# 3

# Battery Packs

## Running the Tablet PC on Battery Power

When the tablet PC is connected to external power, the tablet PC runs on external power.

When a charged battery pack is in the tablet PC and the tablet PC is not connected to external power, the tablet PC runs on battery power.

The tablet PC switches between external power and battery power according to the availability of an external power source. For example, if the tablet PC contains a charged battery pack and is running on external power supplied through the AC adapter, the tablet PC will switch to battery power if the AC adapter is disconnected from the tablet PC.

Whether to leave a battery pack in the tablet PC or in storage depends on how you work. Keeping a battery pack in the tablet PC enables the battery pack to charge whenever the tablet PC is connected to external power and also protects your work in case of a power outage.

On the other hand, a battery pack in the tablet PC slowly discharges even while the tablet PC is turned off.

If you will not be using the tablet PC for one month or more, removing the battery pack and storing it as described in "Storing a Battery Pack," later in this chapter, will prolong its life. For more information about leaving your work, refer on this CD to the *Software Guide,* "Power" chapter.

# Replacing a Battery Pack

## Removing a Battery Pack

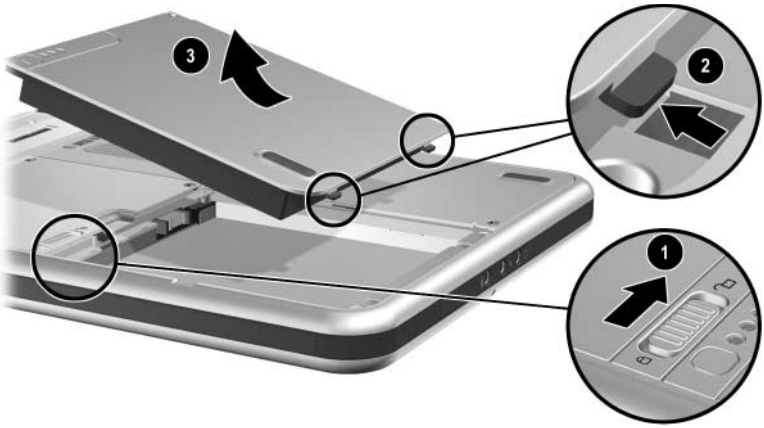
**CAUTION:** To prevent loss of work when removing a battery pack that is running the tablet PC, initiate Hibernation or turn off the tablet PC before removing the battery pack.

- If you remove a battery pack that is running the tablet PC while the tablet PC is in Standby, your work is saved in Standby for up to one minute, then the tablet PC shuts down and your unsaved work is lost.
- If you remove a battery pack that is running the tablet PC while the tablet PC is on, the tablet PC shuts down immediately and your unsaved work is lost.

To remove a battery pack from the tablet PC:

1. Turn the tablet PC front side down. (If a battery pack security screw is in place, remove the screw.)

2. To unlock the battery pack release latch, slide the latch firmly toward the unlock icon ❶. Then hold the latch as you disengage the 2 tabs on the battery pack from the 2 slots on the battery bay ❷ and lift the battery pack out of the battery bay ❸.

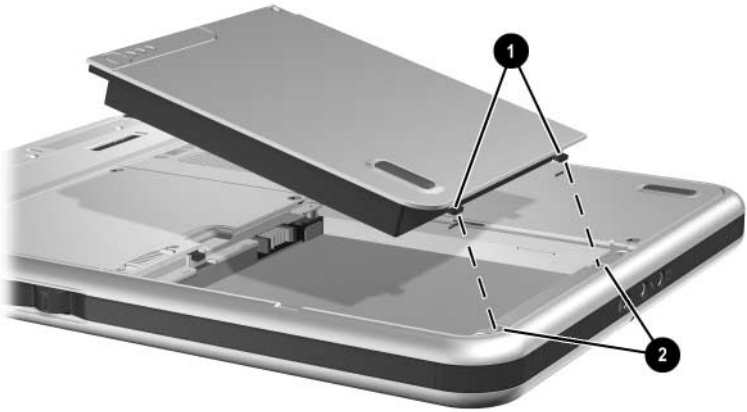



*Removing a battery pack*

## Inserting a Battery Pack

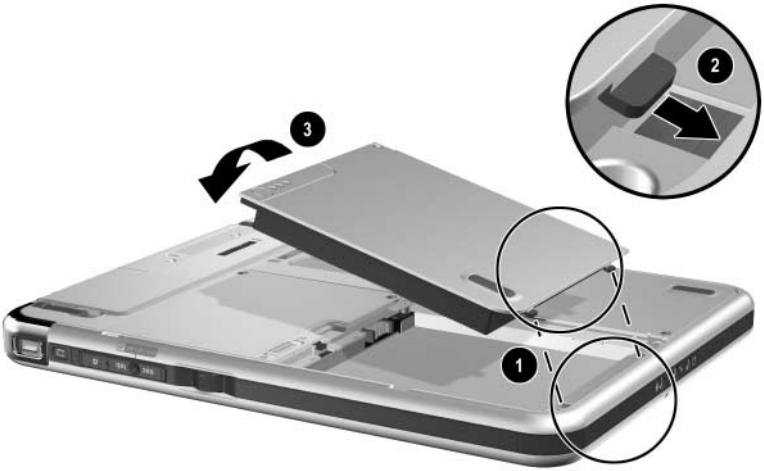
To insert a battery pack into the tablet PC:

1. Turn the tablet PC front side down.
2. Align the 2 rectangular tabs ❶ on the battery pack with the 2 rectangular alignment slots ❷ in the battery bay.




*Aligning the battery pack tabs with the battery bay alignment slots*

3. Angle the battery pack toward the alignment slots ❶ until the 2 tabs are inserted into the 2 alignment slots ❷.
4. Tilt the battery pack downward until it snaps into place ❸.




*Inserting a battery pack*

5. If you initiated Standby or Hibernation before replacing the battery pack, slide and release the power switch to resume from Standby or Hibernation.

# Securing a Battery Pack

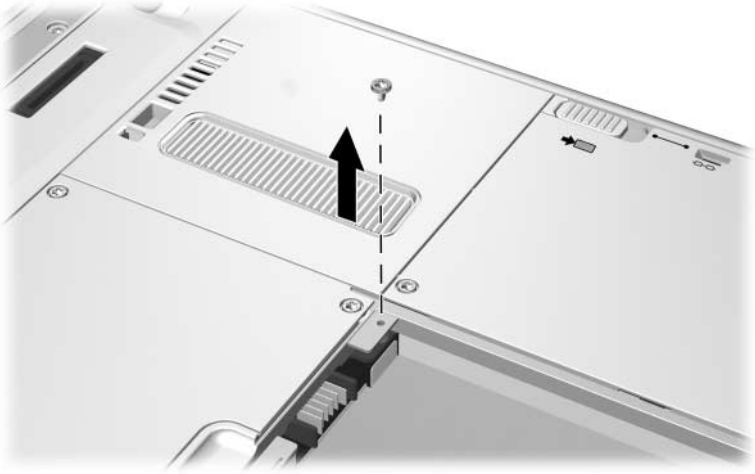
Use the battery pack security screw to hold the battery pack in place, and to provide antitheft protection for the battery pack.

## Accessing the Battery Pack Security Screw

A battery pack security screw ships inside the battery bay.

To access the battery pack security screw:

1. Remove the battery pack as instructed in "Removing a Battery Pack" earlier in this section.
2. Remove the battery pack security screw.

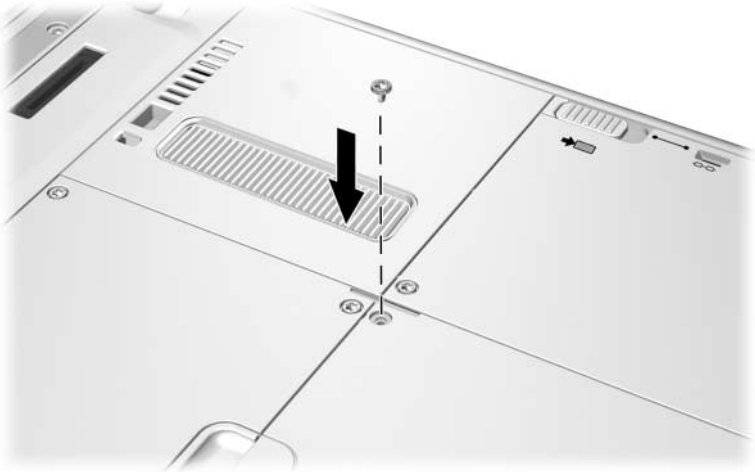


*Removing the battery pack security screw*

## Inserting a Battery Pack Security Screw

To secure the battery pack in the battery bay with a battery pack security screw:

1. Insert the battery pack into the battery bay as instructed in "Inserting a Battery Pack" earlier in this section.
2. Insert a battery pack security screw through the battery pack case and into the tablet PC.



*Inserting a battery pack security screw*

# Charging a Battery Pack

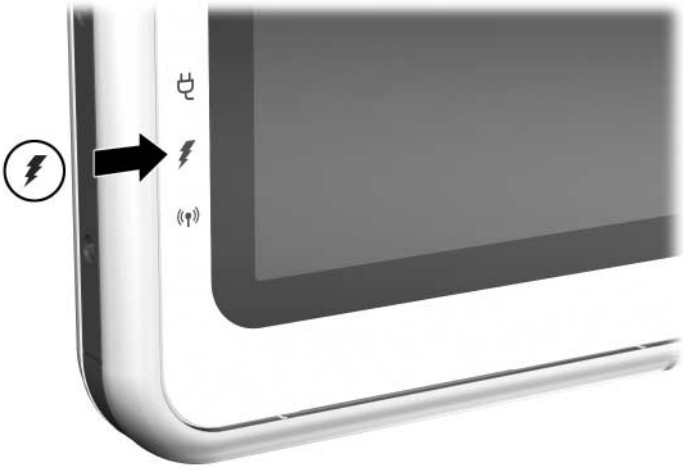
The battery pack in the tablet PC charges whenever the tablet PC is connected to external power.

The battery pack charges whether or not the tablet PC is in use, but charges faster when the tablet PC is off.

Charging may be delayed if a battery pack is new, has not been used for 2 weeks or more, or is much warmer or cooler than room temperature. Charging times vary.

The battery light displays charge status:

- On: the battery pack is charging.
- Off: the battery pack is fully charged.
- Flashing: the battery pack has 5 percent or less of a full charge.



*Identifying the battery light*

## Charging a New Battery Pack

Fully charge the battery pack while the tablet PC is connected to external power through the AC adapter.

A new battery pack that has been partially charged, but not fully charged, can run the tablet PC, but battery charge displays may be inaccurate.

## Charging an In-Use Battery Pack

To prolong battery life and increase the accuracy of battery charge displays:

- Allow the battery pack to discharge to less than 10 percent of a full charge through normal use before charging it.
- When you charge the battery pack, charge it fully. An in-use battery pack can be charged while the tablet PC is connected to external power through the AC adapter or an optional Automobile Power Adapter Charger, Docking Station, or DC cable.

An optional Auto/Air Cable can be used to run the tablet PC, but cannot be used to charge a battery pack.

# Monitoring the Charge in a Battery Pack

## Obtaining Accurate Charge Information

To increase the accuracy of all battery charge displays:

- Allow a battery pack to discharge to less than 10 percent of a full charge through normal use before charging it.
- When you charge a battery pack, charge it fully.
- If a battery pack has not been used for one month or more, calibrate the battery pack instead of simply charging it. For calibration instructions, see "Calibrating a Battery Pack" later in this chapter.

## Displaying Charge Information on the Screen

### Accessing Charge Displays

To display battery charge information on the screen, use the operating system Power Meter feature.

To access Power Meter displays, use *either* of the following methods:

- Select Start > Control Panel > Performance and Maintenance icon > Power Options icon > Power Meter tab.
- Select the Power Meter icon in the system tray.

To display the Power Meter icon in the system tray:

1. Select Start > Control Panel > Performance and Maintenance icon > Power Options icon > Advanced tab.
2. Select the Always Show Icon On The Taskbar check box.
3. Select the OK button.
4. If the icon is not displayed, select in the system tray the icon for Show Hidden Icons.

## Interpreting Charge Displays

Power Meter displays battery charge status in both percent and time:

- The percent indicates the amount of charge remaining in the battery pack.
- The time indicates the approximate running time remaining on the battery pack *if the battery pack continues to provide power at the current level.* For example, the time remaining will decrease if you start backing up to an SD Card and will increase when the backup is complete.

A lightening bolt icon indicates that the battery pack is charging.

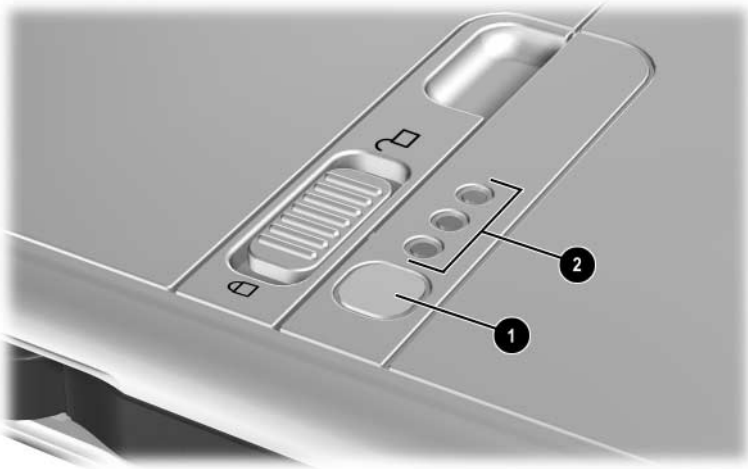
# Displaying Charge Information on a Battery Pack

Charge information about a battery pack can be displayed on the battery pack with the Quick Check feature, which can be used whether or not the battery pack is inserted in the battery bay.

To display the percent of a full charge remaining in a battery pack, press the battery quick check button ❶ on the battery pack. The three battery quick check lights ❷ on the battery pack indicate the charge remaining in the battery pack.

| Indication | Percent of a Full Charge Remaining |
|---|---|
| 3 lights on | 67 to 100% |
| 2 lights on | 34 to 66% |
| 1 light on | 6 to 33% |
| 1 light flashing* | 0 to 5% |

*When the battery pack reaches 5% of a full charge, the battery light on the tablet PC also flashes.




*Identifying the quick check button and lights on a battery pack inserted in the battery bay*

# Managing Low-Battery Conditions

The information in this section describes default alerts and system responses.

Some low-battery condition alerts and system responses can be changed in the Power Options Properties window of the operating system. Preferences set in the Power Options Properties window do not affect lights.

For information about setting preferences in the Power Options Properties window, refer on this CD to the *Software Guide,* "Power" chapter, "Setting Power Preferences" section.

## Identifying Low-Battery Conditions

### Low-Battery Condition

When a battery pack that is the sole power source available to the tablet PC reaches a low-battery condition (5 percent of a full charge), the battery light flashes.

### Critical Low-Battery Condition

If a low-battery condition is not resolved, the tablet PC enters a critical low-battery condition (1 percent of a full charge).

In a critical low-battery condition:

- If Hibernation is enabled and the tablet PC is on or in Standby, the tablet PC initiates Hibernation.
- If Hibernation is disabled and the tablet PC is on or in Standby, the tablet PC remains briefly in Standby, then shuts down and loses your unsaved work.

Hibernation is enabled by default. To verify that Hibernation is enabled, select Start > Control Panel > Performance and Maintenance icon > Power Options icon > Hibernate tab. If Hibernation is enabled, the Enable Hibernation check box is selected.

# Resolving Low-Battery Conditions

**CAUTION:** If the tablet PC has reached a critical low-battery condition (one percent of a full charge) and has initiated Hibernation, do not slide the power switch until Hibernation is complete. Hibernation is complete when the power/standby light turns off.

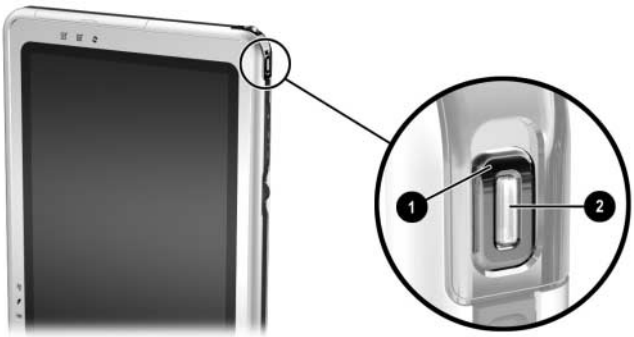
## When a Charged Battery Pack Is Available

To resolve a low-battery condition, select *one* of the following options:

- Turn off the tablet PC or initiate Hibernation, insert a charged battery pack while the tablet PC is off or in Hibernation, then turn on the tablet PC.
- To replace the battery with minimal disruption to your work, slide and release the power switch ❶ to initiate Standby, confirm that Standby has been initiated by making sure the power/standby light is flashing ❷, then replace the battery pack *within one minute.*

**CAUTION:** To prevent loss of work, be sure to replace the battery pack within one minute. The bridge battery runs the tablet PC in Standby for up to one minute, at which point the tablet PC will shut down and lose unsaved work if no external power is available.

Do not immediately repeat the Standby procedure for replacing a battery pack. The bridge battery requires time to recharge between uses.




*Identifying the power switch and the power/standby light*

### When External Power Is Available

To resolve a low-battery condition, select *one* of the following options:

- Plug the AC adapter cable into the tablet PC, then plug the power cord into the AC adapter and into an AC electrical outlet.
- Plug an optional Automobile Power Adapter/Charger into the tablet PC and into a vehicle cigarette lighter receptacle.
- Plug an optional Auto/Air Cable into the tablet PC and into the in-seat power supply available on some commercial aircraft. (An optional Auto/Air Cable can run the tablet PC but cannot charge a battery pack.)

### When No Power Source Is Available

To resolve a low-battery condition, initiate Hibernation. Or, save your work, then shut down the tablet PC.

## Initiating and Resuming from Standby or Hibernation

For more information about Standby and Hibernation, refer on this CD to the *Software Guide,* "Power" chapter.

- To initiate Standby, slide and release the power switch. To resume from Standby, slide and release the power switch.
- To initiate Hibernation, select Start >Turn off Computer > Hibernate. If the Hibernate option is not displayed and an external keyboard is attached, press and hold **shift.** (When you press and hold **shift,** the Hibernate option replaces the Standby option in the Shut Down window.) To resume from Hibernation, slide and release the power switch.

For information about initiating Standby or Hibernation from the Q Menu, refer on this CD to the *Software Guide,* "Q Menu and Desktop Video Profiles" chapter.

# Calibrating a Battery Pack

## When to Calibrate

Calibrate an in-use battery pack whenever battery charge displays seem inaccurate or whenever the battery pack has not been used for one month or more. It should not be necessary to calibrate any battery pack, even if it is heavily used, more than once a month. It is not necessary to calibrate a new battery pack before first use.

## How to Calibrate

Calibration requires three steps:

- "Charging the Battery Pack"
- "Discharging the Battery Pack"
- "Recharging the Battery Pack"

To initiate an unattended calibration in an optional Battery Charger or Multibattery Charger, follow the instructions included with the charger.

To calibrate a battery pack manually, follow the instructions in the following sections.

### Charging the Battery Pack

You can charge the battery pack while the tablet PC is on or off, but the battery pack will charge faster while the tablet PC is off.

To charge the battery pack:

1. Insert the battery pack into the tablet PC.

2. Connect the tablet PC to external power. (The battery light turns on.) To connect the tablet PC to external power, use any of the following methods:
   - ❏ Plug the AC adapter cable into the tablet PC, then plug the power cord into the AC adapter and into an AC electrical outlet.
   - ❏ Plug an optional Automobile Power Adapter/Charger into the tablet PC and into a vehicle cigarette lighter receptacle.
3. Leave the tablet PC connected to external power until the battery pack is fully charged. (The battery light turns off.)

## Discharging the Battery Pack

The tablet PC must remain on while the battery pack is being discharged. The battery pack can discharge whether or not you are using the tablet PC, but will discharge faster while the tablet PC is in use.

- If you plan to leave the tablet PC unattended during the discharge, save your work before beginning the discharge procedure.
- If you use the tablet PC occasionally during the discharge procedure and have set energy-saving timeouts, expect the following performance from your system during the discharge process:
  - ❏ The monitor will not turn off automatically.
  - ❏ Hard drive speed will not decrease automatically while the tablet PC is idle.
  - ❏ System-initiated Standby will not occur.
  - ❏ System-initiated Hibernation will not occur until the battery has discharged to a critical low-battery condition.

To fully discharge a battery pack:

1. When the battery light turns off indicating that the battery pack is fully charged, select Start > Control Panel > Performance and Maintenance icon > Power Options icon > Power Schemes tab.
2. Record the 2 settings in the Plugged In column and the 2 settings in the Running On Batteries column so that you can reset them after the calibration.
3. Change the settings in both columns to Never.
4. Select the OK button.
5. Disconnect the tablet PC from the external power source, but do *not* turn off the tablet PC.
6. Run the tablet PC on battery power until the battery pack is fully discharged. (The battery light begins to flash when the battery pack has discharged to a low-battery condition. When the battery pack is fully discharged, the tablet PC initiates Hibernation and the power/standby light turns off.)

## Recharging the Battery Pack

1. Connect the tablet PC to external power, then leave the tablet PC connected to external power until the battery pack is fully recharged. (The battery light turns off.)

   You can use the tablet PC while the battery pack is recharging but the battery pack will charge faster if the tablet PC is off.
2. If the tablet PC is off, turn it on when the battery pack is fully charged and the battery light turns off.
3. Select Start > Control Panel > Performance and Maintenance icon > Power Options icon > Power Schemes tab.
4. Referring to the settings you recorded earlier, reenter your settings for the 2 options in the Plugged In column and the 2 options in the Running On Batteries column.
5. Select the OK button.

# Battery Conservation Procedures and Settings

Using the battery conservation procedures and settings described in the following sections extends the time that a battery pack can run the tablet PC from a single charge.

## Conserving Power as You Work

To conserve power as you use the tablet PC:

- Turn off wireless and local area network (LAN) connections and exit modem applications when you are not using them.
- Detach, disconnect, stop, or remove unpowered external devices that you are not using. Such devices include a PC Card, an SD Card, or a tablet PC keyboard.
- Use the Brightness item on the Q Menu to lower and raise screen brightness quickly.
- Use optional powered speakers instead of the internal speakers, or use volume controls to mute, restore, raise, and lower system volume quickly.
- If you leave your work, initiate Standby or Hibernation or shut down the tablet PC.

## Selecting Power Conservation Settings

To set the tablet PC to conserve power:

- Select a short wait for the screen saver and select a screen saver with minimal graphics and motion. To access screen saver settings, select Start > Control Panel > Appearance and Themes icon > Display icon > Screen Saver tab.
- Follow the instructions on this CD in the *Software Guide,* “Power” chapter, to select a power scheme with low power-use settings.

# Storing a Battery Pack

If the tablet PC will be unused and unplugged for more than one month, remove and store the battery pack.

**CAUTION:** To prevent damage to a battery pack, do not expose it to high temperatures for extended periods of time.

High temperatures accelerate the self-discharge rate of a stored battery pack. To prolong the charge of a stored battery pack, place it in a cool, dry place.

Use the following table to estimate how long you can safely store a battery pack. The storage times provided are based on a battery pack that contains 50 percent of a full charge. A fully charged battery pack can be safely stored for longer; a battery pack containing a low charge can be safely stored for less time.

Calibrate a battery pack that has been stored for one month or more before using it.

| At These Temperatures | | You Can Safely Store a Battery Pack for This Amount of Time |
|---|---|---|
| **Temperature Range °F** | **Temperature Range °C** | **Storage Time** |
| 115°–140° | 46°–60° | Less than 1 month |
| 79°–113° | 26°–45° | No more than 3 months |
| 32°–77° | 0°–25° | 1 year |

# Disposing of a Used Battery Pack

**WARNING:** There is a risk of fire and chemical burn if a battery pack is handled improperly. Do not disassemble, crush, or puncture a battery pack or short the contacts on a battery pack. Do not expose a battery pack to temperatures higher than 60° C (140° F), or dispose of a battery pack in water or fire.

When a battery pack has reached the end of its useful life, do not dispose of it in general household waste.

- In North America, you can dispose of battery packs by using the HP battery recycling program. This program provides you with a postage-paid battery pack mailer preaddressed to a reclamation facility where the metals are recycled. For more information, call the telephone number listed for your location in the *Worldwide Telephone Numbers* booklet, included in English only with the tablet PC.
- In Europe, dispose of or recycle battery packs by using the public collection system or by returning them to HP, your authorized HP partners, or their agents.
- In other regions, refer to the *Worldwide Telephone Numbers* booklet, included in English only with the tablet PC, to contact an HP-authorized dealer, reseller, or service provider and request information about battery pack disposal.

For more information about battery pack precautions and disposal and the complete text of governmental agency notices, refer on this CD to the *Regulatory and Safety Notices* guide.

# Finding More Power Information

For more information about using Standby and Hibernation, conserving power, setting power preferences, and using other power management features, refer on this CD to the *Software Guide,* “Power” chapter. For information about initiating Standby or Hibernation from the Q Menu, refer in the *Software Guide* to the “Q Menu and Desktop Video Profiles” chapter.

# 4

# Drives

## Adding a Drive to the System

Drives enable you to store and access data.

A standard removable drive can be added to the system by inserting the drive into the MultiBay of an optional External MultiBay or Docking Station. A USB drive can be added by connecting the drive to a USB connector on the tablet PC or on the Docking Station. Hard drive functions can also be added with a PC Card.

For information about connecting a USB drive, see Chapter 8, "External Device Connections." For information about PC Cards, see Chapter 9, "Additional Hardware Options." For general information about inserting and removing drives from an External MultiBay or Docking Station, refer to the documentation included with the device.

This chapter provides specific information about using drives in the tablet PC system.

The tablet PC hard drive bay supports only a 9.5-mm system hard drive. A MultiBay in an External MultiBay or Docking Station supports an additional 9.5-mm optional hard drive (inserted in a MultiBay Hard Drive Adapter) and the following 12.7-mm standard removable drives:

- ❏ CD-ROM drive
- ❏ CD-RW drive
- ❏ DVD-ROM drive
- ❏ DVD/CD-RW drive
- ❏ Diskette drive

# Understanding Drive Terms

## Terms for Types of Drives

A *hard drive* is used for the permanent storage of data files and of software such as system files, applications, and drivers. The hard drive in the hard drive bay is the *system* hard drive, sometimes called the *local disk.* The system hard drive can be replaced, but cannot be used in a MultiBay. A hard drive is sometimes called a *hard disk drive* or *HDD.*

*Diskette drives* are often used to store or transport data. The tablet PC can read or write to any MultiBay diskette drive. A diskette drive is sometimes called a *floppy disk drive, floppy drive,* or *FDD.*

*Optical drives* include CD and DVD drives. Optical drives are used to store or transport data and to play music and movies. DVD media have higher capacities than CD media. The tablet PC can read or write to optical drives as described in the following table.

| Optical Drive | Read | Write |
|---|---|---|
| CD-ROM drive | Yes | No |
| CD-RW drive | Yes | Yes |
| DVD-ROM drive | Yes | No |
| DVD/CD-RW drive | Yes | Yes |

## Terms for Drive Media

A *diskette* or *disc* that can be inserted or removed from a drive is referred to as a *drive medium.* In this guide a *diskette* is inserted in a diskette drive, and a *disc* is inserted in an optical drive.

# Caring for Drives

Drives are fragile system components that must be handled with care. Observe the following cautions when handling any drive.

**CAUTION:** To prevent damage to the tablet PC or a drive and loss of work:

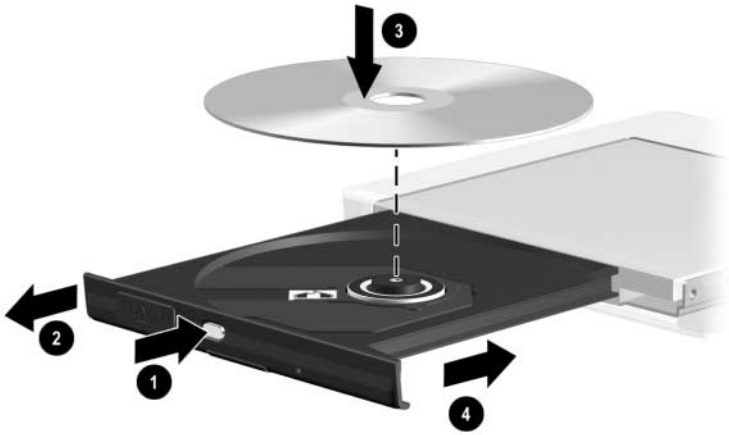
- Do not remove the system hard drive except for repair or replacement. For instructions, see Chapter 10, "Maintenance, Shipping and Travel."
- Electrostatic discharge can damage electronic components. To prevent electrostatic damage to the tablet PC or a drive, follow these 2 precautions: (1) Discharge yourself from static electricity before handling a drive by touching a grounded metal object and (2) Avoid touching the connectors on a drive. For more information about preventing electrostatic damage, refer on this CD to the *Regulatory and Safety Notices* guide.
- Excessive force can damage drive connectors. When you insert a drive, use only enough force to seat the drive.
- Handle a drive carefully. Do not drop it.
- Avoid exposing a hard drive or a diskette to devices with magnetic fields. Products with magnetic fields include video and audio tape erasure products, monitors, and speakers. Security devices with magnetic fields include airport walk-through devices and security wands. The airport security devices that check carry-on luggage, usually while it is placed on a conveyor belt, use x-rays instead of magnetism and will not damage a hard drive or a diskette.
- Do not spray a drive with cleaners.
- Avoid exposing a drive to liquids or temperature extremes.
- If you mail a drive, ship it in packaging that protects it from shock, vibration, temperature, and humidity. Label the package "FRAGILE."

# Inserting or Removing Drive Media

For general information about inserting or removing a drive from a MultiBay, refer to the documentation included with an optional External MultiBay or Docking Station. This section provides information that is not provided with optional drives or MultiBays and that may be helpful to users unfamiliar with standard removable drives.

## Inserting a CD or DVD

1. Be sure the tablet PC is turned on.
2. Press the media release button ❶ on the drive bezel to release the media tray, then pull the tray outward until it is fully extended ❷.
3. Position a CD or one-sided DVD over the tray label side up.
4. Gently press the disc onto the tray spindle ❸ until the disc snaps into place. Handle the disc by the edges, not the flat surfaces. (If the media tray is not fully extended, tilt the disc to position it over the tray spindle, then press it downward into position.)
5. Close the media tray ❹.




*Inserting a CD or DVD into an optical drive*

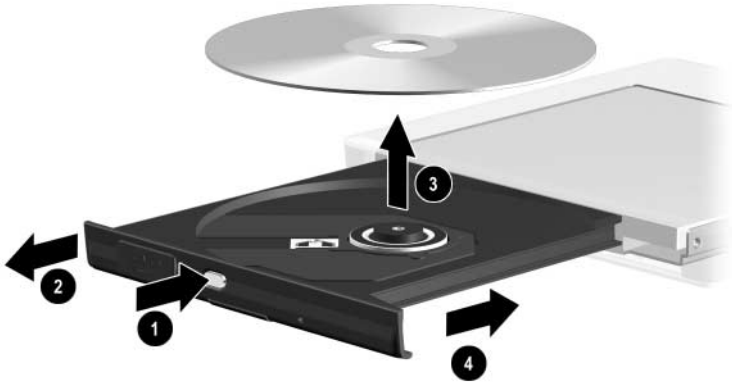
# Removing a CD or DVD (with Power)

If power is available:

1. Be sure the tablet PC is on.

   ✎ Press the media release button ❶ on the drive bezel to release the media tray, then pull the tray outward until it is fully extended ❷.

2. Remove the disc from the tray ❸ by gently pushing down on the spindle while pulling up on the outer edges of the disc. If the media tray is not fully extended, tilt the disc as you remove it. Handle the disc by the edges, not the flat surfaces.
3. Close the media tray ❹.
4. Place the disc in a protective case.



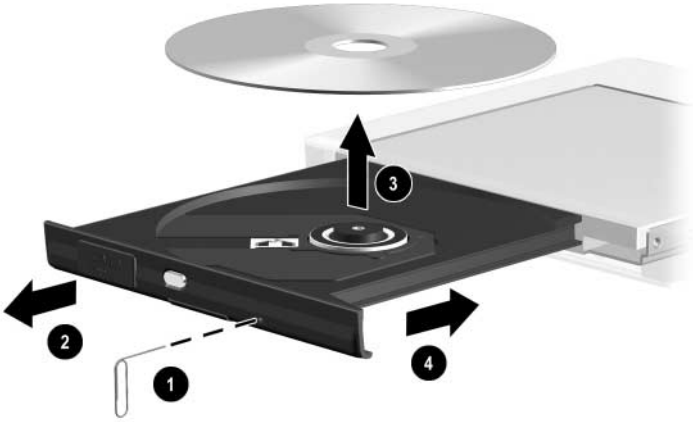

*Removing a CD or DVD from an optical drive when power is available*

# Removing a CD or DVD (Without Power)

**CAUTION:** To prevent damage to the pen tip, do not insert the pen tip into the release access.

If the tablet PC is turned off or if no power is available, the media release button on the drive will not work. To remove a disc from an optical drive without using the media release button:

1. Insert a small object like the end of a paper clip into the release access ❶ in the front bezel of the drive.
2. Press gently on the paper clip until the media tray is released, then pull the tray outward until it is fully extended ❷.
3. Remove the disc from the tray ❸. If the media tray is not fully extended, tilt the disc as you remove it. Handle the disc by the edges, not the flat surfaces.
4. Close the media tray ❹.
5. Place the disc in a protective case.

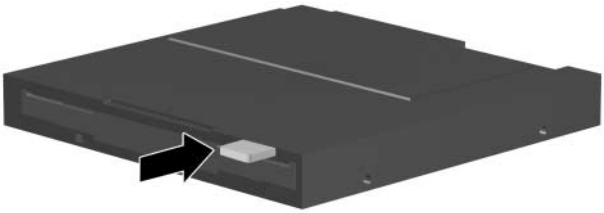



*Removing a CD or DVD from an optical drive when power is not available*

## Inserting a Diskette

To insert a diskette into a diskette drive, gently push the diskette, label side up, into the drive until it clicks into place.

The media eject button extends when the diskette is correctly inserted.



*Identifying the media eject button on a diskette drive*

## Removing a Diskette

To remove a diskette from a diskette drive:

1. Press the media eject button on the drive to eject the diskette.
2. Pull the diskette from the drive.
3. Place the diskette in a protective case.

# Using Drive Media

## Avoiding Standby and Hibernation

Initiating Standby or Hibernation while playing audio or video drive media may stop the play or diminish the quality of the play.

If Standby or Hibernation is accidentally initiated while a medium is in use, slide and release the power switch to resume from Standby or Hibernation, then restart the tablet PC.

For more information about Standby and Hibernation, refer on this CD to the *Software Guide,* “Power” chapter.

## Displaying Media Contents

When you insert a diskette, CD, or DVD into the system, the tablet PC can play the medium, display its contents, take no action, or display a response prompt on the screen. You can set the responses of the tablet PC to the insertion of various types of media by using the operating system AutoPlay feature.

### Setting AutoPlay Preferences

To set AutoPlay preferences:

1. Select Start > My Computer.
2. Right-click a drive.
3. Select Properties > AutoPlay tab, then follow the instructions on the screen.
4. To save your settings, select the OK button.

## Displaying Media Contents Without Using AutoPlay

To display the contents of a drive medium when the contents are not displayed by AutoPlay:

1. Insert the medium into the drive.
2. Select Start > Run, then type:

   explorer x:

   (where X = the drive designation of the drive containing the medium).
3. Select the OK button.

A drive designation is a letter of the alphabet that the tablet PC uses to identify the drive. To display the drive designation of every drive in the system, select Start > My Computer.

# Caring for Drive Media

**CAUTION:** To prevent damage to drive media:

- Do not open the metal shutter of a diskette or touch the disk within the diskette case.
- Do not expose a diskette to a strong magnetic field, such as the security field used by a walk-through security device or a handheld security wand.
- Clean a CD or DVD only with a disc cleaning kit. Disc cleaning kits are available from most electronics retailers.

# Finding More Drive Software Information

All the software you need to play the types of CDs and DVDs supported by the tablet PC is included with the tablet PC. For information about this software, refer on this CD to the *Software Guide,* “CD and DVD Software” chapter.

In addition, a feature in the Setup utility enables you to set the tablet PC to start from a specified medium or device. For instructions, refer on this CD to the *Software Guide,* “Boot Order” chapter.

# 5

# Audio

## Adjusting Volume

Volume can be adjusted by using the Windows volume control icon, the Q Menu, or the volume adjustment available within some applications. Volume can be adjusted on the Q Menu without using a keyboard or the pen. For information about application volume features, refer to the application documentation.

### Using the Volume Control Icon

To display the Windows volume control icon in the system tray:

1. Select Start > Control Panel > Sounds, Speech, and Audio Devices icon > Sounds and Audio Devices icon.
2. Select the Volume tab.
3. Select the check box for Place Volume Icon In The Taskbar.
4. Select the OK button.
5. If the icon is not displayed, select the system tray icon for Show Hidden Icons.

To adjust, mute, or restore volume using the volume control icon, select the icon in the system tray. Then:

- To increase or decrease volume, select the slide bar, then drag it upward or downward.
- To mute or restore volume, select or clear the Mute check box.

To close the volume control pop-up window, click anywhere outside the window.

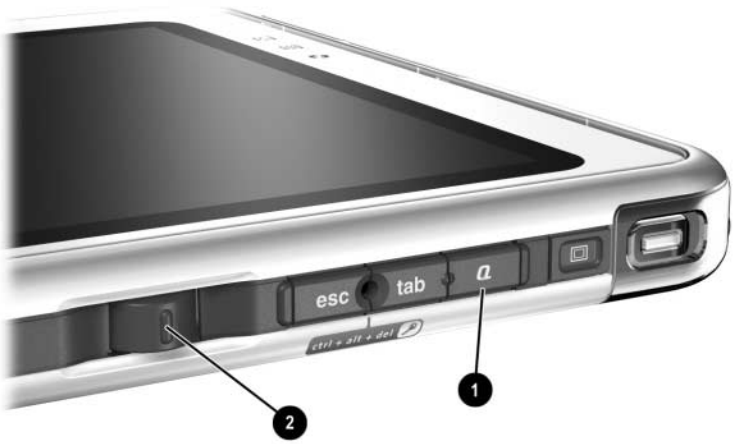
## Using the Q Menu

To adjust, mute, or restore volume using the Q Menu:

1. To open the Q Menu, press the Q menu button ❶.
   - ❑ To display the Windows volume control window, select the Volume tab.
   - ❑ To mute or restore system volume, select the Mute On/Off tab. (Selecting the On/Off tab mutes system volume if it is on or restores system volume if it is muted.)
2. To close the Q Menu, press the Q menu button, tap anywhere outside the Q Menu with the pen tip, or click an optional pointing device.

To select an item on the Q Menu without using a keyboard or the pen, press the Q menu button, rotate the jog dial ❷ upward or downward to scroll vertically through the items, then press the jog dial inward to select an item.

For more information about using the Q Menu, refer on this CD to the *Software Guide,* "Q Menu and Desktop Video Profiles" chapter.




*Identifying the Q menu button and the jog dial*

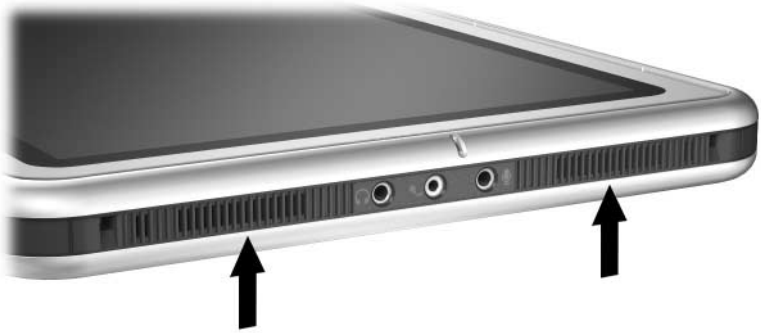
# Using the Internal Speakers

The internal speakers play sound in stereo from applications, the operating system, games, drive media, the Internet, and other sources.

The internal speakers are disabled if:

- Optional powered speakers or a headphone is connected to the audio-out jack on the tablet PC or an optional Docking Station.
- An optional mobile telephone headset is connected to the headset jack.

Attaching an optional tablet PC keyboard to the tablet PC or connecting a line-in device, such as a clock radio or MP3 player, to the tablet PC or to an optional Docking Station does not affect the performance of the internal speakers.



*Identifying the internal speakers*

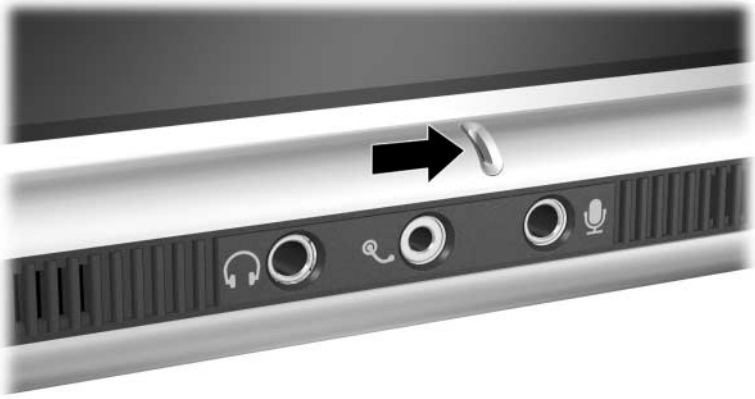
# Using the Internal Microphone

The internal microphone:

- Has a standard sensitivity of -45 decibels.
- Can be used while a screen protector or an optional tablet PC keyboard is attached. A screen protector is provided with an optional Docking Station.
- Is disabled if:
  - ❏ An optional external microphone is connected to the microphone jack.
  - ❏ An optional headset is connected to the headset jack.

If you are using speech recognition or other software that requires optimal sound quality, use an optional external microphone or headset. To access on-screen tutorials that include operating system speech features:

1. Open Windows Explorer. To open Windows Explorer from the Start button, select Start > All Programs > Accessories > Windows Explorer.
2. In Windows Explorer, select My Computer > Local Disk (C:) > WINDOWS > Help > latute.hta.



*Identifying the internal microphone*

# Connecting an Audio Device

## Identifying Audio Jacks

The tablet PC has 3 audio jacks:

- The audio-out jack ❶ connects stereo headphones or powered stereo speakers.
- The headset jack ❷ can support a headset, such as a mobile telephone headset with a microphone and a monaural ear piece.
- The microphone jack ❸ supports a monaural external microphone.

*Identifying the audio jacks*

## Using the Audio-Out Jack

**WARNING:** To reduce the risk of personal injury, adjust the volume before putting on headphones.

**CAUTION:** To prevent possible damage to an external device, do not plug a monaural plug into the audio-out jack.

When connecting a device to the audio-out jack:

- Use only a 3.5-mm stereo plug.
- For best sound quality, use 24-ohm to 32-ohm headphones.

When optional powered speakers or a headphone is connected to the audio-out jack on the tablet PC or an optional Docking Station, the internal speakers are disabled.

## Using the Headset Jack

The headset jack can support a headset, such as a mobile telephone headset, that has a microphone, a monaural ear piece, and a 2.5-mm plug.

When a headset is connected to the headset jack, the internal microphone and speakers are disabled.

## Using the Microphone Jack

The microphone jack supports a monaural microphone with a 3.5-mm plug.

A monaural electret condenser microphone is recommended. If you connect a stereo microphone, left channel sound will record on both channels.

When an optional headset or external microphone is connected to the tablet PC, the internal microphone is disabled.

# Finding Audio and Video Software Information

For information about using audio and video software, refer on this CD to the *Software Guide,* “CD and DVD Software” chapter.

# 6

# Internal Modem

The tablet PC has an RJ-11 telephone jack and preinstalled modem drivers.

A modem cable with RJ-11 connectors at each end is included with models that ship with an internal modem. If you purchased the tablet PC in a country where RJ-11 telephone jacks are not standard, a country-specific modem adapter is also included.

The internal modem supports:

- All applications supported by the operating system.
- V.34 ITU (International Telecommunications Union) analog modem recommendations for speeds up to 33.6 Kbps.
- V.44 data compression algorithm.
- V.90/V.92 ITU digital/analog modem pair recommendations for speeds up to 56 Kbps.

  ✎ The digital/analog modem pair rates allow faster downloads only from compliant digital sources. Maximum achievable download rates are currently unknown, may not reach 56 Kbps, and will vary with line conditions. Maximum achievable upload rates are limited to 48 Kbps, may not reach 48 Kbps, and will vary with line conditions.

# Connecting the Modem

## Selecting Connectors

The modem must be connected to an analog telephone line.

**WARNING:** To reduce the risk of electric shock, fire, or damage to the equipment, do not plug a telephone cable into the RJ-45 network jack.

**CAUTION:** Jacks for digital PBX systems may resemble RJ-11 telephone jacks, but are not compatible with the modem.

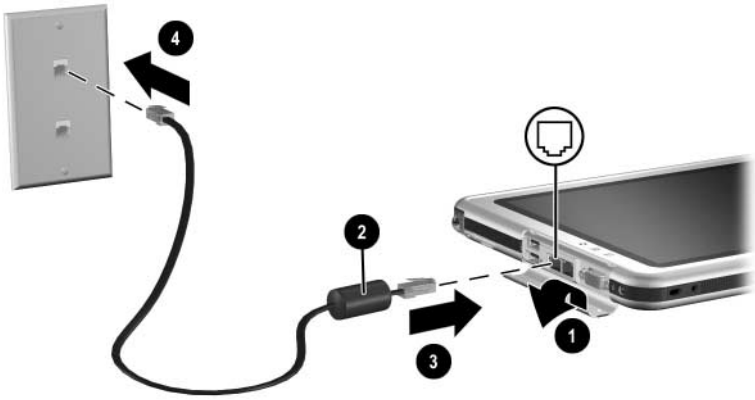
Jacks for analog telephone lines and procedures for connecting the modem vary by country:

- If you are connecting the modem in a country where RJ-11 telephone jacks are standard, follow the instructions in the "Connecting the Modem to an RJ-11 Jack" section, next in this chapter.
- If you are connecting the modem in a country where RJ-11 telephone jacks are not standard, a modem adapter specific to the country in which you purchased the tablet PC is included with the tablet PC. Follow the instructions in the "Connecting the Modem with an Adapter" section, later in this chapter.
- If you plan to use the modem outside the country in which you purchased the tablet PC, you can purchase adapters specific for the countries on your itinerary from most computer or electronics retailers. For information about using country-specific software configurations, see the "Setting Country Preferences" section, later in this chapter.

# Connecting the Modem to an RJ-11 Jack

To connect the modem to an analog telephone line that has an RJ-11 telephone jack:

1. To access the RJ-11 jack ❶ on the tablet PC, open the upper panel of the tablet PC.
2. If the modem cable has noise suppression circuitry ❷, which prevents interference with TV and radio reception, orient the circuitry end of the cable toward the tablet PC.
3. Plug the cable into the RJ-11 telephone jack ❸ (not the RJ-45 network jack) on the tablet PC.
4. Plug the modem cable into an RJ-11 telephone jack ❹ (not into an RJ-45 network jack or a PBX jack).



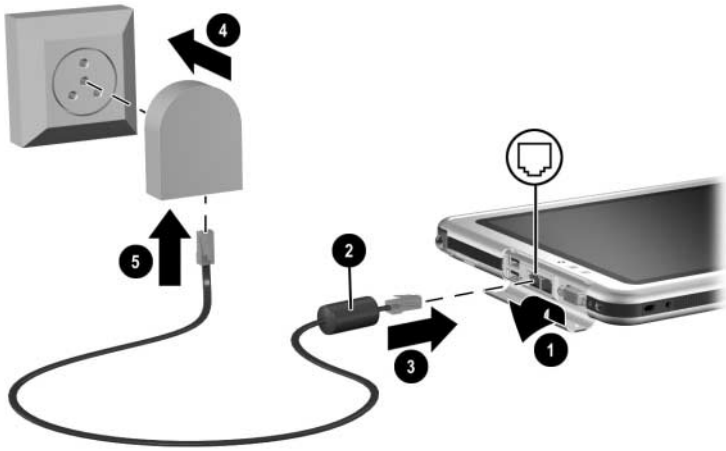

*Connecting the modem to an RJ-11 telephone wall jack (Telephone wall jacks vary in appearance by region.)*

**WARNING:** To reduce the risk of electric shock, disconnect the modem from the telephone network before accessing an internal compartment of the tablet PC. Internal compartments include the memory and Mini PCI compartment and the hard drive bay.

## Connecting the Modem with an Adapter

To connect the modem to an analog telephone line that does not have an RJ-11 telephone jack:

1. To access the RJ-11 jack ❶, open the upper panel of the tablet PC.
2. If the modem cable has noise suppression circuitry ❷, which prevents interference with TV and radio reception, orient the circuitry end of the cable toward the tablet PC.
3. Plug the modem cable into the RJ-11 telephone jack ❸ (not the RJ-45 network jack) on the tablet PC.
4. Plug the modem cable ❹ into the country-specific modem adapter.
5. Plug the country-specific modem adapter ❺ into the telephone jack.




*Connecting the modem with a modem adapter (Telephone wall jacks vary in appearance by region.)*

**WARNING:** To reduce the risk of electric shock, disconnect the modem from the telephone network before accessing an internal compartment of the tablet PC. Internal compartments include the memory and Mini PCI compartment and the hard drive bay.

# Setting Country Preferences

The internal modem is configured to function in and meet the operating standards of the country in which you purchased the tablet PC. To use the internal modem in other countries, you must add country-specific modem configurations.

## Displaying the Current Country Configuration

To display the current country configuration, select Start > Control Panel > Date, Time, Language, and Regional Options category > Regional and Language Options icon > Regional Options tab. The current country configuration of the modem is displayed in the Location panel.

## Adding a Country Configuration

**CAUTION:** To prevent loss of your current country configuration, do not delete or replace your current country configuration. Additional country configurations can be added without deleting the current configuration.

**CAUTION:** To prevent modem malfunction and violation of telecommunications regulations and laws, use the modem only with the country configuration for the country in which you are using the modem.

To add a country configuration:

1. Select Start > Control Panel > Network and Internet Connections category.
2. From the See Also menu in the left column of the window, select Phone and Modem Options > Dialing Rules tab.

   ✎ If you do not see the Dialing Rules tab when you select Phone and Modem Options, complete the fields in the Location Information wizard. After you save the settings on the Location Information wizard, the Dialing Rules tab is displayed.

3. Select the New button, then type a name for the new location in the Location Name field.
4. Select a country or region for the new location from the Country/Region list.

   If you select a country or region that is not supported by the modem, the country configuration defaults to USA or UK.
5. Select the OK button > OK button.

# Solving Travel Connection Problems

If you experience connection problems while using the modem outside the country in which you purchased the tablet PC, the following suggestions may be helpful.

Before changing any settings, you may want to write down your current settings so you can quickly replace those settings when you return home.

## Check the Line

The modem requires an analog, not a digital, telephone line. A line described as a PBX line is usually a digital line. A telephone line described as a data line, fax machine line, modem line, or standard telephone line is probably an analog line.

## Check the Dialing Mode

Dial a few digits on the telephone, then listen for clicks or tones. Clicks indicate that the telephone line supports pulse dialing; tones indicate that the telephone line supports tone dialing. To set the internal modem to support either pulse or tone dialing:

1. Select Start > Control Panel > Network and Internet Connections category.
2. From the See Also menu in the left column of the window, select Phone and Modem Options > Dialing Rules tab.

3. Select your location, then select the Edit button.
4. Select the Tone or Pulse radio button.
5. Select the OK button > OK button.

## Check the Telephone Number

Dial the telephone number on the telephone, verify that the remote modem is answering, then hang up.

## Check the Dial Tone

If the modem receives a dial tone it does not recognize, it will not dial and will display a No Dial Tone error message.

- To set the modem to ignore all dial tones before dialing:
  1. Select Start > Control Panel > Network and Internet Connections category.
  2. From the See Also menu in the left column of the window, select Phone and Modem Options > Modems tab.
  3. Select your modem > Properties button > Modem tab.
  4. Clear the Wait For Dial Tone Before Dialing check box.
  5. Select the OK button > OK button.
- If you continue to receive the No Dial Tone error message after clearing the check box:
  1. Select Start > Control Panel > Network and Internet Connections category.
  2. From the See Also menu in the left column of the Network and Internet Connections window, select Phone and Modem Options > Dialing Rules tab.
  3. Select your location, then select the Edit button.
  4. Select your location from the Country/Region list.

     ✎ If you select a country or region that is not supported by the modem, the country configuration defaults to USA or UK.

  5. Select the OK button.

6. In the Phone and Modem Options window, select the Modems tab.
7. Select your modem > Properties button > Modem tab.
8. Clear the Wait For Dial Tone Before Dialing check box.
9. Select the OK button > OK button.

## Accessing Communication Software

To access preinstalled modem software, including software for terminal emulation and data transfer, select Start > All Programs > Accessories > Communications, then select an application, wizard, or utility.

## Finding AT Command Information

It is not necessary to use AT commands with most modem software. If you prefer to use AT commands, refer on this CD to:

- *Modem Command Guidelines* for information about accessing Hyperterminal, identifying the modem in your tablet PC, and using AT commands.
- The *Soft Modem AT Command Reference Manual* for the AT commands supported by your modem. This guide is provided in English only.