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FPC58-0714-02



### DECLARATION OF CONFORMITY according to FCC Part 15

Responsible Party Name: **Fujitsu PC Corporation**  
Address: **5200 Patrick Henry Drive  
Santa Clara, CA 95054**  
Telephone: **408-982-9500**

Declares that product: **Model Series: Stylistic® ST4000P  
Complies with Part 15 of the FCC Rules**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and, (2) This device must accept any interference received, including interference that may cause undesired operation.

**Note:** For more detailed information about the FCC rules and their applicability to the Stylistic ST4000P Series pen tablet PC, refer to Chapter 5 of this document.



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# Preface



# Preface

## ABOUT THIS GUIDE

The Stylistic® ST4000P Series pen tablet PC is a high-performance, pen-based computer that has been designed to support Microsoft®Windows® 2000 Professional or Windows XP Professional.

This manual explains how to operate your Fujitsu Stylistic ST4000P Series pen tablet PC's hardware and built-in system software.

The Stylistic ST4000P Series pen tablet PC is a completely self-contained unit with an active-matrix (TFT) color LCD display and a passive Touch Panel. It has a powerful interface that enables it to support a variety of optional features.

### Conventions Used in the Guide

Keyboard keys appear in brackets.

Example: [Fn], [F1], [ESC], [ENTER] and [CTRL].

Pages with additional information about a specific topic are cross-referenced within the text.

Example: (See page xx.)

On screen buttons or menu items appear in bold

Example: Click **OK** to restart your pen tablet PC.

DOS commands you enter appear in Courier type.

Example: Shut down the computer?



### POINT

The point icon highlights information that will enhance your understanding of the subject material.



### CAUTION

The caution icon highlights information that is important to the safe operation of your computer, or to the integrity of your files. Please read all caution information carefully.



### WARNING

The warning icon highlights information that can be hazardous to either you, your Stylistic ST4000P Series pen tablet PC or your files. Please read all warning information carefully.

## FUJITSU CONTACT INFORMATION

### Service and Support

You can contact Fujitsu Service and Support in the following ways:

- Toll free: 1-800-8Fujitsu (1-800-838-5487)
- Fax: 1-901-259-5700
- E-mail: 8fujitsu@fujitsupc.com
- Web site: <http://www.fujitsupc.com>

Before you place the call, you should have the following information ready so that the customer support representative can provide you with the fastest possible solution:

- Product name
- Product configuration number
- Product serial number
- Purchase date
- Conditions under which the problem occurred
- Any error messages that have occurred
- Hardware configuration
- Type of device connected, if any

### Fujitsu Online

You can go directly to the online Fujitsu product catalog for your pen tablet PC by going to the Fujitsu web site at: <http://www.fujitsupc.com>



### POINT

You must have an active internet connection to use the online URL links.

## WARRANTY INFORMATION

Your Stylistic ST4000P Series pen tablet PC is backed by either a standard one year International Limited Warranty. A three-year International Limited Warranty is available as an option. Check the service kit that came with your system for warranty terms and conditions.

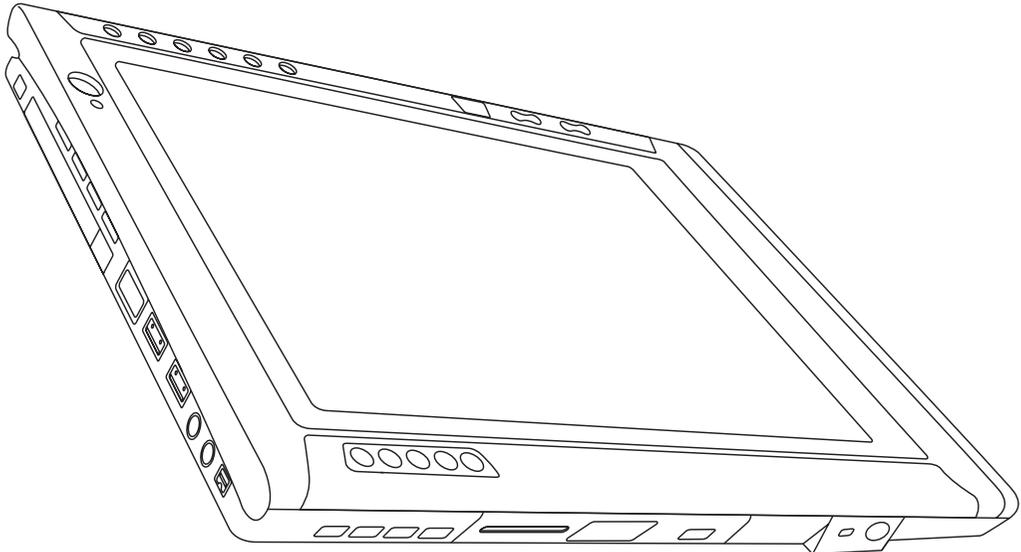




# Getting Started with Your Pen Tablet PC



# Getting Started with Your Stylistic Pen Tablet PC



*Figure 1-1 Stylistic ST4000P Series Pen Tablet PC*

The Stylistic® ST4000P Series pen tablet PC is a high-performance, pen-based computer that has been designed to support Microsoft® Windows® 2000 Professional or Windows XP Professional. This chapter provides an overview of the Stylistic ST4000P Series pen tablet PC and its features.

## **IN-BOX ITEMS FOR THE STYLISTIC ST4000P SERIES PEN TABLET PC**

Verify that the following items are included in the box with your pen tablet PC:

- Stylistic ST4000P Series battery
- Power cord
- AC adapter
- Screen protectors (quantity: 2)
- Stylistic ST4000P Series pen
- Pen tips (quantity: 5)
- Pen tether

## OPTIONAL ACCESSORIES

The following optional accessories\* can be used with the Stylistic ST4000P Series pen tablet PC. Refer to the instructions provided with these accessories for details on their use.

Peripheral/Accessory	Fujitsu Part Number
<b>Docking Options</b>	
Stylistic ST4000 Series Tablet Dock, with CD-ROM drive	FPCPR33AP
Stylistic ST4000 Series Tablet Dock, with Combo DVD/CD-RW drive	FPCPR32AP
<b>Carrying Cases</b>	
Stylistic ST4000 Series executive leather portfolio case	FPCCC25
Stylistic ST4000 Series ballistic nylon portfolio case	FPCCC26
Stylistic ST4000 Series Bump Case	FPCCC24
Harsh Environment Case	FPCCC27
<b>Storage Options</b>	
External USB floppy disk drive	FPCFDD12
<b>Memory</b>	
256MB SO DIMM, 133MHz	FPCEM43
512MB SO DIMM, 133MHz	FPCEM44
128MB Compact Flash Card	FPCEM02
256MB Compact Flash Card	FPCEM03
Compact Flash Card Adapter	FPCFA01
<b>Power Options</b>	
AC adapter with US cord	FPCAC23
Main Battery	FPCBP63AP
Auto/Airline Adapter	FPCAA02
Battery Charger	FPCBC06
<b>Additional Accessories</b>	
Infrared keyboard	FPCKB41A1P
USB keyboard	FMWKB5A
Infrared Mouse	FPCMO07
Stylistic ST4000P Series pen (5-pack)	FPCPN08AP
Screen Protectors (12-pack)	FPCSP03AP
Pen tether	FMWST2

\* For the latest list of accessories available for your Stylistic ST4000P Pen Tablet PC, be sure to frequently check the Fujitsu Web site at: [www.fujitsupc.com](http://www.fujitsupc.com).

Table 1-1 Stylistic ST4000P Optional Accessories

## STYLISTIC PEN TABLET PC FEATURES

Features and controls that you use to operate the Stylistic ST4000P Series pen tablet PC are outlined below and illustrated in Figures 1-1 through 1-5. Details on using these features and controls are provided later in this manual.

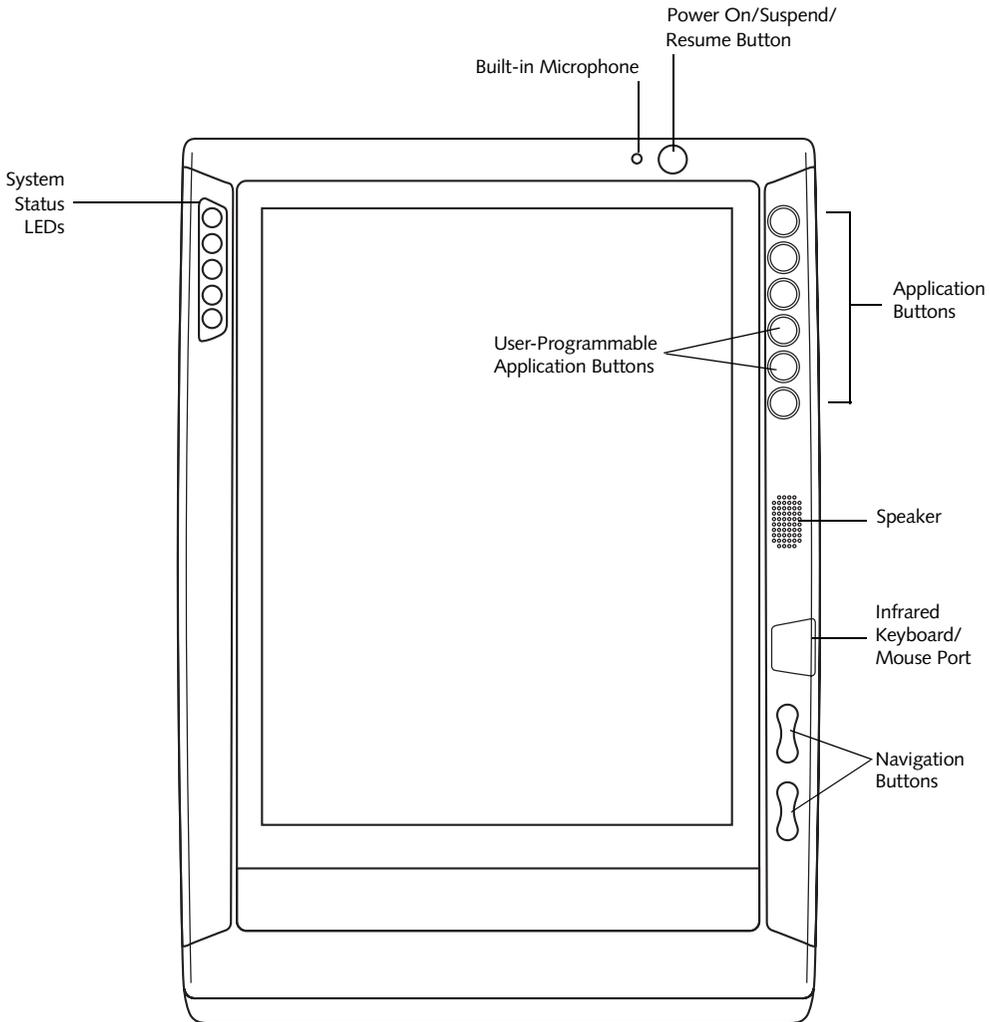


Figure 1-2 Stylistic ST4000P Series Pen Tablet PC Features (Front View)

### Front Features:

- **System status LEDs:** Indicate the operational status of the pen tablet PC and hard disk drive, the charge level of the battery, and the status of the hovering mode.
- **Power On/Off/Suspend/Resume button:** Allows you to turn on, off, suspend, resume, hibernate or wake the pen tablet PC's operation in order to optimize battery life.
- **Infrared keyboard/mouse port:** The infrared port wraps around the front and bottom of the display, and is used for communicating with a proprietary infrared keyboard or mouse.<sup>†</sup>
- **Application buttons:** Allow you to quickly launch pre-defined applications and utilities by pressing a button.
- **Navigation buttons:** The navigation buttons allow you to move: Page Up/Page Down, Tab Right/Tab Left, Cursor Up/Cursor Down, and Cursor Right/Cursor Left.
- **Speaker:** Allows you to listen to mono audio files.
- **Built-in Microphone:** The built-in microphone allows you to input mono audio.

<sup>†</sup> These peripherals and accessories are sold separately.

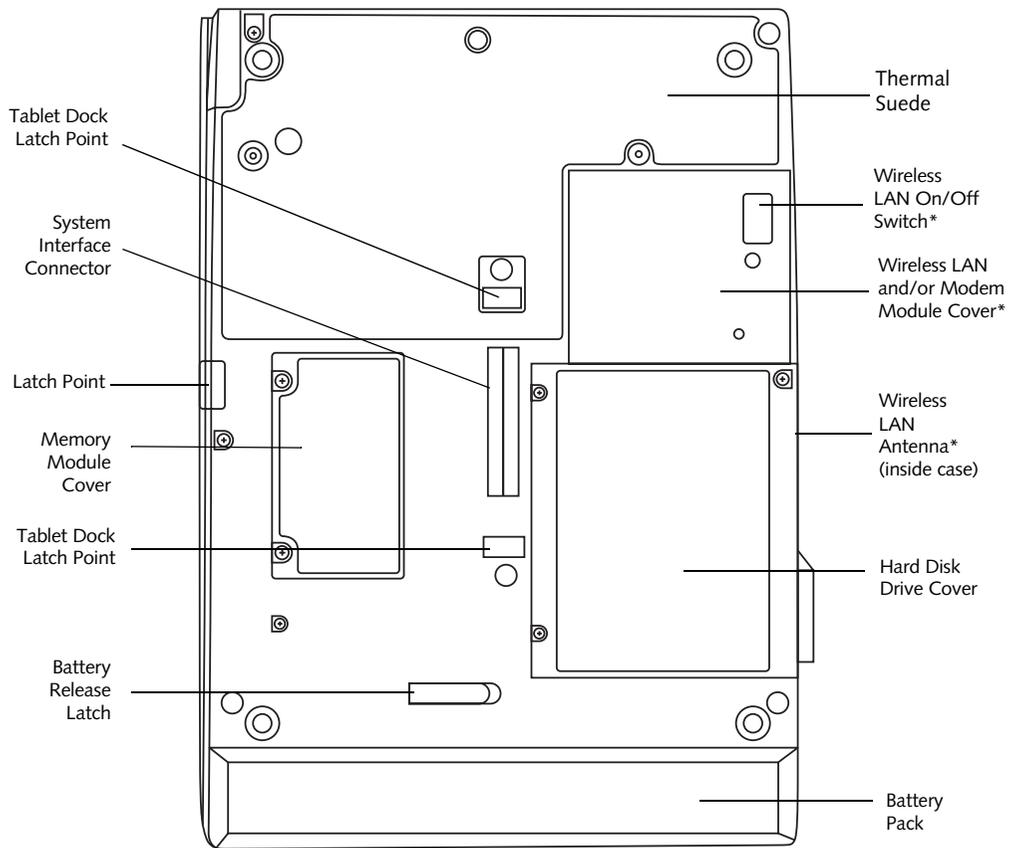


Figure 1-3 Stylistic ST4000P Series Pen Tablet PC Features (Back View)

\* The system is configured with one of two modules: a standard modem module or an optional wireless LAN/modem combo module.

#### Back Features:

- **System interface connector:** Allows you to connect the optional Stylistic Tablet Dock.<sup>†</sup>
- **Removable battery:** Can be removed and replaced with a charged battery.<sup>†</sup>
- **Battery release latch:** Used to release the removable battery.
- **Tablet Dock latch point:** Allows you to attach the system to an optional Tablet Dock.<sup>†</sup>
- **Memory module cover:** Removable cover over the memory modules.
- **Thermal Suede:** Several areas of the system back are

covered with “thermal suede”. This material should not be removed. It is designed to minimize the temperature of the system for the user when a running system is carried for a period of time.

- **Wireless LAN module cover:** Provides protection for the optional wireless LAN radio solution.<sup>†</sup>
- **Wireless LAN On/Off switch:** For systems with a wireless device installed, this switch turns the device on and off. You should switch the device off when it is not in use in order to maximize battery life.
- **Hard disk drive cover:** Covers the hard disk drive module.

<sup>†</sup> These peripherals and accessories are sold separately.

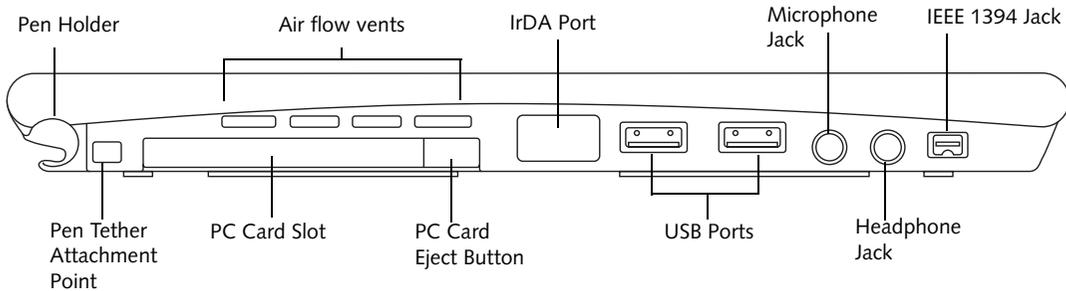


Figure 1-4 Stylistic ST4000P Series Pen Tablet PC Features (Top View)

#### Top Features:

- **Pen:** The main input device that you use to execute programs and enter data. A pen holder is built into the pen tablet PC to store the pen when not in use.
- **Microphone Jack:** Allows you to connect an external microphone.
- **Headphone Jack:** Allows you to connect a set of stereo headphones.
- **PC Card slot:** Allows you to install PC Cards in the system.
- **IrDA/FIR port:** Provides an infrared interface for communication with devices compliant with IrDA Standard Revision 1.1.
- **USB ports:** Allow you to connect Universal Serial Bus-compliant devices (compliant with USB Standard Revision 1.1) to the pen tablet PC. Additional USB ports are located on the optional Tablet Dock.
- **IEEE 1394 Jack:** Allows you to connect between your pen tablet PC and peripherals such as a digital video camera.
- **Air flow vents:** Provides secondary cooling for processor. (Do not obstruct the vents.)

† These peripherals and accessories are sold separately.

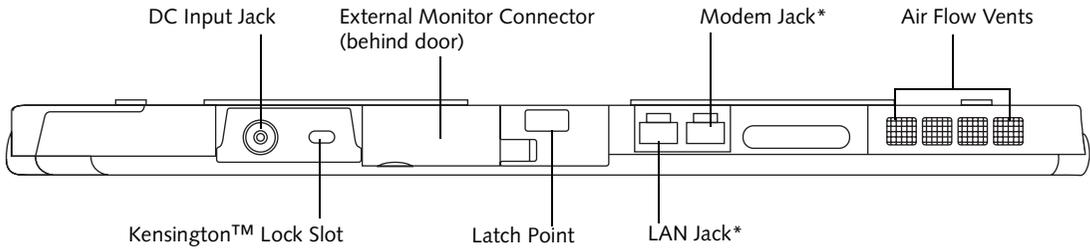


Figure 1-5 Stylistic ST4000P Series Pen Tablet PC Features (Left Side View)

\* The system is configured with one of two modules: a standard modem module or an optional wireless LAN/modem combo module. The mini-PCI expansion slot into which these modules are plugged (located under the cover) can be used to accommodate other mini-PCI devices.

**Left-Side Features:**

- **Modem jack:** Allows you to connect a standard RJ-11 connector to the pen tablet PC's internal 56 Kbps modem. Note that the internal 56 Kbps LAN/modem module installed in the Stylistic ST4000P Series pen tablet PC has actual maximum transfer rates of 53 Kbps (receive), 33.6 Kbps (send), and 14.4 Kbps (fax). Download rates are limited to 53 Kbps in the United States due to FCC restrictions.
- **LAN jack:** Allows you to connect a standard RJ-45 connector to the pen tablet PC's internal local area network (LAN).
- **DC input connector:** Allows you to connect the AC adapter or auto adapter.<sup>†</sup>
- **Air flow vents:** Provides secondary cooling for processor. (Do not obstruct the vents.)
- **Kensington™ lock slot:** Allows you to attach a Kensington MicroSaver™-compatible security cable.<sup>†</sup>
- **External Monitor Connector:** The External Monitor connector allows you to connect an external CRT monitor.

<sup>†</sup> These peripherals and accessories are sold separately.

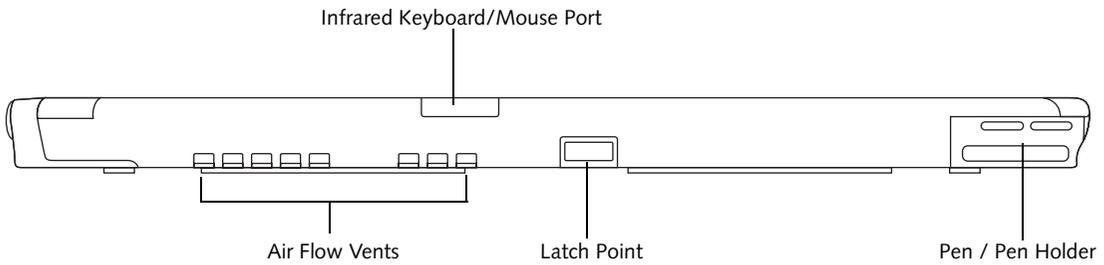


Figure 1-6 Stylistic ST4000P Series Pen Tablet PC Features (Right Side View)

#### Right-Side Features:

- **Pen:** The main pointing device that you use to execute programs and enter data. A pen holder is built into the pen tablet PC to store the pen when not in use.
- **Air flow vents:** Provides secondary cooling for processor. (Do not obstruct the vents.)
- **Infrared keyboard/mouse port:** The infrared port wraps around the front and bottom of the display, and is used for communicating with a proprietary infrared keyboard or mouse.<sup>†</sup>
- **Tablet Dock latch point:** Allows you to attach the system to an optional Tablet Dock.<sup>†</sup>

<sup>†</sup> These peripherals and accessories are sold separately.

## STATUS DISPLAY

Icons appear in the Status display indicating the status of system functions such as system power and battery charge level. The location of icons in the Status display is shown in Figure 1-7.

Table 1-2 explains how individual icons are displayed, and describes what the variations of that display indicate. (If an icon is not displayed, it indicates that the related system function is off or inactive.)

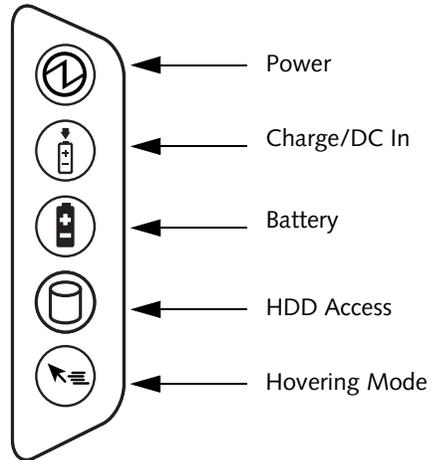


Figure 1-7 Status Display Icons

In the following table, a “blinking” LED flashes at the rate of once per second; an LED that is “blinking, slow” flashes at the rate of one second on, five seconds off.

Icon	Mode/State	LED State	Remarks
	<ul style="list-style-type: none"> <li>On State</li> <li>Idle Mode</li> </ul>	Green, continuous	The system is powered on and ready for use.
	<ul style="list-style-type: none"> <li>Suspend-to-RAM</li> </ul>	Green, blinking	The system has suspended and saved active settings to RAM.
	<ul style="list-style-type: none"> <li>Off State</li> <li>Hibernate (Save-to-Disk)</li> </ul>	Off	The system has suspended and saved settings and data to the hard disk drive.
<p>Charge/ DC In</p> 	<ul style="list-style-type: none"> <li>On State</li> <li>Idle Mode</li> </ul>	Amber	AC adapter and battery are available and system is charging.
	<ul style="list-style-type: none"> <li>Suspend-to-RAM</li> <li>Hibernate (Save-to-Disk)</li> <li>Off State</li> </ul>	Green	<ul style="list-style-type: none"> <li>AC adapter and battery are available and system is not charging (battery fully charged).</li> <li>AC adapter is available but battery is not present.</li> </ul>
		Amber, blinking	AC adapter and battery are available and waiting to charge (battery is out of thermal range).
		Off	AC adapter is not available.

In the following table, a “blinking” LED flashes at the rate of once per second; an LED that is “blinking, slow” flashes at the rate of one second on, five seconds off.

Icon	Mode/State	LED State	Remarks	
<b>Battery</b> 	<ul style="list-style-type: none"> <li>On State</li> <li>Idle Mode</li> </ul>	Green, continuous	Battery charge is between 50%-100%	
		Amber, continuous	Battery charge is between 13%-49%	
		Red, continuous	Battery charge is between 0%-12%	
		Red, blinking	There is a battery error.	
	<ul style="list-style-type: none"> <li>Suspend-to-RAM, without AC adapter</li> <li>Suspend-to-RAM with AC adapter</li> </ul>	Green, blinking slow	Battery charge is between 50%-100%.	
		Amber, blinking slow	Battery charge is between 13%-49%.	
		Red, blinking slow	Battery charge is between 0%-12%.	
	<ul style="list-style-type: none"> <li>Hibernate (Save-to-Disk), with AC adapter</li> <li>Off State</li> </ul>	Off	Battery is not installed, or system is off or in Hibernate mode.	
<ul style="list-style-type: none"> <li>Hibernate (Save-to-Disk), without AC adapter</li> </ul>				If battery is inserted during power off, LED blinks amber for 4 seconds to detect battery. Battery status is displayed for 5 seconds after that.
<b>HDD Access</b> 	<ul style="list-style-type: none"> <li>On State (or flashing)</li> <li>Idle Mode</li> </ul>	Green	Displayed when hard disk drive is accessed.	
		Off	Hard disk drive is not being accessed.	
	<ul style="list-style-type: none"> <li>Suspend-to-RAM</li> <li>Hibernate (Save-to-Disk)</li> <li>Off State</li> </ul>	Off		
<b>Hovering Mode</b> 	<ul style="list-style-type: none"> <li>Hovering mode</li> </ul>	Green	Hovering mode is active.	
	<ul style="list-style-type: none"> <li>Non-hovering mode</li> </ul>	Off	Hovering mode is not active.	

Table 1-2 System Status Indicators

## APPLICATION BUTTONS

The six application buttons are located on the upper right-hand side of a vertically-oriented system. (See figure 1-2 on page 3 for location). Three of the buttons have secondary functions. The secondary functions are activated by pressing the Function (Fn) button while pressing the application button.

The buttons also have separate tertiary functions that can be used while the system is booting up. For more

information about the tertiary functions, refer to Table 1-5 on page 13.

### POINT

**Ctl-Alt-Del** is the only Application button that can be used while the system is logging on or when the system is locked (i.e., when you have the Logon or Computer Locked window showing on your desktop).

Button Icon and Name (Primary)	Tablet Icon (Fn + Button) (Secondary)	Description
 Ctl-Alt-Del Button		The <b>Ctl-Alt-Del</b> button performs two functions: <ul style="list-style-type: none"> <li>Pressing the <b>Ctl-Alt-Del</b> button for up to one second allows you to log on after boot, after locking the workstation, or after resuming from power management</li> <li>After log-on, pressing the <b>Ctl-Alt-Del</b> button for up to one second launches the Windows Task Manager.</li> </ul>
 Right-Click Button	 Hovering Mode	When you press the <b>Right-click</b> button, your pen switches its function from left mouse button to right mouse button emulation. To generate a right mouse button click, tap on the application button once and then tap on the display.  When you press the <b>Fn + Right-click</b> buttons at the same time, they provide a <b>Hovering</b> function. <b>Hovering</b> mode provides you with better cursor control. When hovering is enabled, the cursor can be positioned over an area of the screen without activating it. This is useful when you are attempting to read pop-up text associated with an icon, simulating mouse rollover, selecting a small icon, or beginning a paint session. Note that when Hovering Mode is active, the Hovering Mode Status Display LED is lit (see Table 1-2). Pressing the <b>Fn + Right-click</b> buttons at the same time again exits the <b>Hovering</b> function
 Orientation Button		When you press the <b>Orientation</b> button, the system screen orientation changes from portrait (vertical) to landscape (horizontal) or from landscape to portrait. When you would like to use the tablet as an eBook, for example, you would use the portrait orientation, when accessing spreadsheets, you would more typically use a landscape orientation.
 Escape Button	 Application A Button	The <b>Escape</b> application button acts the same way as an Escape key on a keyboard.  When you press the <b>Fn + Esc</b> buttons at the same time*, they act to invoke a pre-determined application or generate a combination keystroke, as assigned the Tablet Button Settings utility. (You can change the settings in <b>Control Panel -&gt; Tablet Button Settings</b> ).  By default, pressing the <b>Fn + Esc</b> combination acts the same as if you had pressed <b>Ctl + Esc</b> on a keyboard: the Start menu is launched.

Button Icon and Name (Primary)	Tablet Icon (Fn + Button) (Secondary)	Description
<p><b>ENT</b></p> <p>Enter Button</p>	<p><b>B</b></p> <p>Application B Button</p>	<p>The <b>Enter</b> application button acts the same way as an Enter key on a keyboard.</p> <p>Pressing the <b>Fn + Ent</b> buttons at the same time*, acts to invoke a pre-determined application or keystroke combination, as assigned the Tablet Button Settings utility. (You can change the settings in <b>Control Panel -&gt; Tablet Button Settings</b>).</p> <p>By default, pressing the <b>Fn + Ent</b> combination acts the same as if you had pressed <b>Alt</b> on a keyboard: it selects a main menu in the typical Windows application.</p>
<p><b>Fn</b></p> <p>Function Button</p>		<p>The <b>Function</b> button works in conjunction with the other application buttons to provide additional functionality for the buttons. Refer to specific details above.*</p> <p>Pressing the <b>Fn</b> button twice in succession (within the “sticky” time*), causes the Fujitsu menu to appear on your screen, allowing you to modify certain system settings.</p>

Table 1-3 Application Buttons - Primary and Secondary Functions

- \* The **Fn** button has a handy “sticky” feature that allows you to press the two buttons in immediate succession, rather than at exactly the same time. After pressing the **Fn** button, you have a short time (two or three seconds) to press the second button. Note that this feature is not available with the **Right-Click/Hovering** button.

## NAVIGATION BUTTONS

The two navigation buttons are located on the lower right-hand side of a vertically-oriented system. (See figure 1-2 on page 3 for location). Each of the buttons can be toggled by pressing either end of the button.

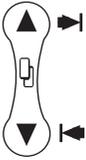
The buttons have dual functions. The secondary functions are activated by pressing the Function (Fn) button while pressing the application button\*.

The buttons also have separate tertiary functions that can be used while the system is booting up. For more

information about the tertiary functions, refer to Table 1-5 on page 13.

### POINT

**Ctl-Alt-Del** is the only Application button that can be used while the system is logging on or when the system is locked (i.e., when you have the Logon or Computer Locked window showing on your desktop).

Buttons/icons	Purpose (when pressed alone) ("Primary" function)	Purpose (when pressed with Fn button) ("Secondary" function)
	This button consists of Up and Down segments. When the Up portion is pressed, you will scroll up one page.  When the Down portion is pressed, you will scroll down one page.	When pressed with the Function (Fn) button*, the Up portion of this button allows you to tab right.  When pressed with the Function (Fn) button*, the Down portion of this button allows you to tab left.
	This button consists of Up and Down segments. When the Up portion is pressed, the cursor will move up.  When the Down portion is pressed, the cursor will move down.	When pressed with the Function (Fn) button*, the Up portion of this button will move the cursor to the right.  When pressed with the Function (Fn) button*, the Down portion of this button will move the cursor to the left.

\* The Fn button has a handy "sticky" feature that allows you to press the two buttons in immediate succession, rather than at exactly the same time. After pressing the Fn button, you have a short time (two or three seconds) to press the second button. Note that this feature is not available with the Right-Click/Hovering button.

Table 1-4 Navigation Buttons

## TERTIARY FUNCTIONS OF APPLICATION AND NAVIGATION BUTTONS

While you are booting up your system, the Application Buttons and Navigation buttons can be used for entering and navigating through the Basic Input-Output System (BIOS), and for invoking the Advanced Options Menu, where you can enter different modes (such as Safe Mode).

The BIOS is a program and a set of parameters that are stored in ROM which tests and operates your pen tablet PC from when you turn it on until it loads your installed

operating system from disk. Information from the BIOS is transferred to the operating system to provide it with information on the configuration and status of the hardware.

The system is booting up while the Fujitsu logo is displayed immediately after turning on the system. The table below indicates how the buttons act while the system is booting up and while you are in the BIOS.

Buttons/icons	Purpose (when pressed while the system is booting up)
 Ctl-Alt-Del Button	Pressing the <b>Ctl-Alt-Del</b> button while the system is booting up takes you into the BIOS setup utility. This is the same as if you had tapped [F2] on a keyboard.
 Right-Click Button	Pressing the <b>Right-Click</b> button while the system is booting up opens the Boot Options menu. This is the same as if you had tapped [F12] on a keyboard.
 Orientation Button	Pressing the <b>Orientation</b> button while the BIOS setup screen is open causes the selected item (if applicable) to change to the next item. Pressing this is the same as tapping the spacebar on a keyboard.
 Escape Button	Pressing the <b>Esc</b> button while the BIOS is open acts to escape from the BIOS. This is the same as if you had tapped [Esc] on a keyboard.
 Enter Button	Pressing the <b>Ent</b> button while the BIOS is open acts the same as the [Ent] button on a keyboard.
 Function Button	Pressing the <b>Fn</b> button while the system is displaying the operating system boot menu opens the Advanced Operating System Options menu. This menu allows you to enter different operating system modes (such as Safe Mode). Pressing this button is the same as if you had tapped [F8] on a keyboard.
	Pressing the top half of the upper navigation button while the BIOS setup screen is open causes the cursor in the BIOS setup screen to move up. This is the same as if you had tapped Arrow Up on a keyboard. This feature is also functional in the operating system boot menu.
	Pressing the bottom half of the upper navigation button while the BIOS setup screen is open causes the cursor in the BIOS setup screen to move down. This is the same as if you had tapped Arrow Down on a keyboard. This feature is also functional in the operating system boot menu.
	Pressing the top half of the lower navigation button while the BIOS setup screen is open causes the cursor in the BIOS setup screen to move right. This is the same as if you had tapped Arrow Right on a keyboard.
	Pressing the bottom half of the lower navigation button while the BIOS setup screen is open causes the cursor in the BIOS setup screen to move left. This is the same as if you had tapped Arrow Left on a keyboard.

Table 1-5 Tertiary Functions of Application and Navigation Buttons

## CONNECTORS AND PERIPHERAL INTERFACES

Connectors and peripheral interfaces on the Stylistic ST4000P Series pen tablet PC allow connection of a variety of devices. Specific locations are illustrated in Figures 1-2 through 1-5.

Table 1-6 provides a description of each peripheral connector on the Stylistic ST4000P Series pen tablet PC. Each of the illustrated icons is either molded into or printed on the pen tablet PC case.

Connector/ Peripheral	Pen Tablet PC Icon	Purpose
DC in connector		Connect an external power source such as the AC adapter or auto/airline adapter.
USB Port		Connect Universal Serial Bus 1.1 compliant devices to the pen tablet PC.
PCMCIA Card slot		Install a Type I or Type II PC Card.
Microphone jack		Connect an external microphone. The internal microphone is disabled when you plug in an external microphone.
Headphone jack		Connect stereo headphones or powered external speakers. The internal speaker is disabled when you plug in external headphones or powered speakers.
IrDA/FIR port		An infrared transceiver built into the pen tablet PC allows you to communicate with other devices that are compliant with the IrDA Standard Rev. 1.1. Effective range for infrared communication is about 3 feet, and within 15 degrees off center. A clear line-of-sight path must exist between the IrDA port on the pen tablet PC and the IrDA transceiver on the other device.
Modem		Connect a telephone line to the optional internal modem using a standard RJ-11 telephone plug.
Tablet Dock port		Connect the Stylistic ST4000P Series dock or other approved docking device. Refer to documentation accompanying the docking device for more information.
Infrared keyboard/ mouse port		An infrared receiver built into the pen tablet PC allows you to communicate with a wireless infrared keyboard or mouse. The keyboard infrared port works optimally between 10 to 30 cm (approximately 4 in. to 12 in.) from the keyboard infrared port, located on the bottom edge of the pen tablet PC. Ensure that there is a clear line-of-sight path between the infrared receiver on the pen tablet PC and the infrared transmitter on the keyboard or mouse.
Kensington™ Lock slot		The Kensington Microsaver™ security slot allows you to secure the pen tablet PC using Kensington-compatible locking devices.

Connector/ Peripheral	Pen Tablet PC Icon	Purpose
IEEE 1394 jack		The IEEE 1394 jack allows you to connect between your pen tablet PC and peripherals such as a digital video camera.
Suspend/ Resume button		The Suspend/Resume/Power On button allows you to suspend pen tablet PC activity without powering off, resume your pen tablet PC from suspend mode, and power on the system when it has been shut down from Windows.
Page Up/ Page Down		The Page Up/Page Down button allows you to navigate quickly from page to page without scrolling.
Local Area Network (LAN)		The LAN (RJ-45) jack is used to connect the internal Fast Ethernet (10/100 Base-T/Tx) to a Local Area Network (LAN) in your office or home, or broadband devices such as a cable modem, DSL, or satellite internet.
Battery Release Latch		The battery release latch allows you to remove the battery from your system for storage or replacement.
Wireless LAN On-Off Switch		The wireless LAN switch allows you to turn power to the optional wireless LAN device on and off.

Table 1-6 Peripheral Connectors/Interfaces





# 2

## Using Your Stylistic ST4000P Series Pen Tablet PC



# Using the Stylistic ST4000P Series Pen Tablet PC

This chapter covers the fundamental concepts, basic system operation and use, and system functions of the Stylistic ST4000P Series pen tablet PC. You should familiarize yourself with this information before you attempt to operate the system.

## POINT

Prior to using your system, be sure to **fully charge** the battery if you plan to run on battery power. Failure to do so may result in erratic performance.

## SYSTEM STATES

Before you begin using the Stylistic ST4000P Series pen tablet PC, review the different system states (or modes) that the system can use. Being familiar with these states will help you determine whether it is appropriate to turn on, resume, suspend, hibernate or shut down the system when you begin or end a session. System behavior for each system state is described briefly in the following, with each system state listed in decreasing order of power usage:

- **On state:** The system is running and the display screen is on.
- **Idle state:** Some system functions are regulated or turned off to conserve power. The display screen may be turned off. The system returns to the On state when pen activity or other input is detected.
- **Suspend-to-RAM mode (S3):** System operation is suspended. Most system functions are turned off to conserve power. Power to memory is on, maintaining data in programs that were running before system operation was suspended. The system does not respond to the pen or other input when in Suspend-to-RAM mode. Refer to the “Resuming System

Operation” section later in this chapter for information on returning the system to the On state.

- **Hibernate mode (Save-to-Disk) (S4):** System operation is suspended. All system functions are turned off to conserve power. Active data in programs that were running before suspending system operation is stored on the hard disk drive. The system does not respond to the pen or other input. Refer to the “Resuming System Operation” section later in this chapter for information on returning the system to the On state.
- **Off state:** All system functions are turned off to conserve power. The system does not respond to the pen or other input. The system boots at the next system power-on.

## POINT

The system consumes the same amount of power whether it is in Hibernate (Save-to-Disk) mode or the Off state.

Your system may be configured to enter some of these states automatically after a period of inactivity to conserve battery power.

When you use the Stylistic ST4000P Series pen tablet PC, you can change the current system state in a number of ways, depending on the system’s current state. To determine the current system state, observe the Power icon in the Status display. Table 2-1 on page 20 gives the different system states represented by the Power icon and describes how you can change the system state from the current state.

Icon Appearance	Current State	To Change State*
 Power icon displayed continuously	On State or Idle State	To enter the Off state, shut down the system using the Start menu on your system.
		To enter Suspend-to-RAM or Hibernate (Save-to-Disk) <sup>†</sup> state, suspend system operation using either a hardware or software suspend.
Power icon blinking	Suspend-to-RAM <sup>†</sup>	To enter the On state, resume system operation by pressing the Suspend/Resume button.
		To enter the Off state, resume system by pressing the Suspend/Resume button, then shut down your system.
Power icon not displayed	Off State, or, Hibernate (Save-to-Disk) <sup>†</sup>	To enter the On state, start your system, or resume system operation by pressing the Suspend/Resume button.

Table 2-1 Changing System States

\* Information in Table 2-1 on page 20 is supplied to help you understand which system states your system can enter from the current system state. Refer to the procedures on starting the system, shutting down the system, suspending system operation, and resuming system operation given later in this chapter.

<sup>†</sup> Your system may be configured to use either Suspend-to-RAM mode or Hibernate mode.

## POWERING UP THE PEN TABLET PC

Follow the procedure below to start the Stylistic ST4000P Series pen tablet PC. Before you begin, confirm that the system is in the Off state. To do so, observe the Status display. If the Power icon is not visible in the Status display, the system is in Off state or in Hibernate (Save-to-Disk) mode and it is safe to perform this procedure. If the Power icon is visible (either blinking or on continuously), do not perform this procedure. See “System States” earlier in this chapter for details on modes represented by the Power icon.

1. Ensure that the battery in your pen tablet PC is sufficiently charged, or connect an external power source such as the AC adapter or auto adapter to your pen tablet PC.
2. Press the Power On/Suspend/Resume button to start the system.

After performing initialization, the system starts the operating system installed on the hard disk drive. Once the operating system is running, you can use the system.

## SHUTTING DOWN THE SYSTEM

Follow these steps to shut down and turn off your system:

1. If system operation has been suspended, resume system operation. See “Resuming System Operation” later in this chapter for details.
2. Save your work and close all running programs.
3. Choose Shut Down from the Windows (2000 Professional or XP Professional) Start menu.
4. Carry out the Shut Down command.

The system is now in the Off state.

## SUSPENDING SYSTEM OPERATION

The pen tablet PC allows you to suspend the system operation without closing programs or exiting the operating system. Use this feature to conserve battery power when a system shutdown is not practical or when the battery needs to be changed.

### POINT

If you have set your system to turn power off from the Power Options utility in the Control Panel, the following procedure will not be possible, since pressing the button shuts the system down rather than suspending it. To change your power options, go to Start -> Settings -> Control Panel -> Power Options.

To suspend system operation:

1. Press the Suspend/Resume button, or carry out the Standby command from your operating system or power management program. (If your system is configured to suspend operation using Hibernate mode, which is explained later in this procedure, a message is displayed while data is saved to your hard disk.)

### CAUTION

If you are replacing the battery, **wait until system operation is suspended and the power icon is flashing** before you remove the battery. Failure to do so could result in loss of your unsaved data. (Note that if the Resume On LAN function is enabled in the BIOS setup, you should **not** remove the battery unless the system is shut down. When Resume ON LAN is enabled, the bridge battery is disabled in order to optimize battery life.)

2. The Power icon either flashes (Suspend-to-RAM) or is not displayed (Hibernate) when system operation is suspended, depending on how your system is configured. At this point, programs that were running are stopped, active data is saved, and the system enters one of two different low-power states, or suspend modes, as explained in the following paragraphs.
3. Observe the Power icon in the Status display to determine which suspend mode your system is using.

- **Power icon is blinking:** *Suspend-to-RAM* mode.

In this mode, active data is saved by maintaining power to RAM while most other system components are powered off. The Battery Gauge icon in the Status display indicates the battery charge level.

- **Power icon is not displayed:** *Hibernate* mode.

In this mode, active data is stored on the hard disk drive and power usage is reduced to the same level used in the Off state. When the system is in *Hibernate* mode, the Battery Gauge icon is not visible in the Status display. In this mode, there is no danger of losing data if battery power is lost.

If you have successfully performed this procedure, system operation is now suspended. Refer to “Resuming System Operation” later in this chapter to resume system operation. Also, note the following with regard to suspending system operation:

- You can remove the battery while the system is in Suspend-to-RAM or Hibernate modes in order to install a charged battery. To prevent losing unsaved

data, wait until system operation has suspended before you remove the battery. Note that after you remove the battery, you have approximately five minutes to replace it with a new battery or to plug in a power supply before the bridge battery is depleted.

- Your system may be configured to suspend operation automatically after a period of inactivity.
- Your system may be configured to enter Hibernate mode automatically after a period of time in Suspend-to-RAM mode.
- The system uses a small amount of battery power when in Suspend-to-RAM mode. Eventually, the battery will become fully discharged.

### POINT

If you will not be using the system for an extended period of time, shut down the system rather than using Suspend-to-RAM mode.

- If the battery charge drops to a Low-Battery Warning level while the system is running, the system will beep periodically. If this occurs, suspend system operation, shut down the system, or attach an external power source, such as the AC adapter, to the pen tablet PC.
- If the battery charge drops to a Critically Low level while the system is running, the system is forced into a pre-selected mode (Suspend-to-RAM or Hibernate). If this occurs, you must either install a charged battery, or connect an appropriate external power source such as the AC adapter before you can resume system operation. (If the battery charge drops to a Critically Low level while the system is *in* Suspend-to-RAM mode, the system stays in Suspend-to-RAM mode until power is restored or totally dissipated.)
- Suspending system operation interrupts data communications; therefore, some programs may block the system from suspending to prevent an interruption.
- The suspend action of the Suspend/Resume button may be disabled to prevent accidental interruption. If this is the case, pressing the Suspend/Resume button will not suspend system operation as described here. (In this case, suspend mode can only be achieved using the system software). Contact your local help desk or reseller if your system configuration is not suitable.
- If your system is equipped with a PC Card that allows you to connect to a wired or wireless network, you

may be logged off the network after a period of inactivity while system operation is suspended. Contact your network administrator or help desk for details on log-off parameters for your network.

## RESUMING SYSTEM OPERATION

To resume system operation from either Suspend-to-RAM or Hibernate modes, press the Suspend/Resume button.

- **From Suspend-to-RAM mode**  
Status lights indicate that the system state is changing. It may take up to a minute before the system returns to the On state and system operation resumes. Note that the display turns on shortly before the pen becomes active due to the power-up sequences observed by the system.
- **From Hibernate (Save-to-Disk) mode**  
Active data is read from the hard disk drive, and the system returns to the On state after a short time.

### POINT

Note that power to several system components must be restored before system operation resumes. Allow sufficient time for system operation to resume before attempting to use the system. If your system uses Hibernate mode, it will take longer to resume operation as compared to using Suspend-to-RAM mode. Time is needed to read data from the hard disk drive.

- Use the system as you normally would once system operation resumes.

All programs resume at the point where execution stopped when system operation was suspended.

## USING THE PEN

You can use the Stylistic ST4000P Series pen to select items, and to navigate through programs on the pen tablet PC. The pen can be used like a two button mouse when used in conjunction with the right-mouse button.

### CAUTIONS

- Ensure that a screen protector is installed on the pen tablet PC screen before you use the pen. The warranty does not cover a screen that is scratched as a result of not using a screen protector.
- Use **only** the pen provided with your pen tablet PC. Do not use substitutes that were not designed for the Stylistic ST4000P Series pen tablet PC. (e.g., ball point pens, fingernail, or screwdriver). Damage caused by using an instrument other than the provided pen is not covered by the system warranty.

Here are some hints on using the pen similar to a two-button mouse on a desktop system:

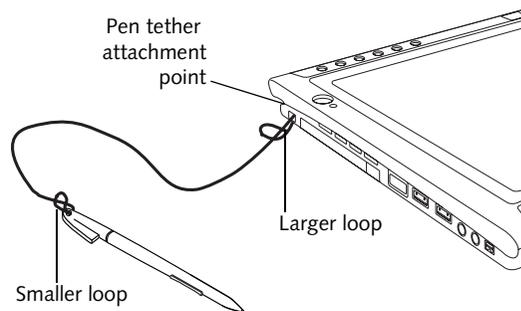
- **To select an object**, tap the pen tip on the object once. This functions like a left mouse button click.
- **To “double-click” an object**, tap twice on the object quickly. (The pen double-click speed is in sync with the mouse double-click speed, and can be changed by going to Start-> Settings -> Control Panel -> Mouse.
- **To generate a “right mouse button single-click”**, press the Right-Click Application Button , then tap on the object once.
- **To move, or “drag”, an object on the screen**, place the pen tip directly over the object, then as you hold the pen tip against the screen, move the pen.

## INSTALLING A PEN TETHER

To prevent dropping or losing your pen, you should attach it to your system using the pen tether that is included with the system.

To attach the pen tether to your Tablet PC, perform the following steps:

1. Attach the end of the pen tether with the smaller loop to your pen. Do do so, push the end of the tether through the hole in the pen, then thread the opposite end of the tether through the loop. (See *Figure 2-1*)



*Figure 2-1 Installing a Pen Tether*

2. Attach the end of the pen tether with the larger loop to the attachment point on your pen tablet. To do so, insert the end of the pen tether through the attachment point, then feed the pen through the large loop in the tether.

## CALIBRATING THE PEN

Calibration of the pen adjusts the cursor position on the screen relative to the position of the pen tip. You calibrate the pen to adjust the distance error between where the pen actually touches the screen and where the system “thinks” the pen is touching. If the event you wish to invoke is not displayed under the pen tip when you use the pen, you should calibrate the pen.

Pen calibration may be required due to the following situations:

- The pen is being used for the first time.
- The previous user of the Stylistic ST4000P Series pen tablet PC writes with the opposite hand or at a different pen angle.
- The system has been in use for some time and the pen has not been recalibrated.
- The original system image has been restored.

### To Calibrate the Pen

1. Open the Control Panel from the Start|Settings menu, and double-tap the Pen Configuration icon. In the Setup Property page, tap on [Calibrate] to start calibration.
2. Position the Stylistic ST4000P Series pen tablet PC as you normally would during use. Be sure to hold the pen at the angle that you regularly use. Touch the screen only with the pen tip; inadvertently touching the screen with your finger or hand during the calibration process, may result in faulty calibration.
3. Perform the calibration steps according to the instructions on the screen. The calibration utility displays a cross-hair symbol in the corners of the screen, one corner at a time. Hold the pen as you normally would while using the system and, as accurately as possible, tap the center of each crosshair as it is displayed.
4. When the Verify New Pen Calibration Settings window appears, choose one of the following steps.
  - If you are satisfied that you tapped the cross-hairs accurately, tap **Yes**. The taps that you performed in step 3 are then used to calibrate the screen.
  - If you do not want to use the new calibration, tap **No**.
  - If you want to enter a new calibration, tap **Recalibrate**. The calibration instructions reappear.
  - If you don't tap the screen within 20 seconds, the default settings will be used.

If you have successfully performed the procedure above, the pen is now recalibrated, and you can use the system as you normally would.

## Replacing the Pen

With use, the pen tip may become worn or may pick up foreign particles that can scratch the screen. A damaged or worn tip may not move freely, causing unpredictable results when using the pen. If your pen exhibits these problems, contact your reseller to purchase replacements.

## USING HOVERING MODE

Selecting the Pen Hovering application button on the Stylistic ST4000P Series pen tablet PC provides you with better cursor control. When the hovering option is enabled, the cursor can be positioned over an icon without activating it. This is useful when you are performing procedures that require accurate cursor positioning, such as when simulating mouse rollover, selecting a small icon, or beginning a paint session.

- To enable hovering, press the Function button

**Fn** and the Right-Click button  at the same time.

- To disable hovering, press the Function button

**Fn** and the Right-Click button  again.

For help on Normal/Special Hover mode settings in the Pen Configuration applet, press [F1] to invoke help from within the applet.

## CHARGING THE BATTERY

The Stylistic ST4000P Series battery can be charged while it is installed in the pen tablet PC. To do so:

1. Connect a DC power source, such as the AC adapter, to the DC input connector on the pen tablet PC. The DC Input icon appears in the Status display. If the battery charge is below 90%, the battery begins charging and the Charging icon appears in the Status display. If the battery charge is 90% or higher *when you connect* DC power, the battery will not charge, preventing battery overcharging.
2. Look at the Battery Gauge icon in the Status display to determine the percent of charge in the battery. See “Status Display” in Chapter 1 of this manual for a description of the Battery Gauge icon.

As long as DC power *remains connected* to the pen tablet PC, the charging process continues until the battery charge reaches 100%. Charge times shown in Table 2-2, “Battery Charging Time” are for a fully discharged battery charging both while the pen tablet PC is and is not in use.

Battery Charge Level Reached	Approximate Charge Time (not in use)	Approximate Charge Time (in use)
90%	3.5 hours	7 hours*
100%	4.5 hours	8 hours*

Table 2-2 Battery Charging Time

\* Depends upon the applications in use.

Also note the following with respect to charging the battery:

- You can use the system, suspend system operation, or shut down and turn off the system without interrupting the charging process; however, using the system while the battery is charging will cause the battery to charge at a slower rate, as noted in Table 2-2, "Battery Charging Time".
- As noted in the procedure above, the system will not begin charging the battery if the battery charge level is 90% or higher when the system is *initially connected* to external DC power. (This prevents the battery from being overcharged.)
- The Stylistic ST4000P Series battery uses Lithium ion battery cells which have no "memory effect." You do not need to discharge the battery before you begin charging.

## REMOVING AND INSTALLING THE BATTERY

The battery can be removed from the pen tablet PC and swapped with a charged battery. The battery can then be charged in an external charger if one is available. To remove the battery from the pen tablet PC:

- Choose one of the following:
  - If a charged battery is available, you can suspend system operation. A built-in "bridge" battery will maintain the system in Suspend-to-RAM mode for about 5 minutes while the battery is removed; this allows time for replacement with a charged battery.
  - If a charged battery is not available, save your work and close all running programs, then shut down the system or Hibernate (Save-to-Disk).
  - Plug in an external DC power source.
- Slide the battery release latch in the direction indicated. (See Figure 1 on page 24 for location).

- Pull the battery away from the system, as shown in the illustration and remove the battery from the pen tablet PC.

If you are using an external battery charger, refer to the instructions provided with the battery charger.

### POINT

Under Federal, state, or local law, it may be illegal to dispose of batteries by putting them in the trash. Be sure to dispose of batteries in accordance with local government regulations.

To install the battery:

- Orient the battery with the slides in the empty battery tray. Slide the battery into the tray and press it firmly until it is seated. When it is properly seated, the battery release latch should return to position and lock the battery.

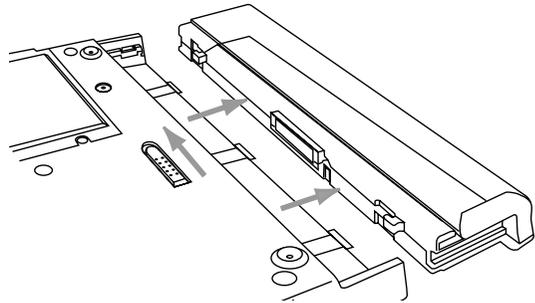


Figure 2-2 Removing the Battery

Once the battery is installed, you can resume system operation or start and use your system normally.

## TIPS FOR CONSERVING BATTERY POWER

You can extend the charge life of your battery by conserving battery power. (Your results may vary depending on your application and how the system is configured.) Here are some suggestions to help you conserve battery power:

- Use an external power source such as the AC adapter whenever the system is docked.
- Suspend system operation if you know that you won't be using the system for a while.
- Shut down the system if you won't be using the system for an extended period of time.
- Use power management (available on the desktop) to help you conserve power automatically.
- Battery life is dependent upon the operating system, power settings, and applications in use.

### Operation of the Bridge Battery

When installed in the pen tablet PC, the battery provides power to some system components—even when the system is in the Off state. When the battery is removed, power is supplied to these components by a “bridge” battery that is built into the pen tablet PC.

The bridge battery is not designed for long-term operation. To maintain the bridge battery properly, observe the following measures:

#### POINT

- The bridge battery function is disabled if Wake On LAN is enabled in the BIOS.
  - The system arrives with the bridge battery in a discharged state. Be sure to charge it sufficiently before relying upon it to support the system in the event of battery removal.
- To prevent draining the bridge battery, always store the system with a charged battery installed.
  - If the bridge battery becomes drained, it takes approximately 8 hours for it to be fully recharged.
  - The bridge battery charges when the AC Adapter is connected and the system is in On or Off states or Suspend mode. It charges from the battery only when the system is in the On state.

### MODEM CONNECTION

#### POINT

The internal 56 Kbps LAN/modem module installed in the Stylistic ST4000P Series pen tablet PC has actual maximum transfer rates of 53 Kbps (receive), 33.6 Kbps (send), and 14.4 Kbps (fax). Download rates are limited to 53 Kbps in the United States due to FCC restrictions.

The Stylistic ST4000P Series pen tablet PC is designed to accept a standard RJ-11 telephone plug. Connect the plug to the modem jack located on the left-hand side of the pen tablet PC (See Figure 1-4 on page 5 for location). The telephone plug can be installed whether or not the pen tablet PC has power applied.

If you need assistance configuring the Stylistic ST4000P Series pen tablet PC modem or LAN, contact your local help desk or your reseller.

### PC CARD SLOT

The Stylistic ST4000P Series Pen Tablet PC Card slot allows you to install a Type I or Type II PCMCIA Card.

#### Installing a PC Card

To install a PC card, position the side with the arrow facing up (i.e., when looking at the tablet's display side, the arrow on the card should be visible.) Slide the card into the PC Card slot, and press it firmly to ensure proper seating. (See Figure 2-3 for location)

If you need assistance installing a PC Card in the Stylistic ST4000P Series pen tablet PC, contact your corporate help desk or your reseller.

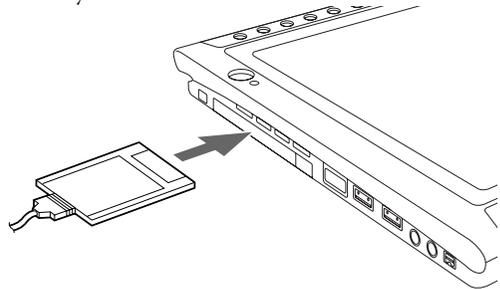


Figure 2-3 Installing a PC Card

#### Removing a PC Card

To remove a PC Card, press the PC Card eject button so that it pops out. Once the button has popped out, press it in firmly to eject the card. (See Figure 2-4 for location)

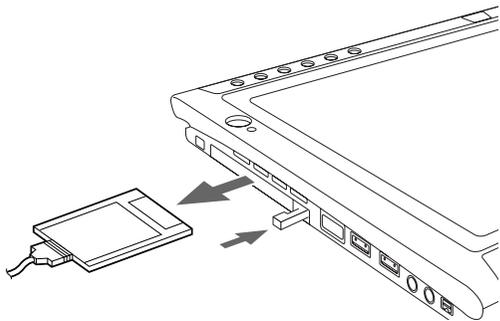


Figure 2-4 Removing a PC Card

### REMOVING AND INSTALLING MEMORY MODULES

There is one DIMM slot in your pen tablet PC and 256MB on the motherboard. 256MB and 512MB modules are available, so you can install a combination of up to 768MB in the system.

**CAUTION**

DIMM replacement should only be performed at a static-free workstation. Avoid touching connector pins, circuit boards, and other circuit components on the drive or pen tablet PC. Electrostatic discharge caused by doing so can damage sensitive components.

**Installing a Memory Module**

To install a DIMM module in the pen tablet PC:

1. Ensure that the pen tablet PC is off. To do so, carry out the Shut Down command in the Start menu. (Do not attempt to remove or install a DIMM module when the system is in Suspend mode or running.)
2. Remove the two screws from the cover plate on the back of the pen tablet PC and remove the cover plate as shown in Figure 2-5.

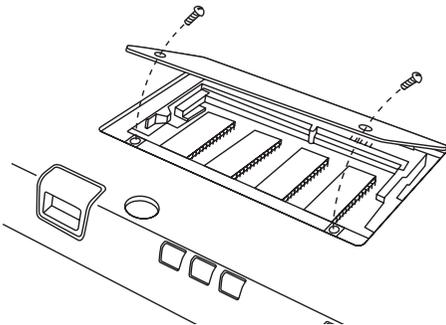


Figure 2-5 Accessing the Memory Slot

3. Insert the DIMM module in the socket at an angle and push it down until it locks into place as shown in Figure 2-6. Note that the DIMM module is keyed to prevent it from being inserted backwards.

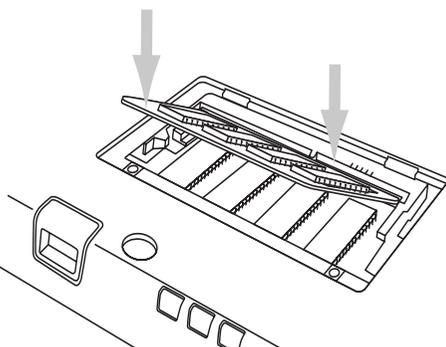


Figure 2-6 Installing a DIMM Module

4. Reinstall the cover and screws that you removed in step 2.
5. Confirm that the DIMM module is recognized by the system. To do so, run BIOS Setup. The size of the DIMM module should be displayed in the Info menu in BIOS Setup.

The DIMM module is installed in the pen tablet PC and you can now use the system.

**Removing a Memory Module**

To remove a DIMM module:

1. Ensure that the pen tablet PC is off. To do so, carry out the Shut Down command in the Start menu. (Do not attempt to remove or install a DIMM module when the system is in Suspend mode or running.)
2. Remove the screws from the cover plate on the back of the pen tablet PC and remove the cover plate as shown in Figure 2-5.
3. Spread the fingers on the socket that lock the DIMM module in place until the DIMM module is loose.
4. Remove the DIMM module from the socket.

The DIMM module is now removed from the pen tablet PC. Refer to “Installing a Memory Module” on page 26 to install a new DIMM module.



**3**  
**Care and  
Maintenance**



## Care and Maintenance

This chapter gives you pointers on how to care for and maintain your Stylistic ST4000P Series pen tablet PC.

### PROTECTING THE DISPLAY SCREEN

The Stylistic ST4000P Series pen tablet PC is designed to provide you with years of service. Using a screen protector will help ensure that the screen remains as clear as possible. When installed, the screen protector becomes a durable, replaceable writing surface that protects the display screen from abrasion.

To obtain additional screen protectors, check with your reseller, or go to the Fujitsu Web site at [www.fujitsu-supc.com](http://www.fujitsu-supc.com) for ordering information. Additional information about installation is included with the screen protectors.

#### CAUTION

During normal use of the pen tablet PC, small particles from the environment can become embedded in the pen tip and scratch the screen. To prevent scratching the screen, ensure that a screen protector is installed before using your pen tablet PC. The warranty does not cover a screen that is scratched as a result of not using a screen protector.

To install a new screen protector on your pen tablet PC:

1. If a screen protector is already installed on the display screen, remove it before installing the new screen protector.

The screen protector is held onto the display screen surface by a thin strip of adhesive around the edges. A notch in one corner of the screen protector allows you to slide your fingernail under the screen protector for easy removal.

2. Clean the display by wiping the screen gently using a soft cotton cloth dampened with isopropyl alcohol. Ensure that all residue has been removed from the screen before applying a new screen protector.

#### CAUTION

- The Stylistic ST4000P Series pen tablet PC is **not waterproof**. Do not pour liquids on the system or wash it with a heavily soaked cloth.
- Do not place items on the top of the display, or damage may occur.

3. Remove the protective coating from the adhesive side of the screen protector first, as shown in Figure 3-1.

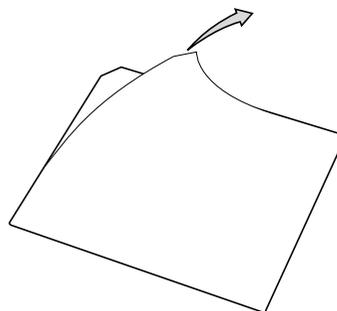


Figure 3-1 Removing the Protective Sheet

4. Apply the screen protector to the display screen surface. When doing so, orient the screen protector with the adhesive side of the screen protector facing the display screen and the notched corner of the screen protector oriented as shown in Figure 3-2.

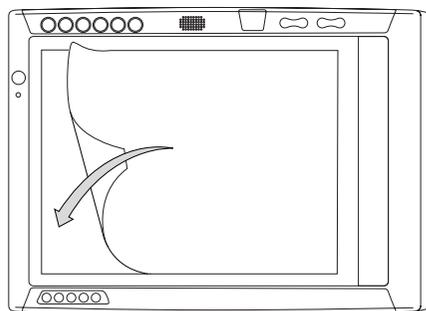


Figure 3-2 Installing the screen protector

5. Apply pressure to the screen protector with your finger using a continuous wiping motion along the edges. The adhesive sets completely within 48 hours. To ensure a good seal between the screen protector and the display, do not lift the screen protector from the display once it has been applied.
6. Remove the protective plastic cover from the face of the screen protector, as shown in Figure 3-3.

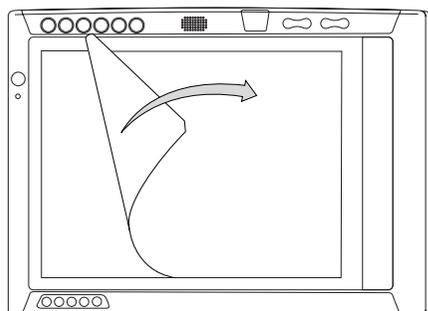


Figure 3-3 Removing the protective cover

7. Clean any residue left behind by the protective coating from the exposed surface of the screen protector by wiping gently with a soft cotton cloth dampened with isopropyl alcohol. Wipe the screen protector with a soft dry cloth to remove any low-tack adhesive; this will help prevent the pen tip from squeaking.

The screen protector is now installed.

## STORING THE PEN TABLET PC

Store the Stylistic ST4000P Series pen tablet PC in the Off state with a fully charged battery installed. You can store the pen tablet PC in the Off state for about 30 days with a fully charged battery installed. After this period, the battery should be recharged or replaced with a charged battery.

If you intend to store the pen tablet PC for a longer period of time, the small battery that maintains system time may need to be replaced. Replacement of the clock battery should only be performed by authorized technicians.

## AVOIDING OVERHEATING

The pen tablet PC monitors its internal temperature. As the internal temperature approaches the tolerable limits of heat-sensitive components, system functions are automatically limited or turned off to prevent damage.

To avoid overheating the pen tablet PC, do not obstruct the air vents on the top and bottom edges of the pen tablet PC.

## CLEANING THE DISPLAY SCREEN

To clean the pen tablet PC display screen, wipe the screen surface gently using a soft cotton cloth slightly dampened with water or isopropyl alcohol.

### CAUTION

The Stylistic ST4000P Series pen tablet PC is **not waterproof**. Do not pour liquids on the pen tablet PC or wash the pen tablet PC with a heavily soaked cloth.

## TROUBLESHOOTING

Solutions to some common problems are described in the following sections. If you are experiencing a problem with your pen tablet PC that you cannot solve by taking the actions described, contact your local help desk or your reseller for further assistance.

### System Will Not Resume Operation

If the system will not resume operation after system operation has been suspended, check the following possible causes:

- The battery may either be defective, or discharged to a critically low level. When the battery reaches a critically low level, the system is forced into Suspend-to-RAM mode to avoid a total system power failure. To correct this problem, either connect an external power supply (such as the AC adapter), or install a charged battery in the pen tablet PC.
- The system may be at the critical thermal limit. To avoid damage to heat-sensitive components, the system enters Suspend-to-RAM mode when it gets too hot. System operation cannot be resumed until the pen tablet PC cools off to a tolerable temperature. Move the pen tablet PC to a cooler location.

### Display Screen Blank or Difficult to Read

If the display screen on your pen tablet PC appears blank or is unreadable, confirm that the system is running (the Power icon is displayed continuously on the Status display), and check the following:

- The system brightness may be set too low, causing the screen to appear too dark. To change system brightness, press the Fn button twice to open the Fujitsu menu. Brightness can be adjusted from the menu.
- An external monitor may be selected. Press the Fn and Display Select buttons to determine whether the pen tablet PC display screen is selected.
- The video timeout may have expired. Tap on the display screen to reactivate the display. Note that this is a normal, power-saving feature.

### Cursor Is Not Tracking Pen

If the cursor on the screen appears to be misaligned with the pen or is not accurately tracking the pen, calibrate the pen. See “To Calibrate the Pen” on page 23 for more information.

### Infrared Data Transfer Is Not Working

If you are experiencing problems transferring data over the system's infrared interface, note the following:

- Can the IrDA port on the pen tablet PC “see” the

IrDA port on the other device? A direct line-of-sight path must exist between the IrDA port on the pen tablet PC and the IrDA port on the other device.

- The distance between the two devices must not be more than 3 feet.
- The viewing angle from the IrDA port on the pen tablet PC must not be more than 15 degrees from a center line between the IrDA port on the pen tablet PC and the IrDA port on the other device.
- The device with which you are trying to communicate must be compliant with the IrDA Standard Revision 1.1 (or 1.0).
- It may be necessary for both computers to be using the same network connection protocols.

### **Pen Tablet PC is Not Responding to the Pen**

If the pen tablet PC does not respond to the pen, connect an external keyboard to the system to see if it responds to keyboard commands. If the system doesn't respond to a keyboard, the application or system may have crashed, and it may be necessary to reset the system. If the system responds to a keyboard but not to a pen, contact your local help desk or reseller for further assistance.

### **Speaker/Headphone Volume Too Low**

If the audio volume on your pen tablet PC speaker or external headphones is too low, check the following:

- Ensure that the speaker (or headphone output if using headphones) is enabled. To do so, open the Control Panel and double-click on the Sounds and Audio Devices icon. Select the proper tab, and increase the volume using the slider bar. (If you aren't getting any sound, uncheck the Mute box if it is checked.)
- Press the Fn button twice to open the Fujitsu menu. Volume can be adjusted from the menu.
- Ensure that the mute box in the system volume control (accessible from the system tray) is not set.
- Ensure that any volume control in your audio software is set to an audible level.

### **Configuring Peripheral Interfaces**

Certain peripheral devices can be disabled during the BIOS Setup. If the peripheral interface you want to use does not appear to be working with your peripheral device, ensure that it is enabled in the BIOS. Contact your local help desk or reseller if you need assistance using BIOS Setup.





# 4 Specifications



# Stylistic ST4000P Series Hardware Specifications

The following table provides general hardware specifications of the Stylistic ST4000P Series pen tablet PC by category.

Stylistic ST4000P Specifications	
<b>Physical Specifications</b>	
Dimensions	11.86" w x 8.66" d x 0.82"-0.88" h (301.3mm x 220mm x 20.9-22.3mm)
Weight	3.2 lbs. (1.45 Kg)
<b>Processing Specifications</b>	
CPU	Ultra low voltage Mobile Intel Pentium III processor - M with SpeedStep technology*
Chip set	Intel 830MG - 133 MHz
Processor Speed	800 MHz*
<b>Memory/Storage Specifications</b>	
Main RAM	<ul style="list-style-type: none"> <li>256MB SDRAM (on-board/PC133).</li> <li>144-pin SO DIMM modules</li> </ul> 256MB and 512MB module configurations available, with a system maximum of 768MB.
L1 cache (CPU)	32 KB on-die
L2 cache	512 KB on-die
BIOS ROM	8 Mbit (FWH)
Hard disk drive	<ul style="list-style-type: none"> <li>2.5" HDD</li> <li>Minimum 20GB IDE HDD*</li> <li>Ultra DMA 100</li> <li>Shock-mounted</li> </ul>

Stylistic ST4000P Specifications (Continued)	
<b>Display Specifications</b>	
Display	<ul style="list-style-type: none"> <li>Color LCD</li> <li>Passive Touch Panel</li> <li>16-bit color</li> <li>10.4" TFT XGA (1024 x 768), 260K colors</li> <li>Brightness: 8 levels</li> <li>Viewing Angle:               <ul style="list-style-type: none"> <li>Horizontal: 30 degrees (min.)</li> <li>Vertical: 10 degrees (min.)</li> </ul> </li> <li>Contrast Ratio:               <ul style="list-style-type: none"> <li>Typ. 250, Min. 100</li> </ul> </li> </ul>
VRAM	Intel 830MG chipset with 8MB shared memory using Unified Memory Architecture (UMA) delivers low-power, high-performance 3D/2D graphics, video, and display capabilities. Dynamic Video Memory Technology (DVMT) dynamically responds to application requirements and efficiently allocates the proper amount of memory (48MB max.) for optimal graphics and system performance.
<b>Interface Specifications</b>	
PC Card Slots	<ul style="list-style-type: none"> <li>One Type I or Type II</li> <li>PCMCIA CardBus version 3.0</li> </ul>
Integrated Interfaces	<ul style="list-style-type: none"> <li>Modem (RJ-11)</li> <li>LAN (RJ-45)</li> <li>IEEE 1394 (S400 4-pin)</li> <li>USB (Qty. 2)</li> <li>DC-In</li> <li>15-pin D-SUB connector for external VGA monitor</li> <li>Docking connector</li> </ul>
Infrared	IrDA version 1.1 (FIR, 4Mbps)

Stylistic ST4000P Specifications (Continued)	
Keyboard/ Mouse support	<ul style="list-style-type: none"> <li>• Keyboard/Mouse IR Port</li> <li>• System IR Port</li> </ul>
Audio	<ul style="list-style-type: none"> <li>• SigmaTel STAC9767 codec</li> <li>• Internal mono microphone and speaker</li> <li>• Mono microphone and headphone jacks</li> </ul>
User Controls	<ul style="list-style-type: none"> <li>• Application Buttons, with primary, secondary, and tertiary functions</li> <li>• Power On/Suspend/Resume button</li> <li>• Emergency Shutoff Button (Power Off button)</li> <li>• Two Navigation buttons</li> </ul>
Status Indicators (LEDs)	<ul style="list-style-type: none"> <li>• Power</li> <li>• Charge/DC-In</li> <li>• Battery level</li> <li>• HDD</li> <li>• Hovering</li> </ul>

\* The specifications for your particular model may vary. To determine the specifications for your system, please visit our web site at: [www.fujitsu.com](http://www.fujitsu.com).

Power Specifications	
Main Battery	<ul style="list-style-type: none"> <li>• 6-cell</li> <li>• Removable, Lithium ion</li> <li>• 10.8 V @ 4000 mAh</li> <li>• Warm-swappable</li> <li>• Recharge Time: Suspend/Off: 3.5 hours (90%), 4.5 hours (100%) Operating: 8 hours (100%)</li> <li>• Life: Up to 5 hours. (Battery life is dependent upon the operating system, power management, and applications in use.)</li> <li>• Suspend Life: Minimum 5 days Off State: Approximately 30 days</li> </ul>

Stylistic ST4000P Specifications (Continued)	
Bridge Battery	<ul style="list-style-type: none"> <li>• 6-cell NiMH, 35 mAh</li> <li>• Life (with Suspend-to-RAM on bridge battery only): 5 minutes from full charge</li> </ul>
AC Adapter	<ul style="list-style-type: none"> <li>• Autosensing 100 - 240V, supplying 16 VDC, with a current of 3.75 A</li> </ul>
Environmental Specifications	
Temperature	Operating: 41° - 95° F (5° - 35° C) Non-operational: 5° - 140° F (-15° - 60° C)
Humidity	Operating: 20 - 85% non-condensing Non-operating: 8 - 85% non-condensing
Agency Approval Specifications	
Emissions	<ul style="list-style-type: none"> <li>• EN55022 (CISPR22) Class B</li> <li>• FCC 15, Class B</li> <li>• FCC 15C, 15.247</li> <li>• DOC Class B</li> <li>• ETSI EN 300-328</li> <li>• ICES-003</li> <li>• Canada RSS-210</li> </ul>
Immunity	<ul style="list-style-type: none"> <li>• EN55024 (1998)</li> <li>• ETSI EN 301-489-17 V.1.1.1 (2000-9)</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• UL and cUL Listed, UL 1950, 3rd edition</li> <li>• TuV T-Mark, EN60950</li> </ul>
Telecom	<ul style="list-style-type: none"> <li>• FCC Part 68</li> <li>• IC CS-03</li> </ul>
Additional Specifications	
Operating systems	<ul style="list-style-type: none"> <li>• Microsoft® Windows® 2000 Professional</li> <li>• Microsoft Windows XP Professional</li> </ul>



**5**  
**Agency Notices**



# Regulatory Information

## CAUTION

Changes or modifications not expressly approved by Fujitsu could void this user's authority to operate the equipment

## NOTICE

Changes or modifications not expressly approved by Fujitsu could void this user's authority to operate the equipment.

## FCC NOTICES

### Notice to Users of Radios and Television

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet that is on a different circuit than the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interconnect cables must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device.

### Notice to Users of the US Telephone Network

Your pen tablet PC may be supplied with an internal modem which complies with Part 68 of the FCC rules. On the system is a label that contains the FCC Registration Number and the Ringer Equivalence Number (REN) for this equipment among other information. If requested, the user must provide their telephone company with the following information:

1. The telephone number to which the computer is connected.
2. The Ringer Equivalence Number (REN) for this equipment.
3. The equipment requires a standard modular jack type USOC RJ-11C which is FCC Part 68 compliant.
4. The FCC Registration Number.

This equipment is designed to be connected to the telephone network or premises wiring using a standard modular jack type USOC RJ-11C which is FCC Part 68 compliant and a line cord between the modem and the telephone network with a minimum of 26AWG.

The REN is used to determine the number of devices that you may connect to your telephone line and still have all of those devices ring when your number is called. Too many devices on one line may result in failure to ring in response to an incoming call. In most, but not all, areas the sum of the RENs of all of the devices should not exceed five (5). To be certain of the number of devices you may connect to your line, as determined by the RENs, contact your local telephone company.

If this equipment causes harm to the telephone network, your telephone company may discontinue your service temporarily. If possible, they will notify you in advance. If advance notice is not practical they will notify you as soon as possible. You will also be advised of your right to file a complaint with the FCC.

This fax modem also complies with fax branding requirements per FCC Part 68.

Your telephone company will probably ask you to disconnect this equipment from the telephone network until the problem is corrected and you are sure that the equipment is not malfunctioning. This equipment may not be used on coin-operated telephones provided by your telephone company. Connection to party lines is subject to state tariffs. Contact your state's public utility commission, public service commission or corporation commission for more information.

This equipment includes automatic dialing capability. When programming and/or making test calls to emergency numbers:

- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities in off-peak hours, such as early morning or late evening.

FCC rules prohibit the use of non-hearing aid compatible telephones in the following locations or applications:

- All public or semi-public coin-operated or credit card telephones.
- Elevators, highways, tunnels (automobile, subway, railroad or pedestrian) where a person with impaired hearing might be isolated in an emergency.
- Places where telephones are specifically installed to alert emergency authorities such as fire, police or medical assistance personnel.
- Hospital rooms, residential health care facilities, convalescent homes and prisons.
- Stores where telephones are used by patrons to order merchandise.

- Public transportation terminals where telephones are used to call taxis or to reserve lodging or rental cars.
- In hotel and motel rooms as at least ten percent of the rooms must contain hearing aid-compatible telephones or jacks for plug-in hearing aid compatible telephones which will be provided to hearing impaired customers on request.

## DOC (INDUSTRY CANADA) NOTICES

### Notice to Users of Radios and Television

This Class B digital apparatus meets all requirements of Canadian Interference-Causing Equipment Regulations.

CET appareil numérique de la class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

### Notice to Users of the Canadian Telephone Network

**NOTICE:** This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

Before connecting this equipment to a telephone line the user should ensure that it is permissible to connect this equipment to the local telecommunication facilities. The user should be aware that compliance with the certification standards does not prevent service degradation in some situations.

Repairs to telecommunication equipment should be made by a Canadian authorized maintenance facility. Any repairs or alterations not expressly approved by Fujitsu or any equipment failures may give the telecommunication company cause to request the user to disconnect the equipment from the telephone line.

**NOTICE:** The Ringer Equivalence Number (REN) for this terminal equipment is 0.0. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

## CAUTION

For safety, ensure that the electrical ground of the power utility, the telephone lines and the metallic water pipes are connected together. Do NOT attempt to make such connections themselves but should contact the appropriate electric inspection authority or electrician. This may be particularly important in rural areas.

## Avis Aux Utilisateurs Du Réseau Téléphonique Canadien

**AVIS:** Le présent matériel est conforme aux spécifications techniques d'Industrie Canada applicables au matériel terminal. Cette conformité est confirmée par le numéro d'enregistrement. Le sigle IC, placé devant le numéro d'enregistrement, signifie que l'enregistrement s'est effectué conformément à une déclaration de conformité et indique que les spécifications techniques d'Industrie Canada ont été respectées. Il n'implique pas qu'Industrie Canada a approuvé le matériel.

Avant de connecter cet équipement à une ligne téléphonique, l'utilisateur doit vérifier s'il est permis de connecter cet équipement aux installations de télécommunications locales. L'utilisateur est averti que même la conformité aux normes de certification ne peut dans certains cas empêcher la dégradation du service.

Les réparations de l'équipement de télécommunications doivent être effectuées par un service de maintenance agréé au Canada. Toute réparation ou modification, qui n'est pas expressément approuvée par Fujitsu, ou toute défaillance de l'équipement peut entraîner la compagnie de télécommunications à exiger que l'utilisateur déconnecte l'équipement de la ligne téléphonique.

**AVIS:** L'indice d'équivalence de la sonnerie (IES) du présent matériel est de 0.0. L'IES assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

## AVERTISSEMENT

Pour assurer la sécurité, les utilisateurs doivent vérifier que la prise de terre du service d'électricité, les lignes téléphoniques et les conduites d'eau métalliques sont connectées ensemble. Les utilisateurs NE doivent PAS tenter d'établir ces connexions eux-mêmes, mais doivent contacter les services d'inspection d'installations électriques appropriés ou un électricien. Ceci peut être particulièrement important en régions rurales.

## UL Notice

This unit requires an AC adapter to operate. Use only UL Listed Class 2 Adapters with an output rating of 16 VDC, with a current of 3.75 A.

AC Adapter output polarity:



### CAUTION

The modem-to-telephone network connection must be a line cord using a minimum #26 AWG wire.

## For Authorized Repair Technicians Only

### WARNINGS

- For continued protection against risk of fire, replace only with the same type and rating fuse.
- Danger of explosion if Lithium (clock) battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instruction.

## System Disposal

In the event of system disposal, please observe the following information regarding proper procedures in the State of Vermont.



**M.E.R.C.**   
Mercury Education & Reduction Campaign

The liquid crystal display (LCD) lamps used in this system contain mercury. In the event of system disposal, be sure to follow local guidelines.





# Appendix

## Wireless LAN\* User's Guide

\* Optional device





## FCC REGULATORY INFORMATION

Please note the following regulatory information related to the optional wireless LAN device.

### Regulatory Notes and Statements

#### Wireless LAN, Health and Authorization for use

Radio frequency electromagnetic energy is emitted from Wireless LAN devices. The energy levels of these emissions, however, are far much less than the electromagnetic energy emissions from wireless devices such as mobile phones. Wireless LAN devices are safe for use by consumers because they operate within the guidelines found in radio frequency safety standards and recommendations. The use of Wireless LAN devices may be restricted in some situations or environments, such as:

- On board an airplane, or
- In an explosive environment, or
- In situations where the interference risk to other devices or services is perceived or identified as harmful.

In cases in which the policy regarding use of Wireless LAN devices in specific environments is not clear (e.g., airports, hospitals, chemical/oil/gas industrial plants, private buildings), obtain authorization to use these devices prior to operating the equipment.

#### Regulatory Information/Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution or attachment of connecting cables and equipment other than those specified by the manufacturer. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. The manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failure to comply with these guidelines.

#### Federal Communications Commission statement

This device complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause interference, and, (2) This device must accept any interference, including interference that may cause undesired operation of this device.

#### FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the distance between the equipment and the receiver.
3. Connect the equipment to an outlet on a circuit different from the one the receiver is connected to.
4. Consult the dealer or an experienced radio/TV technician for help.

#### FCC Radio Frequency Exposure statement

This Wireless LAN radio device has been evaluated under FCC Bulletin OET 65C and found compliant with the requirements as set forth in CFR 47 Sections 2.1091, 2.1093, and 15.247 (b) (4) addressing RF Exposure from radio frequency devices. The radiated output power of this Wireless LAN device is far below the FCC radio frequency exposure limits. Nevertheless, this device shall be used in such a manner that the potential for human contact during normal operation is minimized. When using this device, a certain separation distance between antenna and nearby persons must be maintained to ensure RF exposure compliance. In order to comply with RF exposure limits established in the ANSI C95.1 standards, the distance between the antennas and the user should not be less than 20 cm (8 inches).

#### Export restrictions

This product or software contains encryption code which may not be exported or transferred from the US or Canada without an approved US Department of Commerce export license. This device complies with Part 15 of FCC Rules., as well as ICES 003 B / NMB 003 B. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation. Modifications not expressly authorized by Fujitsu PC Corporation may invalidate the user's right to operate this equipment.

## BEFORE USING THIS DEVICE

Thank you for purchasing a Fujitsu ST4000P Series Pen Tablet PC with the optional Integrated Wireless LAN. This manual describes the basic operating procedures for the Wireless LAN (referred to as the “device” in this manual) and how to set up a wireless LAN network. Before using this device, read this manual carefully to ensure correct operation of the device. Keep this manual in a safe place for reference while using the device.

### Characteristics of the Device

This device consists of a wireless LAN card that is attached to the computer via a mini-PCI slot.

The main characteristics are as follows:

- It uses the power saving communications system in the 2.4 GHz band, and does not require any license for radio communication.
- It uses Direct Sequence Spread Spectrum (DS-SS), which is resistant to noise.
- This device complies with Wi-Fi, and is able to communicate at the maximum transfer rate of 11 Mbps.
- The maximum communication range is approximately 80 feet (25 meters) inside a building. The range may be shorter depending upon the installation factors, such as walls and columns.
- Unauthorized access can be prevented with the use of SSID and encryption key.

## Wireless LAN Modes Using this Device

### AdHoc Mode

The “AdHoc Mode” refers to the network connecting two computers using wireless LAN cards. This connection is called an “AdHoc network.”

Using an AdHoc network, you can obtain a network connection easily and at a low cost.

In the AdHoc mode, you can use the function supported by Microsoft Network, such as File and Print Sharing to exchange files and share a printer or other peripheral devices.

To use the AdHoc Mode, you must set the same SSID and the same encryption key for all the computers that are connected. All connected computers can communicate with each other within the communication range.

### Infrastructure Mode

If a number of computers are connected simultaneously in the AdHoc mode, the transfer rate may be reduced, communications may become unstable, or the network connection could fail. This is because all wireless LAN cards are using the same radio frequency in the network.

To improve this situation, you can use a wireless LAN access point, which is sold separately. The wireless LAN network is in the “Infrastructure mode” when it uses an access point, and such a connection is called the “Infrastructure Network.”

By using an access point, you can set and use a different communication channel for each network group. Each channel is given a different radio frequency, and it eliminates the collision of communications and provides a more stable communications environment. Infrastructure mode is most suitable when you are configuring multiple wireless LAN networks on the same floor.

To connect a wireless LAN network to a wired LAN, you need an access point.

### How to Handle This Device

If you purchased the wireless LAN option, the Integrated Wireless LAN device is already installed in your ST4000P Series Pen Tablet PC. Under normal circumstances, it should not be necessary for you to remove or re-install it. The LAN has been configured to support the operating system with which your system shipped.

The On/Off switch located on the Wireless LAN cover turns the device on and off. You should switch the device off when it is not in use in order to maximize battery life.

## CONNECTING WINDOWS 2000 SYSTEMS

This chapter describes how to set the wireless LAN connection for computers running Windows 2000.



### POINT

If you purchased a ST4000P Series Pen Tablet PC with the wireless LAN option, the integrated wireless LAN device and drivers have already been installed. This procedure outlines the steps for setting the device parameters.

Updated drivers and/or utilities may become available after this manual is printed; see any addenda or fliers that may be included in the system packaging.

### Workflow

The proper setup of the wireless LAN requires several steps which must be performed in the proper order. Following is a general outline of the steps that must be performed. Each step is detailed later in this procedure.

1. Setting parameters
  - Setting the profile
  - Setting the encryption
2. Network settings
  - Setting the protocol and checking the network
  - Setting file and printer sharing
  - Checking the connection

### Setting Parameters

1. Click [Start]-> [Settings] -> [Control Panel].
2. Double-click the [PRISM Settings] icon. The [PRISM Wireless Settings] appears.
3. Set the profile as specified in Table 1. Ask your network administrators to check the setting.
4. When you finish your entry, click [Apply].

Item	Description
Profile	Enter the system file name in which the parameter information is to be saved.
Mode	<i>Ad Hoc Network:</i> Click the down arrow and select "802.11 AdHoc". <i>Infrastructure Network:</i> Click the down arrow and select "Infrastructure".
SSID	Enter the network name to which you want to connect
Transmit Rate	Obtain the information from your network administrator. If you do not have a network administrator, select "Fully Automatic".

Item	Description
Power Save Enabled	Not supported.
AdHoc Channel	<i>AdHoc Network:</i> Select the same channel, 1-11, for all connected computers. If there is more than one wireless LAN nearby (such as on the same floor), we recommend that the channels for each LAN be 5 numbers apart (e.g., if there are two other LANs nearby, the channels used should be 1, 6, and 11).  <i>Infrastructure Network:</i> Not an option.

Table 1: Profile Parameters

5. Click the [Encryption] tab.
6. Set the encryption items in accordance with Table 2.
  - *AdHoc Network:* Specify the same value for all the computers for which the encryption key is used for connection.
  - *Infrastructure Network:* Specify the identical encryption keys to the encryption keys set for the access point. For instructions on how to check the encryption keys set for the access point, refer to the access point manual.



### POINT

Make sure that you specify the encryption keys. If you do not specify the keys, any computer with a wireless LAN card can be connected. This presents a risk that your data may be stolen or destroyed.

Item	Description
Encryption (WEP)	Click the down arrow and select an encryption option. <ul style="list-style-type: none"> <li>▪ <i>Disable:</i> Disables the encryption. In this case, "Create keys with Passphrase" and subsequent items are greyed out, and you cannot enter anything.</li> <li>▪ <i>40 bit*:</i> The encryption is set. Select either "Create keys with Passphrase", "Create keys manually", or "ASCII Input", and enter the encryption keys.</li> <li>▪ <i>104 bit*:</i> The encryption is set. Select either "Create keys with Passphrase", "Create keys manually", or "ASCII Input", and enter the encryption keys.</li> </ul>

Item	Description
Create Keys with Passphrase	Not supported.
Passphrase	Not supported.
Create Keys Manually (Hexadecimal Input)	Select this to use hexadecimal character codes to set the encryption keys (Keys 1 - 4).  Enter a 10-digit value when you have selected [40 bit]* for the encryption. Enter a 26-digit value when you have selected [104 bit]* for encryption.  Select if the network contains a card that is set with the encryption key using the character code. Specify the encryption keys with the same value used for other wireless LAN cards that are already set.
ASCII Input	Select to use the ASCII codes to set encryption keys (Keys 1 - 4). Select this if network does not contain other wireless LAN cards that are set with encryption key using character codes.  Enter a 5-digit value when you have selected [40 bit]* for the encryption. Enter a 13-digit value when you have selected [104 bit]* for encryption.  You can use the following characters: 0 - 9, A - Z, a - z, _ (underscore).  For example, to set "ABC12" for the encryption key, enter "ABC12."
Default Key	Click the down arrow, and select a key from Keys 1 - 4.

Table 2: Encryption Key Setup

7. When you finish your entry, click [Apply].
  8. Click [OK]. [PRISM Wireless Settings] closes.
- You have completed the parameter settings.

**POINT**

When using ADSL (PPPoE) with the infrastructure network to connect to the Internet, you must change the computer's MTU size set. To change MTU size, refer to the manual that comes with the access point.

\* 40 bit and 104 bit encryption is the wireless LAN equivalent of 64 bit and 128 bit encryption, as set by Microsoft and wireless LAN manufacturers. This is the same encryption rate that is used by the Windows XP operating system, and was selected in order to align it

closer to the wireless LAN standard. For consistency, the Windows 2000 utilities reflect the same modes.

Outside of wireless LAN environments, encryption is generally set at either 64 bit or 128 bit. However, the wireless LAN standard requires that 24 bits be reserved for fixed data. As a result, the user can only use 40 bits (64 minus 24) or 104 bits (128 minus 24) for encryption. This requirement also fixes the number of characters used for 128 bit encryption to 13 which is calculated as (13 x 8 bits = 104).

**NETWORK CONNECTION: WINDOWS 2000**

The section describes how to set the network connection for a computer with Windows 2000.

**Network Settings**

In this section, you set "TCP/IP Settings," and complete "Checking Computer Name and Workgroup," required for the network connection.

**TCP/IP Settings**

1. Click [Start] -> [Settings] -> [Control Panel].
2. Double-click the [Network and Dial-up Connections] icon. The [Network and Dial-up Connections] window appears.
3. Right click the [Local Area Connection], then click [Properties] from the menu that appears. The [Local Area Connection Properties] window appears.

**POINT**

More than one network adapter is installed in your system if more than one [Local Area Connection] entry is displayed. In this case, select the [Local Area Connection] entry with [Intersil PRISM Wireless LAN PCI Card] displayed under [Device Name].

4. Perform the following steps.
  - Click [Internet Protocol (TCP/IP)].
  - Click [Properties]. The [Internet Protocol (TCP/IP) Properties] window appears.

- Set an IP address as indicated in Table 3. Ask your network administrator to check the setting.

Item	Description
For AdHoc Network	<p>Set the IP address and subnet mask:</p> <p>Click [Use the following IP address], and enter a value for [IP address] and [Subnet mask].</p> <p>Refer to "Setting IP Addresses" on page 58 to set an IP address and subnet mask.</p>
For Infrastructure Network	<p>Select [Obtain an IP address automatically]:</p> <p>For the DNS server, select [Obtain DNS server address automatically].</p> <p>For the IP address, DNS server, and default gateway, follow the network administrator's instructions, if any.</p>

**Table 3: Setting an IP Address**

- Click [OK]. The [Local Area Connection Properties] window appears again.
- Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

**Checking the full computer name and workgroup**

- Click [Start] -> [Settings] -> [Control Panel].
- Double-click the [System] icon. [System Properties] appears.
- Click the [Network Identification] tab.
- Check [Full computer name] and [Workgroup]. Ask your network administrator and check the setting.

Item	Description
Full Computer Name	<p>A name to identify the computer on the network. You can specify any name to each computer.</p> <p>For easier identification, use the model name or user name.</p>

Item	Description
Workgroup	<p>A name for the network group:</p> <ul style="list-style-type: none"> <li>▪ <i>AdHoc Network:</i> Specify the same name to all computers within the same network.</li> <li>▪ <i>Infrastructure Network:</i> Specify a workgroup name to connect to.</li> </ul> <p>To change the setting, click [Properties], and follow the instructions on the screen. [System Properties] appears again.</p>

**Table 4: Checking computer name and workgroup**

- Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

**Sharing**

In this section, you set sharing of the drive, folder, and printer.

You only need to set this when you are sharing files or a printer with other computers on the network.

When you share a drive, folder, or printer, you can use them from any computer on the network.

**Setting [File and Printer Sharing for Microsoft Networks]**

- Click [Start] -> [Settings] -> [Control Panel].
- Double-click the [Network and Dial-up Connections] icon. The [Network and Dial-up Connections] windows appears.
- Right click the [Local Area Connection], then click [Properties] from the menu that appears. [Local Area Connection Properties] appears.



**POINT**

More than one network adapter is installed in your system if more than one [Local Area Connection] entry is displayed. In this case, select the [Local Area Connection] entry with [Intersil PRISM Wireless LAN PCI Card] displayed under [Device Name].

- If [File and Printer Sharing for Microsoft Networks] is displayed in the list, make sure that it is checked. If it is not checked, check it and click [OK]. You do not have to perform the following steps. Go to the next section, entitled "Sharing Files."

If [File and Printer Sharing for Microsoft Networks] is **not** found in the list, click [Install], and perform Step 5 and subsequent steps. When you click [Install], the [Select Network Component Type] window appears.

5. Perform the following steps.
  - Click [Service].
  - Click [Add]. The [Select Network Service] window appears.
6. Perform the following steps.
  - Click [File and Printer Sharing for Microsoft Networks].
  - Click [OK]. You will go back to [Local Area Connection Properties], and [File and Printer Sharing for Microsoft Networks] is added to the list.
7. Click [OK].



**POINT**

If you have changed the setting, [Close] is shown instead. Click [Close].

3. Click [Sharing], and select necessary items.

Item	Description
Not Shared	Disables printer sharing.
Shared As	Enables printer sharing.
Share Name	Specifies a share name of the printer to be shared.
Comment	Enter the description of the printer to be shared.
Passwords	If you specify a password, you need to enter it when using the printer.

**Table 6: Printer Sharing**

**Sharing Files**

The following example shows how to set sharing the “Work” folder on the c: drive.

1. On the desktop, double-click [My Computer]-> C: drive.
2. Right-click the “Work” folder, then click [Sharing] from the menu. The [Work Properties] window appears.
3. Click [Share this folder] and set necessary items, as indicated in the following table.

Item	Description
Share name	You can specify a share name for the drive or folder that you want to share.
Comment	You can enter the description for the drive or folder that you want to share.
User limit	Specifies the limit for the number of sharing users.
Permissions	Specifies the folder access privileges.
Caching	Specifies the caching for the folder.

**Table 5: Sharing files**

4. Click [OK]. The folder is set shared, and the “Work” folder icon changes.

**Printer Sharing**

1. Click [Start] -> [Settings] -> [Printers]. The Printers window appears, showing the printers that are connected.
2. Right click the printer that you want to share, then click [Sharing] from the menu that appears.

4. Click [OK]. The printer sharing is set, and the icon changes.

**Checking the Connection**

After the network setting is completed, access the shared drive on another computer to check the connectivity of the wireless LAN network.

**Accessing Another Computer**

1. Double-click the [My Network Places] icon on the desktop. [My Network Places] appears.
2. Double-click [Computers near me]. The computers that are connected to the network are displayed.
3. Double-click the computer that you want to access. The drive that you set with “Sharing” are displayed.
4. Double-click the drive that you want to access. The drive is displayed showing its contents and made available to you. If you have any questions or problems, refer to “Troubleshooting Table” on page 55.

**Checking the Connectivity**

1. Click [Start] -> [Settings] -> [Control Panel].
2. Double-click the [PRISM Settings] icon. [PRISM Wireless Settings] appears.
3. Check the connectivity on the [Link] tab. The current condition of connection is displayed.

Item	Description
State	Shows the current condition of connection.  The MAC address of the other computer to which you are connected is displayed when the connection is successful. If you are connected to more than one computer, the computer that has the best connectivity is displayed.
Current Channel	Shows the current channel used for the connection.
Current Tx Rate	Shows the current transfer rate in Mbits/sec.
[Radio Off]/ [Radio On]	Click [Radio Off] to disconnect.  Click [Radio On] to connect to the network.
[Rescan] button	Click this button to search for others to connect to.
Throughput (Bytes/sec)	Shows the actual transfer rate of the data transfer for send (Tx) and receive (Rx).
Link Quality	Shows either [Excellent], [Good], [Fair], [Poor], or [Not Connected], depending on the link quality.  Not shown for AdHoc connection.
Signal Strength	Shows either [Excellent], [Good], [Fair], [Poor], or [Not Connected], depending on the signal strength.  Not shown for AdHoc connection.

Table 7: Checking connectivity

## CONNECTING WINDOWS XP SYSTEMS

This chapter describes how to set up the wireless LAN connection for computers that are running Windows XP.



### POINT

If you purchased a ST4000P Series Pen Tablet PC with the wireless LAN option, the integrated wireless LAN device and drivers have already been installed. This procedure outlines the steps for setting the device parameters.

Updated drivers and/or utilities may become available after this manual is printed; see any addenda or fliers that may be included in the system packaging.

## Workflow

The proper setup of the wireless LAN connection requires that several steps be performed in the proper order. Following is a general outline of the steps to be performed. Each step is detailed later in this procedure.

1. Setting parameters
  - Setting the profile
  - Setting the encryption
2. Network settings
  - Setting the protocol and checking the network
  - Setting file and printer sharing
  - Checking the connection

## Setting Parameters

1. Click [Start] -> [Control Panel].
2. Click [Network and Internet connections].
3. Click [Network connection]. A list of networks that are currently installed is displayed.
4. Right click [Intersil PRISM Wireless LAN PCI Card] in the list, and click [Properties] from the menu that is displayed. [Wireless Network Connection Properties] appears.
5. Click the [Wireless Networks] tab. The [Wireless Networks] tab appears.
6. Perform the following steps.
  - Make sure that [Use Windows to configure my wireless network settings] is checked.
  - Click [Add] under [Preferred networks]. [Wireless Network Properties] appears.
7. Set parameters in accordance with Table 8.
  - For the AdHoc network, specify the same value to all the computers, for which the encryption key is used for connection.
  - For the infrastructure network, specify the encryption key (network key) with the same value to the encryption key of the access point. For how to check the encryption keys set for the access point, refer to the manual supplied with the access point.



### POINT

Be sure to specify the encryption keys. If you do not specify the keys, any computer with a wireless LAN card can be connected. This presents a risk that other users may steal or destroy your data.

Item		Description
Network Name SSID	Enter the network name to which you want to connect. This is a required item. For the network name, ask your LAN administrator.  <i>AdHoc network:</i> Set the same name for all of the computers that are to be connected.  <i>Infrastructure network:</i> Specify the same name as that specified on the access point that is to be connected. For access point instructions, refer to the manual that comes with the access point.	
Key Format	Click the down arrow and select the input for the Network key.	
	ASCII characters	Select this when using ASCII characters for the Network Key. Characters that can be used follow:  0-9, A-Z, a-z, and _ (underscore)  <i>Example:</i> To set the key to "ABC12", input "ABC12".
	Hexa-decimal characters	Select this when using hexadecimal characters for the Network Key.  Use this if there is a wireless LAN card in the network that has the Network Key set to a character code. In 'Network Key', input the same value as the other wireless LAN card.

**Table 8: Setting parameters**

- When you finish your entry, click [OK]. [Wireless Network Connection 2 Properties] appears again.
- Make sure the network name you specified for the SSID in Step 7 is added under [Preferred networks].

### Network Connection

The section describes how to set the network connection for a computer running Windows XP.

#### Network Settings

In this section, you set "TCP/IP Settings," and complete "Checking Computer Name and Workgroup" required for the network connection.

#### TCP/IP Settings

- On [Wireless Network Connection Properties], click [General].

### POINT

If [Wireless Network Connection 2 Properties] is not displayed, click [Start] -> [Settings] -> [Control Panel], and double-click the [Network Connection] icon.

Right click the [Wireless Network Connection], and then click [Properties] from the menu that appears.

- Perform the following steps.
  - Click [Internet Protocol (TCP/IP)].
  - Click [Properties]. [Internet Protocol (TCP/IP) Properties] appears.
- Set an IP address. Ask your network administrator and check the setting.

Item	Description
AdHoc Network	Set the IP address and subnet mask. Click [Use the following IP address]. Enter a value for [IP address] and [Subnet mask]. See "Setting IP Addresses" on page 58 to set IP address and subnet mask.
For Infrastructure Network	Select [Obtain an IP address automatically]. For the DNS server, select [Obtain DNS server address automatically]. For the IP address, DNS server, and default gateway, follow the network administrator's instructions, if any.

**Table 9: Setting an IP address**

- Click [OK].

### POINT

If you have changed the setting, [Close] is shown instead. Click [Close].

- Close [Network Connection].

### Checking the Full Computer Name and Workgroup

- Click [Start] -> [Control Panel]. Make sure the Classic View is selected.
- Double-click the [System] icon. [System Properties] appears.
- Click the [Computer Name] tab.

4. Check [Full computer name] and [Workgroup]. Ask your network administrator and check the setting.

Item	Description
Computer Name	A name to identify the computer on the network. You can specify any name to each computer. Use up to 15 single-byte characters. For easier identification, use the model name or user name.
Workgroup	A name of the network group. Use up to 15 single-byte characters.  <i>AdHoc Network:</i> Specify the same name to all computers within the same network.  <i>Infrastructure Network:</i> Specify workgroup name to connect to.

**Table 10: Setting computer name and workgroup**

To change the setting, click [Change], and follow the instructions on the screen. [System Properties] appears again.

5. Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

**Sharing**

In this section, you set sharing of the drive, folder, and printer.

You need to set this only when you are sharing files or a printer with other computers on the network.

When you share a drive, folder, or printer, you can use these from any computer on the network.

**Setting [File and Printer Sharing for Microsoft Networks]**

1. Click [Start] -> [Control Panel]. Make sure the Classic View is selected.
2. Double-click the [Network Connection] icon.
3. Right click the [Wireless Network Connection], and then click [Properties] from the menu that appears. [Wireless Network Connection Properties] appears.
4. If [File and Printer Sharing for Microsoft Networks] is displayed in the list:

Make sure that it is checked. If it is not checked, check it, and click [OK]. You do not have to perform the following steps. Go to the next section, "Sharing Files."

If [File and Printer Sharing for Microsoft Networks] is **not** found in the list, click [Install], and perform Step 5 and the subsequent steps. When you click

[Install], [Select Network Component Type] appears.

5. Perform the following steps.
  - Click [Service].
  - Click [Add]. [Select Network Service] appears.
6. Perform the following steps.
  - Click [File and Printer Sharing for Microsoft Networks].
  - Click [OK]. You will go back to [Wireless Network Connection 2 Properties], and [File and Printer Sharing for Microsoft Networks] is added to the list.
7. Click [Close].

**Sharing Files**

The following example shows how to set sharing the "Work" folder on the c: drive.

1. Click [Start] -> [My Computer].
2. Double-click the [Local Disk (c:)] icon.
3. Right click the "Work" folder, and then click [Sharing and Security] from the menu that appears. [Work Properties] appears.
4. Click [If you understand the security risks but want to share files without running the wizard, click here].



**POINT**

If you have already clicked [If you understand the security risks but want to share files without running the wizard, click here], this window does not appear.

In the [Work Properties] window, the description under [Network Sharing and security] changes.

5. Check [Share this folder on the network]. Uncheck [Allow network users to change my files], if the shared folder is for read only.
6. Click [OK]. The folder is set shared, and the "Work" folder icon changes.

**Printer Sharing**

1. Press [Start]->[Control Panel] (or [Settings], if viewing in Classic mode)-> [Printers and Faxes]. The Printers and Faxes display will appear and the connected printers will be displayed.
2. Right-click the printer to be shared, and click [Sharing] from the menu that appears. The properties of the printer to be shared will be displayed. Set printer sharing.

On the display, the printer sharing setting is recommended by the Network Setup Wizard, but for the wireless LAN network, security is maintained by network name (SSID) or network key. The following steps allow you to set up printer sharing without using the Network Setup Wizard.

3. Click 'If you understand the security risks but want to share printers without running the wizard, click here. 'Enable Printer Sharing' will be displayed.
4. Select 'Just enable printer sharing'.
5. Click 'OK'. The printer properties will be indicated.
6. Select 'Share this printer'.
7. Enter the sharing printer name in 'Share name'.
8. Click OK. The printer will be shared, and the printer icon will become a sharing icon.

**Checking the Connection**

After the network setting is completed, access the shared drive on another computer to check the connectivity of the wireless LAN network.

**Accessing Another Computer**

1. Click [Start] -> [My Computer].
2. From the left menu in [Other Places], click [My Network Places].
3. From the left menu in [Network Tasks], click [View workgroup computers]. The workgroup in which you are participating will appear.
4. Double click the computer to which you want to connect. The drive that you set in [Computer Sharing] appears.
5. Double click the drive to which you want to connect. The contents of the drive will appear, and is available for use.

If you have a question or problem, refer to “Troubleshooting Table” on page 55.

**Checking the Connectivity**

1. Click [Start] -> [Control Panel].
2. Double-click the [PRISM Settings] icon. [PRISM Wireless Setting] appears.
3. Check the connectivity on the [Link] tab. The current condition of connection is displayed

Item	Description
Current Tx Rate	Shows the current transfer rate in Mbits/sec.
Radio Off/ Radio On	Click [Radio OFF] to disconnect. Click [Radio On] to connect to the network.
Rescan	Click this button to search for others to connect to.
Throughput (Bytes/sec)	Shows the actual transfer rate of the transfer data for send (Tx) and receive (Rx).
Link Quality	Shows the link quality. This is not shown for the AdHoc connection.
Signal Strength	Shows the signal strength. This is not shown for the AdHoc connection.

**Table 11: Checking connectivity**

Item	Description
State	Shows the current condition of connection.  The MAC address of the other computer that you are connected to is displayed, when the connection is successfully made. If you are connected to more than one computer, the computer that has the best connectivity is displayed.
Current Channel	Shows the current channel used for the connection.

## TROUBLESHOOTING

This section contains troubleshooting information, including causes and actions, for problems you may find while using this device.

### Troubleshooting Table

Problem	Possible Cause	Possible Solution
An exclamation mark (!) or cross (x) is attached to [Intersil PRISM Wireless LAN PCI Card].	A failure to recognize the device.	Restart the computer.
	A failure in installing the driver.	Restart the computer.
Other computers are not displayed when the [Network Computer] icon is double-clicked.	The network has not been set up correctly.	Check the setting for the protocol, workgroup, and sharing. To check this, you need a different procedure, depending upon the operating system that you use. Refer to the appropriate section of this chapter.
	It takes time before the network is searched and the computer connected is displayed.	Perform the following steps to search for the computer. <ul style="list-style-type: none"> <li>▪ Click [Start] -&gt; [Search] -&gt; [Other Computers].</li> <li>▪ Enter the computer name that you are connecting to in [Name], and click [Search].</li> <li>▪ Double-click the icon of the computer that has been searched.</li> </ul>
	A failure in installing the driver.	Make sure that the driver is correctly installed.
	The TCP/IP protocol is not installed, or, the IP address is not set correctly.	Make sure that the TCP/IP protocol is installed. To check this, you need a different procedure, depending on the operating system that you use. Refer to the appropriate section of this manual.
	The TCP/IP protocol is not installed, or, the IP address is not set correctly.	If the TCP/IP protocol is installed, do the following to check the IP address: <ol style="list-style-type: none"> <li>1. Windows 2000: Click [Start] -&gt; [Programs] -&gt; [Accessories] -&gt; [Command Prompt]. Windows XP: Click [Start] -&gt; [All Programs] -&gt; [Accessories] -&gt; [Command Prompt].</li> <li>2. Enter "IPCONFIG" command, and press [Enter]. (If your hard disk is C drive, enter C:\&gt;ipconfig)</li> </ol> Check that the IP address is correctly displayed under the IP Address. Example: IP address: 10.0.1.3 Subnet Mask: 255.255.255.0 Default Gateway: 10.0.1.1
	No communication due to poor radio signal.	Shorten the distance between computers or remove visible obstacles between them, and retry the connection.

Problem	Possible Cause	Possible Solution
IP packet isn't reaching its destination	Run the PING command to check the connection	<p>Perform the following steps to run the PING command to check if the IP packet is correctly delivered to the destination.</p> <p>To run the PING command, the TCP/IP protocol must be installed. First you will determine your IP address, then you will make sure your IP address can respond, and then you will make sure other computers can be addressed.</p> <ol style="list-style-type: none"> <li>1. Windows 2000: Click [Start] -&gt; [Programs] -&gt; [Accessories] -&gt; [Command Prompt]. Windows XP: Click [Start] -&gt; [All Programs] -&gt; [Accessories] -&gt; [Command Prompt].</li> <li>2. Type: <code>ipconfig &gt; directory\filename</code> where <i>directory</i> and <i>filename</i> represent the location at which you want to store the IP address.</li> <li>3. Click [Enter], then go to the location you specified above. The IP address for your system will be contained in the file.</li> <li>4. To check that your IP address is functioning properly, go back to the DOS prompt and type: <code>ping &lt;IP address&gt;</code>, then press [Enter]. You will receive several replies, followed by the PING statistics (similar to below).</li> <li>5. To check that your system is communicating with other systems, go to the DOS prompt and type: <code>\&gt;ping XXX.XXX.XXX.XXX</code>. (With the destination IP address in place of XXX.XXX.XXX.XXX).</li> </ol> <p>Example: if the destination IP address is 10.0.1.3: C:\&gt;ping 10.0.1.3</p> <p>A message similar to the following appears if the connection is successful.</p> <p>Pinging 10.0.1.3 with 32 bytes of data: Reply from 10.0.1.3: bytes=32 time=1ms TTL=32 Reply from 10.0.1.3: bytes=32 time&lt;10ms TTL=32 Reply from 10.0.1.3: bytes=32 time=4ms TTL=32 Reply from 10.0.1.3: bytes=32 time&lt;10ms TTL=32</p> <p>If the connection fails, [Request timed out], [Destination host unreachable], or a similar message appears. In this case, refer to the "Other computers are not displayed" portion of this chapter.</p>
Cannot connect to the network	There are several possible causes, as listed to the right. Refer to the specific section of this manual or your user's manual.	<p>The following causes are possible. Check each one of them.</p> <ul style="list-style-type: none"> <li>▪ The network name or encryption key is not right.</li> <li>▪ The driver has not correctly started.</li> <li>▪ The destination computer is not turned on.</li> <li>▪ You do not have the access privilege to the destination computer.</li> <li>▪ The card has failed.</li> <li>▪ Hardware conflict.</li> </ul>

Problem	Possible Cause	Possible Solution
I want to remove the driver (Windows 2000)		<p><b>Windows 2000:</b> When removing the driver, make sure that the device is attached to the computer. If you try to remove the driver while the device is detached from the computer, the driver is not removed.</p> <ol style="list-style-type: none"> <li>1. Right click the [My Computer] icon on the desktop, and then click [Properties] from the menu that appears. [System Properties] appears.</li> <li>2. Click the [Hardware] tab.</li> <li>3. Click [Device Manager...]. The [Device Manager] window appears.</li> <li>4. Click [+] beside [Network adapters].</li> <li>5. Right click [Intersil PRISM Wireless LAN PCI Card], and click [Uninstall] from the menu that is displayed. [Confirm Device Removal] appears.</li> <li>6. Click [OK].</li> <li>7. Close [System Properties]. Make sure that the icon has disappeared from the task tray in the lower right corner of the screen.</li> <li>8. Click [Start] -&gt; [Settings] -&gt; [Control Panel].</li> <li>9. Double-click [Add/Remove Programs]. [Add/Remove Programs] appears.</li> <li>10. Perform the following steps. <ul style="list-style-type: none"> <li>▪ Click [PRISM 11Mbps Wireless LAN for Windows].</li> <li>▪ Click [Change/Remove].</li> </ul> </li> <li>11. A window appears asking you if you really want to remove the driver.</li> <li>12. Click [Yes]. When the driver is removed, a window appears showing that the driver has been removed.</li> <li>13. Click [OK].</li> <li>14. Close [Add/Remove Programs] and [Control Panel].</li> <li>15. Shut down Windows, and turn off the computer.</li> </ol>

Problem	Possible Cause	Possible Solution
<p>I want to remove the driver (Windows XP)</p>		<p><b>Windows XP:</b>                      When removing the driver, make sure that the device is attached to the computer. If you try to remove the driver while the device is detached from the computer, the driver is not removed.</p> <ol style="list-style-type: none"> <li>1. Click [Start], right click [My Computer], and then click [Properties] from the menu that appears. [System Properties] appears.</li> <li>2. Click the [Hardware] tab.</li> <li>3. Click [Device Manager].</li> <li>4. Click [+] beside [Network adapters].</li> <li>5. Right click [Intersil PRISM Wireless LAN PCI Card], and click [Uninstall] from the menu that is displayed. [Confirm Device Removal] appears.</li> <li>6. Click [OK].</li> <li>7. Close [System Properties].</li> <li>8. Make sure that the icon has disappeared from the task tray in the lower right corner of the screen.</li> <li>9. Click [Start] -&gt; [Control Panel]. [Control Panel] appears.</li> <li>10. Double-click [Add/Remove Programs]. [Add/Remove Programs] appears.</li> <li>11. Perform the following steps.                             <ul style="list-style-type: none"> <li>▪ Click [PRISM 11Mbps Wireless LAN for Windows].</li> <li>▪ Click [Change/Remove].</li> </ul>                             A window appears asking you if you really want to remove the driver.                         </li> <li>12. Click [Yes]. When the driver is removed, a window appears showing that the driver has been removed.</li> <li>13. Click [OK].</li> <li>14. Close [Add/Remove Programs] and [Control Panel].</li> <li>15. Shut down Windows, and turn off the computer.</li> </ol>

**ABOUT IP ADDRESSES**

**Setting IP Addresses**

If you are not sure how to set the IP address, refer to the following procedure.

If you have an access point (DHCP server) on the network, set the IP address as follows:

Windows 2000: [Obtain an IP address automatically]

Windows XP: [Obtain an IP address automatically]

If no access point is found in the network:

An IP address is expressed with four values in the range between 1 and 255.

Set the each computer as follows: The value in parentheses is a subnet mask.

<Example>

Computer A: 192.168.100.2 (255.255.255.0)

Computer B: 192.168.100.3 (255.255.255.0)

Computer C: 192.168.100.4 (255.255.255.0)

:

:

Computer X: 192.168.100.254 (255.255.255.0)



**POINT**

A DHCP server is a server that automatically assigns IP addresses to computers or other devices in the network. There is no DHCP server for the AdHoc network.

If the IP address is already assigned to the computer in the network, ask the network administrator to check the IP address to be set for the computer.

## SPECIFICATIONS

### Technical Specifications for Integrated Wireless LAN Device

Item	Description
Network Type	IEEE 802.11b
Transfer Rate	11/5.5/2/1Mbps (auto change)
Frequency Range	2,412 - 2,462 MHz
Channels	One of 11 channels is used
Card Type	Non-intelligent
VCC	Class B
Security	Network name, encryption key
Supported Operating Systems	Windows 2000 Professional, Windows XP Professional
Power Current	Max: 350mA
Maximum number of units recommended for wireless LAN (AdHoc network)	10 or less



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