EMC Technologies Report Number: M060246_Cert_AR5BXB6_DTS_BT

APPENDIX I1

FUJITSU NOTEBOOK USER MANUAL (Part 1)

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B6FH-6901-01EN-00

WARNING

Handling the cord on this product or cords associated with accessories sold with this product, will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm.

Wash hands after handling.

DECLARATION OF CONFORMITY

according to FCC Part 15

Responsible Party Name:	Fujitsu Computer Systems Corporation
Address:	1250 E. Arques Avenue, MS 122 Sunnyvale, CA 94085
Telephone:	(408) 746-6000
Declares that product:	Model Configuration: LifeBook T4210 Tablet PC Complies with Part 15 of the FCC Rules.

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

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IMPORTANT SAFETY INSTRUCTIONS

This unit requires an AC adapter to operate. Use only UL Listed Adapters with an output rating of 19 VDC, with a current of 3.15 A.

AC Adapter output polarity:

When using your notebook equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Do not use this product near water for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using the modem during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the modem to report a gas leak in the vicinity of the leak.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
- To reduce the risk of fire, use only No. 26 AWG or larger UL Listed or CSA Certified Telecommunication Line Cord.

SAVE THESE INSTRUCTIONS

For Authorized Repair Technicians Only

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.

For continued protection against risk of fire, replace only with the same type and rating fuse.

System Disposal

LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE, OR FEDERAL LAWS.

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Fujitsu LifeBook® T Series Tablet PC
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Preface

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Preface

ABOUT THIS GUIDE

The LifeBook® T Series Tablet PC from Fujitsu Computer Systems Corporation is a powerful convertible computer. It can be used either as a standard notebook using keyboard input, or in tablet configuration using pen input. It is powered by an Intel® microprocessor, has a built-in color display with an active digitizer, and brings the computing power of desktop personal computers (PCs) to a portable and versatile environment.

This manual explains how to operate your LifeBook T Series Tablet PC's hardware and built-in system software. Your LifeBook T Series Tablet PC comes with Windows® XP Tablet PC Edition 2005 pre-installed.

Your LifeBook T Series Tablet PC is a completely self-contained unit with an active-matrix (TFT) color LCD display. The display has a wide viewing angle and can be used indoors or outdoors. The tablet 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 [Ctl].

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 Tablet PC.

DOS commands you enter appear in Courier type.
Example: `Shutdown the computer?`

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

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.

The warning icon warns you about possible hazards that can occur to you, your system, or your files. Please read all warning information carefully.

FUJITSU CONTACT INFORMATION

Service and Support

You can contact Fujitsu Computer Systems Service and Support the following ways:

- Toll free: 1-800-8Fujitsu (1-800-838-5487)
- Fax: 1-408-764-2724
- E-mail: 8fujitsu@us.fujitsu.com
- Web site: http://www.computers.us.fujitsu.com/support

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
- Type of device connected, if any

Fujitsu Online

You can go directly to the online Fujitsu Product catalog for your Tablet PC. Go to Start -> Fujitsu WebLinks -> Pen Accessories Web site.

You can also reach Fujitsu Service and Support online by going to Start -> Fujitsu WebLinks -> Fujitsu Service and Support.

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

WARRANTY

Your LifeBook T Series Tablet PC is backed by an International Limited Warranty and includes toll-free technical support. Check the service kit that came with your Tablet PC for warranty terms and conditions.

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Getting to Know Your Tablet PC

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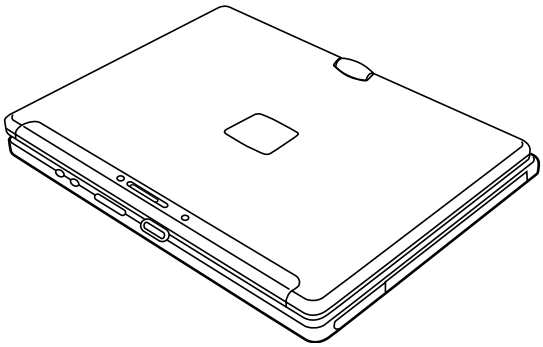

Figure 2-1. Fujitsu LifeBook T Series Tablet PC

Overview

This section describes the components of your Fujitsu LifeBook T Series Tablet PC. We strongly recommend that you read it before using your Tablet PC, even if you are already familiar with mobile computers.

UNPACKING

When you receive your LifeBook T Series Tablet PC, unpack it carefully, and compare the parts you have received with the items listed below.

For a pre-configured model you should have:

- LifeBook T Series Tablet PC *(Figure 2-1)*
- AC adapter with AC power cord (Figure 2-2)
- Phone/Modem (RJ-11) telephone cable
- Pen
- Pen tether
- Screen protectors (Qty. 2)
- Driver and Application Restore (DAR) DVD
- Recovery DVD
- Getting Started Guide
- User's Guide (this document)
- International Limited Warranty Booklet
- Certificate of Authenticity
- Lithium ion battery (pre-installed)

You may also have one or more of the following devices in the box, depending upon the configuration of your system:

- Port Replicator (Figure 2-3)
- External USB Floppy Disk Drive
- Additional battery(s)
- Application CD(s) for third-party software

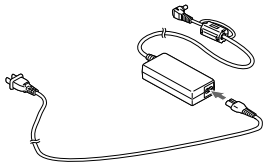

Figure 2-2. AC Adapter

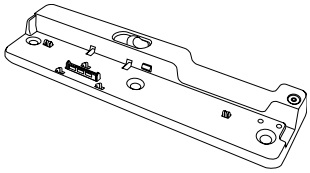

Figure 2-3. Optional Port Replicator

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OPTIONAL ACCESSORIES

The following optional accessories can be used with the LifeBook T Series Tablet PC. Refer to the instructions provided with these accessories for details on their use. For the latest list of accessories available for your LifeBook T Series Tablet PC, be sure to frequently check the Fujitsu Web site at: www.shopfujitsu.com

Docking Options

- LifeBook T Series Tablet PC port replicator

Carrying Cases

- Executive leather portfolio
- Field Mate convertible
- Duo Travel Bag
- Director leather carrying case
- Diplomat carrying case
- Backpack

Storage Options

- External USB floppy disk drive
- Modular DVD/CD-RW Combo Drive
- Multi-Format DVD Writer

Memory

- 256 MB SDRAM, DDR2-533
- 512 MB SDRAM, DDR2-533
- 1.0 GB SDRAM, DDR2-533
- 128 MB Compact Flash card
- 256 MB Compact Flash card
- 128 MB Secure Digital memory card

Power Options

- AC Adapter with US cord
- Main battery
- Modular bay battery
- Auto/airline adapter
- Battery charger with AC Adapter

Input Accessories

- Replacement pen set (2-pack)
- USB optical mouse

Additional Accessories

- 4-in-1 PC Card Adapter
- Compact Flash card adapter
- Notebook Guardian Lock
- Screen protectors
- Deluxe pen tether

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Locating the Controls and Connectors

Connectors and peripheral interfaces on the LifeBook T Series Tablet PC and the optional port replicator allow you to connect a variety of devices. Specific locations are illustrated in Figures 2-4 through 2-8. The table below provides a short description of each icon on the LifeBook T Series Tablet PC. Each of the icons is either molded into or printed on the Tablet PC chassis.

Connection	Tablet PC Icon	Purpose
DC in connector		Connect an external power source such as the AC adapter or auto/airline adapter.
SD/Memory Stick Slot		The Secure Digital (SD) card/Memory Stick slot allows you to insert a flash memory card for data storage. Flash memory cards allow you to transfer data to and from a variety of different digital devices.
Smart Card Slot		The dedicated Smart Card slot allows you to insert a Smart Card on which you can store such data as medical information or electronic "cash".
USB Port		Connect Universal Serial Bus 2.0 or 1.1 compliant devices to the Tablet PC.
PCMCIA Card slot		Insert Type I or Type II PC Cards.
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 Tablet PC allows you to communicate with other devices that are compliant with 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 computer and the IrDA transceiver on the other device.
Modem		Connect a telephone line to the internal modem using a standard RJ-11 telephone plug.
Tablet Dock port		Connect the Tablet PC port replicator or other approved docking device. Refer to documentation accompanying the dock for more information.
Security lock slot		The security slot allows you to secure the Tablet PC using compatible locking devices.
Suspend/Resume button		The Suspend/Resume button allows you to suspend Tablet PC activity without powering off, resume your Tablet PC from suspend mode, and power on the system when it has been shut down from Windows.

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Connection	Tablet PC Icon	Purpose
Local Area Network (LAN)		The LAN (RJ-45) jack is used to connect the internal 10/100/1000* Base-T/Tx Ethernet to a Local Area Network (LAN) in your office or home, or broadband devices such as a cable modem, DSL, or satellite Internet. *1000 Mbps, commonly referred to as Gigabit Ethernet.
Wireless LAN On-Off Switch		The wireless LAN switch allows you to turn power to the optional wireless LAN device on and off.
Display Rotation		This icon indicates the direction in which the display should be rotated when converting to tablet mode.

Table 2-1. System icons

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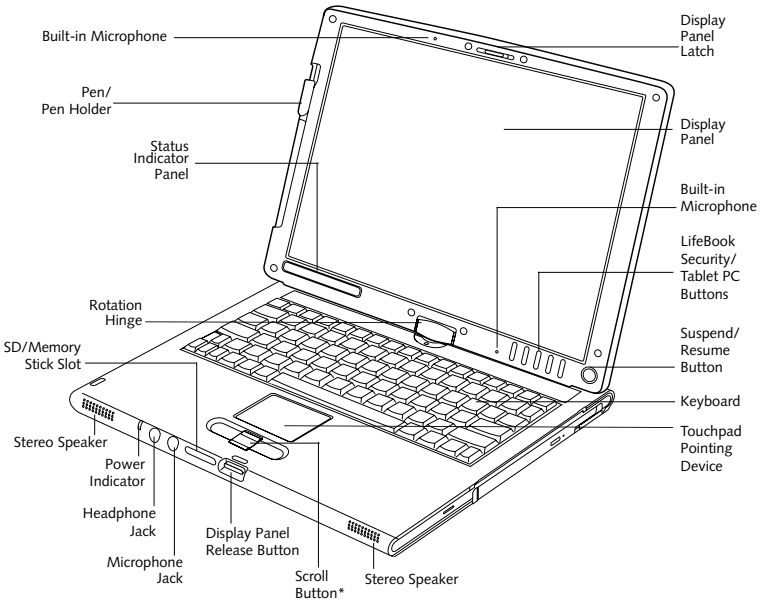

* Touchpad may have scroll button or optional fingerprint sensor device.

Figure 2-4. LifeBook T Series Tablet PC with display open

TOP AND FRONT COMPONENTS

The following is a brief description of the top and front features of the LifeBook T Series Tablet PC. (Figure 2-4)

Pen/Pen Holder

The pen is used as the interface with the active digitizer display.

Display Panel Latch

The display panel latch locks and releases the display panel.

Display Panel

The display panel is a color LCD panel with back lighting for the display of text and graphics and active digitizer functionality.

Built-in Microphones

The built-in microphones allow you to input mono audio.

LifeBook Security/Tablet PC Buttons

The LifeBook T Series Tablet PC Security/Tablet PC Buttons provide hardware security and application launch capabilities. See "LifeBook Security/ Tablet PC Buttons" on page 23.

Suspend/Resume Button

The Suspend/Resume button allows you to suspend Tablet PC activity without powering off, resume your Tablet PC from standby mode, and power on your system when it has been shut down from the Windows operating system. See "Power On" on page 36.

Keyboard

A full-function keyboard with dedicated Windows keys. See "Keyboard" on page 21.

Touchpad Pointing Device

The Touchpad pointing device consists of two mouse-like buttons and one scroll button*. See "Touchpad Pointing Device" on page 27.

* *Certain configurations of this system have an optional fingerprint sensor located in place of the scroll button. See "Fingerprint Sensor Device" on page 115.*

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Stereo Speakers
The stereo speakers allow you to listen to stereo sound from your system.

Display Panel Release Button
The display panel release button allows you to release the display so that it can be opened.

Microphone Jack
The microphone jack allows you to connect an external mono microphone. See "Microphone Jack" on page 55.

Headphone Jack
The headphone jack allows you to connect stereo headphones or powered external speakers.
See "Headphone Jack" on page 55.

Power Indicator
The power indicator shows the power state of the system. Solid green indicates that power is on, and blinking green indicates that the system is in suspend mode.

SD Card/Memory Stick
The Secure Digital (SD) card/Memory Stick slot allows you to insert a flash memory card for data storage. Flash memory cards allow you to transfer data to and from a variety of different digital devices.

Rotation Hinge
The rotation hinge allows you to transform your Tablet PC from a notebook configuration into a tablet configuration. See "Using the System as a Tablet" on page 19.

Status Indicator Panel
The Status Indicator Panel displays symbols that correspond to specific components of your LifeBook T Series Tablet PC. See "Status Indicator Panel" on page 17.

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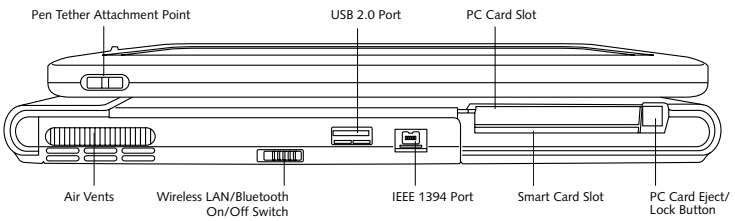

Figure 2-5. LifeBook T Series Tablet PC left-side panel

LEFT-SIDE PANEL COMPONENTS

Following is a brief description of your Tablet PC's left-side components. (Figure 2-5)

Pen Tether Attachment Point

The pen tether attachment point is designed to securely hold a pen tether to prevent loss of the pen. See "Installing a Pen Tether" on page 30 for additional information.

USB 2.0 Port

The two USB 2.0 ports (one on rear panel and one on left-side panel) allow you to connect Universal Serial Bus devices. See "Universal Serial Bus Ports" on page 54.

PC Card Slot

The PC Card Slot allows you to insert a Type I or Type II PC Card. The PC Card Eject Button is used when ejecting a PC Card from the slot. See "PC Cards" on page 49.

IEEE 1394 Port

Allows you to connect IEEE 1394 (Firewire) peripherals such as digital video cameras or external hard drives to your Tablet PC.

WLAN/Bluetooth On/Off Switch

The wireless LAN/Bluetooth On/Off Switch is used to power off the wireless antenna when not in use.

Smart Card Slot

The dedicated Smart Card slot allows you to insert an optional Smart Card on which you can store such data as medical information or electronic "cash".

Air Vents

The air vents are used to cool the system to prevent overheating.

To protect your computer from damage and to optimize system performance, be sure to **keep all air all vents unobstructed, clean, and clear of debris**. This may require periodic cleaning, depending upon the environment in which the system is used.

Do not operate the computer in areas where the air vents can be obstructed, such as in tight enclosures or on soft surfaces like a bed or cushion.

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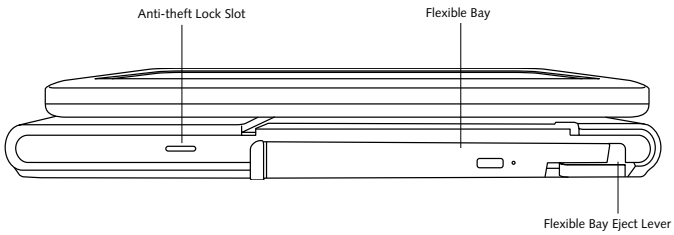

Figure 2-6. LifeBook T Series Tablet PC right-side panel

RIGHT-SIDE PANEL COMPONENTS

Following is a brief description of your Tablet PC's right-side components.

Flexible Bay

The Flexible Bay can accommodate one of the following devices. See "Flexible Bay Devices" on page 47.

- Modular DVD/CD-RW combo drive
- Modular Dual-Layer Multi-Format DVD Writer
- Modular DVD-ROM drive
- Modular Lithium ion battery
- Weight Saver

Flexible Bay Eject Lever

The Flexible Bay eject lever releases the Flexible Bay device.

Anti-theft Lock Slot

The anti-theft lock slot allows you to attach a optional physical lock-down device.

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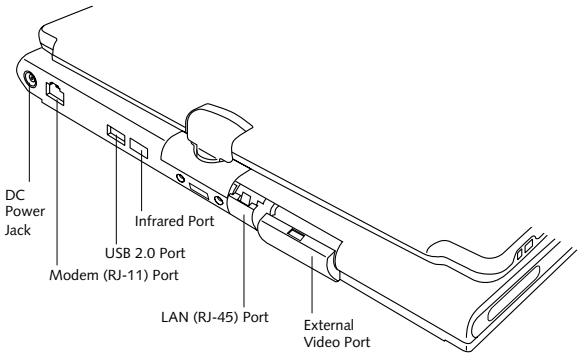

Figure 2-7. LifeBook T Series Tablet PC rear panel

REAR PANEL COMPONENTS

DC Power Jack

The DC power jack allows you to plug in the AC adapter or the optional Auto/Airline adapter to power your Tablet PC and charge the internal Lithium ion Battery.

Modem (RJ-11) Telephone Port

The Modem (RJ-11) telephone port is for attaching a telephone line to the internal multinational 56K modem.

The internal multinational modem is not intended for use with Digital PBX systems. Do not connect the internal modem to a Digital PBX as it may cause serious damage to the internal modem or your entire LifeBook T Series Tablet PC. Consult your PBX manufacturer's documentation for details. Some hotels have Digital PBX systems. Be sure to find out BEFORE you connect your modem.

The internal modem is designed to the ITU-T V.90 standard. Its maximum speed of 53000 bps is the highest allowed by FCC, and its actual connection rate depends on the line conditions. The maximum speed is 33600 bps at upload.

USB 2.0 Ports

The two USB 2.0 ports (one on rear panel and one on left-side panel) allow you to connect Universal Serial Bus devices. See "Universal Serial Bus Ports" on page 54.

Infrared Port

The fast IrDA compatible port allows you to communicate with another IrDA-compatible infrared device without a cable. (*See "Infrared Port" on page 54.*)

LAN (RJ-45) Port

The internal LAN (RJ-45) port is used for an internal GigaLAN Ethernet (10/100/1000 Base-T/TX) connection. See "Internal LAN (RJ-45) jack" on page 54.

External Video Port

The external monitor port allows you to connect an external monitor or LCD projector. For simultaneous display, this model supports XGA (max. 1024 x 768) or SXGA+ (max 1400 x 1050) resolutions. When running CRT only, UXGA (max 1600 x 1200 resolution) is supported. Note that when the optional Port Replicator is attached to the system, you must use the external monitor port on the Port Replicator rather than the port on the system. See "External Video Port" on page 55.

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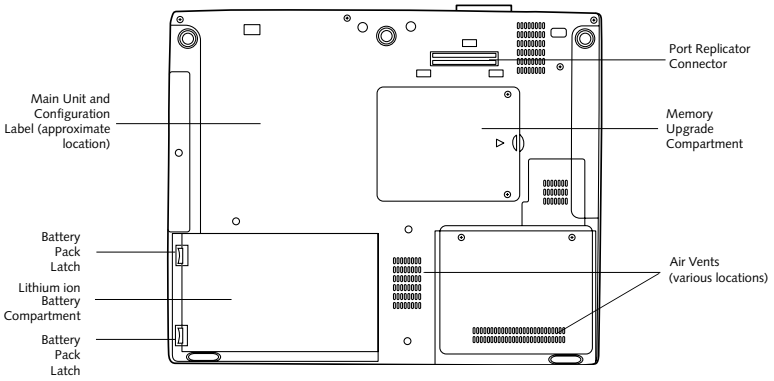

Figure 2-8. LifeBook T Series Tablet PC bottom panel

BOTTOM COMPONENTS

Following is a brief description of your Tablet PC's bottom panel components. (Figure 2-8)

Lithium ion Battery Compartment

The battery compartment contains the internal Lithium ion battery. The battery should be removed when the computer is stored over a long period of time or for swapping a discharged battery with a charged Lithium ion battery. See "Lithium ion Battery" on page 43.

Port Replicator Connector

This connector allows you to connect the optional port replicator.

Main Unit and Configuration Label

The configuration label shows the model number and other information about your LifeBook T Series Tablet PC. In addition, the configuration portion of the label has the serial number and manufacturer information that you will need to give your support representative. It identifies the exact version of various components of your Tablet PC.

Memory Upgrade Compartment

Your Tablet PC comes with high speed DDR2 Synchronous Dynamic RAM (SDRAM). The memory upgrade compartment allows you to expand the system memory capacity of your Tablet PC, hence improving overall performance. See "Memory Upgrade Module" on page 45.

Air Vents

The air vents are used to cool the system to prevent overheating.

To protect your computer from damage and to optimize system performance, be sure to **keep all air all vents unobstructed**, **clean, and clear of debris**. This may require periodic cleaning, depending upon the environment in which the system is used.

Do not operate the computer in areas where the air vents can be obstructed, such as in tight enclosures or on soft surfaces like a bed or cushion.

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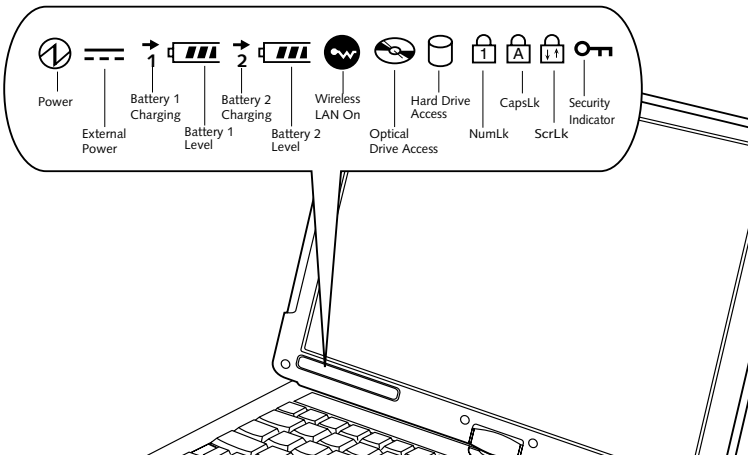

Figure 2-9. Status Indicator Panel

Status Indicator Panel

The Status Indicator Panel displays symbols that correspond to specific components of your LifeBook T Series Tablet PC. These symbols tell you how each of those components is operating. *(Figure 2-9)*

POWER INDICATOR

The Power indicator symbol states whether your system is operational. It has several different states, each of which tells you what mode your Tablet PC is in at that time.

- **Steady On:** This means that there is power to your Tablet PC and that it is ready for use.
- **Flashing:** This means that your Tablet PC is in Standby mode.
- **Steady Off:** This means that your system is either in Hibernate mode, or that your Tablet PC has been turned off.

If you are charging your battery, the Power indicator symbol will remain on even if your LifeBook T Series Tablet PC is shut off. The Power indicator symbol will also remain on if you have either adapter connected and are shut down from Windows.

EXTERNAL POWER INDICATOR

The external power indicator states whether your tablet is operating from the AC adapter, the auto/airline adapter or the batteries. This icon has two different states that can tell you what power source your LifeBook Tablet PC is using.

- **On:** This means that either of the adapters are currently in use.
- **Off:** Power is only coming from the batteries, and you do not have an adapter connected.

BATTERY CHARGING/ LEVEL INDICATORS

The Battery Charging and Battery Level indicators state whether the Lithium ion battery (Battery 1) or the optional modular battery (Battery 2) are installed and charging, and how much charge is available within the batteries. *(Figure 2-10)*

Additionally, these indicators display when an overcurrent is detected. If an overcurrent is detected, the battery stops charging and the Battery Level indicator blinks at the rate of once per second. To stop the indicator from blinking, you must disconnect the power adapter.

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Batteries subjected to shocks, vibration or extreme temperatures can be permanently damaged.

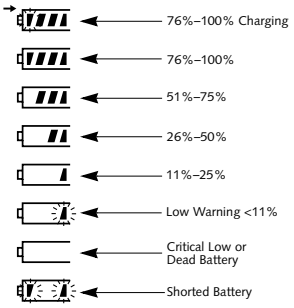

Figure 2-10. Battery Level Indicator

A shorted battery is damaged and must be replaced. *(Figure 2-10)*

If there is no battery activity and the power adapters are not connected, the Battery Level indicators will also be off.

WIRELESS LAN/BLUETOOTH ON INDICATOR

The Wireless LAN/Bluetooth On indicator is displayed when the switch for the optional internal Wireless LAN/ Bluetooth device is switched on.

OPTICAL DRIVE ACCESS INDICATOR

The Optical Drive Access indicator states whether your internal optical drive is being accessed.

HARD DRIVE ACCESS INDICATOR

The Hard Drive Access indicator states whether your internal hard drive is being accessed.

NUMLK INDICATOR

The NumLk indicator states that the integral keyboard is set in ten-key numeric keypad mode.

If there is no battery activity and the power adapters are not connected, the Battery Level indicators will also be off.

CAPSLOCK INDICATOR

The CapsLock indicator states that your keyboard is set to type in all capital letters.

SCRLK INDICATOR

The ScrLk indicator states that your scroll lock is active.

SECURITY INDICATOR

The Security Indicator flashes (if a password was set) when the system resumes from Off or Standby modes. You must enter the password that was set in the Security Panel before your system will resume operation.

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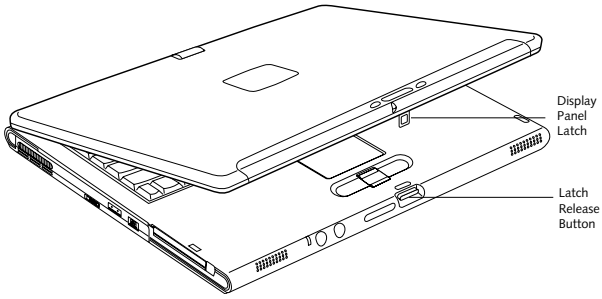

Figure 2-11. Opening the display

Display Panel

Your LifeBook T Series Tablet PC contains a display panel that is backlit for easier viewing in bright environments. The convertible design of your Tablet PC allows you to open the display fully, rotate it 180 degrees, and lay it face up on the keyboard. This allows you to use the system as a tablet, much as you would a pad of paper.

OPENING THE DISPLAY PANEL

1. Press the latch release button. This releases the locking mechanism. While holding the latch release, lift display cover.
2. Lift the display backwards, being careful not to touch the screen, until it is at a comfortable viewing angle. *(Figure 2-11)*

USING THE SYSTEM AS A TABLET

If you would like to use the system as a tablet, perform the following steps.

Rotate the system display only in the direction indicated in the procedure. Turning the display in the incorrect direction could cause hinge damage.

In the following step, be sure to position the display perpendicular to the keyboard, otherwise the keyboard or display cover could get scratched.

1. Lift the display until it is perpendicular to the keyboard. *(Figure 2-13)*.
2. When the display is perpendicular to the keyboard, rotate it clockwise (when viewed from the top). Be very careful to rotate it in the direction indicated. *(Figure 2-14)*. Turn the display 180 degrees so that it is facing backwards. *(Figure 2-15)*
3. Holding the top edge of the display panel, pull it forward until it is lying nearly atop the keyboard.
4. Push the latch towards the display (See "A" in Figure 2-12). The latch will pivot so the top latch disappears, and the bottom latch appears (See "B" in Figure 2-12). Holding the latch down, lay the display flush against the system so that the latch engages. You can now use your system as a tablet. *(Figure 2-16)*

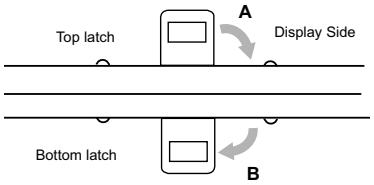

Figure 2-12. Latching/Unlatching

5. To return the system to notebook configuration, repeat step 3 and 2. Be sure to turn the display in the opposite direction when performing step 2.

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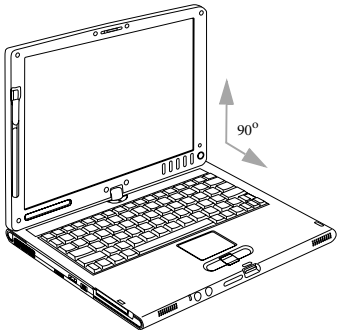

Figure 2-13. Fully open display

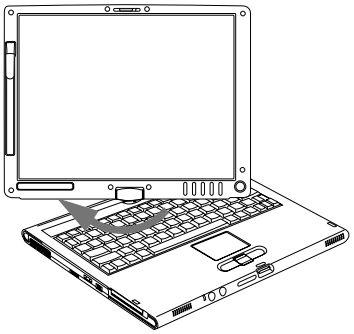

Figure 2-14. Rotating the display

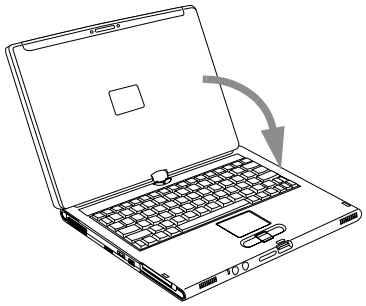

Figure 2-15. Display rotated completely

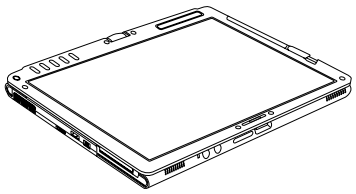

Figure 2-16. System in tablet configuration

ADJUSTING DISPLAY PANEL BRIGHTNESS

Once you have turned on your Tablet PC, you may want to adjust the brightness level of the screen to a more comfortable viewing level. There are two ways to adjust the brightness, keyboard and power management utility.

Using Keyboard to Adjust Brightness

Adjusting the brightness using the keyboard changes the system setting (i.e., the settings you make via the function keys automatically changes the brightness settings in the system's Pen and Tablet Settings).

- [Fn+F6]: Pressing repeatedly will lower the brightness of your display.
- [Fn+F7]: Pressing repeatedly will increase the brightness of the display.

Using Power Management to Adjust Brightness

To adjust brightness with the power management utility, click Start -> Control Panel -> Tablet and Pen Settings. Select the Display tab and set the screen brightness slider for battery and AC power scenarios.

Using the Fujitsu Menu to Adjust Brightness

To adjust brightness using the Fujitsu menu, click on the Fujitsu Menu icon in the system tray in the lower right corner of the screen (or double-click the Function button). From the menu that appears, select Brightness Control. The Tablet and Pen Settings window will open. Select the Display tab and set the screen brightness slider for battery and AC power scenarios.

If using AC power your brightness setting is set to its highest level by default. If using battery power your brightness settings is set to approximately mid-level by default.

The higher the brightness level, the more power the Tablet PC will consume and the faster your batteries will discharge. For maximum battery life, make sure that the brightness is set as low as possible.

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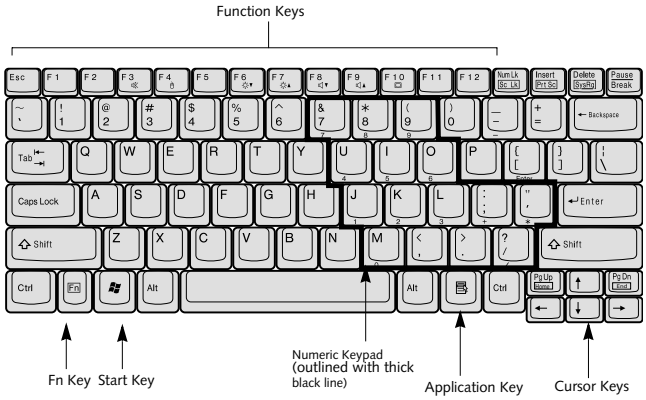

Figure 2-17. Keyboard

Keyboard

USING THE KEYBOARD

Your LifeBook T Series Tablet PC has an integral 84-key keyboard. The keys perform all the standard functions of a 101-key keyboard, including the Windows keys and other special function keys. This section describes the following keys. *(Figure 2-17)*

- **Numeric keypad:** Your Tablet PC allows certain keys to serve dual purposes, both as standard characters and as numeric and mathematical keys. The ability to toggle between the standard character and numerical keys is controlled through the [NumLk] key.
- **Cursor keys:** Your keyboard contains four arrow keys for moving the cursor or insertion point to the right, left, up, or down within windows, applications and documents.
- **Function keys:** The keys labeled [F1] through [F12], are used in conjunction with the [Fn] key to produce special actions that vary depending on what program is running.
- **Windows keys:** These keys work with your Windows operating system and function the same as the onscreen Start menu button, or the right button on your pointing device.

NUMERIC KEYPAD

Certain keys on the keyboard perform dual functions as both standard character keys and numeric keypad keys. NumLk can be activated by pressing the [NumLk] key. Turning off the NumLk feature is done the same way. Once this feature is activated you can enter numerals 0 through 9, perform addition (+), subtraction (-), multiplication (*), or division (/), and enter decimal points (.) using the keys designated as ten-key function keys. The keys in the numeric keypad are marked on the front edge of the key to indicate their secondary functions. *(Figure 2-17)*

WINDOWS KEYS

Your LifeBook T Series Tablet PC has two Windows keys: a Start key and an Application key. The Start key displays the Start menu. This button functions the same as your onscreen Start menu button. The Application key functions the same as your right mouse button and displays shortcut menus for the selected item. (Please refer to your Windows documentation for additional information regarding the Windows keys.) *(Figure 2-17)*

CURSOR KEYS

The cursor keys are the four arrow keys on the keyboard which allow you to move the cursor up, down, left, and right in applications. In programs such as Windows Explorer, it moves the “focus” (selects the next item up, down, left, or right). *(Figure 2-17)*

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FUNCTION KEYS

Your Tablet PC has 12 function keys, F1 through F12. The functions assigned to these keys differ for each application. You should refer to your software documentation to find out how these keys are used.
(Figure 2-17)

[Fn] Key

The [Fn] key provides extended functions for the Tablet PC and is always used in conjunction with another key.

- **[Fn+F3]**: Pressing [F3] while holding [Fn] will toggle the Audio Mute on and off.
- **[Fn+F4]**: Pressing [F4] while holding [Fn] will toggle the built-in pointing device on and off. Note that the [Fn+F4] combination only works if Manual Setting is selected in the BIOS. (See "Entering the BIOS Setup Utility" on page 36)
- **[Fn +F5]**: Pressing [F5] while holding [Fn] allows you to toggle between video compensation and no compensation. (Video compensation controls spacing on the display. When it is enabled, displays with less than 1024 x 768 or 800 x 600 pixel resolution will still cover the entire screen.)
- **[Fn+F6]**: Pressing [F6] repeatedly while holding [Fn] will lower the brightness of your display. Note that adjusting the brightness using the keyboard changes the system setting.
- **[Fn+F7]**: Pressing [F7] repeatedly while holding [Fn] will increase the brightness of the display.
- **[Fn+F8]**: Pressing [F8] repeatedly while holding [Fn] will decrease the volume of your Tablet PC.
- **[Fn+F9]**: Pressing [F9] repeatedly while holding [Fn] will increase the volume of your Tablet PC.
- **[Fn+F10]**: Pressing [F10] while holding [Fn] allows you to change your selection of where to send your display video. Each time you press the combination of keys you will step to the next choice. The choices, in order, are: built-in display panel only, both built-in display panel, and external monitor or external monitor only.

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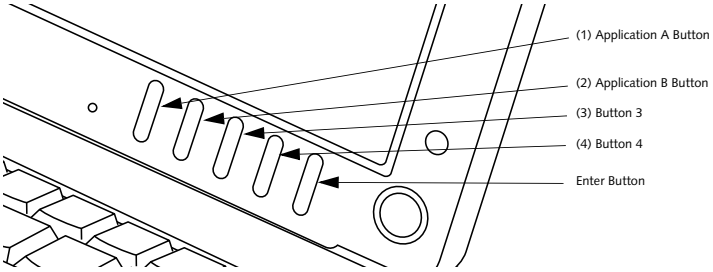

Figure 2-18. LifeBook T Series Tablet PC Security/Tablet PC Buttons

LifeBook Security/ Tablet PC Buttons

A unique feature of your LifeBook T Series Tablet PC is the array of Security and Tablet PC buttons. These buttons allow you to secure your Tablet PC from unauthorized use and to launch specific applications with the touch of a button.

If the security system is activated, upon starting your Tablet PC or resuming from Standby, Hibernate, or shutdown mode the security system will require you to enter a password code using the security buttons. After you enter the correct password, your Tablet PC will resume operation.

The five security/Tablet PC buttons are located on the bottom right-hand side of the display when it is configured to be used as a notebook. *(Figure 2-18)*

Security functions: All five buttons are used when implementing security functions. Four of the buttons are used to enter the password, and the fifth is used as an Enter button. See the right-hand column of Table 2-2.

Tablet PC functions: All five of the buttons have primary functions. Four of the buttons have secondary functions when used as application buttons. The secondary functions are activated by pressing the Function (Fn) button while pressing the application button. See Table 2-2 for specific functions. The secondary functions of the Application A and B buttons can be changed to launch any application. See "Changing Tablet PC Button Functions" on page 24

When the system is logging on or when it is locked (i.e., when you have the Logon or Computer Locked window showing on your desktop), the A and B buttons act as [Tab] and [Enter] keys, respectively.

Button Icon	Primary Function	Secondary Function (Fn + Button)	Security Panel Function (Pre-boot and resuming from suspend)
↓	Page Down	User-defined Application A (Default = Calculator)	Security Button 1
↑	Page Up	User-Defined Application B (Default = MS Journal)	Security Button 2
	Screen Rotation	VGA-Out	Security Button 3
Fn	Secondary Function Selection	Fujitsu Menu Utility	Security Button 4
Alt	Ctl+Alt+Del Button	None	Security Enter Button

Table 2-2. Security/Tablet PC Button Functions

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Page Down / Application A Button

When you press the **Page Down** button when the system is running, each press of the button will scroll the screen down one frame. This allows you to navigate quickly through large documents.

When you press the **Fn** button then press and release the **Page Down/Application A** button, you will automatically start whichever program is assigned to the button. The default application for this button is Calculator.

See "Changing Tablet PC Button Functions" on page 24 to select a different application for this button.

Page Up / Application B Button

When you press the **Page Up** button when the system is running, each press of the button will scroll the screen up one frame. This allows you to navigate quickly through large documents.

When you press the **Fn** button then press and release the **Page Up/Application A** button, you will automatically start whichever program is assigned to the button. The default application for this button is Microsoft Journal.

See "Changing Tablet PC Button Functions" on page 24 to select a different application for this button.

Screen Rotation / VGA-Out Button

The screen rotation feature would normally be used only when the system is configured as a tablet. When you would like to use the tablet as an eBook, for example, you would use the portrait orientation; when accessing spreadsheets or using the system as a notebook, you would more typically use landscape orientation.

When the system is changed to tablet configuration, the orientation automatically changes to portrait mode by default.

> The screen orientation default can be changed by going to the Control Panel and double-clicking on the Fujitsu Display Control icon and selecting the desired defaults from the Display Orientation section. After changing the defaults, click [OK].

When you press the **Screen Rotation / VGA-Out** button, the system screen orientation changes from portrait (vertical) to landscape (horizontal) or from landscape to portrait.

Function / Fujitsu Menu Utility Button

The **Function** button works in conjunction with the other application buttons to provide additional functionality for the buttons. Refer to specific details above.

Pressing the **Fn** button twice in succession causes the Fujitsu Menu Utility to appear on your screen, allowing you to modify certain system settings.

Ctl+Alt+Del Button

Pressing and holding the **Ctl-Alt-Del** button for up to 750 milliseconds launches the Logon screen or the Windows Task Manager (if the system hasn't yet been configured).

CHANGING TABLET PC BUTTON FUNCTIONS

The Application A and B buttons can be changed to launch a program or perform an action you select. By default, the Application A button launches the Calculator, and the Application B button launches MS Journal.

To launch different applications or cause the Application A or B buttons to perform a specific action:

1. Double-click on the Tablet and Pen Settings icon in the Control Panel.
2. Select the Tablet Buttons tab and select the button you would like to change from the list.
3. Click [Change] and open the drop down list in the Action: field.
4. Select the action you would like the button to perform. If you want to launch a program, click on Launch an Application then browse to the location of the program.
5. Click [OK], then click [OK] again. The buttons will now perform the actions you have assigned to them.

SETTING UP LIFEBOOK SECURITY PANEL

When you receive your Tablet PC, the security panel application is pre-installed without any passwords. The following sections provide detailed information on your security panel, how to set, change or remove passwords.

Numbered Buttons

Use these buttons to enter your password.*(Figure 2-18)*

Enter Button

After entering the button strokes, push this button to enter the password into the Tablet PC. *(Figure 2-18)*

PASSWORDS

The user and supervisor password may be set on this Tablet PC. A supervisor password is typically the same for all tablets and notebooks in a work group, office, or company to allow for system management. Individual computers in a group environment should not use a common password. A password consists of one to five button strokes plus the enter button. A valid stroke consists of pushing one or up to four buttons simultaneously.

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The following are valid button strokes:

- Pushing [4] by itself
- Pushing [2] and [3] at the same time
- Pushing [1], [2], and [4] at the same time
- Pushing [1], [2], [3], and [4] at the same time

The following are valid passwords. The numbers within braces ({ }) are button strokes using more than one button.

- {[2]+[3]}, [1], [Enter]
- [4], [enter]
- {[1]+[3]}, {[2]+[3]+[4]}, [1], [4], [2], [Enter]

Setting Passwords

When shipped from the factory, no passwords are set. You have a choice of having no password or setting a supervisor and user password. You must set the supervisor password before the user password.

- The purpose of supervisor password is to be able to bypass the user password in case the user password is forgotten. The supervisor password alone will not lock the system.
- You must set the supervisor **and** user passwords for the security panel to work.

Setting Supervisor Password

You must have set a supervisor password before setting any user passwords. The supervisor password can bypass the user password.

1. Go to the **Start** menu.
2. Click on **Run**.
3. Type in:
   `C:\Program Files\Fujitsu\Security Panel Application\Supervisor\FJSECS.EXE`, then press [Enter]
4. Follow the on-screen instructions to set the Supervisor password.

Setting User Password

1 Go to the **Start** menu.
2. Click on **All Programs**.
3. Click on **Security Panel Application** -> **Security Panel Application**.
4. Follow the on-screen instructions to set the user password.

You may change or remove the supervisor or user password by repeating the steps defined above.

USING YOUR LIFEBOOK SECURITY PANEL

The security lock feature is in effect both when the system resumes from Off, Standby, or Hibernation state. You always need to push the Security Panel buttons to input the user password. Your system will not begin the boot sequence until you enter your supervisor/user password.

From Off State

1. Turn on your system.
2. When the Security Indicator flashes, enter the password and press Enter button.

   For example, if the password is 22222, first press Button 2 five times and press the Enter button. The Tablet PC will boot to normal operation.

From Standby/Hibernation State

1. Press your Suspend/Resume button.
2. When the Security Indicator flashes, enter the password and press Enter button.

   The Tablet PC should resume normal operation.

Incorrect Password Entry

If an invalid supervisor or user password is entered three times in succession, the system will “beep” for about one minute. If a valid password is entered within a minute (while system beeps), the beeping will stop and the Tablet PC will resume normal operation. If no password is entered or an invalid password is entered while the system beeps, the system will return to its previous locked state (standby or off) and the Security Indicator will go off. To reactivate the Tablet PC after a password failure, you must press the Suspend/Resume button, then enter a correct password.

Remember the user password you specified on the Security Panel Application. If you forget the password you will not be able to use your computer. The supervisor password can override the user password.

PRECAUTIONS

Opening and Closing the Cover

By default, closing the cover automatically places your system into Standby mode. (You can change the action the system takes when the cover is closed by opening the Power Options Properties icon in the Control Panel, and selecting the Advanced tab. Make a choice from the drop down menu for “When I close the lid of my portable computer:” and click the [OK] button.) Opening the cover does not automatically place the Tablet PC into normal operation. Instead, you must enter the proper security password after pushing the Suspend/Resume button.

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Low Battery Operations

If your Tablet PC has a low battery, pushing the suspend/resume button only turns on the Security Indicator. Your Tablet PC does not unlock, the Security Indicator turns off after one minute. To resume normal operation, first attach a power supply to the Tablet PC. Then you may unlock the Tablet PC.

UNINSTALLING THE SECURITY PANEL APPLICATION

You have two options when uninstalling the security panel application:

- Remove passwords and uninstall the security panel application software. This will disable all security features.
- Uninstall the security panel application with password still active. This will not allow any changes to the password.

Uninstalling the Security Panel Application Software

Remove passwords when User wants no password protection whatsoever and doesn't want to give anybody the utility to set a password on their computer. In this case, if passwords (supervisor, user, or both) are set, the passwords must first be cleared BEFORE removing the application. To clear passwords, follow same procedure in SETTING PASSWORD CODES except this time, select REMOVE, enter current password then click **Next**. When asked to confirm select **Yes**.

Removing Security Panel Application with Passwords Still Active

Using this feature will not allow any changes to the password.

> Removing the applications does not remove the password. It simply removes the utility to change/add/remove passwords. To change your password you must reinstall the application.

User:

1. Go to Start -> Control Panel.
2. Open **Add or Remove Programs Properties** in the Control Panel.
3. Select the **Security Panel Application** in the list, and click **Change/Remove**.
4. When the Confirm File Deletion box appears, click **Yes**.

Supervisor:

1. Go to Start -> Control Panel.
2. Open **Add or Remove Programs Properties** in the Control Panel.
3. Select the **Security Panel Application for Supervisor** in the list, and click **Change/Remove**.
4. When the Confirm File Deletion box appears, click **Yes**.

Reinstalling the Security Panel Application

To reinstall supervisor or user security application, you will need your Drivers and Applications CD. The **Utilities\Security Panel Application** folder contains two separate folders: **Supervisor** and **User**. The setup files for supervisor and user security applications are contained in those folders.

1. Go to the **Utilities\Security Panel Application\Supervisor** folder on the CD and double-click the **setup.exe** file. The Installing Security Panel Application window will appear. Follow the instructions on the screen.
2. Go to the **Utilities\Security Panel Application\User** folder on the CD and double-click the **setup.exe** file. The Installing Security Panel Application window will appear. Follow the instructions on the screen.

Supervisor and user passwords can be set via Windows software using the FJSECS.exe and FJSECU.exe files, respectively. FJSECU.exe for the user password cannot run without first setting a supervisor password. You need to run FJSECS.exe first to set the supervisor password. Follow instructions under Setting Passwords on page 25.

If you forget both passwords, please contact Fujitsu Computer Systems Corporation Service and Support at 1-800-8FUJITSU (1-800-838-5487). Fujitsu Computer Systems Corporation charges a service fee for unlocking a password-restricted Tablet PC. When calling please have a valid credit card and provide proof of ownership. You will then be given instructions on where to ship your Tablet PC.

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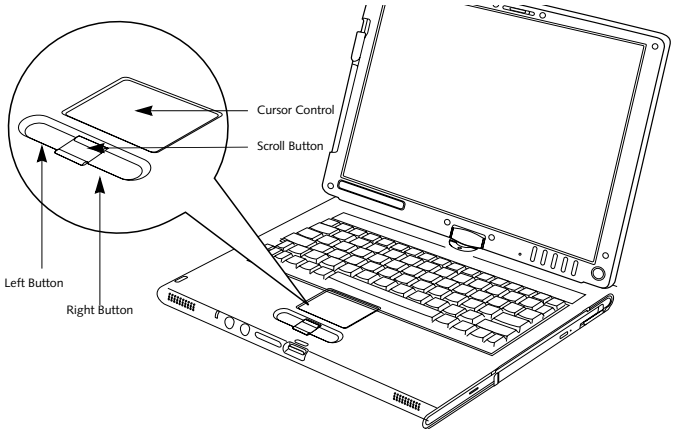

Figure 2-19. Touchpad pointing device

Touchpad Pointing Device

The Touchpad pointing device built into your Tablet PC is used to control the movement of the cursor to select items on your display panel. The Touchpad is composed of a cursor control, left and right buttons, and a scroll button.

> Certain configurations of the LifeBook Tablet PC have an optional fingerprint sensor instead of a scrolling button. For information on using the optional fingerprint sensor, refer to "Fingerprint Sensor Device" on page 115.

The cursor control works the same way a mouse does, and moves the cursor around the display. It only requires light pressure with the tip of your finger. The left and right buttons function the same as left and right mouse buttons. The scroll button allows you to navigate through pages quickly without using the scroll bars. The actual functionality of the buttons may vary depending on the application that is being used. *(Figure 2-19)*

CLICKING

Clicking means pushing and releasing a button. To left-click, move the cursor to the item you wish to select, press the left button once, and then immediately release it. To right-click, move the cursor to the item you wish to select, press the right button once, and then immediately release it. *(Figure 2-20)*

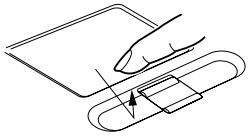

Figure 2-20. Clicking

DOUBLE-CLICKING

Double-clicking means pushing and releasing the left button twice in rapid succession. This procedure does not function with the right button. To double-click, move the cursor to the item you wish to select, press and release the left button twice. *(Figure 2-21)*

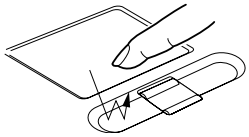

Figure 2-21. Double-clicking

> - If the interval between clicks is too long, the double-click will not be executed.
> - Parameters for the Touchpad can be adjusted from the Mouse dialog box located in the Windows Control Panel.

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DRAGGING

Dragging means pressing and holding the left button while moving the cursor. To drag, move the cursor to the item you wish to move. Press and hold the left button while moving the item to its new location and then release it. *(Figure 2-22)*

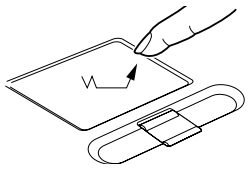

Figure 2-22. Dragging

SCROLLING

Using the scroll button allows you to navigate through a document quickly without having to use the scroll bars. This is particularly useful when you are navigating through online pages. To use the scroll button, press the raised horizontal line at the top or bottom of the button to scroll up or down a page. When you have reached the desired section of the page, release the button. *(Figure 2-23)*

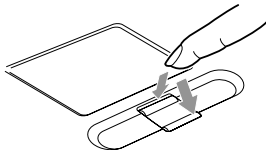

Figure 2-23. Scrolling

TOUCHPAD CONTROL ADJUSTMENT

The Windows Control Panel allows you to customize your Touchpad with selections made from within the Mouse Properties dialog box. There are several aspects of Touchpad operation, which you can adjust.

To access the Mouse Properties window, open the Control Panel and double-click the Mouse icon. In the window that appears, you will see a variety of different mouse functions that you can change.

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Volume Control

Your Fujitsu Tablet PC has multiple volume controls which interact with each other.

Any software that contains audio files will also contain a volume control of its own. If you install an external audio device that has an independent volume control, the hardware volume control and the software volume control will interact with each other. It should be noted that if you set your software volume to Off, you will override the external volume control setting.

CONTROLLING THE VOLUME

The volume can be controlled in several different ways:

- Volume can be set from within the Volume Control on the Taskbar.
- Volume can be controlled with the [F8] and [F9] functions keys. Pressing [F8] repeatedly while holding [Fn] will decrease the volume of your Tablet PC. Pressing [F9] repeatedly while holding [Fn] will increase the volume of your Tablet PC.

There are twenty-six levels through which the function keys cycle.

- Volume can be controlled by many volume controls that are set within individual applications.
- Certain external audio devices you might connect to your system may have hardware volume controls.
- Each source discussed above puts an upper limit on the volume level that must then be followed by the other sources.

We recommend that you experiment with the various volume controls to discover the optimal sound level.

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Pen and Active Digitizer

USING THE PEN

You can use the LifeBook T Series Tablet PC pen to generate and create electronic "ink", to select items, and to navigate through programs on the Tablet PC. Programs that support handwriting recognition also allow you to write characters directly on the screen with the pen. You can also use the pen as a drawing tool.

You are advised to use a screen protector on your system display to minimize the chance of its being scratched. Screen protectors are available from the Fujitsu Web site at us.fujitsu.com/computers.

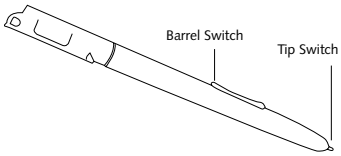

Figure 2-24. LifeBook T Series Pen

The LifeBook T Series Tablet PC pen is a high-quality electronic instrument that can be damaged if used improperly. Treat the pen as you would any precision device. Observe the following guidelines:

- Do not tap the pen on surfaces other than the Tablet PC screen.
- Do not try to turn the thumb grip on the pen; it is designed for inserting and removing the pen from the pen holder.
- Never store the pen with the tip bearing the weight of the pen (e.g., sitting tip down in a pencil cup). Storing the pen tip down could distort the internal mechanism over a period of time (especially in higher temperatures), causing the tip to act as if it is always depressed. The pen should be stored in the pen holder when not in use.

The screen reacts when the pen tip is approximately 1/8 inch (3-5 mm) from the screen. The pen has three switches: a tip switch and a barrel button toggle switch with switches at both ends. By default, the tip switch corresponds to the left mouse button, and the front toggle (closest to the pen tip) barrel button switch corresponds to the right mouse button (when used in combination with the tip switch). The rear toggle of the barrel button switch acts as an electronic ink "eraser".

The functions of the rear toggle and the tip click pressure can be changed by clicking [Start] -> Control Panel, and double-clicking the Fujitsu Pen Settings icon.

To change the rear toggle function, select the drop-down list to select a new function, then click [Apply]. If you don't want the rear toggle to have any function, select Ignore from the list.

Adjusting the click pressure determines how much pressure must be put on the pen tip in order for the screen to react. The softer it is set, less pressure is required; the harder it is set, more pressure is required. To change the click pressure, use the slider bar to make the click pressure harder or softer, then click [Apply].

Use **only** the pen provided with your Tablet PC. Do not use substitutes that were not designed for the LifeBook T Series Tablet PC.

Here are some hints that may help you use the pen more effectively:

- **To activate the tip switch,** tap or hold the pen tip against the screen.
- **To activate the barrel button switch,** press and hold the end of the button you wish to use (front toggle is the right mouse button switch; the rear toggle acts as an electronic "eraser").
- **To move the cursor,** hold the pen tip within 1/8 inch (3 - 5 mm) from the screen and move the pen.
- **To start a program,** double-tap the pen tip (tap the pen tip twice rapidly) on the program icon as you would double-click a mouse.
- **To select an object,** tap the pen tip on the object once.
- **To double-click an object,** quickly tap the object twice.

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. To 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 2-25.*)

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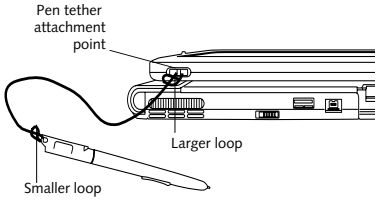

Figure 2-25. Installing a Pen Tether

2. Attach the end of the pen tether with the larger loop to the attachment point on your 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

In order to ensure accurate tracking between the pen and cursor, you must run the Touch Screen Calibration Utility before you use the active digitizer for the first time, or after you change the display resolution.

To run the calibration utility:

1. Go to **Start** -> **Control Panel** and double-click on the **Tablet and Pen Settings** icon.
2. Click **Calibrate**.
3. Adjust the display of your Tablet PC to a comfortable angle.
4. Using the pen, firmly touch the screen directly on the (+) symbol; the (+) symbol will move to the next location.
5. Repeat step 4 in the four corners, then click **OK**.

REPLACING THE PEN TIP

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, you should replace the pen tip. To do so, use the pen tip removal tool included with your pen.

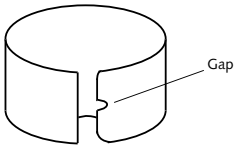

Figure 2-26. Tip Removal Tool

To remove the tip, position the tip in the gap between the two ends of the tool *(Figure 2-26)*. Pinch the tool together so the tip is firmly clasped, then pull it from the barrel. If the tip is worn or damaged, discard it.

To replace the tip, retrieve one of the new tips that accompanied your pen. Insert the flat end of the tip into the barrel and push it in firmly until it is seated.

If you need more tips, they can be ordered from the Fujitsu Web site at: us.fujitsu.com/computers.

USING THE ACTIVE DIGITIZER

The integrated active digitizer allows you to use the included pen as a pointing device. You can use the pen to click, double-click, drag items and icons, or to draw like a pen or pencil in applications that support this behavior, such as drawing or painting programs. See the documentation that came with your application for details. *(Figure 2-27)*

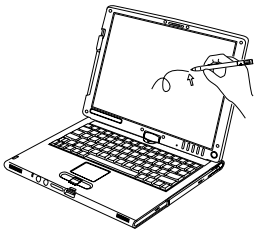

Figure 2-27. Using the pen with the screen

To avoid potential scratching and damage, never use anything but the included pen with the display.

To purchase additional or replacement pens, visit the Fujitsu accessories Web site at: http://us.fujitsu.com/computers.

Clicking

To left-click, touch the object you wish to select and then lift the pen tip immediately. *(Figure 2-28)*

To right-click, press the front button on the barrel switch or touch the pen to the screen for a couple of seconds until the right mouse icon appears at the tip.

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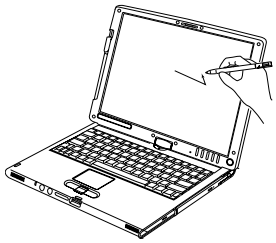

Figure 2-28. Clicking the screen

Double-Clicking

To double-click, touch the item twice, and then immediately remove the pen tip. *(Figure 2-29)*

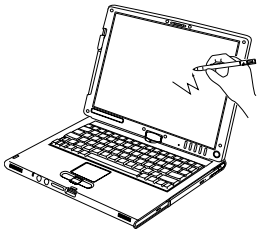

Figure 2-29. Double-clicking the screen

- If the interval between taps is too long, the double-click will not be executed.
- Parameters for the screen can be adjusted from the Mouse Properties dialog box located in the Windows Control Panel.

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3
Using Your Tablet PC

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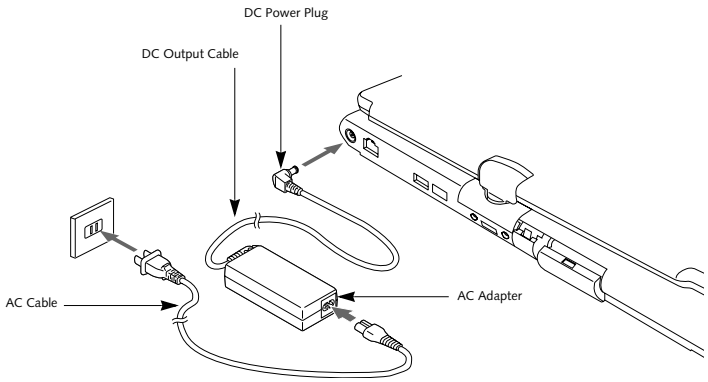

Figure 3-1. Connecting the AC Adapter

Power Sources

Your LifeBook T Series Tablet PC has three possible power sources: a primary Lithium ion battery, an AC adapter or an optional Auto/Airline adapter.

CONNECTING THE POWER ADAPTERS

The AC adapter or optional Auto/Airline adapter provides power for operating your Tablet PC and charging the battery.

Connecting the AC Adapter

1. Plug the DC output cable into the DC power jack of your Tablet PC.
2. Plug the AC adapter into an AC electrical outlet. *(Figure 3-1)*

Connecting the Optional Auto/Airline Adapter

1. Plug the DC output cable into the DC power jack on your Tablet PC.
2. Plug the Auto/Airline adapter into the cigarette lighter of an automobile with the ignition key in the On or Accessories position.

   OR
3. Plug the Auto/Airline adapter into the DC power jack on an airplane seat.

Switching from AC Adapter Power or the Auto/Airline Adapter to Battery Power

1. Be sure that you have a charged battery installed.
2. Remove the AC adapter or the Auto/Airline adapter.

The Lithium ion battery is partially charged upon purchase. Initially, you should connect either the AC adapter or the Auto/Airline adapter to use your Tablet PC so that it can fully charge.

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Starting Your Tablet PC

POWER ON

The Suspend/Resume button is used to turn on your LifeBook T Series Tablet PC from its off state. Once you have connected your AC adapter or charged the internal Lithium ion battery, you can power on your Tablet PC. *(See figure 2-4 on page 11 for location).*

When you turn on your Tablet PC, be sure you have a power source. This means that a battery is installed and charged, or that the AC or Auto/Airline adapter is connected and has power.

Press the Suspend/Resume button to start your system. When you are done working you can either leave your Tablet PC in Standby mode, See "Standby Mode" on page 38, or you can turn it off. See "Power Off" on page 40.

When the system display is closed, the Suspend/Resume button is disabled. This feature prevents the system from being accidentally powered up when not in use.

When you Power On your Tablet PC, it will perform a Power On Self Test (POST) to check the internal parts and configuration for correct functionality. If a fault is found, your Tablet PC will emit an audio warning and/or an error message will be displayed. See "Power On Self Test Messages" on page 67. Depending on the nature of the problem, you may be able to continue by starting the operating system or by entering the BIOS setup utility and revising the settings.

After satisfactory completion of the Power On Self Test (POST), your Tablet PC will load your operating system.

Never turn off your Tablet PC during the Power On Self Test (POST) or it will cause an error message to be displayed when you turn your Tablet PC on the next time. *See "Power On Self Test Messages" on page 67*

BOOT SEQUENCE

The procedure for starting-up your Tablet PC is termed the Bootup sequence and involves your Tablet PC's BIOS. When your Tablet PC is first turned on, the main system memory is empty, and it needs to find instructions to start up your Tablet PC. This information is in the BIOS program. Each time you power up or restart your Tablet PC, it goes through a boot sequence which displays a Fujitsu logo until your operating system is loaded. During booting, your Tablet PC is performing a standard boot sequence including a Power On Self Test (POST). When the boot sequence is completed without a failure and without a request for the BIOS Setup Utility, the system displays the operating system's opening screen.

The boot sequence is executed when:

- You turn on the power to your Tablet PC.
- You restart your Tablet PC from the Windows Shut Down dialog box.
- The software initiates a system restart. Example: When you install a new application.

BIOS SETUP UTILITY

The BIOS Setup Utility is a program that sets up the operating environment for your Tablet PC. Your BIOS is set at the factory for normal operating conditions, therefore there is no need to set or change the BIOS' environment to operate your Tablet PC.

The BIOS Setup Utility configures:

- Device control feature parameters, such as changing I/O addresses and boot devices.
- System Data Security feature parameters, such as passwords.

Entering the BIOS Setup Utility

To enter the BIOS Setup Utility do the following:

1. Turn on or restart your Tablet PC.
2. Press the [F2] key once the Fujitsu logo appears on the screen. This will open the main menu of the BIOS Setup Utility with the current settings displayed.
3. Press the [RIGHT ARROW] or [LEFT ARROW] key to scroll through the other setup menus to review or alter the current settings.

BIOS Guide

A guide to your Tablet PC's BIOS is available online. Please visit our service and support Web site at **http://www.computers.us.fujitsu.com/support**. Once there, select Support, then select Tablet PCs under User's Guides. Select LifeBook Tablet PC BIOS Guides from the pull-down menu for your Tablet PC series. If you are unsure of your Tablet PC's BIOS number, refer to your packing slip.

If your data security settings require it, you may be asked for a password before the BIOS main menu will appear.

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BOOTING THE SYSTEM

We strongly recommend that you not attach any external devices and do not put a DVD/CD in your drive until you have gone through the initial power on sequence.

When you turn on your Tablet PC for the first time, it will display a Fujitsu logo on the screen. If you do nothing the system will load the operating system, and then the Windows Welcome will begin.

Registering Windows with Microsoft

In order to ensure that you receive the most benefits from the Windows operating system, it should be registered the first time you use it.

After you receive the Windows Welcome screen, you will be prompted to enter registration information in the following order.

First of all, you will need to read and accept the End User License Agreements (EULAs). After accepting the EULAs, you will be asked if you want to enable the Automatic Updates feature. Acceptance of this feature is recommended because it allows your system to be updated automatically whenever an important change becomes available for your notebook.

- If you reject the terms of the license agreement you will be asked to review the license agreement for information on returning Windows or to shut down your Tablet PC.
- You cannot use your Tablet PC until you have accepted the License Agreement. If you stop the process your computer will return to the beginning of the Windows Welcome Process, even if you shut your tablet down and start it up again.

Several additional windows will appear, prompting you to enter a name and description for your computer, an Administrator password, and a domain name. Read the instructions on the screens carefully and fill in the information as directed.

You will then be automatically connected to the Internet, if you have an appropriate connection available. If an automatic connection is not possible, you will be asked about how you dial out from where you will be using your Tablet PC. If you are not connected to a phone line and plan to register at a later time, you may click the **Skip** button.

Once you are connected to the Internet, you will be asked if you wish to continue with the registration. If you select **Yes** you will then enter your name and address, and email address if desired. Click **Next** to complete registration.

REGISTERING YOUR LIFEBOOK TABLET PC

How do I register my LifeBook Tablet PC?

You can register your LifeBook by going to our Web site:

us.fujitsu.com/computers

You will need to be set up with an Internet Service Provider (ISP) to register online.

INSTALLING CLICK ME!

The first time you boot up your system, you will see an icon called Click Me! in the Start menu. When you click the Click Me! icon, your system will automatically build the icon tray in the bottom right of the screen. These icons provide links to utilities that you will frequently access.

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Power Management

Your LifeBook T Series Tablet PC has many options and features for conserving battery power. Some of these features are automatic and need no user intervention, such as those for the internal modem. However, others depend on the parameters you set to best suit your operating conditions, such as those for the display brightness. Internal power management for your Tablet PC may be controlled from settings made in your operating system, pre-bundled power management application, or from settings made in BIOS setup utility.

Besides the options available for conserving battery power, there are also some things that you can do to prevent your Tablet PC battery from running down as quickly. For example, you can create an appropriate power saving profile, put your Tablet PC into Standby mode when it is not performing an operation, and you can limit the use of high power devices. As with all mobile, battery powered computers, there is a trade-off between performance and power savings.

Power Mode	System Activity	Events causing system to enter mode state
Fully On Mode	System is running. CPU, system bus, and all other interfaces operate at full speed.	▪ From Standby mode: System operation resumed (Suspend/Resume button pressed, resume on modem ring, resume on time). ▪ From Hibernation mode: Suspend/Resume button pressed. ▪ From Off mode: Suspend/Resume button pressed.
Standby Mode (Suspend-to-RAM)	Resume system logic remains powered and RAM remains powered to maintain active data. All other devices are turned off.	▪ Standby timeout occurs. ▪ Suspend request issued by software or by pressing the Suspend/Resume button. ▪ Low battery.
Hibernation Mode (Suspend-to-Disk)	Windows saves desktop state (including open files and documents) to hard disk. CPU stops. All other devices are turned off.	▪ Suspend timeout occurs. ▪ Clicking Start -> Shut Down -> Hibernate (It may be necessary to Enable Hibernate Support from Windows Power Options.) ▪ Low battery condition
Power Off	System is fully powered off except for logic components required for Suspend/ Resume button and real-time clock operation.	▪ System shutdown. ▪ Low battery condition

Table 3-1. System Power States

SUSPEND/RESUME BUTTON

When your Tablet PC is active, the Suspend/Resume button can be used to manually put your Tablet PC into Standby mode. Push the Suspend/Resume button when your Tablet PC is active, but not actively accessing anything, and immediately release the button. You will hear two short beeps and your system will enter Standby mode. *(See figure 2-6 on page 14 for location)*.

If your Tablet PC is suspended, pushing the Suspend/ Resume button will return your Tablet PC to active operation. You can tell whether or not your system is in Standby mode by looking at the Power indicator. *See "Power Indicator" on page 17.* If the indicator is visible and not flashing, your Tablet PC is fully operational. If the indicator is both visible and flashing, your Tablet PC is in Standby mode. If the indicator is not visible at all, the power is off or your Tablet PC is in Hibernate mode *(See Hibernate Mode)*

STANDBY MODE

Standby mode in Windows saves the contents of your Tablet PC's system memory during periods of inactivity by maintaining power to critical parts. This mode will turn off the CPU, the display, the hard drive, and all of the other internal components except those necessary to maintain system memory and allow for restarting. Your Tablet PC can be put in Standby mode by:

- Pressing the Suspend/Resume button when your system is turned on.
- Selecting Standby from the Windows Shut Down menu.
- Timing out from lack of activity.
- Allowing the battery to reach the Dead Battery Warning condition.
- Closing the system cover.

Your Tablet PC's system memory typically stores the file(s) on which you are working, open application(s) information, and any other data required to support the operation(s) in progress. When you resume operation

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from Standby mode, your Tablet PC will return to the point where it left off. To resume operation, you must use the Suspend/Resume button to resume operation, and there must be an adequate power source available, or your Tablet PC will not resume.

If you are running your Tablet PC on battery power, be aware that the battery continues to discharge while your Tablet PC is in Standby mode, though not as fast as when fully operational.

HIBERNATE MODE

The Hibernate mode saves the contents of your Tablet PC's system memory to the hard drive as a part of the Suspend/Resume mode. Your Tablet PC is pre-configured to perform this function. The Hibernate mode can also be configured through the system BIOS to run in other ways depending on what you need to accomplish. *See "BIOS Setup Utility" on page 36.*

- Standby or Hibernate modes should not be used with certain PC Cards. Check your PC Card documentation for more information.
- Disabling the Suspend/Resume button prevents it from being used to put your Tablet PC in Standby or Hibernate mode. The resume function of the button cannot be disabled.
- If your Tablet PC is actively accessing information when you enter Standby or Hibernate mode, changes to open files are not lost. The files are left open and memory is kept active during Standby mode or the memory is transferred to the hard drive during Hibernate mode.
- When PC Cards or external devices are in use, Save-to-Disk mode cannot return to the exact state prior to suspension, because all peripheral devices will be re-initialized when the system restarts.
- The main advantage of using Hibernate mode is that power is not required to maintain your data. This is very important if you will be leaving your Tablet PC in a suspended state for a prolonged period of time. The drawback of using Hibernate mode is that it lengthens the power down and power up sequences and resets peripheral devices.

Using Hibernate Mode

Hibernate default setting is enabled for Windows XP.

To **enable or disable the Hibernation feature** follow these easy steps:

1. From the **Start** menu, select **Settings**, and then select **Control Panel** -> **Power Options**.
2. Select **Hibernation,** and then select the box to enable or disable this feature.

To **use Hibernate mode** with your system:

1. Click on the **Start** button, click **Shut Down**.
2. Select **Hibernate** option from the "What do you want the computer to do" list.

DISPLAY TIMEOUT

The Video Timeout is one of the power management parameters. This feature saves power by turning off the display if there is no keyboard or pointer activity for the user selected timeout period. Any keyboard or pointer activity will cause the display to restart automatically. This feature is independent of the Suspend/Resume button and can be enabled and disabled in Windows Power Management.

HARD DISK TIMEOUT

The Hard Disk Timeout is another one of the power management parameters. This feature saves power by turning off the hard drive if there is no hard drive activity for the user selected timeout period. Any attempt to access the hard drive will cause it to restart automatically. This feature is independent of the Suspend/Resume button and can be enabled and disabled in Windows.

WINDOWS POWER MANAGEMENT

The Power Options icon located in the Windows Control Panel allows you to configure some of the power management settings. For example, you can use the Power Options to set the timeout values for turning off the display and hard disks whether you are running the Tablet PC on battery power or one of the adapters.

RESTARTING THE SYSTEM

If your system is on and you need to restart it, be sure that you use the following procedure.

1. Click the **Start** button, and then click **Shut Down**.
2. Select the **Restart** option from within the Windows Shut Down dialog box.
3. Click **OK**. Your Tablet PC will shut down and reboot.

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Turning off your Tablet PC without exiting Windows or turning on your Tablet PC within 10 seconds of the Tablet PC being shut off may cause an error when you start the next time.

POWER OFF

Before turning off the power by choosing Shut Down from the Windows Start menu, check that the Hard Drive, CD-ROM, PC Card and the Floppy Disk Drive Access indicators are all Off. *(See Figure 2-9 on page 17)* If you turn off the power while accessing a disk or PC Card there is a risk of data loss. To assure that your Tablet PC shuts down without error, use the Windows shut down procedure.

Using the correct procedure to shut down from Windows, allows your Tablet PC to complete its operations and turn off power in the proper sequence to avoid errors. The proper sequence is:

1. Click the **Start** button, and then click **Shut Down**.
2. Select the **Shut Down** option from within the Windows Shut Down dialog box.
3. Click **OK**.

If you are going to store your Tablet PC for a month or more see the Care and Maintenance section.

4

User-Installable Features

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Lithium ion Battery

Your LifeBook T Series Tablet PC has a Lithium ion battery that provides power for operating your Tablet PC when no external power source is available. The battery is durable and long lasting, but should not be exposed to extreme temperatures, high voltages, chemicals or other hazards.

The Lithium ion battery operating time may become shorter if it is used under the following conditions:

- When used at temperatures lower than 41° F (5° C) or higher than 95° F (35° C). Extreme temperatures not only reduce charging efficiency, but can also cause battery deterioration. The Charging icon on the Status Indicator panel will flash when you try to charge a battery that is outside its operating temperature range. *See "Battery Charging/ Level Indicators" on page 17.*
- When using a high current device such as a modem, CD-ROM drive, or hard drive, using the AC adapter will conserve your battery life.

- Do not leave a faulty battery in your Tablet PC. It may damage your AC adapter, optional Auto/Airline adapter, another battery or your Tablet PC itself. It may also prevent operation of your Tablet PC by draining all available current into the bad battery.
- Under federal, state, or local law it may be illegal to dispose of batteries by putting them in the trash. Please take care of our environment and dispose of batteries properly. Check with your local government authority for details regarding recycling or disposing of old batteries. If you cannot find this information elsewhere, contact your support representative at 1-800-8Fujitsu.

Actual battery life will vary based on screen brightness, applications, features, power management settings, battery condition and other customer preferences. CD-ROM drive or hard drive usage may also have a significant impact on battery life. The battery charging capacity is reduced as the battery ages. If your battery is running low quickly, you should replace it with a new one.

RECHARGING THE BATTERY

If you want to know the condition of the Lithium ion battery, check the Battery Level indicator located on the Status Indicator panel. The indicator changes as the battery level changes.

The Lithium ion battery is recharged internally using the AC adapter or Auto/Airline adapter. To recharge the battery make sure the battery that needs to be charged is installed in your Tablet PC and connect the AC or Auto/Airline adapter.

Make sure that the Battery Charging indicator and the percentage charge is shown inside the Battery Level icon on the Status Indicator Panel.

There is no memory effect on the Lithium ion battery, therefore you do not need to discharge the battery completely before recharging. The charge times will be longer if your Tablet PC is in use while the battery is charging. If you want to charge the battery more quickly, put your Tablet PC into Standby mode, or turn it off while the adapter is charging the battery. *See "Power Management" on page 38.*

Using heavy current devices such as a modem or frequent CD-ROM and PCMCIA powered external device accesses may prevent charging completely.

Low Battery State

When the battery is running low, your Tablet PC will beep every 15 seconds and the Battery Level indicator will flash. If you do not respond to the low battery alarm, the batteries will continue to discharge until they are too low to operate. When this happens there will be a multiple beep alarm and the Battery Level indicator will show a dead battery. Your Tablet PC will then go into Standby mode to try and protect your data for as long as possible. There is no guarantee that your data will not be lost once the Tablet PC reaches this point.

- You may not be able to hear the alarm if the volume control is set too low or is turned off by the hardware or software. However, you will be able to see the Battery Level indicator flash. Once the low battery alarm occurs you must save all your data and put your Tablet PC into Standby mode until you can provide a new power source. You should provide a charged battery or AC or Auto/Airline Adapter as soon as possible.
- When you are in Standby mode there must always be at least one power source active. If you remove all power sources while your Tablet PC is in Standby mode, any data that has not been saved to the hard drive will be lost.

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Dead Battery Suspend mode shows on the Status indicator just like the normal Standby mode. Once your Tablet PC goes into Dead Battery Suspend mode you will be unable to resume operation until you provide a source of power either from an adapter, or a charged battery. Once you have provided power, you will need to press the Suspend/Resume button to resume operation. In the Dead Battery Suspend mode, your data can be maintained for some time, but if a power source is not provided promptly, the Power indicator will stop flashing and go out, meaning that you have lost the data that was not stored. Once you provide power, you can continue to use your Tablet PC while an adapter is charging the battery.

Shorted Batteries

The Status Indicator panel uses a symbol inside the battery outline of the Battery Level indicator to display the operating level available in that battery. *(See figure on page 17)* If this display shows a Shorted Battery, it means that the battery is damaged and must be replaced so it does not damage any other parts of your Tablet PC.

REPLACING THE BATTERY

Your LifeBook T Series Tablet PC comes with one battery pack; you might want to consider purchasing a spare. By keeping a spare battery fully charged, you can immediately swap with one that is not charged.

There are two ways to swap batteries: cold-swapping and warm-swapping. Cold-swapping means swapping batteries when the system has been powered down; warm-swapping is performed when the system is in Standby mode.

Cold-swapping batteries

To cold-swap batteries in your battery compartment, follow these easy steps: *(Figure 4-1)*

1. Have a charged battery ready to install.
2. Shut down your tablet and disconnect the AC adapter.
3. Press the battery release latches to open the compartment.
4. Remove the battery from the compartment.
5. Slide the new battery into the compartment.
6. Close the compartment and the battery release latches will click into place.
7. Plug in the AC adapter and turn the power on.

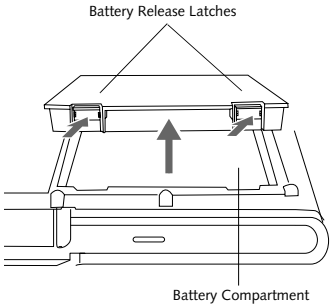

Figure 4-1. Removing the Battery

Warm-swapping Batteries

To warm-swap batteries in your battery compartment follow these easy steps: *(Figure 4-1)*

You have only a few minutes to perform a warm-swapping before the internal bridge battery runs out of power. Have the charged battery nearby when performing a warm battery swap.

1. Close any open files and put your Tablet PC into Standby mode.
2. Press the battery release latches to open the compartment.
3. Remove the battery from the compartment.
4. Slide the new battery into the compartment.
5. Close the compartment and the battery release latches will click into place.
6. Press the Suspend/Resume button to return your Tablet PC to normal operation.

If the Lithium ion battery connector is not fully seated, you may not be able to use your Tablet PC or charge your battery.

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Memory Upgrade Module

Your Fujitsu LifeBook T Series Tablet PC comes with a minimum of 256 MB of high speed Double Data Rate 2 Synchronous Dynamic RAM (DDR2 SDRAM), 533 MHz factory installed. To increase your system's memory capacity, you may install an additional memory upgrade module. The memory upgrade must be a dual-in-line (DIMM) SDRAM module. To ensure 100% compatibility, purchase the SDRAM module only from the Fujitsu web store at us.fujitsu.com/computers.

Do not remove any screws from the memory upgrade module compartment except those specifically shown in the directions for installing and removing the module.

INSTALLING MEMORY UPGRADE MODULES

1. Turn off power to your LifeBook Tablet PC and remove any power adapter (AC or auto/airline).
2. Make sure that all the connector covers are closed.
3. Turn the Tablet PC bottom side up, and remove the screws of the memory upgrade module compartment. *(Figure 4-2)*
4. Remove the cover.

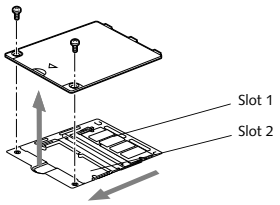

Figure 4-2. Opening the Memory Upgrade Compartment

5. Remove the memory upgrade module from the static guarded sleeve. As noted above, if you are installing a 1 GB memory module by itself or with a smaller module, it must be installed in slot 1.
6. Align the memory upgrade module with the component side up. Align the connector edge of the memory upgrade module with the connector slot in the compartment. *(Figure 4-3)*
7. Insert the memory upgrade module at a 45° angle. Press the connector edge of the module firmly down and into the connector until it lodges under the retaining clip. You will hear a click when it is properly in place.

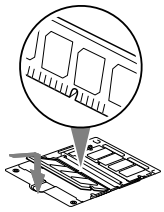

Figure 4-3. Installing a Second Memory Module

8. Replace the cover. *(Figure 4-4)*
9. Replace the screws.

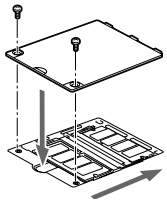

Figure 4-4. Replacing the Memory Compartment Cover

The memory upgrade module is not something you routinely remove from your tablet. Once it is installed, you should leave it in place unless you want to change system memory capacity.

TO REMOVE A MEMORY UPGRADE MODULE

1. Perform steps 1 through 4 of Installing a Memory Upgrade Module.
2. Pull the clips sideways away from each side of the memory upgrade module at the same time.
3. While holding the clips out, remove the module from the slot by lifting it up and pulling towards the rear of your tablet. *(Figure 4-5)*

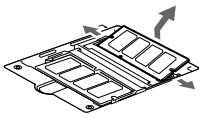

Figure 4-5. Removing a Memory Upgrade Module

4. Store the memory upgrade module in a static guarded sleeve.
5. Replace the cover. *(Figure 4-4)*
6. Replace the screws.

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CHECKING THE MEMORY CAPACITY

Once you have changed the system memory capacity by either adding or removing a memory upgrade module, be sure to check that your tablet has recognized the change.

Your Tablet PC uses Dynamic Video Memory Technology (DVMT), which allows the video driver to dynamically determine the amount of memory that is used. Your Tablet PC can use a maximum of 128 MB of system memory for video functions.

You can check the memory capacity by clicking [Start] -> Control Panel, then double-clicking the System icon. Select the General tab and check the amount of memory under "Computer."

The amount of memory displayed should be approximately the total of all memory modules installed. There may be a discrepancy of 8 MB which is allocated for fixed video memory.

If the total memory displayed is incorrect, check that your memory upgrade module is properly installed. *(If the module is properly installed and the capacity is still not correctly recognized, see Troubleshooting on page 60.*

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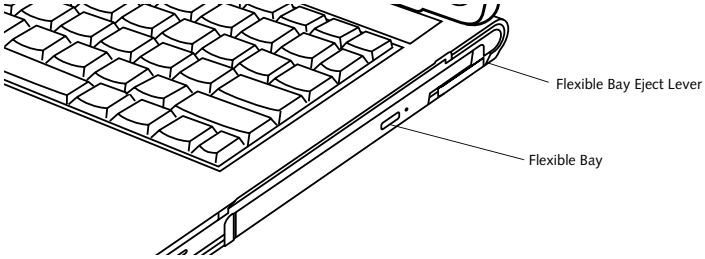

Figure 4-6 Flexible Bay

Flexible Bay Devices

Your Fujitsu Tablet PC contains a Flexible Bay. The Flexible Bay can house an optical drive, a Lithium ion battery, or a weight saver. *(Figure 4-6)*

Your Flexible Bay will have one of the following devices installed.

- Modular Dual-Layer Multi-Format DVD Writer: This allows you to access movies, software, and audio DVD/CDs and record to DVD, CD, and DVD-RAM discs.
- Modular DVD/CD-RW combo drive: This allows you to access movies, software, and audio DVD/CDs as well as to write to CDs.
- Modular Lithium ion battery: This is a rechargeable battery that can be used to power your Tablet PC when an adapter is not connected.
- Weight Saver: This is used to fill the bay when no device is needed.

FUJITSU TABLET CONTROLS - CD/DVD DRIVE HELP

The CD/DVD Drive tab of the Fujitsu Tablet Controls utility allows you to enable or disable your DVD drive when the Tablet PC is used in "undocked" (i.e., not connected to a port replicator) tablet mode.

> The DVD drive in your Tablet PC is designed to work optimally when the system is lying flat on a stable surface. Using the drive while the system is not on a flat surface could result in damage to the drive and/or the media. SUCH DAMAGE IS NOT COVERED UNDER YOUR WARRANTY. You are strongly advised not to use the drive while the system is in undocked tablet mode. This feature is in effect only when the user is logged-in.

Using the Optical Drive Disabling Feature

The CD/DVD tab of the Fujitsu Tablet Controls window consists of three checkboxes:

- Lock CD/DVD drive when the unit is in tablet mode
- Show tray icon when CD/DVD drive is locked.
- Show notification messages when CD/DVD drive is locked/unlocked

Lock CD/DVD drive when the unit is in tablet mode:
This checkbox should normally be checked (see "Important Notes" above). If you would like to access the DVD drive while your system is in undocked tablet mode, deselect this checkbox. A message will appear asking if you really want to unlock the drive. Click [OK] to proceed, or [Cancel] to return to the utility.

Show tray icon when CD/DVD drive is locked:
This checkbox should normally be checked. If you would not like the Fujitsu Tablet Controls icon to appear in the system tray when the drive is locked, clear this box.

Show notification messages when CD/DVD drive is locked/unlocked:
This checkbox should normally be checked. If you would not like to be prompted when the drive is locked or unlocked, clear this box.

Buttons

- Click the [OK] button to accept the changes and close the window.
- Click the [Apply] button to accept the changes and leave the window open.
- Click the [Cancel] button to close the window without accepting the change.
- Click the [Help] button to view the help file associated with the selected tab within Fujitsu Tablet Controls.

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System Tray Icon

When your system is in undocked tablet mode, and the "Lock CD/DVD drive when the unit is in tablet mode" box is checked, a Fujitsu Tablet Controls icon will appear at the bottom right of the display. When you select this icon, a menu will appear containing three items:

- Unlock CD/DVD Drive for this tablet session
- Configure
- About

Unlock CD/DVD Drive for this tablet session
When you click this menu item, you will be asked whether you really want to unlock the drive. To unlock the drive, click [Yes]. Note that enabling the drive in this manner will not change the setting in the Fujitsu Tablet Controls control panel applet.

Configure
When you click this menu item, the Fujitsu Tablet Controls window appears.

About
When you click About, the help file will open.

REMOVING AND INSTALLING MODULAR DEVICES

There are two ways to remove and install modular devices in the Flexible Bay:

- Cold-swapping: swapping devices while your Tablet PC is powered off.
- Hot-swapping: swapping devices while your system is active using the Unplug/Eject icon from your taskbar. Note that if the weight saver is installed rather than a modular device, it is not necessary to use BayManager when removing it.

You should never leave your Flexible Bay empty when the tablet is in operation. If left empty, dust or foreign matter may accumulate inside the tablet.

Cold-swapping

To cold-swap modular devices in your Flexible Bay follow these easy steps: *(Figure 4-7)*

1. Close any open files.
2. Shut down your Tablet PC.
3. Pull out the Flexible Bay eject lever. This will push your device out slightly, allowing you to remove it.
4. Slide your device out until it is clear of the bay. This will require light force.

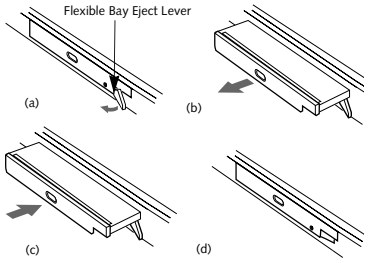

Figure 4-7 Removing/Installing a device in the Flexible Bay

Use care when aligning or seating devices in the bay. If the fit is incorrect, you may damage the bay or device. If the device does not move easily in the bay, remove it and check for dirt or foreign objects. It will require a firm push to latch it in place.

5. Slide the device you are installing into your tablet until it clicks into place.
6. It is now safe to turn your tablet back on.
7. You can now access and use the device.

Your Tablet PC will automatically detect the new device and activate it within your system. The drive letters associated with the device will be created and listed under My Computer and Windows Explorer.

Hot-swapping

Hot-swapping is provided through the Unplug or Eject Hardware utility. The icon for the utility appears on the taskbar. Click on the icon and follow the on-screen instructions.

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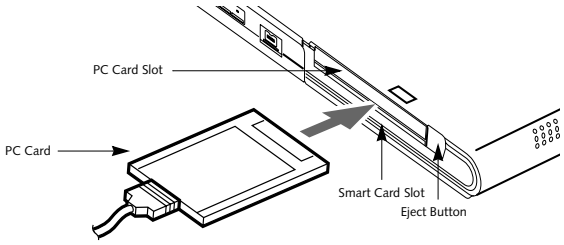

Figure 4-8. Inserting/Removing PC Cards

PC Cards

Your LifeBook T Series Tablet PC supports Type I and II PC Cards, which can perform a variety of functions.

Some available PC Cards include:

- Fax/data modem cards.
- Local area network (LAN) cards.
- IDE solid-state disk cards.
- SCSI cards.
- Other PC Cards that conform to PCMCIA 2.1 or CardBus standards.

For further information, refer to the instructions supplied with your PC Card.

INSERTING PC CARDS

PC Cards are inserted in the PC Card slot. To insert a PC Card, follow these easy steps: *(Figure 4-8)*

- inserting or removing a PC Card during your Tablet PC's shutdown or bootup process may damage the card and/or your Tablet PC.
- Do not insert a PC Card into the slot if there is water or any other substance on the card as you may permanently damage the card, your Tablet PC, or both.

1. See your PC Card manual for specific instructions on the insertion of your card. Some PC Cards may require your Tablet PC to be Off while inserting them.
2. Make sure there is no PC Card currently in the slot. If there is, see Removing PC Cards.
3. Insert your PC Card into the slot, with the product label facing up.
4. Push the card into the slot firmly until it is seated in the opening.

REMOVING PC CARDS

To remove a PC Card, follow these easy steps:

1. See your PC Card manual for specific instructions on removing your card. Some PC Cards may require your Tablet PC to be in Standby Mode or Off while removing them.

If the dialog box states that the device can't be removed, you must save all open files, close any open applications and shut down your Tablet PC.

2. Push the Eject button until it pops out, and then push it in to eject the card. This will allow you to remove the card.

If the PC Card has an external connector and cable, do not pull the cable when removing the card.

SMART CARD READER

An embedded Smart Card Reader and a dedicated Smart Card slot are provided on your Tablet PC. The Smart Card slot is located just below the PC Card slot.

Smart Cards are the same size and shape as credit cards, but they contain an integrated microprocessor chip. The chip can hold a variety of information, and provides the user with many possible options, such as allowing them to make secure purchases, pay for phone calls, store security information, and provide identification and information.

Using the Smart Card functionality of your system requires third-party software. For instructions on using the Smart Card slot, see the instructions that come with the third-party software.

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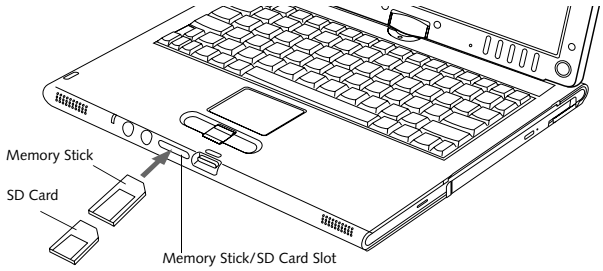

Figure 4-9. Inserting a Memory Stick/SD Card

Memory Stick/ Secure Digital Media

Your LifeBook Tablet PC supports Memory Stick/ Memory Stick Pro and Secure Digital (SD) cards, on which you can store and transfer data to and from a variety of digital devices. These cards use flash memory architecture, which means they don't need a power source to retain data.

Memory Stick is a flash memory technology developed by Sony Electronics. Memory Stick allows you to record, transfer and share digital content, such as digital pictures, movies, music, voice, and computer data and applications.

Secure Digital (SD) Cards are very similar to Memory Sticks, but they are shorter. Like the Memory Stick, SD Cards allow portable storage among a variety of devices, such as cell phones, GPS systems, digital cameras, and PDAs. SD Cards transfer data quickly, with low battery consumption. Like the memory stick, it uses flash memory architecture.

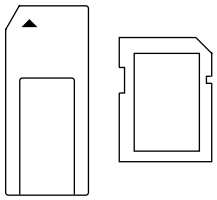

Figure 4-10. Memory Stick (left) and Secure Digital Card (right)

INSERTING MEMORY STICK/SD CARDS

Memory Sticks and SD Cards are inserted in the Memory Stick/SD Card slot *(Figure 4-9)*. To insert a Memory Stick or SD Card, follow these steps:

- inserting or removing a Memory Stick or SD Card during your LifeBook Tablet PC's shutdown or bootup process may damage the card and/or your LifeBook Tablet PC.
- Do not insert a card into a slot if there is water or any other substance on the card as you may permanently damage the card, your LifeBook Tablet PC, or both.

1. See your Memory Stick or SD Card manual for instructions on the insertion of your card. Some cards may require that your Tablet PC is off while inserting them.
2. Make sure there is no card currently in the slot. If there is, see Removing a Memory Stick/SD Card.
3. Insert your PC Card into the slot with the product label facing up.
4. Push the card firmly into the slot until it is seated in the connector.

REMOVING A MEMORY STICK/SD CARD

To remove a Memory Stick or SD Card, see your Memory Stick or SD Card manual for instructions. Some cards may require your LifeBook Tablet PC to be in Suspend Mode or Off while removing them.

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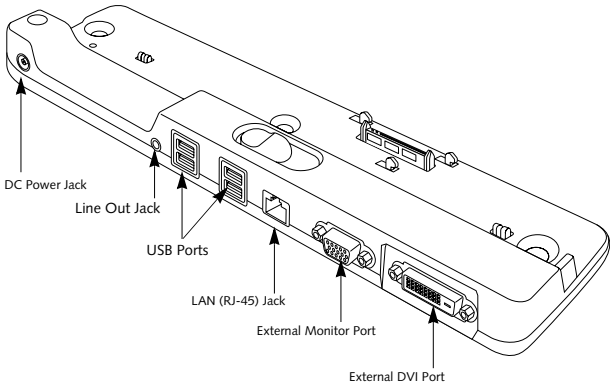

Figure 4-11. Port Replicator rear panel

Port Replicator

An optional Port Replicator is available from Fujitsu to support your LifeBook T Series Tablet PC. The Port Replicator extends the functionality of your Tablet PC by providing ports to connect USB devices, an external monitor, external speaker, or a LAN device. The Port Replicator connects to the bottom of your Tablet PC. *See "Device Ports" on page 54.*

REAR PANEL COMPONENTS

Following is a brief description of the optional Port Replicator's rear panel components.

External Monitor Port

The external monitor port allows you to connect an external monitor. Note that if a Port Replicator is attached, you must use the external monitor port on the Port Replicator. *(Figure 4-11)*

External DVI Port

The external Digital Video Interface (DVI) port allows you to connect an external digital flat-panel monitor or projector. This provides a pure digital video signal for digital monitors.

LAN (RJ-45) Jack

The LAN jack allows you to connect a LAN to the Port Replicator. Note that when the system is attached to the Port Replicator, the LAN Jack on the Port Replicator should be used, not the one on the system.

DC Power Jack

The DC power jack allows you to plug in the AC adapter to power your Tablet PC and charge the internal Lithium ion battery.

USB 2.0 Ports

The four USB 2.0 ports allow you to connect USB devices such as game pads, pointing devices, and keyboards. USB 2.0 is downward-compatible with USB 1.1 devices, so older USB devices will work with these ports. USB 2.0 is a much faster design, running 40 times faster than USB 1.1.

Line Out Jack

The line out jack is used for connecting an external speaker. Note that line out does not provide power, so the speaker must be externally powered.

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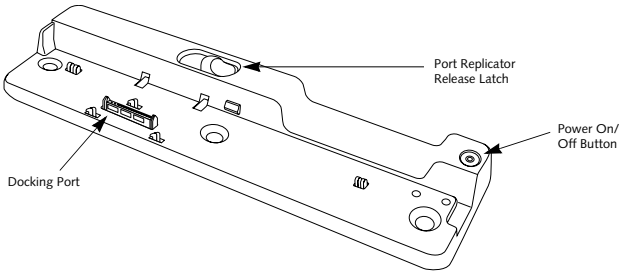

Figure 4-12. Port Replicator front panel

FRONT PANEL COMPONENTS

Following is a brief description of the optional Port Replicator's front panel components

Docking Port

The docking port connects the Port Replicator to your Tablet PC. *(Figure 4-12)*

Port Replicator Release Latch

Slide the Port Replicator Release Latch sideways to remove the Port Replicator from your Tablet PC. *(Figure 4-12)*

Power On/Off Button

The Power On/Off button on the port replicator performs the same as the system Suspend/Resume button. The Power On/Off button allows you to suspend Tablet PC activity without powering off, resume your Tablet PC from standby mode, and power on your system when it has been shut down from the Windows operating system.

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ATTACHING THE PORT REPLICATOR

To attach the Port Replicator, align the Port Replicator connector on the bottom of your Tablet PC with the connector on the Port Replicator and push together at the two corners. *(Figure 4-13)*

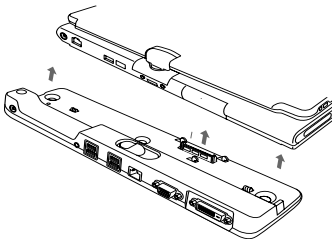

Figure 4-13. Attaching the Port Replicator

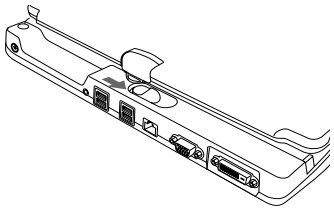

Figure 4-14. Unlatching the Port Replicator

DETACHING THE PORT REPLICATOR

To detach the Port Replicator:

1. Slide the Port Replicator release latch to release the Port Replicator from your Tablet PC. *(Figure 4-14)*
2. Pull away the Port Replicator to detach it from your Tablet PC. *(Figure 4-15)*

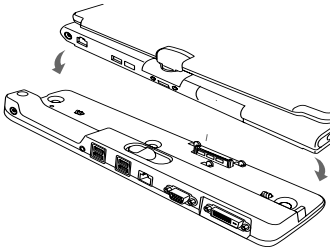

Figure 4-15. Removing the Port Replicator

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Device Ports

Your LifeBook T Series Tablet PC and the optional Port Replicator come equipped with multiple Device Ports to which you can connect an external device including: disk drives, keyboards, modems, printers, etc.

MODEM (RJ-11) JACK

The modem (RJ-11) jack is used for an internal modem. To connect the telephone cable follow these easy steps: *(See Figure 2-7 on page 15 for location)*

1. Align the connector with the jack opening.
2. Push the connector into the jack until it is seated.
3. Plug the other end of the telephone cable into a telephone outlet.

The internal modem is not intended for use with Digital PBX systems. Do not connect the internal modem to a Digital PBX as it may cause serious damage to the internal modem or your entire LifeBook T Series Tablet PC. Consult your PBX manufacturer's documentation for details. Some hotels have Digital PBX systems. Be sure to find out BEFORE you connect your modem.

- The internal modem is designed to the ITU V.90 standard. Its maximum speed of 53000 bps is the highest allowed by FCC, and its actual connection rate depends on the line conditions. The maximum speed is 33600 bps at upload.
- The internal modem on all LifeBook T Series Tablet PC's from Fujitsu Computer Systems Corporation are certified for use in the United States and Canada.
- Depending upon the configuration of your system, your LifeBook Tablet PC may have either a LAN jack or an IEEE 1394 jack.

INTERNAL LAN (RJ-45) JACK

The internal LAN (RJ-45) jack is used for an internal 10/100/1000 Base-T/Tx (Gigabit) Ethernet connection. You will need to configure your Tablet PC to work with your particular network. (Please refer to your network administrator for information on your network configuration.) To connect the LAN cable follow these easy steps: *(See Figure 2-7 on page 15 for location)*

Note that the optional Port Replicator is designed to cover the LAN jack located on the system. This design ensures that the LAN jack on the Port Replicator is the only one used when the Port Replicator is installed.

1. Align the connector with the jack opening.
2. Push the connector into the jack until it is seated.
3. Plug the other end of the cable into a LAN outlet.

DOCKING PORT

The docking port is used for the connection of your Tablet PC to an optional port replicator. In order to connect your Tablet PC to one of these devices follow the instructions that came with your port replicator. *(See Figure 2-8 on page 16 for location)*

UNIVERSAL SERIAL BUS PORTS

The two Universal Serial Bus 2.0 ports (USB) allow you to connect USB devices such as external floppy disk drives, external DVD drives, game pads, pointing devices, keyboards and/or speakers. USB 2.0 is downward-compatible with USB 1.1 devices, so older USB devices will work with these ports. USB 2.0 is a much faster design, running forty times faster than USB 1.1.

In order to connect a USB device, follow these easy steps: *(See Figure 2-7 on page 15 for location)*

1. Align the connector with the port opening.
2. Push the connector into the port until it is seated.

IEEE 1394 PORT

The 4-pin 1394 port allows you to connect digital devices that are compliant with the IEEE 1394 standard (also known as "FireWire"). The IEEE 1394 connection is easy to use, connect, and disconnect. This port allows up to 400 Mbps transfer rate. A third-party application may be required to operate your device with the 1394 port.

The 1394 port used in this system uses a four-pin configuration. If you intend to interface with devices which use a six-pin configuration, you will need to purchase an adapter.

INFRARED PORT

The Infrared IrDA 1.1 (4 Mbps) port allows for wireless data transfer between your Tablet PC and other IrDA-compatible devices, such as another computer or a printer, without the use of a cable. *(See Figure 2-7 on page 15 for location)*

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It is important to keep in mind that while carrying out this form of communication, both devices must be placed so their infrared ports are directly facing each other without obstruction. The devices must also be separated by at least 6" but no more than 36" for maximum performance.

The following conditions may interfere with infrared communications:

- A television, radio remote control unit, or a wireless headphone is being used nearby.
- Direct sunlight, fluorescent light, or incandescent light shines directly on the port.

- Do not move either device while communication is active as it may interrupt data transmission.
- Be careful not to scratch the infrared port lens. Scratches, dirt, or other surface marks can degrade operation.

MICROPHONE JACK

The microphone jack allows you to connect an external mono microphone. Your microphone must be equipped with a 1/8"(3.5 mm) mono mini-plug in order to fit into the microphone jack of your Tablet PC. In order to connect a microphone follow these easy steps: *(See Figure 2-4 on page 11 for location)*

1. Align the connector with the port opening.
2. Push the connector into the port until it is seated.

HEADPHONE JACK

The headphone jack allows you to connect headphones or powered external speakers to your Tablet PC. Your headphones or speakers must be equipped with a 1/8" (3.5 mm) stereo mini-plug. In order to connect headphones or speakers follow these easy steps: *(See Figure 2-4 on page 11 for location)*

1. Align the connector with the port opening.
2. Push the connector into the port until it is seated.

If you plug headphones into the headphone jack, the built-in stereo speakers will be disabled.

EXTERNAL VIDEO PORT

The external video port allows you to connect an external monitor or LCD projector. In order to connect an external monitor follow these easy steps: *(See Figure 2-7 on page 15 for location)*. There is also an external VGA monitor on the port replicator *(See Figure 4-11 on page 51 for location)*.

1. Remove the cover from the port opening, if present.
2. Align the connector with the port opening.
3. Push the connector into the port until it is seated.
4. Tighten the two hold-down screws, located on each side of the connector.

When an external monitor is plugged in, pressing the [Fn] + [F10] keys allows you to change your selection of where to send your display video. Each time you press the key combination, you will step to the next choice, starting with the built-in display panel only, moving to the external monitor only, finally moving to both the built-in display panel and an external monitor.

EXTERNAL DVI PORT

The external Digital Video Interface (DVI) port on the optional port replicator allows you to connect an external digital monitor or projector. In order to connect a DVI monitor follow these easy steps: *(See Figure 4-11 on page 51 for location)*.

1. Align the connector with the port opening.
2. Push the connector into the port until it is seated.
3. Tighten the two hold-down screws, located on each side of the connector.

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