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Website: www.pc-ap.fujitsu.com

DECLARATION OF CONFORMITY

according to FCC Part 15

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

SAFETY INSTRUCTIONS

- This product requires an AC adapter to operate. Use only a UL Listed I.T.E. AC Adapter with an output rating of 19V DC, and a current of 4.22A.

- 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

For Authorized Repair Technicians Only

WARNING

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.

CAUTION

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

Proper Disposal of Battery

Under federal, state or local law, it may be illegal to dispose of batteries by putting them in the rubbish bin or trash cans. Please take care of our environment and dispose of batteries properly. Check with your local government authority for details regarding recycling or disposing of unwanted batteries.

NOTE ON USE REQUIRED HIGH SAFETY

This product is designed and manufactured for general use, including general office use, personal use, household use and ordinary industrial use.

This product is not designed for or intended for use under dangerous (fatal) conditions, unless extreme safety precautions are implemented.

Do not use this product without implementing high-level safety precautions.

Failure to follow this warning may result in death, personal injury, severe physical damage or other loss, if used in or near any or more of the following:

- nuclear reaction control system in a nuclear facility
- automatic flight control system in an airplane or other flight control system
- mass transport control system
- medical instruments for life support system
- missile launching control for weapon system

NOTE ON BACKUP DATA

Please make a backup of the Operating System, any software programs, and created files (and update regularly).

If you send this product to Fujitsu, or any of its affiliates, suppliers, service providers or resellers for repair, Fujitsu does not guarantee the data integrity. It is your responsibility to back data up beforehand.

Fujitsu does not assume any obligation for compensation for damages, data integrity, or restoration, etc., if your data is lost for any reason, except as written in the warranty.

AUSTRALIAN WARNINGS

WARNING

FOR SAFETY REASONS, ONLY CONNECT EQUIPMENT WITH A TELECOMMUNICATIONS COMPLIANCE LABEL. THIS INCLUDES CUSTOMER EQUIPMENT PREVIOUSLY LABELLED PERMITTED OR CERTIFIED.

Connection of Non Certified/Approved peripherals may result in the equipment operating outside the Australian EMI Standards.

Modems connected to the Australian telecommunications network must be operated in accordance with the Labelling Notice. This modem has been specifically configured to ensure compliance with the ACA Standards. Do not adjust your modem or software outside the values indicated below. To do so would result in your modem being operated in a non-compliant manner.

Call Attempts/Retries:

Applications software shall be configured so that no more than 3 attempts are made to establish a connection to a given number (Note: if the modem can detect service tones, up to 10 attempts can be made). If the call sequence is unsuccessful, there shall be a delay of at least 30 minutes before attempting to call the number again.

Failure to set the modem and any application software used with the modem, to the values shown above will result in the modem being operated in a non-compliant manner. Consequently, this would be in violation of the Labelling Notice for this equipment and the Telecommunications Act 1997 prescribes penalties for the connection of non-compliant equipment.

NEW ZEALAND WARNINGS

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

This equipment is not capable under all operating conditions of correct operation at the higher speeds for which it is designed. 56 KBPS connections are likely to be restricted to lower bit rates when connected to some PSTN implementations. Telecom will accept no responsibility should difficulties arise in such circumstances.

Immediately disconnect this equipment should it become physically damaged, and arrange for its disposal or repair.

This equipment shall not be used in any manner, which could constitute a nuisance to other Telecom customers.

This equipment shall not be set to make automatic calls to the Telecom "111" Emergency Service.

This device is equipped with pulse dialing while the New Zealand standard is DTMF tone dialing. There is no guarantee that Telecom lines will always continue to support pulse dialing. It is strongly recommended that pulse dialing is not used.

Some parameters required for compliance with Telecom's Telepermit requirements are dependent on the equipment (PC) associated with this device. The associated equipment shall be set to operate within the following limits for compliance with Telecom's Specifications:

For repeat calls to the same number.

There shall be no more than 10 call attempts to the same number within any 30 minute period for any single manual call initiation and the equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next attempt.

For Automatic calls to different numbers.

The equipment shall go on-hook for a period of not less than 5 seconds between the end of one attempt and the beginning of the next attempt.

For Automatically answered Incoming Calls.

Incoming calls shall be answered between 3 and 30 seconds from the start of the ringing.

For correct operation, the total of the RNs of all devices connected to a single line at anytime should not exceed 5. The RN of this Equipment is 0.5.

WARNING:

CONNECTION OF NON CERTIFIED/ APPROVED PERIPHERALS MAY RESULT IN THE EQUIPMENT OPERATING OUTSIDE THE NEW ZEALAND EMI STANDARDS.

NOTE: Modem setting in Windows Vista

A. If you are located in Australia

1. Click Start select Control panel select "Phone and Modem Options".
2. Choose "Australia" in **What Country/ region are you in now?** pull down menu bar.
3. Select Phone system as "Tone Dialing".
4. Click OK.

B. If you are located in New Zealand

1. Click start select Control panel select "Phone and Modem Options".
2. Choose "New Zealand in **What Country/ region are you in now?** pull down menu bar.
3. Select Phone system as "Tone Dialing".
4. Click OK.

NOTE:

The screens and illustrations shown in this examples may slightly vary depending on the operating environment that you have installed.

Fujitsu LifeBook® N Series Notebook
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Note:

- For more detailed information, you can download a soft copy from our Fujitsu website: http://www.pc-ap.fujitsu.com
- For Wireless LAN information, please refer to the help file of the Wireless LAN utility.

1

Preface

PREFACE

About This Guide

The LifeBook® N series notebook from Fujitsu provides desktop performance with a fast Intel® processor. The 17.0" SuperFine WXGA+ high-resolution screen displays vibrant colors with pinpoint sharpness. It comes with high-performance Intel 965PM Chipset with ATI MOBILITY™ RADEON® Graphics Controller.

Your LifeBook notebook comes with Microsoft® Windows Vista Home Premium Edition or Windows Vista Ultimate Edition preinstalled.

This manual explains how to operate your LifeBook notebook.

Conventions Used in the Guide

Keyboard keys appear in brackets.
Example: [Fn], [F1], [Esc], [Enter] and [Ctrl].

Pages with additional information about a specific topic are cross-referenced within the text.
Example: *(See page xx.)*

On screen buttons or menu items appear in bold.
Example: Click **OK** to restart your notebook computer.

POINT

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

CAUTION

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

WARNING

The warning icon highlights information that can be hazardous to either you, your computer, or your files. Please read all warning information carefully.

2

Getting to Know Your Computer

Figure 2-3. LifeBook notebook with display open

LOCATING THE CONTROLS AND CONNECTORS

Top and Front Components

The following is a brief description of your LifeBook notebook's top and front components. *(Figure 2-3)*

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.

Power/Suspend/Resume Button

The Power/Suspend/Resume button allows you to suspend notebook activity without powering off, resume your notebook from suspend mode, and power on your notebook when it has been shut down from Windows.

Status Indicator Panel

The Status Indicator Panel displays symbols that correspond with a specific component of your LifeBook notebook.

Volume Control

The Volume Control button allows you to increase or decrease volume manually.

Media Player/LifeBook Application Panel Button

The LifeBook Media Playback panel provides audio and video playback functions of the media in the bay optical disk drive. The application panel provides one-touch application launch capability.

Keyboard

A full-size keyboard with dedicated Windows keys.

Touchpad Pointing Device Button

The Touchpad pointing device is a mouse-like cursor control with three buttons (left, right, and scroll buttons).

Visual Optimizer Button

Enriches colors while in video mode and enhances text when viewing static web pages.

Stereo Speakers

The built-in dual speakers provide stereo sound.

Wireless LAN Switch

The wireless LAN switch is used to turn the wireless LAN device off and on.

Fingerprint Sensor* or Scroll Buttons

Your notebook may be equipped with either Fingerprint Sensor or Scroll Buttons.
The Fingerprint Sensor provides an alternative way for Windows logon authentication as well as software application and web sites logon authentications. Please refer to the section on "Using Fingerprint Authentication" for more details. The Fingerprint Sensor also allows you to scroll up and down a document by sweeping your finger up or down the sensor.
The Scroll Buttons allow you to scroll up and down a document.

* Only for models with fingerprint option. Please check with your local distributor for the specific configuration.

POINT

- Some applications may not allow you to scroll up and down a document.

Figure 2-4. LifeBook notebook left-side panel

Left-Side Panel Components

The following is a brief description of your LifeBook notebook's left-side components. *(Figure 2-4)*

Optical Drive

The optical drive allows you to play back a media disc.

Optical Drive Eject Button

The Optical Drive Eject Button allows you to open the media tray.

Audio Input Jacks

This jack is used to connect to the audio output of external devices such as video decks or set top boxes.

Video Input Jack (composite)

Used to connect to the video output port of external video devices.

S-Video Input Port

Used to connect to the S-video output port of external video devices.

Antenna Mini-Jack

Used to connect a TV or cable TV antenna using the RF adapter cable.

DC Power Jack

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

Figure 2-5. LifeBook notebook right-side panel

Right-Side Panel Components

The following is a brief description of your LifeBook notebook's right-side components. *(Figure 2-5)*

Memory Stick/SD/xD Card Slot

The Memory Stick/SD card slot allows you to install a flash memory card for data storage. This architecture allows you to transfer data from a variety of different digital devices, such as SD card, xD card, Memory Stick or Memory Stick Pro.

IEEE 1394 (4-pin) Port

The 1394 port is used to connect between your LifeBook notebook and a peripheral such as a digital video camera.

Headphone Jack

The headphone jack allows you to connect headphones or powered external speakers.

Microphone Jack

The microphone jack allows you to connect an external mono microphone.

USB 2.0 Port

The USB port allows you to connect Universal Serial Bus 2.0 or USB 1.1 devices. Note that there are three additional USB 2.0 ports on the rear of the system.

ExpressCard™ Slot

The ExpressCard™ Slot allows you to install an ExpressCard™ module.

PC Card Slot

The PC Card Slot allows you to install a Type I or Type II PC Card.

PC Card Eject Button

The PC Card eject button is used to eject a PC Card from the PC Card slot.

Express Card Eject Button

The Express Card eject button is used to eject a Express Card from the Express Card slot.

Figure 2-6. LifeBook notebook rear panel

Rear Panel Components

The following is a brief description of your LifeBook notebook's back panel components. *(Figure 2-6)*

LAN Jack (RJ-45)
The LAN jack is designed to accept a Local Area Network (LAN) RJ-45 plug.

3 x USB Ports
The four USB 2.0 ports allow you to connect Universal Serial Bus devices.

USB Port
The four USB 2.0 ports allow you to connect Universal Serial Bus devices.

Anti-theft Lock Slot
The anti-theft lock slot allows you to attach an optional physical lock-down device.

Modem (RJ-11) Telephone Jack
The Modem (RJ-11) telephone jack is for attaching a telephone line to the internal modem.

WARNING

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 notebook. Consult your PBX manufacturer's documentation for details. Some hotels have Digital PBX systems. Be sure to find out BEFORE you connect the modem.

HDMI Connector
HDMI (High-Definition Multimedia Interface) is the interface that used to transmit higher resolution video signal to audiovisual equipment such as high-definition television.

External Monitor Port
The external monitor port allows you to connect an external monitor.

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

CAUTION

Do not obstruct the air vents while the system is running; doing so could cause your system to overheat.

S-Video Out Port
The S-Video output is used to transmit a higher resolution video signal to a compatible TV or VCR.

Figure 2-7. LifeBook notebook bottom panel

Bottom Components

The following is a brief description of your LifeBook notebook's bottom panel components. *(Figure 2-7)*

Lithium ion Battery Bay

The battery bay contains the internal Lithium ion battery. It can be opened for the removal of the battery when stored over a long period of time or for swapping a discharged battery with a charged Lithium ion battery.

Subwoofer

The subwoofer speaker provides bass-range sound to supplement the stereo speakers, resulting in high-quality audio.

Air Vents

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

CAUTION

Do not obstruct the air vents while the system is running; doing so could cause your system to overheat.

Memory Upgrade Compartment

Your Tablet PC comes with high speed Synchronous Dynamic RAM (SDRAM). The memory upgrade compartment allows you to expand the system memory capacity of your Tablet PC, hence improving overall performance.

Figure 2-8 Status Indicator Panel

STATUS INDICATOR PANEL

The Status Indicator displays symbols that correspond with a specific component of your LifeBook notebook. These symbols (when visible) tell you how each of those components is operating. *(Figure 2-8)*. When you turn off the system, all indicators will go off, except when the battery is being charged.

Battery Charging Indicator

When the AC adapter is connected to your system, this indicator shows the status of the battery charging, as follows:

- **Green, solid:** The battery is either fully charged or the AC adapter is connected and there is no battery pack installed.
- **Orange, solid:** The battery pack is charging.
- **Orange, blinking:** Charging is suspended due to excessively high or low battery temperature.
- **Off:** No AC adapter is connected.

Battery Level Indicator

The Battery Level indicator displays the charge level of the battery pack, as follows:

- **Green, solid:** Battery is between 51% and 100% charged.
- **Orange, solid:** Battery is between 13% and 50% charged.
- **Red, solid:** Battery is between 0% and 12% charged.
- **Red, blinking:** There is a problem with the battery.
- **Off:** There is no battery installed.

POINT

If the AC adapter is not connected or the battery pack is not fully charged when the computer is switched to standby mode, the indicator will blink. The LED blinks at the rate of one second on/five seconds off.

CAUTION

- Batteries subjected to shocks, vibration or extreme temperatures can be permanently damaged.
- A shorted battery is damaged and must be replaced.

Hard Drive/Optical Drive Access

The Hard Drive/Optical Drive Access indicator states whether your internal hard drive or optical drive are being accessed. To prevent corruption of data, do not press the power button when the Hard Drive/Optical Drive access indicator is lit.

EMail Notification Indicator

The Email notification indicator blinks when Email is received. (This function assumes the application button is set for Email notification.)

NumLk Indicator

The NumLk indicator lights when the keyboard is in NumLk mode (during which you can use the keyboard as a ten-digit numeric keypad). To turn on or off, toggle the [NumLk] key on your keyboard.

CapsLock Indicator

The CapsLock indicator lights when your keyboard is set to type in all capital letters. To turn on or off, toggle the [CapsLk] key on your keyboard.

ScrLk Indicator

The ScrLk indicator lights when the active window is locked to prevent the user from scrolling up or down. To turn on or off, press the [NumLk] key while pressing the [Fn] key.

3

Getting Started

Figure 3-1. Connecting the AC Adapter

POWER SOURCES

Your LifeBook notebook has power sources from a primary Lithium ion battery, and AC adapter.

Connecting the Power Adapters

The AC adapter provides power for operating your LifeBook notebook and charging the batteries.

Connecting the AC Adapter

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

Switching from AC Adapter Power to Battery Power

1. Be sure that you have a charged battery installed.
2. Remove the AC adapter. Your notebook will automatically switch from AC power to battery power.

POINT

The Lithium ion battery is not charged upon purchase. Initially, you will need to connect either the AC adapter to use your LifeBook notebook while the battery charges.

POWER MANAGEMENT

Your Fujitsu LifeBook notebook 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 notebook 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 battery from running down as quickly. For example, you can create an appropriate power saving profile, put your notebook into Suspend 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/SUSPEND/RESUME BUTTON

When your LifeBook notebook is active, the Power/Suspend/Resume button can be used to manually put your notebook into Suspend mode. Push the Power/Suspend/Resume button when your notebook is active, but not actively accessing anything, and immediately release the button. You will hear two short beeps and your system will enter Suspend mode.

If your LifeBook is suspended, pushing the Power/Suspend/Resume button returns your notebook to active operation. You can tell whether the system is Suspended by looking at the Power indicator. If the indicator is visible and not flashing, your notebook is fully operational. If the indicator is visible *and* flashing, your notebook is in Suspend mode. If the indicator is not visible, the power is off or your notebook is in Hibernation mode. *(See Hibernation Feature)*

SUSPEND MODE

Suspend or Standby mode in Windows saves the contents of your LifeBook notebook'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 notebook can be put in Suspend mode by:

- Pressing the Power/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.

Your notebook's system memory typically stores the file on which you are working, open application information, and any other data required to support operations in progress. When you resume operation from Suspend mode, your notebook will return to the point where it left off. You must use the Power/Suspend/Resume button to resume operation, and there must be an adequate power source available, or your notebook will not resume.

IMPORTANT

- If you are running your LifeBook notebook on battery power, be aware that the battery continues to discharge while your notebook is in Suspend mode, though not as fast as when fully operational.
- Disabling the Power/Suspend/Resume button prevents it from being used to put your LifeBook notebook in Suspend or Hibernation (Save-to-Disk) mode. The resume function of the button cannot be disabled.

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

HIBERNATION (SAVE-TO-DISK) FEATURE

The Hibernation feature saves the contents of your LifeBook notebook's system memory to the hard drive as a part of the Suspend/Resume mode. You can enable or disable this feature.

Enable or Disable the Hibernation Feature

Windows Vista:
The default settings are not enabled. To enable or disable the Hibernation feature follow these steps:

1. From the **Start** menu, select **Control Panel**.
2. Select "Choose what the power button does" or "Choose what closing the lid does", then make your selections (Do Nothing, Sleep, Hibernate, or Shut Down).

Windows XP:
The default settings are not enabled. To enable or disable the Hibernation feature follow these steps:

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

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 notebook 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.

Windows Vista
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 move the mouse over the right arrow.
2. Select the desired action from the list.

Windows XP
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** to restart your notebook. Your notebook will shut down and then reboot.

IMPORTANT

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

POWER OFF

Before turning off the power, check that the hard drive/ optical drive access indicator is off. If you turn off the power while accessing a disk there is a risk of data loss. To ensure that your notebook shuts down without error, use the Windows shut down procedure.

CAUTION

Be sure to close all files, exit all applications, and shut down your operating system prior to turning off the power. If files are open when you turn the power off, you will lose any changes that have not been saved, and may cause disk errors.

Using the correct procedure to shut down from Windows allows your notebook 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** to shut down your notebook.

If you are going to store your notebook for a month or more see Care and Maintenance Section.

USING FINGERPRINT AUTHENTICATION*

With fingerprint authentication, you can omit entering a user name and a password by just sliding your finger onto the fingerprint sensor at the time of logging in homepages or logging on Windows. This chapter describes how to use fingerprint authentication.

*** NOTE:**

This is only applicable for LifeBook with Fingerprint Sensor.

To use fingerprint authentication, the user's fingerprints must be registered.

Characteristics of fingerprint authentication

■ Fingerprint authentication can be used in the following case.

- **Logging on to Windows**

  When the user account of Windows is password-protected, only persons who know that password can log on to Windows using that account. However, you have to enter the password each time when you log on to Windows.
  With use of fingerprint authentication, you can log on to Windows by only authenticating fingerprints that have previously been registered, thus omitting entering a password.

- **Recovery from the power-saving status**

  If the computer is password-protected for the recovery from power-saving status, you have to enter a password each time when your computer is recovered from the power-saving status.
  With use of fingerprint authentication, you can recover from the power-saving status by authenticating fingerprints that have previously been registered, thus omitting entering a password.

- **Canceling password-protected screen saver**

  You can lock your computer if the screen saver is password-protected. However, you have to cancel this lock when canceling the screen saver.
  With use of fingerprint authentication, just authenticating fingerprints that have previously been registered enables this lock to be canceled, thus omitting entering a password.

- **Logging into the homepage that requires an ID (user name) and a password**

  To log into the homepage of which security is set up, you may have to enter log-in information such as an ID (user name) and a password.
  With fingerprint authentication, you can log into these homepages by just authenticating fingerprints if log-in information is previously memorized for specific homepages.
  Status for entering log-in information differs depending on homepages; direct entering log-in information into homepages, and indication of screens specific to entering. In either case, log-in using fingerprint authentication can be performed.

OmniPass Enrollment Wizard

Figure 1: OmniPass Enrollment Wizard - Welcome

The OmniPass Enrollment Wizard guides the user through the process of enrolling an OmniPass user. If you do not see the screen at Startup, you can invoke the wizard by clicking on the Windows taskbar; select **All Programs**; select **Softex** and click on the **OmniPass Enrollment Wizard** (see Figure 1).

To continue, click **Start**. Input the User Name and Password (see Figure 2). The Domain field is the local computer name with the "Local Machine" appended to it. However, for domain user, they should select the appropriate domain name they belong to. Please check with your administrator. Click **Next** to proceed.

Figure 2: OmniPass Enrollment Wizard – User Name & Password

Figure 3: OmniPass Enrollment Wizard – Enrolling with OmniPass

Next, you are to select the finger that you wish to enroll in OmniPass (see Figure 3). Notice that the red arrow indicates the finger that you are currently enrolling in and the green check indicates the finger you have already enrolled with OmniPass. In the case of you choosing a finger with green check (already enrolled), OmniPass software allow you to enroll. However, it will overwrite the old fingerprint. Once you have selected the finger to enroll, click **Next**.

You can click on the **Practice** button to practice on the fingerprint enrolling especially for first time users.

Figure 4: OmniPass Enrollment Wizard – Capturing Fingerprint

OmniPass will now capture the fingerprint of the finger selected for OmniPass enrollment. It will takes up to three fingerprint captures for the enrollment (see Figure 4).

Figure 5: OmniPass Enrollment Wizard – Fingerprint Verification

After OmniPass has successfully capturing your fingerprint, you will need to verify the enrolled fingerprint (see Figure 5). You will need to repeat the action as you have done in the capturing fingerprint section done as shown in Figure 4.

As seen in Figure 5, upon successful verification, the window will show a green capture in the window and the text **Verification Successful** beneath the window. Click **Next** to proceed.

OmniPass recommends that you enroll at least two fingers (see Figure 6) and if you choose to enroll the second finger, please repeat the process as shown in Figure 3, Figure 4 and Figure 5.

Figure 6: OmniPass En rollment Wizard – OmniPass recommends at least two fingers

Figure 7: OmniPass Enrollment Wizard – Audio, Taskbar, Authentication Window Setting

In this section (see Figure 7), you can customize the OmniPass with your preferred audio prompt, taskbar tips as well as Authentication Window setting.

Figure 8: OmniPass Enrollment Wizard – Backup User Profile

To proceed, click **Next**. In this section of user enrollment, you are required to back up the newly created user profile (see Figure 8). The backup profile can be restored in the event you re-install OmniPass or replace your computer, otherwise you will not be able to access your password protected applications and websites. Besides that, you will not be able to decrypt the files previously encrypted with OmniPass. To proceed, click **Backup Now**.

Figure 9: OmniPass Enrollment Wizard – Backup User Profile

You will be prompted to save the backup of the profile in your preferred location (see Figure 9) and a password for the backup file (see Figure 10). This password will be required when you are restoring this profile in the future.

Figure 10: OmniPass Enrollment Wizard – Backup File Password

Figure 11: OmniPass Enrollment Wizard – Congratulations

OmniPass has successfully created the new user account and now you are ready to use OmniPass to manage passwords, encrypted files etc.

OmniPass Password Replacement function

In this section of the OmniPass Password Replacement function, you will learn how you can teach OmniPass of your login credentials. You can authenticate with OmniPass the next time you gain access to the website where you have taught OmniPass with the set of login credentials. The description in the following section does not indicate exhaustive password replacement function that you can do.

Note: The password replacement functionality is not limited to restricted access websites only.

■ Register log-in information on homepages

To log into homepages of which security is set up, you may have to enter log-in information such as an ID (user name) and a password. With fingerprint authentication, you can log in these homepages by only sliding your finger onto the fingerprint sensor if log-in information is previously memorized for specific homepages. Register log-in information according to the following procedure.

Register log-in information on homepages

1. **Display a homepage you want log-in information to be registered.**
2. **Enter log-in information.**
   - When a screen specific for entering log-in information is indicated, enter the User Name and Password, do not press the “Sign-in” or “OK” button, etc.

3. **Right-click on the OmniPass icon from the notification area in the lower right hand corner of the screen and selects “Remember Password.”**
   - The mouse pointer will change into

4. **With the mouse pointer changed to , click on the area of log-in information entered in Step 2.**

5. **Next, you will be prompted to enter a Friendly Name for the website.**
   - It is recommended that you input a name that will reminds you which website you are logging on.
   - You can have different sets of login credentials associated with the same password-protected resource. However, please provide different friendly name to it. If you provide the same friendly name, OmniPass will overwrite the previous set of credentials associated with the password-protected resource.
   - OmniPass will be using the friendly name to choose one from the many credentials remembered for the same site.

   - **Automatically click the "OK" or "Submit" button for this password protected site once the user is authenticated**. When selected, you will be prompted to authenticate with OmniPass each time for an access to the password-protected website. Upon successful authentication, you will be logged on automatically.
   - **Automatically enter this password protected site when it is activated. Do not prompt for authentication** is a less secure option. If checked, OmniPass will allow you to log onto the password-protected website without prompting for authentication.
     WARNING: Should you leave your computer unattended, unlocked, with your OmniPass user logged in, anyone using your computer can browse to your password protected sites and gain automatic access.
   - Click **Finish** to complete the remember password procedure. The site location, credentials to access the site, and the OmniPass authentication settings for the site are now stored in OmniPass' secure database.
   - The OmniPass authentication settings (Settings for this Password Site) can always be changed in **Manage Vault** via **Manage Your Passwords** in **OmniPass Control Center**.

Password Management

You can manage your passwords through an interface in OmniPass. Double-click the OmniPass key in the system tray and click on **Manage Your Passwords**.

You will be prompted to authenticate with OmniPass before gaining access to the **Manage Vault**.

Under the **Password Protected Dialog**, you can choose the website remembered by OmniPass and manage the credentials by clicking **Unmask Values. Delete Page** is used to delete the credentials associated with the website but ceased to exist or expired. The two checkboxes determines whether you gain access with OmniPass authentication or logs you on directly upon entering the remembered site without any authentication.

File and Folder Encryption

Besides managing passwords for the password-protected resources, OmniPass enables you to encrypt and decrypt files and folders in your system. Encryption is converting your data to a form in which unauthorized user cannot read. Once a file is encrypted, it needs to be decrypted so that the file can be read or accessed.

To encrypt a file or folder, right-click on it and selects **OmniPass Encrypt File(s)**. You will be prompted to authenticate with OmniPass for the encryption.

If you choose to encrypt a folder, the folder and all the files in this folder will be encrypted. Contents in **C:\Windows** and **C:\Program Files** and the folder where OmniPass is installed cannot be encrypted.

Encrypted file will have the extension ".opf" whereas the encrypted folder will have the extension ".opef".

To decrypt a file or folder, right-click and select **OmniPass Decrypt File(s)**. You will need to authenticate to OmniPass for the decryption process.

As mentioned earlier, when encrypting a folder, the folder and all the files in this folder will be encrypted. Files that are copied into this encrypted folder will also be encrypted. The files in this folder can be read and modified and they will be encrypted automatically once saved and closed as long as they remain in that folder. In order to decrypt a file in the encrypted folder, you can right-click on the file and select **Decrypt To…**.

You need to select a target location for the file to be decrypted. However, the original encrypted file will still remain in the encrypted folder.

Sample icon for encrypted file versus icon for non-encrypted file is shown above.

Backup and Restore OmniPass User Profiles

■ Backup OmniPass User Profile

Select **Backup a user's OmniPass profile** to back up the OmniPass user profile thru the OmniPass Enrollment Wizard.

You will need to authenticate to backup your profile and to save the profile (".opi") in the desired location upon successful authentication.

The user profile contains all your user specific OmniPass data. It is encrypted and password protected. However, this profile does not contain any of the encrypted data files. You can associate a password with the backup profile.

■ Restore OmniPass User Profile

To restore a user profile, select the **Restore a user's OmniPass profile** and select the profile to be restored.

You may be prompted for a password for the backup profile if it is password-protected.

When selecting the .opi file in a restore, OmniPass will prompt you for authentication. The credentials that will allow a user profile to be imported are the Windows login credentials of the exported user. They are the credentials that had to be submitted when the user profile was exported. You will need **User Name**, **Password**, and **Domain**.

OmniPass Control Center Overview

The OmniPass Control Center can be accessed by the following:-

- Clicking on the Windows taskbar; select **All Programs**; select **Softex**; click **OmniPass Control Center**
- Double-click on the Softex OmniPass in the Control Panel
- Right-click on the OmniPass icon from the notification area in the right corner of the screen and click **Open**.

There are five main portions in the OmniPass Control Center namely:-

- Manage Your Passwords
- Protect Your Files
- Change Your User Settings
- Change Your System Settings
- Run Enrollment Wizard

■ Manage Your Passwords

Please refer to **Password Management** section for the **Manage Your Passwords** portion of the Control Center.

■ Protect Your Files

In this portion of the OmniPass Control Center, **Protect Your Files** provides a Windows Explorer feel of the files and folders that you can encrypt and decrypt. However, files that are in use cannot be encrypted. This also includes system files and the folder OmniPass is installed. You will be prompted to authenticate with OmniPass for an encrypt/ decrypt process.

Please refer to **File and Folder Encryption** section for more info.

■ Change Your User Settings

With this selection, you can adjust your preferences such as: Audio setting, Taskbar tips, Authentication Window setting and File Encryption setting.

You can set how OmniPass can notify a user in the event of a successful login or denied access through the **Change user audio settings** and the **Change taskbar tips shown to the user** interfaces.

You also can set the appearance of the OmniPass Authentication window through the **Change authentication window settings**, whether you prefer a transparent or solid window.

■ Change Your System Settings

OmniPass system settings refer to the setting of your OmniPass software and the setting will apply to all the users who logs on to the system.

Through the **Modify OmniPass startup options**, you can determine whether a user is set to automatically logged on to OmniPass at startup, manually log on to OmniPass at startup or do not log on to OmniPass at startup.

The second selection: **Modify Windows Fast User Switching Option** allows Windows users to switch between their Windows desktops using OmniPass. This feature should only be enabled if your system is not protected by Ctl+Alt+Del at logon.

■ Run Enrollment Wizard

In this portion, you can add/remove user to/ from OmniPass, backup/restore a user's OmniPass profile as well as to modify a user's device enrollment.

You will need to authenticate with OmniPass whenever you wish to modify the user's device enrollment. For an example, you can enroll more fingers with OmniPass and it is not limited to just one or two fingers.

Note: The OmniPass guide indicated in this manual serves as a rough guide to the usage of the OmniPass software and the diagram may differ from the version installed in the user's system. Please refer to the user's manual in the OmniPass software for more information and details.

Version Information

Version information on fingerprint authentication utility is displayed in the left-hand-side pane of the window.

Scrolling

The Fingerprint sensor now comes with a scrolling function. Taking advantage of the sensor's technology, users will be able to scroll up and down a document by swiping the finger upwards to scroll up and swiping down to scroll down.

4

TV Tuner User's Guide

Remote Control User's Guide

Instructions

This user's guide contains information on using the Fujitsu Remote Control with systems running Microsoft® Windows Vista™ Home Premium or Windows Vista™ Ultimate edition as the operating system.

You are strongly advised to read this manual to familiarize yourself with the features of the remote control.

Determining Your System Configuration

Your remote control can be used with your computer whether you have a TV tuner or not. If you do not have a TV tuner, you can use the remote control to perform such operations as playing DVDs, listening to music, or viewing digital photo albums.

If you have a TV tuner installed (built-in, installed on PC Card, or connected externally via USB), you can use the remote to control the channel and volume, pause live TV, and record TV programs.

Figs. 1 through 4 illustrate the four ways your system can be configured:

- No TV Tuner
- Built-in TV Tuner with direct signal
- Built-in TV Tuner with signal routed through set-top box
- External TV Tuner

IMPORTANT

Note that the port locations and system configurations illustrated in this manual may differ from your actual configuration. See you system user's guide for actual location/ configuration.

Figure 1. Configuration with no TV Tuner

Figure 2. Configuration with TV Tuner and Direct Signal

Figure 3. Configuration with TV Tuner and Routed Signal

*Some external TV tuners can be connected via USB; other designs can be connected via PC or ExpressCard slot.

Figure 4. Configuration with External TV Tuner

Items included in Remote Control Package

Before using the remote control, make sure the following items are included in the remote control package (Figure 5). Be sure to have these items at hand before you proceed to use the remote control:

- Remote control
- Two size AA alkaline batteries
- Optical remote control receiver
- IR Blaster cable (infrared control cable for set-top box users)

Figure 5. Remote Control and Accessories

IMPORTANT

- Use only the remote control that came with this package when operating Vista Media Center.
- No cables or accessories other than those shown in Figure 5 are included. Additional accessories such as antenna cables, relay connectors, video cable, S-video cable, or audio cable are commercially available.

Installing Batteries

WARNING

- Properly insert batteries using the correct polarities (+, -). If they are incorrectly inserted, damage to the remote control could result.
- If you do not intend to use the remote control for an extended period of time, remove the batteries.

1. Open the lid of the battery compartment on the bottom of the remote control by pushing it in the direction shown in Figure 6.

Figure 6. Opening the battery compartment

2. Insert the batteries with the polarities indicated on the bottom of the compartment and replace the cover.

Connecting optical remote control IR receiver

IMPORTANT

In order to allow a suspended system to "wake up" using the remote control, you must ensure that it is enabled in the Windows Mobility Center. To do so, follow the instructions in "Setting up Mobility Center to use remote control" on page 41.

Connect the USB connector on the end of the remote control to one of the USB ports on your computer (Figure 7). Note that the location same as that shown in the figure. Refer to the system user's guide for the location of the USB ports.

Figure 7. Connecting the optical remote control receiver

Connecting infrared control cable

The infrared control cable is for when you are using a television connected to a set-top box, such as a cable vision box. The cable should be installed covering the infrared receiver of the set-top box.

1. Connect the infrared control cable to either of the jacks on the rear side of the optical remote control receiver.

Figure 8. Connecting the infrared control cable

2. Peel the adhesive sticker from the back of the light emitter end of the IR Blaster (infrared control) cable (Figure 9.) Position the light emitter so that it covers the infrared receiver of the set-top box as in Figure 10. (You can identify the receiver because it flashes red when you press the set-top box remote control.) Press the light emitter into place so that the adhesive sticks it to the infrared receiver as in Figure 11.

Figure 9. Peeling sticker from emitter

Figure 10. Applying light emitter to set-top receiver

Figure 11. Set-top box with light emitter attached

Setting up Mobility Center to use remote control

In order for your remote control to work with your LifeBook, you must first ensure that it is able to "wake up" using a USB device. To do so, perform the following simple steps:

1. Click on Start -> Control Panel.
2. If you are in Classic View, double-click the Windows Mobility Center icon. If you are in Control Panel Home View, first click Mobile PC, then select Windows Mobility Center.
3. Find the tile labeled "Wake up by USB device", and see if it is set to Enable or Disable.
4. If it is set to Enable, click the [Change] button. If it is set to Disable, no action is required.

Using the remote control

To use the remote control, you must use the remote control receiver included with the remote control. If your system has an infrared port, it cannot be used to operate the remote control.

Note the following when using the remote control:

- The receiver should be placed in a location where it is not obstructed. You should be able to point the remote control directly at the receiver. Keep the receiver out of direct sunlight, otherwise reception may prove faulty and the effective distance may be affected.
- If a plasma display, plasma TV, or halogen heater is located close to the device, the remote control may not work properly due to infrared interference. Relocate the devices if they interfere with the remote control operation.
- The infrared control cable should be fixed as close as possible to the remote control receiver of the set-top box so as to avoid directing the signal to the computer's infrared port.

Using the remote control is fairly intuitive. For specific information on using particular features, click the Start button to display the main menu. Scroll down to Settings and press the OK button. A submenu containing a variety of help topics appear. Click on the desired submenu to access related topics.

To exit the Help menu, click on the Start button to return to the main menu.

Effective distance/location for remote control

(Figure 12)

Horizontal (left and right from center-point): Approximately 45 degrees

Vertical (left and right from center-point): Approximately 45 degrees

Distance from remote control to receiver: 3 meters max.

Figure 12. Effective distance/location of remote control

Remote control features

Each button on the remote control is explained in this section.

Figure 13. Remote control buttons

No.	Purpose/Icon	Purpose
1	Play ▶	Pressing this button causes a selected recording to start playing.
2	Pause **II**	If you press this button while a DVD, a recording, or live TV is playing, play will stop temporarily. Pressing this button while play has been paused, play will restart.
3	Power Button ⏻	Pressing this button while the computer is active will normally put the computer into standby. Pressing this button while the computer is in standby will take the computer out of standby. **Note:** When a USB remote control receiver is connected to your system, the action invoked by the button on the remote control can be changed by going to the Power Options icon on the Control Panel. Select "Choose what the power button does" in the left pane. Select the desired action for the remote control power button from the available options.
4	Stop ■	Pressing this button while recording a program or while an audio CD or DVD video is being played, record/play will be stopped.
5	Fwd ▶▶	When watching a recorded program or DVD, pressing this button will cause the program to fast forward.
6	Skip ▶**I**	Pressing this button will cause the program or DVD being viewed to jump to the next chapter.
7	More **i**	Pressing this button will display all relevant information on replaying DVD-VIDEO, CD music, or recorded programs on screen.
8	Navigation Buttons ◀ ▲▼ ▶	Pressing one of these buttons allow you to move the cursor left, right, up, or down.
9	**OK**	Pressing this button will select or execute the item where the cursor is placed.
10	Mute	Pressing the Mute button will turn off sound temporarily until you press it again.
11	Ch/Pg ▲▼	When the (+) button or (-) button is pressed, the channel will switch to the next higher channel (+) or the next lower channel (-). This button will also go to the previous or next page of a menu or on- screen notification that is more than one screen high.
12	Live TV	Pressing this button will display in full- screen the program on the channel tuned in the last time.
13	DVD Menu	Pressing this button will display the main DVD menu.

No.	Purpose/Icon	Purpose
14	Numeric/Letter Keypad	Pressing the buttons allows you to input numbers or letters on the screen.
15	**ENTER**	Pressing this button will enter the letters or numbers input on screen.
16	**CLEAR**	Pressing this button will clear the numbers or letters input on the screen one by one.
17	Recorded TV	Pressing this button will display a list of all recorded programs on the screen.
18	Guide	Pressing this button will display the TV program guide on screen.
19	Volume Up/Down	When the (+) button or (-) button is pressed, the volume will switch to the next higher (+) or the next lower (-) volume level.
20	Start	Pressing this button will start up Media Center. Pressing this button while Media Center is running will display the Media Center Main Menu on the screen.
21	Back	Pressing the Back button returns you to the previously viewed screen.
22	Replay I◀	When watching a recorded program or DVD, pressing this button will cause the program to go back 6-7 seconds per press.
23	Rew ◀◀	When watching a recorded program or DVD, pressing this button will cause the program to rewind.
24	Record ●	Pressing this button while in television mode brings up a menu from which you can choose what and when to record.

5

User-Installable Devices and Media

LITHIUM ION BATTERY

Your LifeBook notebook has a Lithium ion battery that provides power for operating your notebook 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:

- The operating temperature range of the Lithium ion battery is 5°C to 30°C. If the battery is used outside these temperature ranges, charging efficiency will be greatly reduced and the likelihood of battery deterioration will greatly increase. The Battery Charging indicator on the Status Indicator Panel will flash orange when you try to charge a battery that is outside its operating temperature range.
- When using a high current device such as a modem, DVD, or hard drive, using the AC adapter will conserve your battery life.

CAUTION

- Actual battery life will vary based on screen brightness, applications, features, power management settings, battery condition and other customer preferences. Media player 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.
- Do not leave a faulty battery in your LifeBook notebook. It may damage your AC adapter, or your LifeBook notebook itself. It may also prevent operation of your notebook by draining all available current into the bad battery.

CAUTION

- 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.

Recharging the Batteries

If you want to know the charge condition of the primary 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. To recharge the battery, make sure the battery is installed in your notebook and connect the AC adapter.

POINT

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

It is not necessary to discharge the battery completely before recharging. Charge times will be much longer if your notebook is in use while the battery is charging. If you want to charge the battery more quickly, put your notebook into Suspend mode, or turn it off while the adapter is charging the battery.

CAUTION

Using heavy current devices such as a modem or frequent media player accesses may prevent charging completely.

Low Battery State

When the battery is running low, a low battery notification message will appear. If you do not respond to the low battery message, the batteries will continue to discharge until they are too low to operate. When this happens, your LifeBook notebook will go into Suspend mode. There is no guarantee that your data will be saved once the notebook reaches this point.

CAUTION

- Once the low battery notification message appears, you need to either plug in an AC power adapter, or save all your active data, power down your system, and install a charged battery as soon as possible.
- When you are in Suspend mode there must always be at least one power source active. If you remove all power sources while your LifeBook notebook is in Suspend mode, any data that has not been saved to the hard drive will be lost.

Once your LifeBook notebook battery goes dead, 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 Power/Suspend/Resume button to resume operation. If your battery dies, your data will be lost if a power source is not provided promptly. Once you provide power, you can continue to use your LifeBook notebook while an adapter is charging the battery.

Damaged Batteries

The Battery Level indicator displays the operating level available in that battery. If this icon is red and blinking, it means that the battery is damaged and must be replaced so it does not damage any other parts of your notebook.

Replacing the Battery

With the purchase of an additional battery, you can have a fully charged spare to swap with one that is not charged. *(Figure 5-1)*

1. Have a charged battery ready to install.
2. Shut down your LifeBook notebook and disconnect the AC adapter.
3. Press the battery release latches while lifting the battery.
4. Remove the battery from the bay.
5. Insert the new battery into the bay. The pins will automatically align with the connector.
6. Press the battery down until the battery release latches snap into place.
7. Plug in the AC adapter and turn the power on.

Figure 5-1. Replacing the Battery

POINT

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

Figure 5-2. Installing a Memory Stick/ SD/ xD Card

MEMORY STICK/SECURE DIGITAL/xD MEDIA

Your LifeBook notebook supports Memory Stick/ Memory Stick Pro, Secure Digital (SD) and xD 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.

xD Cards work the same as Memory Sticks and SD Cards, but they are much smaller than either one. Using an xD Card in the slot requires an adapter. xD Cards are primarily used to store and transfer images with devices such as cell phones.

Figure 5-3. Memory Stick, Secure Digital and xD Card

Installing Memory Stick, SD and xD Cards

Memory Sticks, SD and xD Cards are installed in the Memory Stick/SD/xD Card slot *(Figure 5-2)*. To install a Memory Stick, SD or xD Card, follow these steps:

WARNING

- Installing or removing a Memory Stick, SD or xD Card during your LifeBook notebook's shutdown or bootup process may damage the card and/or your LifeBook notebook.
- 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 notebook, or both.

1. See your Memory Stick, SD or xD Card manual for instructions on the installation of your card. Some cards may require that your notebook is off while installing them.
2. Make sure there is no card currently in the slot. If there is, see Removing a Memory Stick/SD/xD 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/xD Card

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

MEMORY UPGRADE MODULE

Your LifeBook has two memory slots, and the system comes with 512 MB, 1GB, or 2GB of factory-installed memory. If you have a module installed in only one slot, you can increase your LifeBook memory capacity by installing another memory upgrade module in the empty slot or by increasing the size of the single installed module. The minimum amount of memory in your system is 512 MB; the maximum amount is 4GB (two 2GB modules). Your notebook supports dual-channel memory. Dual-channel memory can have a significant effect upon your system's performance. In order to support dual channel memory, two DIMM modules must be installed in your computer. The two modules must be of the same capacity and similar specifications.

WARNING

Fujitsu highly recommends that only memory modules purchased from Fujitsu or recommended by Fujitsu be installed. The installation of incompatible memory modules can cause numerous problems which could result in loss of data.

Installing a Memory Module

To install a memory upgrade module follow these steps:

WARNING

- Turn off power and remove any telephone line connections before performing the memory upgrade.
- If the computer has been used recently, it may be hot. Make sure the system has cooled off completely before changing memory.

1. Turn off power to your LifeBook notebook and remove any power adapter.
2. Turn the notebook bottom side up, and remove the screws of the memory upgrade module compartment. *(Figure 5-4)*
3. Remove the cover.

Figure 5-4. Opening the Memory Upgrade Compartment

4. Remove the new memory upgrade module from the static guarded sleeve.
5. 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.
6. 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 5-5)*

Figure 5-5. Installing a Second Memory Module

7. Replace the cover. *(Figure 5-4)*
8. Replace the screws.

POINT

The memory upgrade module is not something you routinely remove from your notebook. 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 notebook.
4. Store the memory upgrade module in a static guarded sleeve.
5. Replace the cover.

Checking the Computer Recognition of New 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 LifeBook notebook has recognized the change.

You can check the memory capacity by looking at the Info menu of the BIOS setup:

1. Turn on the power to your LifeBook notebook using the Power/Suspend/Resume button.
2. Allow the system to start booting and press the F2 key once the Fujitsu logo appears on the screen with a prompt below it. This will open the main menu of the BIOS setup with the current settings displayed. Use the right arrow key to select Info in the BIOS Setup menu.

POINT

If the total memory displayed is incorrect, check that your memory upgrade module is properly installed.

Device Ports

Your LifeBook notebook comes equipped with multiple ports to which you can connect an external device including: disk drives, keyboards, modems, printers, etc.

COMMUNICATIONS PORTS

Your LifeBook has a Modem jack (RJ-11) and a LAN jack (RJ-45) to accommodate external communications.

Modem (RJ-11) Telephone Jack

The modem (RJ-11) telephone jack is used for your internal modem. To connect the telephone cable follow these easy steps:
(Figure 5-6)

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

Figure 5-6. Connecting the Modem

WARNING

- Do not connect the internal modem to a Digital PBX as it may cause serious damage to the modem or your LifeBook notebook. It should be noted that some hotels use the Digital PBX systems, please be sure to find out BEFORE you connect your modem. Consult your PBX manufacturer's documentation for more information.

IMPORTANT

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

LAN PORT

This port allows you to connect a LAN (RJ-45) cable for high-speed network or broadband connections (e.g., DSL, cable modem).
(Figure 5-7)

Figure 5-7. Connecting the LAN

IEEE 1394 JACK
The 4-pin IEEE 1394 (Firewire) jack is a high-speed interface (400 Mbps) that can be used to transfer large amounts of data between your notebook and a Firewire peripheral such as a digital camera, external hard drive, or video camera. Hot-swappable and plug-n-play, it is much faster than USB 1.1, CardBus, or parallel port. In order to connect a 1394 device, follow these steps: *(Figure 5-8)*

IMPORTANT

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

Figure 5-8. IEEE 1394 Interface

UNIVERSAL SERIAL BUS (USB) 2.0 PORTS
The Universal Serial Bus (USB) 2.0 ports allow you to connect USB devices such as game pads, pointing devices, keyboards and speakers. There is one USB 2.0 port on the right side, and three on the rear panel.

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. To connect a USB device follow these steps:

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

Figure 5-9. Connecting a USB Device

S-VIDEO OUT PORT
The S-Video port allows you to connect and use directly any S-Video device, such as a VCR or television. The S-Video standard provides for a higher quality picture than Composite. In order to connect an S-Video device, follow these easy steps: *(Figure 5-10)*

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

Figure 5-10. S-Video Jack

IMPORTANT

- There are several types of cables for connecting a digital electronic device (e.g., MD player) to the digital audio-out connector, depending on the connector type. The connector on your computer is a Optical Mini Plug (3.5mm diam-eter mini plug)
- The frequency of the digital sound output from the SPDIF output connector is selectable as 48.0 kHz or 44.1 kHz. If a sampling rate converter is not installed in your digital electronic device (e.g., MD player), recording is not possible. See the device user manual for more details.
- The sound recorded through connecting a digital electronic device (e.g., MD player) to the SPDIF output connector cannot be used as digital output. All output data from the SPDIF output connector has copyright protection information included.

MICROPHONE JACK

The microphone jack allows you to connect an external stereo 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 Life-Book notebook. In order to connect a microphone follow these easy steps:

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. In order to connect headphones or speakers follow these easy steps:

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

IMPORTANT

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

EXTERNAL MONITOR PORT

The external monitor port allows you to connect an external monitor. In order to connect an external monitor follow these easy steps:

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 end of the connector.

IMPORTANT

- 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.

Figure 5-11. External Monitor Connection

Figure 5-12. IPC Card/ExpressCard™ Slots

PC CARDS/ EXPRESSCARD™

Your LifeBook notebook supports Type I and Type II PC Cards and ExpressCard™ , which can perform a variety of functions depending on which type of card you install. You can install one or two cards at a time, depending on its type. PC Cards should be installed in the bottom slot, and ExpressCard™ in the top slot.

Some available PC/ExpressCard™:

- Local area network (LAN) cards (Type II)
- IDE solid-state disk cards (Type II)
- SCSI cards (Type II)
- Other PC Cards that conform to PCMCIA 2.1 or CardBus standards

For further information, refer to the instructions supplied with your card(s).

Figure 5-13. Installing/Removing PC Cards

Installing PC Cards

PC Cards are installed in the PC Card slot. To install a PC Card, follow these steps:

WARNING

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

POINT

You may be required to log on as an Administrator or member of the Administrator's Group to complete this procedure. If the computer is connected to a network, network policy settings may also prevent you from completing this procedure.

1. See your PC Card manual for instructions on the installation of your card. Some cards may require that your notebook is off while installing them.
2. Make sure there is no PC Card currently in the slot. If there is, see Removing PC Cards.
3. If the eject button is extended, press it until it clicks.

4. Insert the card into the slot with the label facing up.
5. Push the card firmly into the slot until it is seated in the connector.

Removing PC Cards

See your PC Card manual for specific instructions on removing your card. Some cards may require your notebook to be in Suspend Mode or Off during removal.

POINT

- Windows has a shutdown procedure for PC Cards that must be followed before removing a card. (Review your operating system manual for the correct procedure.) It is good practice to remove devices using the Unplug or Eject Hard-ware icon in the system tray.
- If the dialog box states that the device cannot be removed, you must save all of your open files, close any open applications and shut down your notebook.

1. Unlock the card from the slot by pressing the eject button associated with the slot in which the card is located. When pressed, the button will pop out.
2. Firmly press the button again until it is flush with the notebook. This will eject the card slightly out of the slot allowing you to remove the card.

CAUTION

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

Installing ExpressCard™

There are two different width ExpressCard™: 34 mm and 54 mm. The connector inside the slot is located on the left-hand side of the slot. If you insert a 34 mm card, be sure to align it with the left side of the slot when inserting it.

ExpressCard™ are installed in the ExpressCard™ slot (the top slot). *(Figure 5-12).*

Figure 5-14. Installing/Removing ExpressCard™

WARNING

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

POINT

You may be required to log on as Administrator or a member of the Administrator's Group to complete this procedure. If your computer is connected to a network, network policy settings may also prevent you from completing this procedure.

See your ExpressCard™ manual for instructions on the installation of your card. Some cards may require that your notebook is off while installing them.

To install an ExpressCard™, follow these steps:

1. Make sure there is no ExpressCard™ currently in the slot. If there is, see Removing ExpressCard™.
2. If the eject button is extended, press it in until it clicks.
3. Insert your ExpressCard™ into the slot with the product label facing up. If you are inserting a 34 mm card, be sure to align it with the left side of the slot when inserting it.
4. Push the card firmly into the slot until it is seated in the connector.

Removing ExpressCard™

See your ExpressCard™ manual for specific instructions on removing your card. Some cards may require your notebook to be in Suspend Mode or Off during removal.

POINT

- Windows has a shutdown procedure for ExpressCard™ that must be followed before removing a card. (Review your operating system manual for the correct procedure.) It is good practice to remove devices using the Unplug or Eject Hardware icon in the system tray.
- If the dialog box states that the device cannot be removed, you must save all of your open files, close any open applications and shut down your notebook.

To remove an ExpressCard™, follow these steps:

1. Unlock the card from the slot by pressing the eject button associated with the slot in which the card is located. When pressed, the button will pop out.
2. Firmly press the button again until it is flush with the notebook. This will eject the card slightly out of the slot allowing you to remove the card.

6

Troubleshooting

TROUBLESHOOTING

There may be occasions when you encounter simple setup or operating problems that you can solve on the spot, or problems with peripheral devices that can be solved by replacing the device. The information in this section helps you isolate and resolve some of these straightforward issues and identify failures that require service.

Identifying the Problem

If you encounter a problem, go through the following procedure before pursuing complex troubleshooting:

1. Turn off your LifeBook notebook.
2. Make sure the AC adapter is plugged into your LifeBook notebook and to an active AC power source.
3. Make sure that any card installed in the PC Card slot is seated properly. You can also remove the card from the slot, thus eliminating it as a possible cause of failure.
4. Make sure that any devices connected to the external connectors are plugged in properly. You can also disconnect such devices, thus eliminating them as possible causes of failure.
5. Turn on your LifeBook notebook. Make sure it has been off at least 10 seconds before you turn it on.
6. Go through the boot sequence.
7. If the problem has not been resolved, refer to the Troubleshooting Table that follows for more detailed troubleshooting information.

POINT

- If you keep notes about what you have tried, your support representative may be able to help you more quickly by giving additional suggestions over the phone.
- Do not return a failed LifeBook notebook to your supplier until you have talked to a support representative.

8. If you have tried the solutions suggested in the Troubleshooting Table without success, contact your local support representative.

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

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

See the Configuration Label on the bottom of your LifeBook notebook for configuration and serial numbers.

Specific Problems

EUsing the Troubleshooting Table

When you have problems with your LifeBook notebook, try to find the symptoms under the Problem column of the troubleshooting table for the feature giving you difficulty. You will find a description of common causes for that symptom under the column Possible Cause and what, if anything, you can do to correct the condition under Possible Solutions. All possible causes or solutions may not apply to your LifeBook notebook.

Troubleshooting Table

Problem	Possible Cause	Possible Solution
Audio Problem		
There is no sound coming from the built-in speakers.	The software volume control is set too low.	Adjust the sound volume control settings in your software, operating system and applications.
	Headphones are plugged into your LifeBook notebook.	Plugging in headphones disables the built-in speakers, remove the headphones.
	BIOS audio settings are incorrect.	Set the BIOS setup utility to the default values within the Multimedia Device Configuration menu.
	Software driver is not configured correctly.	Refer to your application and operating system documentation for help.
Optical Drive Problems		
LifeBook notebook fails to recognize media discs.	The disc is not pushed down onto raised center circle of the drive.	Open media player tray and re-install the media disc properly.
	Setup utility is set to something other than media player or Auto for Secondary Master Controller.	Revise BIOS settings for the Secondary Master Controller.
	Wrong drive designator was used for media player in the application.	Verify the drive designator used by the application is the same as the one used by the operating system. When the operating system is booted from a media player, drive designators are automatically adjusted.
	Windows Media Player auto insert notification function is disabled.	Start the media player from the desktop or application software or re-enable the Windows media player auto insert notification function.
	Media disc is dirty or defective.	Wipe the disc with a non-abrasive CD cleaning cloth and reinsert. It if still will not work try another media disc in the drive.

Problem	Possible Cause	Possible Solution
Optical Drive Problems		
The Media Player Access indicator on the Status Indicator Panel blinks at regular intervals when no disc is in the tray or the media drive is not installed.	The Windows media player auto insert notification function is active and is checking to see if a media disc is ready to run.	This is normal.
The notebook fails to Auto-Play a DVD movie.	The media player software has not been installed.	Locate and install the DVD-ROM Applications CD.
The media player will not play international DVD titles	The region code for the DVD does not match that of the media player.	All Fujitsu notebook DVD drive is pre-set at factory to read DVD title with region codes for specific Asia Pacific markets (e.g. code 3 for Asian, code 4 for Australia, code 6 for China). The first time you play a DVD title with a region code different from that of the DVD optical drive - the region code set at factory, you will be prompted to change the region code of the DVD optical drive. The region code of a DVD optical drive can be changed up to 4 times, after which it will be locked so that the DVD optical drive can only play DVD titles of the final region code set.
Hard Drive Problems		
You cannot access your hard drive.	The setup utility is incorrectly set for your internal (Primary Master) or optional second hard drive (Primary Slave).	Revise BIOS settings to set both Primary Master and Primary Slave correctly.
	The wrong drive designator was used by an application when a bootable CD-ROM was used to start the LifeBook notebook.	Verify drive designator used by application is in use by the operating system. When the operating system is booted from a CD, drive designations are automatically adjusted.

Problem	Possible Cause	Possible Solution
Hard Drive Problems		
You cannot access your hard drive. (continued)	Security is set so your OS cannot be started without a password.	Verify your password and security settings.
Keyboard or Mouse Problems		
The built-in keyboard does not seem to work.	The LifeBook notebook has gone into Suspend mode.	Push the Power/Suspend/Resume button.
	Your application has locked out your keyboard.	Try to use your integrated pointing device to restart your system. If this fails, turn your LifeBook notebook off press the Power/ Suspend/Resume button for 10 seconds or more, and then turn it back on.
You have installed an external keyboard or mouse, and it does not seem to work.	Your external device is not properly installed.	Re-install your device.
	Your operating system software is not set up with the correct software driver for that device.	Check your device and operating system documentation and activate the proper driver.
You have connected an external keyboard or a mouse and it seems to be locking up the system.	Your operating system software is not set up with the correct software driver for that device.	Check your device and operating system documentation and activate the proper driver.
	Your system has crashed.	Try to restart your LifeBook notebook. If this fails, turn your LifeBook notebook off press the Power/Suspend/Resume button for 10 seconds or more, and then turn it back on.

Problem	Possible Cause	Possible Solution
Memory Problems		
Your Info menu of the BIOS setup utility information, does not show the correct amount of installed memory.	Your memory upgrade module is not properly installed.	Remove and re-install your memory upgrade module.
	You have a memory failure.	Check for Power On Self Test (POST) messages.
Modem Problems		
Messages about modem operation.	Messages about modem operation are generated by whichever modem application is in use.	See your application software documentation for additional information.
USB or IR Device Problems		
You have installed a USB or IR device. Your LifeBook notebook does not recognize the device, or the device does not seem to work properly.	The device is not properly installed.	Remove and re-install the device.
	The device may have been installed while an application was running, so your LifeBook is not aware of its installation.	Close the application and restart your LifeBook notebook.
	Your software may not have the correct software driver active.	See your software documentation and activate the correct driver.
	You may have the wrong I/O address selected for your device.	See your device documentation and software documentation to determine the required I/O address. Change the settings in the BIOS setup utility.
	Your device and another device are assigned the same I/O address.	Check all I/O addresses located within the BIOS setup utility and any other installed hardware or software to make sure there are no duplications.

Problem	Possible Cause	Possible Solution
PC Card Problems		
PC Card does not work or locks up the system.	The card is not properly installed.	Remove and re-install the card.
	The card may have been installed while an application was running, so your system is not aware of it.	Close the application and restart your LifeBook notebook.
	Your software may not have the correct software driver active.	See your software documentation and activate the correct driver.
	You may have the wrong I/O address selected for your PC Card device.	See PC Card documentation to determine the required I/O address. Change the BIOS settings.
	Your PC Card device and another device are assigned the same I/O address.	Check all I/O addresses located within the BIOS setup utility and any other installed hardware or software to make sure there are no duplications.
	The card may have been “removed” using the Unplug or Eject Hardware utility.	If Unplug or Eject Hardware utility has been used to remove the card, the system will not recognize it, even if it is still in the slot. Remove the card and reinstall it. If that isn’t successful, reboot the system.

Problem	Possible Cause	Possible Solution
Power Failures		
You turn on your LifeBook notebook and nothing seems to happen.	The installed primary battery is completely discharged, there is no optional second battery installed or there is no power adapter installed.	Check the Status Indicator Panel to determine the presence and condition of the batteries. Install a charged battery or a power adapter.
	The primary battery is installed but is faulty.	Use the Status Indicator panel to verify the presence and condition of the batteries. If a battery is indicating a short, remove that battery and operate from another power source or replace that battery.
	The battery is low.	Check the Status Indicator Panel to verify the presence and condition of the battery. Use an AC adapter to operate until a battery is charged or install a charged battery.
	The power adapter is not plugged in properly.	Verify that your adapter is connected correctly.
	The power adapter has no power from the AC outlet.	Move the AC cord to a different outlet, check for a line switch or tripped circuit breaker for the AC outlet.
	The power adapter is faulty.	Try a different power adapter or install a charged optional second battery.
Your LifeBook notebook turns off all by itself.	You have a battery failure.	Verify the condition of the batteries using the Status Indicator Panel, and replace or remove any batteries that are shorted.
	The power management parameters are set for auto timeouts which are too short for your operating needs.	Press any button on the keyboard, or move the mouse to restore operation. If that fails, push the Power/Suspend/Resume button. Check your power management settings, or close your applications and go to the Power Options menu of the setup utility to adjust the timeout values to suit your needs.

Problem	Possible Cause	Possible Solution
Power Failures		
Your LifeBook notebook turns off all by itself. (continued)	Your installed battery is faulty.	Verify the condition of the battery using the Status Indicator panel and replace or remove any battery that is shorted.
The battery seems to discharge too quickly.	You are running an application that uses a great deal of power due to frequent hard drive or media player drive access, use of a modem card or a LAN PC card.	Use both the primary battery and/or use a power adapter for this application when at all possible.
	The power savings features may be disabled.	Check the power management and/or setup utility settings in the Power Options menu and adjust according to your operating needs.
	The brightness is turned all the way up.	Turn down the brightness adjustment. The higher the brightness the more power your display uses.
	The battery is very old.	Replace the battery.
	The battery has been exposed to high temperatures.	Replace the battery.
	The battery is too hot or too cold.	Restore the LifeBook to normal operating temperature. The Battery Charging icon on the indicator panel will flash when the battery is outside operating range.
	The Mode light is on constantly.	Turn off the Mode light by turning system power off, then pressing the Power/Suspend/ Resume button for four or more seconds.

Problem	Possible Cause	Possible Solution
Shutdown and Startup Problems		
The Power/ Suspend/Resume button does not work.	The Power/Suspend/ Resume button is disabled from the Advanced submenu of the Power menu of the setup utility.	Enable the button from the setup utility.
	You did not hold the button in long enough.	Hold the button longer. This may need to be a few seconds if your application is preventing the CPU from checking for button pushes.
	There may be a conflict with the application software.	Close all applications and try the button again.
The system powers up and displays power-on information, but fails to load the operating system.	The boot sequence settings of the setup utility are not compatible with your configuration.	Set the operating source by pressing the [ESC] key while the Fujitsu logo is on screen or use the [F2] key and enter the setup utility and adjust the source settings from the Boot menu.
	You have a secured system requiring a password to load your operating system.	Make sure you have the right password. Enter the setup utility and verify the Security settings and modify them as accordingly.
	Internal hard drive was not detected.	Use the BIOS setup utility or Primary Master submenu, located within the Main menu, to try to auto detect the internal hard drive.
An error message is displayed during the LifeBook notebook (boot) sequence.	Power On Self Test (POST) has detected a problem.	See Power On Self Test (POST) messages to deter-mine the meaning of the problem. Not all messages are errors; some are status indicators.
Your LifeBook notebook appears to change setup parameters when you start it.	BIOS setup changes were not saved when you made them and exited the BIOS setup utility returning it to previous settings.	Make sure you select Save **Changes And Exit** when exiting the BIOS setup utility.
	The BIOS CMOS hold-up battery has failed.	Contact your support representative for repairs. This is not a user serviceable part but has a normal life of 3 to 5 years.

Problem	Possible Cause	Possible Solution
Video Problems		
Display is blank when you turn on the system.	Something is pushing on the Closed Cover switch.	Clear the Closed Cover switch.
	The LifeBook notebook is set for an external monitor only.	Pressing [F10] while holding down the [Fn] key allows you to change the destination of 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 only, external monitor only, both built-in display and external monitor.
	The angle and brightness settings of the display are not adequate for the lighting conditions.	Move the display and the brightness control until you have adequate visibility.
	The power management timeouts may be set for very short intervals and you failed to notice the display come on and go off again.	Press any button on the keyboard, or move the mouse to restore operation. If that fails, push the Power/Suspend/Resume button. (The display may be shut off by Standy mode, Auto Suspend or Video Timeout)
When the ATI Driver CD is first installed, you receive a Microsoft message informing you that the ATI driver is not compatible with your operating system.	The warning does not apply to your LifeBook; the driver has been thoroughly tested and its installation will not jeopardize the performance of your system.	If this message appears on your screen, click the **Continue Anyway** or **Yes** buttons to proceed.
The LifeBook notebook turned on with a series of beeps and your built-in display is blank.	Power On Self Test (POST) has detected a failure which does not allow the display to operate.	Contact your support representative.

Problem	Possible Cause	Possible Solution
Video Problems		
The display goes blank by itself after you have been using it.	The LifeBook notebook has gone into Video timeout, Standby mode, Suspend mode or Hibernation (Save-to-Disk) mode because you have not used it for a period of time.	Press any button on the keyboard, or move the mouse to restore operation. If that fails, push the Power/Suspend/Resume button. Check your power management settings, or close your applications and go to the Power Savings menu of the setup utility to adjust the timeout values to suit your operation needs.
	Something is pushing on the Closed Cover switch.	Check the Closed Cover switch.
	The power management timeouts may be set for very short intervals and you failed to notice the display come on and go off again.	Press a keyboard button or move the mouse to restore operation. If that fails, push the Power/Suspend/Resume button. (The display may be shut off by Standby Mode, Auto Suspend or Video Timeout)
The built-in display does not close.	A foreign object, such as a paper clip, is stuck between the display and the keyboard.	Remove all foreign objects from the keyboard.
The built-in display has bright or dark spots.	If the spots are very tiny and few in number, this is normal for a large LCD display.	This is normal; do nothing.
	If the spots are numerous or large enough to interfere with your operation needs.	Display is faulty; contact your support representative.
The application display uses only a portion of your screen and is surrounded by a dark frame.	You are running an application that does not support 800 x 600/1024 x 768 pixel resolution display and display compression is enabled.	Display compression gives a clearer but smaller display for applications that do not support 800 x 600/1024 x 768 pixel resolution. You can fill the screen but have less resolution by changing your display compression setting, (See the Video Features submenu, located within the Advanced menu of the BIOS.)

Problem	Possible Cause	Possible Solution
Video Problems		
The Display is dark when on battery power.	The BatteryAid default is set on low brightness to conserve power.	Press [Fn] + [F7] to increase brightness or double-click on BatteryAid gauge and adjust Power Control under battery settings.
You have connected an external monitor and it does not display any information.	Your BIOS setup is not set to enable your external monitor.	Toggle the video destination by pressing [Fn] and [F10] together, or check your BIOS setup and enable your external monitor. (See Video Features submenu, located within the Advanced Menu of the BIOS.)
	Your external monitor is not properly installed.	Reinstall your device.
	Your operating system software is not set up with the correct software driver for that device.	Check your device and operating system documentation and activate the proper driver.
You have connected an external monitor and it does not come on.	Your external monitor is not compatible with your LifeBook notebook.	See your monitor documentation and the External Monitor Support portions of the Specifications section.
Miscellaneous Problems		
An error message is displayed on the screen during the operation of an application.	Application software often has its own set of error message displays.	See your application manual and help displays screens for more information. Not all messages are errors some may simply be status.

7

Care and Maintenance

CARE AND MAINTENANCE

If you use your LifeBook notebook carefully, you will increase its life and reliability. This section provides some tips for looking after your notebook.

WARNING

Electrical equipment may be hazardous if misused. Operations of this product or similar products must always be supervised by an adult. Do not allow children access to the interior of any electrical products and do not permit them to handle any cables.

Caring for your LifeBook notebook

- Your LifeBook notebook is a durable but sensitive electronic device. Treat it with respect and care.
- Transport the notebook it in a suitable carrying case.
- Do not attempt to service the computer yourself. Always follow installation instructions closely.
- Keep it away from food and beverages.
- If you accidentally spill liquid on your notebook:
  1. Turn it off.
  2. Position it so that the liquid can run out.
  3. Let it dry out for 24 hours, or longer if needed.
  4. If your LifeBook notebook will not boot up after it has dried out, call your support representative.
- Do not use your notebook in a wet environment (near a bathtub, swimming pool).
- Always use the AC adapter and batteries that are approved for your notebook.
- Avoid exposure to sand, dust and other environmental hazards.
- Do not expose your LifeBook notebook to direct sunlight for long periods of time as temperatures above 140°F (60°C) may damage your notebook.
- Keep the covers closed on the connectors and slots when they are not in use.
- Do not put heavy or sharp objects on the computer.
- If you carry your notebook in a carrying case, make sure that there are no objects pressing on the lid.
- Never position your notebook such that the media player drive is supporting the weight of the notebook.
- Do not touch the screen with any sharp objects.

Caring your Fujitsu notebook

- Always disconnect the power by pulling the plug, not the cord.
- Clean your LifeBook notebook with a damp, lint-free cloth. Do not use abrasives or solvents.
- Use a soft cloth such as a lens cleaning cloth to remove dust from the screen. Never use glass cleaners.

Storing your Fujitsu notebook

- If storing your LifeBook notebook for a month or longer, turn your notebook off, fully charge the battery, then remove and store all Lithium ion batteries.
- Store your notebook and batteries separately. If you store your notebook with a battery installed, the battery will discharge, and battery life will be reduced. In addition, a faulty battery might damage the notebook.
- Store the notebook in a cool, dry place. Temperatures should remain between 13°F and 140°F (-25°C -60°C).

Traveling with your Fujitsu notebook

- Do not transport your notebook while it is turned on.
- Don’t check the computer as baggage; carry it aboard.

- Avoid putting your notebook through a metal detector. Have the notebook hand-inspected by security personnel. You can put your notebook through a properly tuned X-ray machine. To avoid problems, place your notebook close to the entrance of the machine and remove it as soon as possible or have your notebook hand-inspected by security personnel. Security officials may require you to turn your notebook on. Make sure you have a charged battery on hand.
- When traveling with the hard drive removed, wrap the drive in a non-conducting materials (cloth or paper). If you have the drive checked by hand, be ready to install the drive if needed. Never put your hard drive through a metal detector. Have your hard drive hand-inspected by security personnel. You can however, put your hard drive through a properly tuned X-ray machine.
- Take the necessary plug adapters if you're traveling overseas. Check the following diagram to determine which plug adapter you'll need or ask your travel agent.

Outlet Type	Location
	United States, Canada, parts of Latin America, Japan, Korea, Mexico, Taiwan, the Philippines
	Russia and Commonwealth of Independent States (CIS), most of Europe, parts of Latin America, the Middle East, parts of Africa, Hong Kong, India, most of South Asia
	United Kingdom, Ireland, Malaysia, Singapore, parts of Africa
	China, Australia, New Zealand

Figure 7-1. International Outlet Types

Batteries

Caring for your Batteries

- Always handle batteries carefully.
- Do not short-circuit the battery terminals (that is, do not touch both terminals with a metal object). Do not carry loose batteries in a pocket or purse where they may mix with coins, keys, or other metal objects. Doing so may cause an explosion or fire.
- Do not drop, puncture, disassemble, mutilate or incinerate the battery.
- Recharge batteries only as described in this manual and only in ventilated areas.
- Do not leave batteries in hot locations for more than a day or two. Intense heat can shorten battery life.
- Do not leave a battery in storage for longer than 6 months without recharging it.

Increasing Battery Life

- Power your LifeBook notebook with the AC adapter whenever possible.
- If your LifeBook notebook is running on battery power all day, connect it to the AC adapter overnight to recharge the battery.
- Keep brightness to the lowest level comfortable.
- Set the power management for maximum battery life.
- Put your LifeBook notebook in Suspend mode when it is turned on and you are not actually using it.
- Limit your media drive access.
- Disable the media player auto insert notification function.
- Always use fully charged batteries.
- Eject PCMCIA cards when not in use.

Media Care

Caring for your Media (DVD/CD/CD-R/DVD+/-R/DVD+/-RW)

Media discs are precision devices and will function reliably if given reasonable care.

- Always store your media disc in its case when it is not in use.
- Always handle discs by the edges and avoid touching the surface.
- Avoid storing any media discs in extreme temperatures.
- Do not bend media discs or set heavy objects on them.
- Do not spill liquids on media discs.
- Do not scratch media discs.
- Do not put a label on media discs.
- Do not get dust on media discs.
- Never write on the label surface with a ballpoint pen or pencil. Always use a felt pen.
- If a media disc is subjected to a sudden change in temperature, cold to warm condensation may form on the surface. Wipe the moisture off with a clean, soft, lint free cloth and let it dry at room temperature. DO NOT use a hair dryer or heater to dry media discs.
- If a disc is dirty, use only a DVD/CD cleaner or wipe it with a clean, soft, lint free cloth starting from the inner edge and wiping to the outer edge.

Caring for your Media Drive

Your media player drive is durable but you must treat it with care. Please pay attention to the following points:

- The drive rotates the compact disc at a very high speed. Do not carry it around or subject it to shock or vibration with the power on.
- Avoid using or storing the drive where it will be exposed to extreme temperatures.
- Avoid using or storing the drive where it is damp or dusty.
- Avoid using or storing the drive near magnets or devices that generate strong magnetic fields.
- Avoid using or storing the drive where it will be subjected to shock or vibration.
- Do not disassemble or dismantle the media player drive.

Media Cards

Caring for your Media Cards

Media cards (including PC Cards, ExpressCard™, Memory Sticks and SD Cards) are durable, but you must treat them with care. The documentation supplied with your card will provide specific information, but you should pay attention to the following points:

- To keep out dust and dirt, store cards in their protective sleeves when they're not installed in the notebook.
- Avoid prolonged exposure to direct sunlight or excessive heat.
- Keep the cards dry.
- Do not flex or bend the cards, and do not place heavy objects on top of them.
- Do not force cards into the slot.
- Avoid dropping cards, or subjecting them to excessive vibration.