240 or www.smarttech.com/VE220firmware for the SMART Hub VE220 to determine the latest available version of the firmware.



NOTE

If the latest version of the firmware is newer (if the number is higher) than your current version, you need to update the firmware.

To update the firmware

1. Connect the USB storage device to a computer with Internet access.
2. Go to www.smarttech.com/SE240firmware for the SMART Hub SE240.
OR
Go to www.smarttech.com/VE220firmware for the SMART Hub VE220.
3. Download the latest version's application files to the following location on the USB storage device:
\SMART
4. Disconnect the USB storage device from the computer, and then connect it to one of the USB A receptacles on your hub.
5. Select **Systems > Settings**.
The *Settings* dialog box appears.

6. Select **Administration > Firmware Update**.

The *Settings* dialog box appears.

7. Select the **Bootloader** check box, and then press **OK**.
8. Press **Restart**.

 **NOTE**

The initial reset after updating the firmware can take several minutes.

Upgrading to a SMART Hub SE240

You can upgrade your SMART Hub VE220 to a SMART Hub SE240 for additional features and benefits, such as:

- collaboration with remote computers using SMART Bridgit software
- more extensive audio and video input and output options
- serial room control capability
- ability to make notes over video sources

 **IMPORTANT**

Before you can upgrade your SMART Hub VE220, you must purchase a product upgrade key from your [authorized SMART reseller](#).

To upgrade your SMART Hub VE220 firmware

1. Select **System > Settings**.
2. Press **Upgrade Hub to SE240**.
3. Type the product key number into the *Product Key* box.

 **NOTE**

The product key number follows this format: SE-XXXX-XXXX-XXXX-XXXX.

4. If you have an Internet connection, press **Upgrade**.

OR

If you don't have an Internet connection and are activating your hub manually, select **Manual Activation**, and then type your activation key.

 **NOTES**

- If you don't have an Internet connection, contact [SMART Technical Support](#) and they will send you an activation key. You must provide your product key and installation ID in order to receive your activation key.
- You only need to request an activation key if you don't have an Internet connection and are activating your hub manually.

Upgrading Your SMART Hub VE220 Using a Product Key File

IMPORTANT

This section applies to the SMART Hub VE220 only.

To upgrade your VE220 using a product key file

1. Connect a USB storage device to your computer's USB interface.
2. Create a folder named **SMART** on the USB storage device.
3. Create a text file with the following text:


```
_PRODUCT_KEY =SE-XXXX-XXXX-XXXX-XXXX
```

Replace the XXXX section with your product key.
4. Save the file as **SMART_upgrade_keys.txt** in the **SMART** folder on the USB storage device.
5. If you have an activation key, you can add it to the text file in this format:

```
_ACTIVATION_KEY = XXXXXXXXXXXXXXXXXXXXXXXXX
```

NOTE

If you don't have your activation key, contact the [SMART Support site](#) and they will send it to you. You must provide your product key and installation ID in order to receive your activation key.

6. Disconnect the USB storage device from your computer and connect it to the SMART Hub VE220's USB interface.
7. Select **System > Settings**.
8. Select **Upgrade Hub to SE240**.
9. Press the **Get from File** button.
10. Press **Upgrade**.

NOTES

- You don't have to type dashes when you enter your activation or product key numbers.
- Your Installation ID is unique to your SMART Hub VE220.

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.

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 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.

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 www.smarttech.com/where.

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 (U.S./Canada) (Monday to Friday, 5 a.m. – 6 p.m. Mountain Time)
Fax	+1.403.806.1256
E-mail	support@smarttech.com

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

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

SMARTTM

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