

# MobilePro™ 900c

Handheld PC

User's  
Guide



**NEC**

NEC Solutions America

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# Using This Guide

The *MobilePro™ 900c User's Guide* gives you the information you need to maximize the use of your MobilePro 900c handheld PC. Read this guide to familiarize yourself with the MobilePro and its features. For specific information, see the following descriptions.

- Chapter 1, “Getting Started,” provides all the information you need to get your MobilePro 900c working and synchronized with your host PC.
- Chapter 2, “Introducing the MobilePro,” introduces you to the MobilePro features, battery recharging, and general unit care.
- Chapter 3, “Introducing Windows CE .NET 4.2,” provides an overview of Microsoft® Windows® CE .NET 4.2.
- Chapter 4, “Using the MobilePro,” shows you how to power on and off, make display panel adjustments, install PC and CompactFlash™ cards, reset the MobilePro, and more.
- Chapter 5, “Setting Up a Remote Connection,” describes how to configure service connections for an Internet service provider and a remote access service. The chapter includes a description of how to configure e-mail for each new service connection.
- Appendix A, “Troubleshooting,” walks you through some common problems and possible solutions.
- Appendix B, “Specifications,” details the hardware specifications for your MobilePro.

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## Text Conventions

This guide uses the following text conventions for warnings, cautions, and notes:

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 **WARNING** Warnings alert you to situations that could result in serious personal injury or loss of life.

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 **CAUTION** Cautions indicate situations that can damage the hardware or software.

---

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**Note** Notes give important information about the material being described.

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## Related Documents

See the following documents for additional information about your NEC MobilePro 900c Handheld PC:

- *NEC MobilePro 900c Release Notes*  
Release notes provide additional information about your NEC MobilePro 900c that was not available at the time the user's guide was printed. Information in the release notes is the result of extensive product testing.
- *NEC MobilePro 900c User's Guide*  
An online version of your printed *NEC MobilePro 900c User's Guide* is always available on the NEC Solutions America support site. Go to <http://support.necsam.com/>. Select **Handhelds**, and your system model. Find the most current online version of your printed user's guide at this support site.

# 1

## Getting Started

- Welcome
- Unpacking Your MobilePro
- Getting to Know Your MobilePro
- Installing the Main Battery
- Installing the Backup Battery
- Connecting the AC Adapter
- Setting Up the System
- Introducing the Software
- Connecting to Your PC via USB Cable
- Connecting to Your PC via Serial Cable
- Connecting to Your PC via Infrared Port
- Installing Microsoft ActiveSync
- Synchronizing with Your Host PC
- Getting Help

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# Welcome

Congratulations on purchasing your NEC MobilePro™ 900c handheld PC. The size and the instant-on capability of this device give you immediate access to your most important work no matter where you are, whether it's e-mail, Web access, word processing, spreadsheets, presentations, or enterprise class custom software.

In addition, your MobilePro 900c can synchronize with other computers so your finished work is available where you need it. Picture yourself in the following situations:

- Before a business trip, you synchronize all your unread e-mail onto your MobilePro 900c. In the air, you read and reply to fifty messages, which get sent automatically the next time you connect your MobilePro to your office PC.
- You're visiting an important customer, gathering feedback to discuss with colleagues back in the office. Using Calendar, Contacts, and Inbox, you schedule a meeting and send it to your colleagues while you are still on the road.
- You are on the road taking customer orders. Using custom software developed by your company, and any analog phone line (or perhaps a wireless modem), you connect to your company network to check inventory and place the order. The rich software development tools available for the Microsoft® operating system make this scenario increasingly common.
- During a few spare minutes in the airport, you check your e-mail and send a note to your daughter wishing her luck at the gymnastics meet. (Requires access to an analog phone line or wireless modem card and subscription to an Internet service provider or corporate network server.)

Before you start using your device for the first time, you need to install the main and backup batteries and connect the AC adapter to start charging the MobilePro. Then just turn it on and follow a few on-screen instructions to set the time and adjust the touch screen.

---

## Unpacking Your MobilePro

Your MobilePro ships with a number of accessories. When you unpack the MobilePro, verify that you have all of the items in the following list and that they are in good condition. If anything is missing or damaged, contact the vendor who sold you the unit.

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**Note** Do not use the unit without the batteries installed. Be sure you have completed the sections, “Installing the Main Battery,” “Installing the Backup Battery,” “Connecting the AC Adapter,” and “Setting Up the System,” later in this chapter.

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- MobilePro 900c (a stylus ships in a holder in the MobilePro)
- MobilePro 900c AC adapter
- MobilePro 900c PC Connect cable (USB cable)
- MobilePro RJ-11 cable (telephone cable)
- Lithium coin-cell backup battery (CR2032)
- Rechargeable 2-cell Lithium-Ion battery pack (main battery)
- Microsoft ActiveSync® 3.5 CD
- MobilePro 900c Application and Driver CD.

In addition, your MobilePro ships with the following documentation:

- *MobilePro 900c User’s Guide* (this document)
- *MobilePro 900c Release Notes*
- *MobilePro 900c Limited Warranty*
- *End User License Agreement.*

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## ***Getting to Know Your MobilePro***

The MobilePro 900c offers you a portable system designed for synchronization with your host PC. Standard features include:

- Intel® PXA255 processor at 400 MHz – an applications processor for advanced handheld multimedia functionality
- 64 MB of SDRAM
- 32 MB of flash memory
- 8.1-inch half-VGA DSTN LCD color panel with a 9-level backlight control, 64K color, enhanced touch screen
- 78-key QWERTY keyboard
- V.90 internal modem
- Built-in microphone and internal speaker
- Type II PC Card and Type II CompactFlash™ (CF) card support.

### *MobilePro 900c*



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With your NEC MobilePro, you can edit, create, send, and receive documents including text, spreadsheets, presentations, and e-mail, manage your schedule and contacts, access the Internet with the internal modem, and synchronize data with your host PC.

Your MobilePro does not have a hard disk drive. The operating system and preloaded applications are deployed on a Read-Only Memory (ROM) module; files that you work on are stored in Random Access Memory (RAM) on a RAM module.

Your MobilePro comes with a stylus, a pen-like device that allows you to touch, tap, or double tap objects on the MobilePro touch screen. The touch, tap, and double tap act just like a point, click, and double click of a mouse.

Before you can use the MobilePro, you need to:

- install the main battery
- install the backup battery
- connect the AC adapter
- connect to your PC
- synchronize with your host PC.

## ***Installing the Main Battery***

Follow these steps to install the main battery:

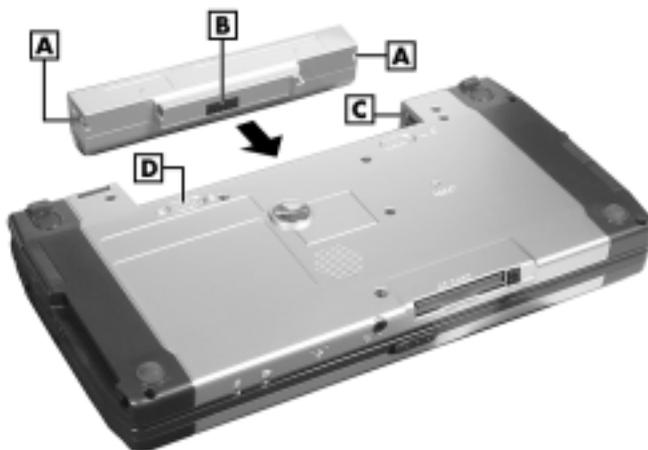
1. Unpack the contents of the MobilePro carton and locate the MobilePro unit and the main battery.

*Main battery*



- 
2. Insert the main battery as follows:
    - Locate the battery lock button on the bottom of the system (see the following figure).
    - Make sure the lock button is in the unlocked position (slide the button towards the outside of the unit).
    - Align the battery connector and tab with the battery bay slot and connector.
    - Align the grooves on the sides of the battery with the rails in the battery bay.
    - Slide the battery into the battery bay. Press the battery into the connector until it is secure and clicks (locks) into place.

*Inserting the main battery*



- |                              |                                |
|------------------------------|--------------------------------|
| <b>A</b> – Groove            | <b>C</b> – Battery Bay Rail    |
| <b>B</b> – Battery Connector | <b>D</b> – Battery Lock Button |

3. Firmly press the battery until it is secure and locks (clicks) into place.
4. Slide the battery lock button back to the locked position.

Continue to the next section to install the backup battery.

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## Installing the Backup Battery

A lithium coin-cell battery comes with your MobilePro. This is a backup battery that maintains system configuration information. Install this battery before you use the MobilePro. See the following procedure to install the battery.

---

**! WARNING** The battery can explode if you use a battery that is not the same type battery (or an equivalent type) that ships with the MobilePro. Use only the same type battery or an equivalent type when replacing the battery.

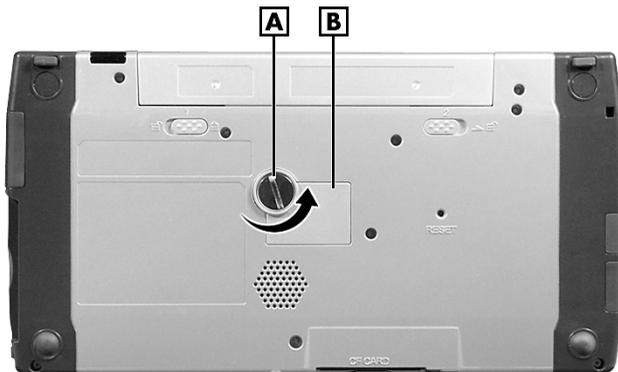
Lithium acts as a catalyst when exposed to water and causes spontaneous combustion on contact.

Keep the battery away from children. If the battery is swallowed, see a doctor.

---

1. Locate the lithium coin-cell battery.
2. Locate the backup battery cover on the bottom of the MobilePro. Using a coin (for example, a quarter), loosen the screw and remove the cover.

### *Locating the backup battery cover and screw*

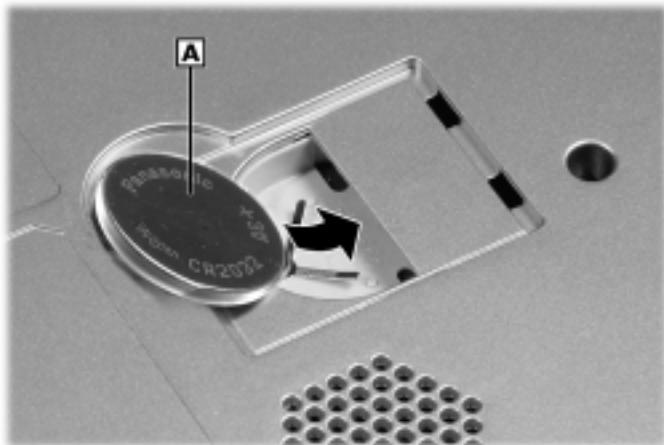


**A** – Screw

**B** – Backup Battery Cover

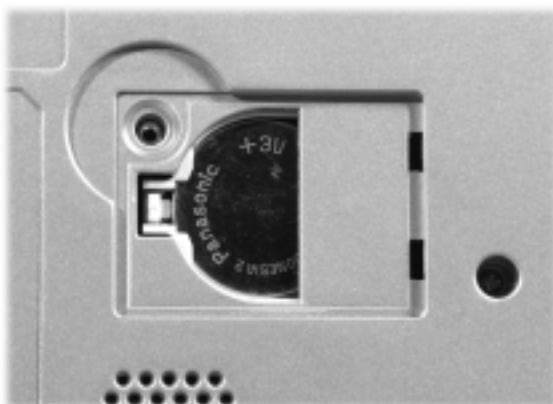
- 
3. With the positive (+) side of the battery facing up, insert the battery into the battery socket as shown in the following figures.

*Inserting the backup battery*



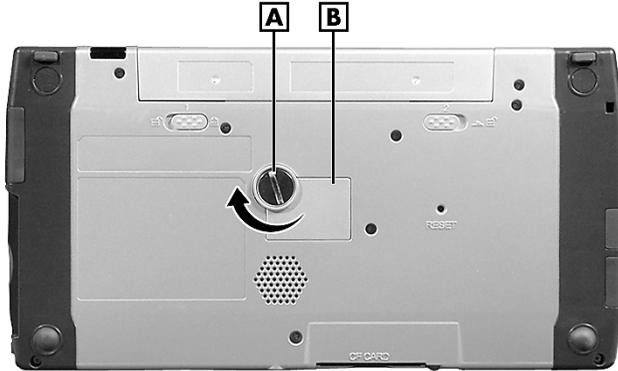
A – Backup Battery (+ side up)

*Checking the backup battery installation*



- 
4. Replace the backup battery cover. Tighten the screw to secure the cover.

*Replacing the backup battery cover*



A – Screw

B – Backup Battery Cover

---

**! WARNING** The battery can explode if you use a battery that is not the same type battery (or an equivalent type) that ships with the MobilePro. Use only the same type battery or an equivalent type when replacing the battery.

Do not recharge or disassemble the battery.

Do not dispose of the battery by burning it.

Lithium acts as a catalyst when exposed to water and causes spontaneous combustion on contact. Discard used batteries according to the manufacturer's instructions. Promptly dispose of the used battery.

Keep the battery away from children. If the battery is swallowed, see a doctor.

---

**! CAUTION** To prevent depleting the backup battery, always store the MobilePro with both the backup battery and the main battery. Do not store the MobilePro with only the backup battery.

The backup battery is not rechargeable.

- 
- Continue to the next section, “Connecting the AC Adapter,” to begin charging the main battery.

The color of the left status LED changes from amber to green when the main battery is fully charged.



**CAUTION** Before using the MobilePro for the first time, fully charge the main battery. It might take 6 to 10 hours to fully charge a depleted battery.

The battery charger has a built-in safety shutoff. You might need to disconnect the AC adapter and reconnect it after about 3 hours of charging to restart the charging process. If the battery charging LED is green, check the battery charge by double tapping the Power icon in the system tray. The main battery is fully charged when the “Percentage of power left in main batteries” indicates 100%.

To protect your data, do not use the system until the battery is fully charged

You must repeat this full 10-hour charge cycle only if the battery becomes fully discharged.

---

## ***Connecting the AC Adapter***

In addition to using the AC adapter to fully charge your main battery for the first time, NEC Solutions America recommends using the AC adapter when you:

- Use PC Cards or CompactFlash™ cards
- Use the internal modem
- Keep your MobilePro on for long periods of time.



**CAUTION** If you receive a message indicating that the main battery is very low, immediately connect the AC adapter to charge the battery.

The battery does not charge when the battery lock button is in the unlocked position. You cannot use your MobilePro when the battery lock is in the unlocked position. The system displays an error message.

---

---

**⚠ CAUTION** Follow these precautions whenever you use the AC adapter and the MobilePro:

- Keep the main battery installed when running on AC power.
  - When communicating or sending transmissions for a long time, use the AC adapter to conserve power.
- 

Follow these steps to connect the AC adapter:

1. Insert the plug on the AC adapter cable into the AC power port on the left side of the MobilePro (see the following figure).

*Connecting the AC adapter*



**A** – AC Power Port

**B** – AC Adapter Cable

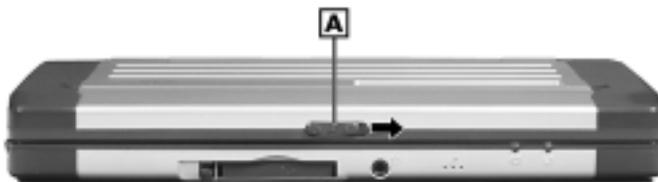
2. Connect the AC adapter to a working AC outlet.
3. Slide the display panel latch to the right. Lift the display panel up. The MobilePro features instant-on power. If the system does not power on, press the Power button at the top right corner of the keyboard.

---

**Note** You might need to press the Power button more than once the first time you power on and after a hard reset. This procedure initializes the power management function.

---

### *Opening the display panel*



**A** – Display Panel Latch

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**Note** Using AC power saves battery life when you are on the go, ensures that the battery maintains its charge, and helps prevent data loss.

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**⚠ CAUTION** If you power off, then quickly power on the MobilePro, your system might erroneously report the presence of CompactFlash cards.

In addition, repeatedly powering off and quickly powering on can cause data loss. NEC Solutions America recommends that you wait ten seconds after powering off before powering on the MobilePro.

---

Continue working with the MobilePro 900c as it charges and leave it connected to AC power after the light turns green.

---

 **CAUTION** Before using the system for the first time, allow 6 to 10 hours for the main battery to fully charge.

The battery charger has a built-in safety shutoff. You might need to disconnect the AC adapter and reconnect it after about 3 hours of charging to restart the charging process. If the battery charging LED is green, check the battery charge by double tapping the Power icon in the system tray. The main battery is fully charged when the “Percentage of power left in main batteries” indicates 100%.

To protect your data, do not use the system until the battery is fully charged

You must repeat this full 10-hour charge cycle only if the battery becomes fully discharged.

---

## ***Setting Up the System***

This section takes you through the process of setting up your system for the first time.

---

**Note** Before you proceed, be sure you have installed the main battery and the backup battery and you have connected the AC adapter to charge your system.

---

1. Open the display panel to start your MobilePro 900c for the first time. Press the Power button if the system does not start automatically.
2. Follow the on-screen instructions to calibrate the touch screen. Press **Ctrl Alt =** to recalibrate at any time.
3. Tap Start, Settings, and Control Panel. Double tap the Owner icon. Enter your name, company, address and telephone information. Tap OK.
4. In Control Panel, double tap the Date/Time icon. Set the date. Set the clock for your local time. Tap Apply. Tap OK.
5. Be sure to specify a country for modem use. For details, see “Adjusting MobilePro Settings” in Chapter 4.

---

Continue to the following sections to complete the setup of your system:

- “Introducing the Software” to get acquainted with system software.
- “Connecting to Your PC via USB Cable” to configure the MobilePro for synchronization with your host PC using the USB port. The MobilePro ships with the USB PC Connect cable. The default PC Connection is through the USB port.
- “Connecting to Your PC via Serial Cable” to configure the MobilePro for synchronization with your host PC using the serial port.
- “Connecting to Your PC via Infrared Port” to configure the MobilePro for synchronization with your host PC using the infrared port.
- “Installing Microsoft ActiveSync” to install Microsoft ActiveSync on your host PC, create a partnership between your host PC and your MobilePro, and to verify that the desired synchronization services are configured.
- “Synchronizing with Your Host PC” to activate the ActiveSync components on the MobilePro and host PC.

## ***Introducing the Software***

Your MobilePro 900c features Microsoft® Windows® CE .NET 4.2, the latest version of Windows CE .NET-based operating system software along with additional applications and drivers on the accompanying CDs.

Your MobilePro 900c software includes:

- Microsoft Windows CE .NET version 4.2 operating system  
The Windows CE.NET 4.2 operating system applications are preloaded (in ROM).
- Microsoft ActiveSync 3.5 CD  
This CD includes the ActiveSync software you need to install on your host PC for access and synchronization.

- 
- **MobilePro 900c Application and Driver CD**  
The Application and Driver CD includes applications and drivers you install on your host PC for the MobilePro 900c.

For more information about your MobilePro software, see Chapter 3, “Introducing Windows CE .NET 4.2.”

## ***Connecting to Your PC via USB Cable***

The MobilePro is designed to be a companion PC. Most users want to synchronize the MobilePro 900c with a host PC. The latest work done on either the MobilePro or the host PC automatically appears on both machines, once the synchronization process occurs.

Use these procedures to configure your MobilePro for synchronization using a USB port (instructions follow):

- Load USB update files from the NEC MobilePro 900c Application and Driver CD to the host PC.
- Verify the accuracy of the PC Connection default settings on your MobilePro.
- Connect the USB PC Connect cable to your host PC and to your MobilePro.
- Install Microsoft ActiveSync on your host PC.
- Create a partnership between your host PC and your MobilePro.
- Verify that the desired synchronization services are configured.

---

## **Loading USB Files**

Before you connect the USB PC Connect cable, use the following procedure to load the required USB files from the NEC MobilePro 900c Application and Driver CD to your host PC.

1. Insert the NEC MobilePro 900c Application and Driver CD in the CD-ROM drive of your host PC.
  - If auto-insert is enabled on your host PC, the CE Setup menu appears.
  - If auto-insert is not enabled, go to Start, Run, and browse for the CD-ROM drive.
2. From the CE Setup menu, select “USB Driver Install.”
3. Read the license agreement and click OK to accept it. The CE Setup program installs the USB driver.
4. When an installation “complete” message is displayed, click Finish. The program goes back to the CE Setup menu.

Continue to the next section to verify the PC Connection settings.

## **Verifying PC Connection Settings**

Your MobilePro ships with PC Connection default settings. Follow these steps to verify the accuracy of the PC Connection settings:

1. Tap Start, Settings, and Control Panel.
2. Double tap the PC Connection icon.
3. Verify the following settings:
  - “Allow connection with desktop computer when device is attached” is checked.
  - “Connect using: ‘USB Connection’” is displayed. If this setting is not displayed, change the setting.

---

## **Connecting the USB PC Connect Cable**

Before installing Microsoft ActiveSync, use the following procedure to connect the USB PC Connect cable to both your MobilePro and to your host PC.

1. Locate and open the USB connector cover on the right side of your MobilePro.
2. Align and attach the smaller cable end of the USB PC Connect cable to the “slave” USB port on the MobilePro.

### *Locating the slave USB port*



A – MobilePro Slave USB Port

3. Connect the other end of the cable to a USB port on your host PC.

Continue to “Installing Microsoft ActiveSync” later in this chapter.

## **Connecting to Your PC via Serial Cable**

If your host PC is not equipped with a USB port or the USB port(s) is in use, use the serial port with the optional serial PC Connect cable to synchronize the MobilePro with your host PC.

Use these procedures to configure your MobilePro for synchronization using the serial port:

- Verify the accuracy of the PC Connection default settings on your MobilePro.
- Ensure the availability of the serial port on your host PC.

- 
- Connect the PC Connect (serial) cable to your host PC and to your MobilePro.
  - Install Microsoft ActiveSync on your host PC.
  - Create a partnership between your host PC and your MobilePro.
  - Verify that the desired synchronization services are configured.

## ***Verifying PC Connection Settings***

Your MobilePro ships with PC Connection default settings. Follow these steps to verify the accuracy of the PC Connection settings:

1. Tap Start, Settings, Control Panel.
2. Double tap the PC Connection icon.
3. Verify the following settings.
  - “Allow connection with desktop computer when device is attached” is checked.
  - “Connect using: Serial-19.2” is displayed. (Change this setting if necessary. If synchronization is unsuccessful, check your PC to verify it is communicating at 19.2K.)

Continue to the next section to check the availability of the serial port on your host PC.

## ***Ensuring the Availability of the Serial Port***

The serial port on your host PC must be available for synchronization with your MobilePro. Follow these steps to ensure the availability of the serial port:

1. Access the Setup utility on your host PC to verify that the port is enabled.
2. Check the Windows device manager on your host PC to identify potential conflicts for the serial port.
  - Go to Start, Settings, Control Panel.

- 
- Double click the System icon, select the Hardware tab, and select the Device Manager button.
  - Check the Ports listing to determine if any conflicts exist (another device is assigned to or using the serial port). The port may be flagged with an exclamation point, for example, if any conflicts exist.
  - If another device is assigned to or is using the serial port, you must reassign the device to free up the serial port for MobilePro synchronization.
  - Make certain the port is communicating at 115k.

Continue to the next section to connect the serial PC Connect cable.

### ***Connecting the Serial PC Connect Cable***

Before installing Microsoft ActiveSync, use the following procedure to connect the optional serial PC Connect cable to both your MobilePro and to your host PC.

1. Locate and open the serial port cover on the left side of your MobilePro (see the following figure).

#### ***Locating the serial port***



**A** – MobilePro Serial Port

- 
2. Align and attach the PC Connect cable to the serial port on the MobilePro. (If your cable is labeled, insert the cable with the word Up visible on the top. If your cable has an arrow near the connector, insert the cable with the arrow visible on top.)
  3. Connect the other end of the cable to the 9-pin serial port on your host PC. If your host PC has a 25-pin serial port, use an adapter (available in most computer stores).

---

**Note** Before connecting the PC Connect cable to the serial port on your host PC, be sure that the serial port is enabled in the host PC's BIOS setup and that no conflicts exist for the port. For details, see a previous section in this chapter, "Ensuring the Availability of the Serial Port."

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 **CAUTION** Be sure to properly align the cable connectors in the ports. Incorrect connection can damage the MobilePro and the computer.

---

Continue to "Installing Microsoft ActiveSync" later in this chapter.

## ***Connecting to Your PC via Infrared Port***

If your host PC is not equipped with a USB port or serial port or these ports are in use, use the infrared port to synchronize the MobilePro with your host PC.

Follow these procedures to configure your MobilePro for synchronization using the infrared port:

- Modify the PC Connection default settings on your MobilePro.
- Set the infrared connection speed.
- Enable the infrared port on your host PC.
- Install Microsoft ActiveSync on your host PC.
- Create a partnership between your host PC and your MobilePro.
- Verify that the desired synchronization services are configured.

---

## ***Modifying PC Connection Settings***

Your MobilePro ships with PC Connection default settings. Follow these steps to modify the PC connection settings:

1. Tap Start, Settings, and Control Panel.
2. Double tap the PC Connection icon.
3. Tap the Change button, use the dropdown box to change the setting to Infrared port, tap OK, and tap OK again.

Proceed to the next section to set the infrared connection speed, if necessary.

## ***Setting the Infrared Connection Speed***

Your MobilePro supports both SIR (115 Kbps) and FIR (4 Mbps) IR communications. Follow these steps to set the infrared connection speed:

1. Tap Start, Settings, Control Panel, and double tap MobilePro Settings.
2. Select the IrDA tab and select the appropriate infrared connection speed. The infrared connection speed on your MobilePro must be compatible with the infrared connection speed on your host PC.
3. Tap OK and close the Control Panel.
4. Using your MobilePro stylus, press the soft reset button to reset your MobilePro (see “Resetting the MobilePro” in Chapter 4).

Continue to the next section to enable the infrared port on your host PC.

---

## ***Enabling the Infrared Port***

The infrared port on your host PC must be available for synchronization with your MobilePro. Follow these steps to enable the infrared port:

1. Access the setup utility on your host PC to verify that the port is enabled. If required, select FIR support in Setup.
2. Set up infrared software components on your host PC. In the Windows environment:
  - Go to Start, Settings, and Control Panel.
  - If infrared is disabled, select the options tab and place a check in the box “Enable infrared communications.”
  - Place a check in the boxes: “Search and provide status for devices in range” and “Install software for Plug and Play devices within range.”
  - Uncheck the box “Limit connection speed to.”
3. Click Apply and click OK.
4. Check the device manager on your host PC to identify potential conflicts for the infrared port.
  - Double click the System icon, select the Hardware tab, and select the Device Manager button.
  - Check the Ports listing to determine if any conflicts exist (another device is assigned to or is using the infrared port). The port may be flagged with an exclamation point, for example, if any conflicts exist.
  - If another device is assigned to or is using the infrared port, you must reassign the device to free up the infrared port for MobilePro synchronization.
5. Reboot your host PC.

Once the system restarts, an infrared icon (gray vertical bar with a red bump) appears in the system taskbar. If there is an X to the right of the icon, infrared is not enabled. Repeat steps 1-4 to enable infrared.

Continue to the next section, “Installing Microsoft ActiveSync.”

---

## ***Installing Microsoft ActiveSync***

You must install Microsoft ActiveSync on your host PC to enable synchronization with your MobilePro. The Microsoft ActiveSync 3.5 CD that ships with your MobilePro contains the ActiveSync software designed for synchronization with Microsoft Office components. The following procedures assume Microsoft Outlook® as the host PC synchronization component.

### ***Configuring a Network Connection***

If your host PC is connected to a network, your network connection is configured automatically when you connect the MobilePro to the network. If you wish to change the connection, tap Start, Settings, and Network and Dial-up Connections. Select the appropriate connection or double tap the Make New Connection icon and configure your new connection.

---

**Note** If you need to configure a new connection, do so before installing Microsoft ActiveSync.

---

### ***Installing ActiveSync***

Use the following procedure to install Microsoft ActiveSync for synchronization with Microsoft Outlook. The installation sequence might vary depending upon the Microsoft components installed on your host PC.

---

**Note** If your host PC uses the Windows NT® operating system, you must install Windows NT Networking before installing Microsoft ActiveSync on your host PC.

---

1. Insert the Microsoft ActiveSync 3.5 CD in the CD-ROM drive of your host PC.
  - If auto-insert is enabled on your host PC, the setup window appears.
  - If auto-insert is not enabled, go to Start, Run, browse for the CD-ROM drive, and run the setup.exe file.

- 
2. Click Next to start the setup wizard. The Selection Installation folder appears.
  3. Click Next to accept the default installation folder or modify the folder destination and click Next.

The Get Connected window appears.

4. If you are connecting to your PC via USB or serial cable, continue to the next step. If you are connecting to your PC via the infrared port, place the MobilePro so that the infrared port is within range of the host PC infrared port.
5. Read the instructions about connecting your device and click Next.

If you are connecting to your PC via serial cable or infrared port, the host PC verifies the availability of a COM port or infrared port.

---

**Note** If the host PC cannot verify your connection, tap Start on the MobilePro, tap Settings, and Control Panel. Double tap the PC Connection icon. At the PC Connection Properties screen, tap the Change button. At the “Connect to desktop computer using:” prompt, select the appropriate port.

---

For all connections, the host PC polls the MobilePro for synchronization settings. The New Partnership window appears.

Continue to the next section, “Creating a Partnership” to complete the installation.

## ***Creating a Partnership***

Once the host PC polls the MobilePro for synchronization settings, the New Partnership window appears.

1. Click Next to display the Select Synchronization Settings window.
2. Select the desired synchronization settings and click Next. The Setup Complete window appears.
3. Click Finish to complete the installation process.

---

## Verifying Synchronization Settings

Look for the new Microsoft ActiveSync desktop icon on your host PC. Follow these steps to verify the synchronization settings on the MobilePro:

1. Double click the ActiveSync icon.
2. Click Tools, Options and verify that the desired synchronization services are checked. Modify the selections as required.

---

**Note** By default, synchronization of e-mail messages is not checked. Be sure to select the checkbox for this service if you want to synchronize e-mail between your MobilePro to your host PC.

---

Once installed, Microsoft ActiveSync automatically synchronizes your MobilePro 900c with your host PC's Microsoft Outlook e-mail, contacts, calendar, and task list each time you attach the PC Connect cable to the MobilePro 900c or, if connecting via infrared port, manually activate ActiveSync (see "Synchronizing via the Infrared Port" later in this chapter).

---

 **CAUTION** Whenever possible, Microsoft ActiveSync automatically translates files and e-mail attachments during synchronization. This allows you to use the MobilePro to view and work with files created on your host PC with Microsoft Word and Excel, among others.

To check the file conversion settings in ActiveSync, tap Desktop to Device, select Tools, select Options, tap Rules, and select the File Conversion field. Select the Conversion Settings button. Uncheck "Convert files when synchronized, copied, or moved".

---

---

## ***Synchronizing with Your Host PC***

Once your MobilePro is configured for synchronization with your host PC, synchronization occurs when the ActiveSync components on the MobilePro and on the host PC are activated.

When synchronizing via the USB or serial port, the process occurs automatically.

When synchronizing via the infrared port, manual intervention is required. Refer to the next two sections for details about synchronizing with your host PC.

### ***Synchronizing via the USB or Serial Port***

Once the MobilePro is configured for synchronization, the synchronization process automatically occurs each time you connect the MobilePro to your host PC via the USB or serial port. In addition, you can manually initiate the synchronization process using Microsoft ActiveSync on your host PC. Simply open the ActiveSync window, click File, and click Synchronize.

### ***Synchronizing via the Infrared Port***

Once the MobilePro is configured for synchronization via the infrared port, the ActiveSync component on the MobilePro must be manually activated to initiate the synchronization process. Simply tap Start, Programs, Communication, and ActiveSync to initiate synchronization via infrared.

### ***Resynchronizing Your MobilePro***

Once synchronized, you may need to re-establish communication between the MobilePro and your host PC if you soft reset the MobilePro or if you warm boot your host PC. To re-establish communication between the MobilePro and your host PC, do one of the following procedures:

- Disconnect, then reconnect the PC Connect cable.
- Power off, then power on the MobilePro unit.

---

## ***Using Other Communication Devices***

During synchronization via USB or serial port, the PC Connect cable must be connected to your host PC. However, if you are using the serial PC Connect cable, you must disconnect the serial cable before using the internal modem, IR port, or a network card in your MobilePro.

## ***Connecting Remotely***

In addition to using your MobilePro as a companion PC, when you travel you can connect by modem directly to an Internet service provider or a network remote access server, to get e-mail and to view web pages.

See Chapter 5, “Setting Up a Remote Connection” for details.

---

# Getting Help

The following table provides a list of where you can get help on your MobilePro 900c, the software, connections, accessories, and support.

## **Help Resources**

<b>Item</b>	<b>Resource</b>
MobilePro Operation	<i>NEC MobilePro 900c User's Guide</i> An online version of the printed user's guide is available at <a href="http://support.necsam.com/">http://support.necsam.com/</a> . Select Handhelds. Select your system model.
Windows CE .NET, Windows CE .NET 4.2	<b>Windows CE Main Help</b> Help file included with Windows CE .NET 4.2. Tap Start then Help.  <b>Microsoft Windows CE .NET Web site</b> For links to product overview, features, Frequently Asked Questions, and more: <a href="http://www.microsoft.com/windows/embedded/ce.net/default.asp">http://www.microsoft.com/windows/embedded/ce.net/default.asp</a>
ActiveSync	<b>ActiveSync Help</b> After installing ActiveSync on your host PC, click Start/Programs/Microsoft ActiveSync to open the ActiveSync window. Select Help from the menu bar and click Microsoft ActiveSync Help.
Microsoft WordPad, Microsoft PDF Viewer, Microsoft Excel Viewer, Microsoft Image Viewer, Microsoft PowerPoint Viewer, Microsoft Word Viewer, bSpreadsheet, Inbox, Calendar, Contacts, Tasks	Tap ? in the program.
Microsoft Internet Explorer	Tap Start, Help, and Windows CE Basics. Tap Using Pocket Internet Explorer.

---

## ***Help Resources***

---

<b>Item</b>	<b>Resource</b>
MobilePro Homepage	<b>NEC Solutions (America), Inc. Web site (Mobile Solutions Division)</b> <a href="http://www.necsolutions-am.com/mobilesolutions">http://www.necsolutions-am.com/mobilesolutions</a>
MobilePro Technical Support, Warranty Service	<b>NEC Solutions (America), Inc. MobilePro Support</b> <a href="http://support.necsam.com/">http://support.necsam.com/</a> Select Handhelds. Select your system model.  <b>NEC Solutions (America), Inc. Support Telephone Number</b> 1-800-632-4525  <b>NEC Solutions (America), Inc. E-mail to Support Services</b> <a href="mailto:op.system.support@necsam.com">op.system.support@necsam.com</a>

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# 2

## **Introducing the MobilePro**

- Identifying System Features
- Using the Stylus
- Using Power Sources
- Caring for the MobilePro

---

## Identifying System Features

The NEC MobilePro 900c is compact with features on every side. The next few sections provide figures and feature descriptions.

### ***Around the Front of the System***

See the following figure and information to get familiar with the features on the front of the MobilePro 900c.

*MobilePro 900c – front features*



- |                                |                                  |
|--------------------------------|----------------------------------|
| <b>A</b> – Display Panel Latch | <b>G</b> – Notification LED      |
| <b>B</b> – Display Panel       | <b>H</b> – Battery Charging LED  |
| <b>C</b> – Stylus              | <b>I</b> – Microphone            |
| <b>D</b> – Suspend Switch      | <b>J</b> – Stereo Headphone Jack |
| <b>E</b> – Power Button        | <b>K</b> – CF Card Slot          |
| <b>F</b> – Keyboard            | <b>L</b> – CF Card Eject Button  |

- 
- **Display Panel Latch** — Secures the display panel when it is closed. Slide the display panel latch to the right to release the latch.
  - **Display Panel (with built-in touch screen)** — Provides a touch screen that lets you activate functions by touching the screen with the stylus or your fingertip.

You can adjust the 8.1-inch display panel for a comfortable viewing position. The display panel features a 9-level backlight that you can adjust for best viewing and power conservation. See “Making Display Panel Adjustments,” in Chapter 4, for information about adjusting the panel brightness.



**CAUTION** When the MobilePro is not in use or when you are carrying it, keep the display panel closed. This helps prevent accidental damage to the touch screen or keyboard.

Dropping the MobilePro may cause display panel damage.

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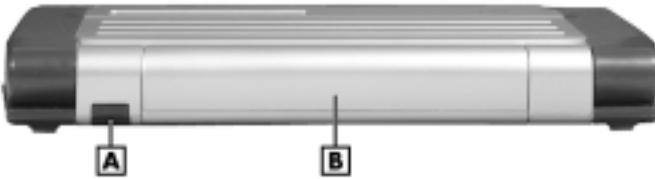
- **Stylus** — A “pen” that serves as an input device for the touch screen. To use, remove the stylus from its holder (see “Using the Stylus” later in this chapter).
- **Suspend Switch** — Shuts off the backlight when the LCD panel is closed. Puts the MobilePro into a suspend state when the lid is closed (if enabled in the MobilePro settings).
- **Power Button** — Allows you to power on and off the unit when it is open.
- **Keyboard** — Lets you enter data.
- **Notification LED** — Keeps you informed about scheduled appointments. Flashes amber as a reminder of appointments, pages, etc.
- **Battery Charging LED** — Indicates the status of system power.
  - Lights amber when the battery is charging.
  - Lights green when the battery is fully charged.
- **Microphone** — Lets you record your voice.

- 
- Stereo Headphone Jack — Lets you connect an optional stereo headphone set to your MobilePro.
  - CF Card Slot — Lets you install one Type II CF card.
  - CF Card Eject Button — Lets you eject an installed CF card.

## ***Around the Back of the System***

The back of the NEC MobilePro offers the features shown in the following figure. Features are described after the figure.

### *Features on the back of the system*



**A** – Infrared Port

**B** – Main Battery Pack

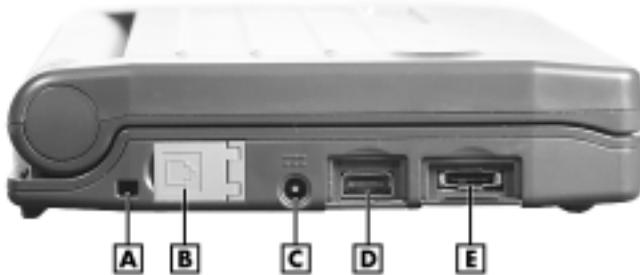
- Infrared (IrDA) Port — Allows the MobilePro to communicate without cables with similarly equipped devices, including other MobilePros.
- Main Battery Pack — Provides battery power to the MobilePro when you are away from an AC power source.

---

## ***Around the Left Side of the System***

The left side of your NEC MobilePro offers the features shown in the following figure. Features are described after the figure.

### *Left side features*



- |                                 |                        |
|---------------------------------|------------------------|
| <b>A</b> – Kensington Lock Slot | <b>D</b> – VGA Port    |
| <b>B</b> – Modem Port           | <b>E</b> – Serial Port |
| <b>C</b> – AC Power Port        |                        |

- Kensington<sup>®</sup> Lock Slot — Allows you to attach a Kensington security lock or other compatible lock to secure the MobilePro from theft.
- Modem Port — Provides connection access to the internal modem using the RJ-11 telephone cable.
- AC Power Port — Lets you connect the AC adapter to run your unit on AC power.
- VGA Port — Provides a connection point for the VGA cable and an external monitor.
- Serial Port — Provides a connection point for the optional serial PC Connect cable.

---

## ***Around the Right Side of the System***

The right side of your NEC MobilePro offers the features shown in the following figure. Features are described after the figure.

### *Right side features*



**A** – PC Card Eject Button

**B** – PC Card Slot

**C** – USB Host Port

**D** – USB Slave Port

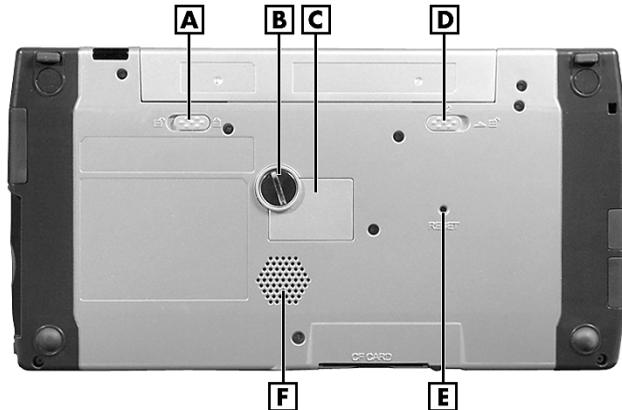
- PC Card Eject Button — Allows you to remove an installed PC Card.
- PC Card Slot — Lets you install one Type II PC card.
- USB Host/Slave Ports — Provide a standard USB connector for a USB host connection and a Mini USB type B connector for a USB slave connection.

---

## ***Around the Bottom of the System***

The bottom of the NEC MobilePro offers the features shown in the following figure. Features are described after the figure.

*Features on the bottom of the system*



- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| <b>A</b> – Battery Lock Button        | <b>D</b> – Battery Release Button |
| <b>B</b> – Backup Battery Cover Screw | <b>E</b> – Soft Reset Button      |
| <b>C</b> – Backup Battery Cover       | <b>F</b> – Speaker                |

- Battery Lock Button — Locks and unlocks the main battery for securing the battery in its bay or for releasing the battery.

---

**Note** You cannot use your MobilePro when the battery lock is in the unlocked position. The system displays an error message.

---

- Battery Release Button — Allows you to release and remove the main battery (when the lock button is in the unlocked position).
- Backup Battery Cover Screw — Secures the backup battery cover. Use a coin, for example, a quarter, to release and secure the screw.
- Backup Battery Cover — Provides access to the backup battery socket and battery. See “Installing the Backup Battery” in Chapter 1 to install the backup battery.

- 
- **Soft Reset Button** — Lets you do a “soft reset” to the MobilePro in case of malfunction. Your data is preserved if it has been saved in a file. Use your stylus to press the soft reset button.

---

 **CAUTION** The reset button design requires the use of the stylus. Only use the MobilePro 900c stylus to reset the system. Use of another tool can damage the MobilePro.

---

- **Speaker** — Lets you listen to digital audio. You can program MobilePro audio to remind you of appointments, notify you of operation events, or play application-associated sounds.

## *Using the Stylus*

To use the stylus, follow these steps:

1. Open the MobilePro display panel.
2. Locate the stylus holder on the lower right side of the display panel (see “Around the Front of the System” earlier in this chapter). To remove the stylus, slide it away from the unit.

### *MobilePro 900c Stylus*



---

 **CAUTION** Although you can use your fingertip to activate the touch screen, **never use hard-pointed or sharp objects**. These objects can damage the touch screen.

***Never use a ball-point pen on the touch screen.***

The MobilePro 900c warranty does not cover damage to the touch screen caused by a ball-point pen or other sharp objects.

---

- 
3. Gently touch the pointed tip of the stylus to the screen to select an object. You can touch, tap, or double tap objects on the MobilePro touch screen.

---

**Note** The touch, tap, and double tap act just like a point, click, and double click of a mouse.

See “Using Windows H/PC” in Chapter 3 of this guide for additional information about using the stylus.

---

4. When you are done using the stylus, return it to its convenient holder in the MobilePro.

## ***Using Power Sources***

The MobilePro 900c can be powered using the AC adapter or the system’s main battery, making it a truly portable system. The MobilePro also contains an internal data backup battery whenever the unit is connected to an AC power source.

Read the following sections for information about using the MobilePro’s power sources.



**CAUTION** Before using the system for the first time, charge the MobilePro to fully charge the main battery. It might take 6 to 10 hours to fully charge a depleted battery.

The battery charger has a built-in safety shutoff. You might need to disconnect the AC adapter and reconnect it after about 3 hours of charging to restart the charging process. If the battery charging LED is green, check the battery charge by double tapping the Power icon in the system tray. The main battery is fully charged when the “Percentage of power left in main batteries” indicates 100%.

To protect your data, do not use the system until the battery is fully charged

You must repeat this full 10-hour charge cycle only if the battery becomes fully discharged.

---

---

## ***Determining Battery Status***

You can determine battery status by using the power icon on the lower right-hand side of the taskbar or through the power icon in the control panel. The icon on the taskbar displays as an electrical plug when the battery is fully charged (battery charging LED lights green) or as a battery while charging (battery charging LED lights amber).

To display battery status, use one of the following methods:

- Double tap the battery/plug icon on the taskbar, if present.
- Go to Start, Settings, Control Panel, and double tap the Power icon.



**CAUTION** If you receive a message indicating that the main battery is very low, immediately connect the AC adapter to charge the battery.

You cannot use your MobilePro when the battery lock is in the unlocked position. The system displays an error message.

The battery does not charge when the battery lock button is in the unlocked position.

---

## ***Recharging the Main Battery Pack***

The main battery pack contains rechargeable lithium ion cells. Recharge a battery pack when you see the following message displayed on your screen:

Main Batteries Very Low

To recharge a battery pack installed in the battery bay, connect the AC adapter. See “Connecting the AC Adapter” in Chapter 1.

The battery charging LED indicates the charging status of the main battery pack when the MobilePro is connected to an AC power source.

The LED status is displayed as follows:

- Lights amber while charging.
- Lights green when fully charged.

---

It takes approximately 5 hours to recharge a fully depleted battery pack regardless of the system's power state. However, if the main battery has been depleted for a prolonged period, you must allow 6 to 10 hours for the main battery to fully recharge.

---

**Note** Through normal use, the capacity of a battery pack gradually declines. Should you notice that the battery does not stay charged as long as expected, it is probably necessary to replace the main battery with a new one. Please see "Replacing the Main Battery" later in this chapter. Depending upon use, a battery pack should recharge from full depletion approximately 300 times during the life of the battery.

---

## ***Managing MobilePro Power***

When your MobilePro is connected to an AC power source and the main battery is removed from the system, be sure to replace the main battery before disconnecting the AC adapter to prevent *possible data loss*.

---

 **CAUTION** The MobilePro's internal data backup battery provides power to maintain the memory contents for a limited period of time when the main battery is removed and the unit is not connected to an AC power source. The backup battery does not provide sufficient power to operate the system.

Do not remove the main battery from the unit for an extended period of time unless the unit is connected to an AC power source.

---

## ***Replacing the Main Battery***

---

 **CAUTION** The MobilePro backup battery maintains your data for a limited period of time whenever the main battery is depleted or removed.

If you fail to replace a depleted main battery for an extended period of time and the backup battery is weak, the contents of the MobilePro memory and all user data may be lost.

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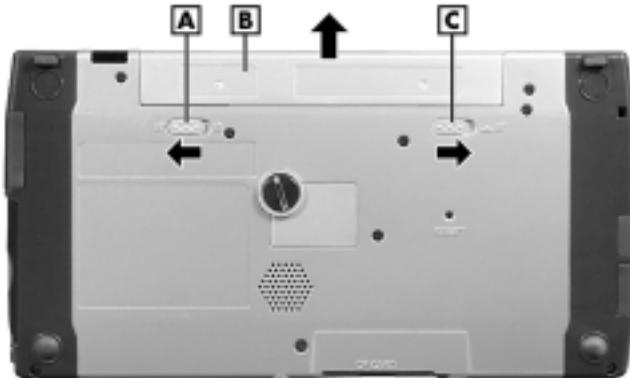
Should you notice the life of a charged battery pack is short, replace it with a new one.

---

Use the following procedure to replace a battery pack.

1. Save your data, turn off unit power, and close the display panel. Disconnect any cables attached to the unit, such as the PC Connect cable.
2. Have a lithium ion battery pack available.
3. Remove the battery pack as follows:
  - Locate the battery lock and release buttons on the bottom of the system.
  - Slide the lock button to the unlocked position in the direction of the arrow as indicated in the following figure.
  - Slide the release button in the direction of its arrow, as indicated in the following figure, and hold it.
  - Remove the battery from its bay.

*Removing the battery pack*

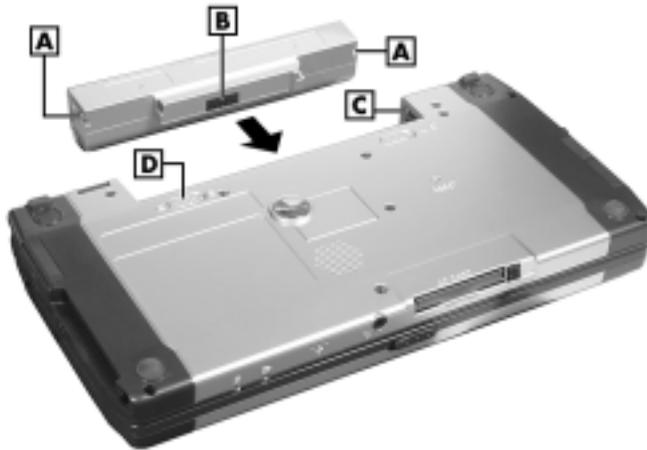


**A** – Battery Lock Button  
**B** – Lithium Battery Pack

**C** – Battery Release Button

- 
4. Insert a new battery pack as follows:
    - Make sure the lock button is in the unlocked position.
    - Align the battery connector with the battery bay connector and align the grooves on the sides of the battery with the rails in the battery bay.
    - Slide the battery into the battery bay. Press the battery into the connector until it is secure and clicks (locks) into place.
    - Slide battery lock button to the locked position.

*Inserting the battery pack*



A – Battery Groove  
B – Battery Connector

C – Rail  
D – Battery Lock Button

---

**Note** You cannot use your MobilePro when the battery lock button is in the unlocked position. The system displays an error message.

The battery does not charge when the battery lock button is in the unlocked position.

---

5. Charge the battery. See the section earlier in this chapter, “Recharging the Main Battery.”

---

## Using Batteries Safely

Read the following battery handling precautions to ensure your safety.



**WARNING** Adhere to these warnings when handling batteries. Failure to do so may result in personal injury.

- There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same type recommended by the manufacturer.
  - Discard used batteries according to the manufacturer's instructions. Never dispose of batteries by burning them.
  - Dispose of used batteries promptly.
  - Keep batteries away from children.
  - Do not subject batteries to impact.
  - Do not subject batteries to heat sources including direct sunlight, open fires, microwave ovens, and high-voltage containers.
  - Do not recharge batteries unless they are specifically designed for recharging.
  - Do not disassemble batteries.
  - Do not solder or puncture batteries.
  - Do not use a battery that is damaged or deformed, has any rust on its casing, is discolored, overheats, or emits a foul odor.
- 

## Caring for the MobilePro

The MobilePro is a durable, dependable unit built for extensive use and travel. Follow these guidelines to maintain the condition and performance of your MobilePro.



**WARNING** To prevent injury, immediately turn off and unplug the MobilePro under the following conditions:

- The power cord is damaged or frayed.
  - Liquid spills on or into the unit.
  - Someone drops the unit or damages the casing.
-

---

## **Precautions**

Follow these precautions when using your MobilePro and AC adapter.

- Always plug the AC adapter cord into an easily accessible outlet. It is important to be able to easily shut off power by unplugging the AC adapter if needed.
- Avoid dropping or bumping the MobilePro or the AC adapter.
- Do not stack heavy objects on the MobilePro or the AC adapter.
- When using the AC adapter, make sure the power source falls within the unit's compatible range of 100-240 volts AC. Never use the AC adapter if the voltage falls outside of this range.
- Turn off the MobilePro power before attaching or removing devices.
- Do not push any foreign objects into the MobilePro bays, connectors, and slots.
- Avoid using the unit or AC adapter for extended periods in direct sunlight.
- Do not use the unit in humid or dusty environments.
- Turn off the MobilePro power before cleaning the system.
- Avoid exposing the MobilePro or AC adapter to extreme changes in temperature or humidity. If it is unavoidable, allow your MobilePro to adjust to room temperature before use.
- When cleaning the system, use a soft, clean, slightly damp, almost dry cloth. Avoid wiping the display surface with abrasive material, including rough fabric. Do not use a cleaning solution; this may damage the plastic.
- If the AC adapter becomes extremely hot, unplug the adapter and let it cool.
- Keep the AC adapter cable away from the IrDA port to ensure stable communication/transfer operations.

---

## Storage Requirements

Store the MobilePro and AC adapter in an environment that meets the following conditions.

- Maintain storage temperatures between 14°F and 140°F (–10°C and 60°C).



**CAUTION** If the temperature of the MobilePro suddenly rises or falls (for example, when you move the system from a cold place to a warm place) vapor condenses inside the system. Turning on the unit under this condition can damage the internal system components.

Before turning on the MobilePro, wait until the unit's internal temperature equalizes with the new environment and any internal humidity evaporates.

- 
- Keep the storage area free from vibration and magnetic fields.
  - Keep the MobilePro and its components away from organic solvents or corrosive gases.
  - Avoid leaving the MobilePro and its components in direct sunlight or near heat sources.

## Routine Cleaning

Clean or dust your system as follows.

- Display screen — Carefully wipe the LCD screen with a soft cloth or a screen wipe designed for that purpose. Special screen wipes are available through your local computer dealer.
- Unit case — Carefully wipe the case with a slightly damp, almost dry cloth.



**CAUTION** Never use harsh solutions, household cleaners, or spray cleaners that contain caustic materials on the MobilePro.

These cleaners are usually high in alkalinity, which is measured in pH. Using these cleaners can cause the plastic surface to crack or discolor.

# 3

## **Introducing Windows CE .NET 4.2**

- Windows CE .NET 4.2
- Microsoft ActiveSync
- Online Help

---

## **Windows CE .NET 4.2**

Microsoft Windows CE .NET version 4.2 is an update to Windows CE .NET, the successor to Windows CE 3.0. Windows CE .NET expands the Windows CE-based operating system. It combines the reduced code base of Windows CE and the look and feel of a typical desktop PC for device mobility and portability.

Windows CE .NET adds enriched and powerful capabilities, including faster performance, the latest technologies for browsing and multimedia, and extensive interoperability between devices, PCs, servers, and Web services.

Windows CE .NET version 4.2 features include:

- improved security
- enhanced multimedia and browsing
- support for new applications and services.

Your MobilePro does not have a hard disk drive. The Windows CE .NET 4.2 operating system and preloaded applications are deployed on a Read-Only Memory (ROM) module; files that you work on are stored in Random Access Memory (RAM) on a RAM module.

Linking with your host PC to synchronize your data enhances the power of your operating system. For more information about setting up your MobilePro for synchronization, see Chapter 1.

### **Using Windows CE .NET 4.2**

Windows CE .NET 4.2 operates similar to standard Windows operating systems on desktop or notebook computers. However, some actions are executed differently, as indicated in the following sections.

#### ***Tapping***

Your MobilePro comes with a stylus, a pen-like device that allows you to touch, tap, or double tap objects on the MobilePro touch screen. The touch, tap, and double tap act just like a point, click, and double click of a mouse.

---

To simulate the click of the right mouse button, hold down the **Alt** key while you tap or drag the object with the stylus.



**CAUTION** Although you can use your fingertip to activate the touch screen, **never use hard-pointed or sharp objects**. These objects can damage the touch screen.

***Never use a ball-point pen on the touch screen.***

The MobilePro 900 warranty does not cover damage to the touch screen caused by a ball-point pen or other sharp objects.

---

## *Selecting Objects*

You can select objects in Windows CE .NET by tapping the object(s) with the stylus. To select multiple contiguous items, hold down the **Shift** key while tapping the first and last items. To select multiple non-contiguous items, hold down the **Ctrl** key while tapping each item.

To move the blinking cursor while editing text in a program, simply tap the screen at the desired (new) location.

## *Dragging and Dropping*

Dragging and dropping works just like in other Windows operating systems. To drag an object, tap the object with the stylus and hold the stylus against the screen. Continue to hold as you slide the object across the screen. Lift the stylus from the screen when the object is in the desired location.

To copy an object, simply hold down the **Ctrl** key as you drag the object, as indicated in the previous section.

## *Looking at the Windows CE .NET Desktop*

Windows CE .NET gives you the newest features offered by Microsoft for your NEC MobilePro and is very similar to other Windows operating systems.

Windows CE .NET includes a desktop with built-in pocket applications, a taskbar for quick navigation, online networking functions, and more.

---

## Desktop Icons

Your desktop provides the following icons.

- My Computer — Opens Windows CE .NET Explorer to display all the data on your MobilePro, whether stored in RAM or on a storage card in the PC Card or CompactFlash card slots. My Computer is much like the My Computer icon on the other Windows desktops.
- Recycle Bin — Gives you a trash container in which to put unwanted files.
- Microsoft Excel Viewer — Allows you to view and print Microsoft Excel files. You can choose to view output to an externally connected VGA monitor.
- Image Viewer — Allows you to view and print images with commonly used formats. You can use Image Viewer to set up a Slide Show on your MobilePro or to an externally connected VGA monitor.
- Inbox — Allows you to send and receive e-mail messages on your NEC MobilePro. Refer to Chapter 5, “Setting Up a Remote Connection,” for details about configuring your MobilePro to send and receive e-mail.
- Internet Explorer — Provides web access once you are connected to the Internet via the MobilePro’s built-in modem and an Internet service provider (ISP).
- Media Player — Lets you play .wma (Windows Media format) and .mp3 files. Allows playback of digital media from the Web. Allows you to create playlists and select favorites.
- Microsoft WordPad — Provides a basic word processing program for creating and editing documents on your MobilePro.
- My Documents — Provides shortcuts to documents most recently worked on, as well as access to Office templates.
- PDF Viewer — Allows you to view and print Portable Document Format (PDF) files. PDF documents have a .pdf extension.
- PowerPoint Viewer — Allows you to view and print Microsoft PowerPoint files.

- 
- Remote Desktop Connection — Provides connection to a remote server.
  - Word Viewer — Allows you to view and print Microsoft Word files.

In addition, your NEC MobilePro includes other programs and utilities accessible through the Start, Programs menu and on the MobilePro 900c Application and Driver CD.

## *Other Applications*

While Windows CE .NET applications do not have all the features you may expect to see in applications on other Windows systems, these applications provide many powerful features adapted for the mobile environment.

Your MobilePro, with its larger keyboard, highly visible display, and longer battery life, allows you to obtain full advantage of the CE .NET-based applications. Write complete, well-formatted reports, take detailed notes, and work on spreadsheet data as you travel.

Your MobilePro 900c provides a complete suite of productivity and business applications ready for you to use. Some applications are available as a desktop icon (previously described), others are accessible through Start, Programs and on the MobilePro 900c Application and Driver CD. These include but are not limited to the following applications:

- BInkWriter — Lets you create handwritten or typed notes and drawings.
- Voice Recorder — Provides an easy way to quickly capture thoughts, reminders, ideas, and phone numbers.
- Calculator — Allows you to perform calculations.
- WorldClock — Lets you set the time of a different location, such as a remote office or a travel destination. It does not change your local time.

- 
- **bSpreadsheet** — Allows you to perform spreadsheet activities. It supports Microsoft Excel spreadsheets, and you can view and save Pocket Excel files (.pxl); view and load comma-separated files (.csv); cut, copy, and paste a range of cells; change the font of a cell; and insert and delete worksheets in a workbook.
  - **Contacts** — Maintains a list of names, both business and personal for easy access while at home or on the road. You can retrieve contact information from other programs such as Tasks, Inbox, and Calendar.
  - **Calendar** — Lets you schedule appointments, meetings, and other events and provides a variety of ways to display the stored information.
  - **Tasks** — Provides a portable “to do” list for keeping track of all of your tasks.
  - **bFAX** — Provides a full-featured facsimile program for Windows CE .NET, able to receive and send facsimiles, and to re-send received or sent facsimiles. bFAX comes on the NEC MobilePro 900c Application and Driver CD.
  - **bUSEFUL Backup Plus** — Allows you to perform a backup or a restore in either Wizard mode or Manual mode. Wizard mode walks you through the full system backup/restore process. Manual mode provides for more interaction and control, letting you specify files, databases, parts of the registry, etc. that you want backed up or restored. To access bUSEFUL Backup Plus, go to My Computer, Internal Disk, and select the bUSEFUL Backup Plus folder.
  - **ActiveSync** — Lets you initiate synchronization with your host PC.
  - **PC Link** — Allows you to initiate a connection with your host PC.
  - **Remote Networking** — Allows you to configure remote access accounts for connecting to your ISP, your local area network, and more.
  - **Terminal** — Lets you view and download files from a bulletin board or to send and receive email.
  - **Solitaire** — Provides entertainment while on the road.

---

For more information about each of the applications, just click the question mark or select the help button when using each application.

## ***Using Print Features***

Windows CE .NET provides printing capability using Hewlett-Packard (HP) PCL Level 3 and compatible printing devices that support USB, serial, or infrared connection. Using a USB or serial cable, or infrared transfer, you can print a variety of high-quality documents directly from the MobilePro including:

- Microsoft Word and Excel spreadsheet files as well as files you open with file viewers
- Contacts and Task lists
- A view of your schedule or agenda in Calendar
- Inbox messages.

Follow these steps to print documents using your MobilePro.

1. Open the desired application.
2. Tap File and tap Print.  
The print dialog box appears.
3. Select the appropriate printer setting, “PCL Laser” or “PCL Inkjet.”
4. Select the appropriate port setting, COM1 @ 57600, COM1 @ 9600, IrDA, LPT1, or Network.
5. Select other printing attributes as required.
6. Tap OK.

For additional details about using the IR port for printing and transferring data, refer to the section in Chapter 4, “Using the IR Port.”

---

## **Using Network Capabilities**

Your MobilePro takes full advantage of the networking capability offered through Windows CE .NET and the PC Card port. The operating system supports Ethernet LAN and serial line interface protocol (SLIP) used with Cellular Digital Packet data (CDPD) so you can have cable- or wireless-based network communications using an Ethernet LAN PC card. In addition, you can use CompactFlash type II Ethernet cards on your NEC MobilePro.

## **Microsoft ActiveSync**

Microsoft ActiveSync enables you to *synchronize* the information on your desktop computer with the information on your device.

Synchronization is the process of comparing the data on your device with your desktop computer and updating both computers with the most recent information.

For example:

- Keep Inbox messages up-to-date by synchronizing your mobile device with your choice of Microsoft Outlook, Microsoft Schedule+, or Microsoft Exchange on your desktop computer.
- Synchronize WordPad, spreadsheet, and BInkWriter documents between your device and desktop computer. If ActiveSync is set to convert your files, files are automatically converted to the correct format.

---

 **CAUTION** Whenever possible, Microsoft ActiveSync automatically translates files and e-mail attachments during synchronization. This allows you to use the MobilePro to view and work with files created on your host PC with Microsoft Word and Excel, among others.

To check the file conversion settings in ActiveSync, tap Desktop to Device, select Options, tap Rules, and select the File Conversion field. Select the Conversion Settings button. Uncheck “Convert files when synchronized, copied, or moved” if you do not want to convert files.

---

With ActiveSync, you can also:

- Back up and restore your device data.
- Add and remove programs on your device.
- Copy (rather than synchronize) files between your device and your desktop computer.

## ***Backing Up and Restoring Data***

To prevent data loss, frequently back up your NEC MobilePro data. You can backup all data to your host PC using Microsoft ActiveSync on your host PC.

## ***Using Microsoft ActiveSync for Backing Up and Restoring Data***

The Microsoft ActiveSync backup and restore feature creates a complete duplicate of all data stored on your NEC MobilePro. If you routinely connect to your host PC, this is the best method of data backup. The backup file is saved on the hard disk of your host PC.

When you restore data from a backup file created by Microsoft ActiveSync, all data on your NEC MobilePro is replaced by the data in the backup file. All data on your MobilePro is overwritten including files you created, settings that you changed or programs that you installed since the last backup.

---

To access the Microsoft ActiveSync backup feature, double click the ActiveSync icon on your host PC. Click Tools, then click Backup/Restore. Follow the on-screen instructions to complete the backup process.

## ***Online Help***

Your NEC MobilePro provides online help resources for Windows CE .NET and preloaded applications. In addition, Microsoft ActiveSync on your host PC provides its own online help file.

Follow these instructions to find your online help resources.

- Windows CE .NET Main Help — Tap Start, then Help on the Windows CE taskbar.
- Application-specific Help — Just tap the question mark in the upper right-hand corner of the taskbar in each of the applications.
- Microsoft ActiveSync Help — On your host PC, double click the ActiveSync desktop icon, click Help, and select the Microsoft ActiveSync Help Topics.

# 4

## Using the MobilePro

- Powering On and Off
- Making Display Panel Adjustments
- Using the Keyboard
- Adjusting MobilePro Settings
- Using the Voice Recorder
- Using PC Cards
- Using CompactFlash Cards
- Using the IR Port
- Resetting the MobilePro
- Using the Application and Driver CD

---

## Powering On and Off

Power on the MobilePro as follows.

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**⚠ CAUTION** If you power off, then quickly power on the MobilePro, your system may erroneously report the presence of CompactFlash cards.

In addition, repeatedly powering off and quickly powering on, may cause data loss. NEC Solutions America recommends that you wait ten seconds after powering off, before powering on the MobilePro.

- 
1. Slide the display panel latch to the right. Lift the display panel up towards the rear of the unit.

---

**⚠ CAUTION** Do not push the display panel beyond its pre-designed stop point as you open the panel.

- 
2. Locate and press the Power button. To power off the unit, press the Power button a second time.

### *Locating the Power button*



**A** – Power Button

---

**Note** You might need to press the Power button several times to power on the unit after installing batteries.

It might be necessary to charge a main battery that has a low charge for about 30 minutes before you can power on the unit.

The first time you power on the MobilePro, the screen contrast might need adjustment. See the following section, “Making Display Panel Adjustments,” for details.

---

If the MobilePro is not used for a specified length of time, it automatically shuts off. You can select how long the unit remains on when running on battery power alone through the Power selection in the Windows CE Control Panel. On the Windows CE desktop, tap Start, Settings, Control Panel. Double tap the Power icon and select the Power Off tab to designate a power off time.

---

**Note** As a general operation rule, frequently back up and synchronize data between your MobilePro and your host PC.

Synchronization occurs each time you connect your MobilePro to your host PC, once initial synchronization is configured. For details, see Chapter 1.

For information about backing up and restoring data, see the section in Chapter 3, “Backing Up and Restoring Data.”

---

## ***Making Display Panel Adjustments***

You can adjust the brightness of the display panel in the MobilePro using two function keys located at the top right of the keyboard.



**CAUTION** Increasing panel brightness can dramatically lower battery life.

---

Follow these steps to adjust the display panel brightness:

1. Open the display panel and power on the unit.

- 
2. Press the brightness up or brightness down keys as required.

### *Locating brightness keys*



**A** – Brightness Up Key

**B** – Brightness Down Key

## ***Configuring the Backlight***

You can conserve battery life by configuring your MobilePro to automatically turn off the display panel's backlight.

### *Automatic Off*

Follow these steps to configure the backlight for automatic turn off:

1. Tap Start, Settings, Control Panel.
2. Double tap the Display icon and select the Backlight tab.
3. Tap the desired selections to place a check beside the selection. Use the drop-down boxes to select the desired time settings.

### *Automatic On*

In addition, you can configure the MobilePro to turn on the backlight automatically. Follow these steps to configure the backlight for automatic turn on:

1. In the Display Properties window, tap the Advanced tab to access the Advanced backlight settings.

- 
2. Tap the desired selections to automatically turn on the backlight either while on battery power or when connected to an AC power source. Tap OK.

---

 **CAUTION** Using auto-on while on battery power substantially reduces battery life.

---

## ***Enabling the Suspend Switch***

You can configure your MobilePro to power on or off by simply opening or closing the display cover. The suspend switch acts as a switch for both the power and the display panel.

With the suspend switch enabled:

- Opening the MobilePro powers on the unit. To power on the unit while it is open, use the Power button.
- Closing the MobilePro powers off the unit and insures that the backlight is off as well.

Follow these steps to enable the suspend switch:

1. Tap Start, Settings, then select Control Panel.
2. Double tap the MobilePro Settings icon to launch the dialog box.  
Be sure to select the “LCD Suspend/Resume” tab.
3. Select either “Enable suspend while on Battery Power” or “Enable suspend while on External Power,” or both, to enable the display linkage switch.

---

 **CAUTION** While running on battery power, your NEC MobilePro will not automatically suspend during synchronization unless the battery charge is at a very *low* status. You may want to connect your MobilePro to an AC power source before synchronizing with your host PC.

---

---

## Using the Keyboard

The NEC MobilePro keyboard is equipped with many features including:

- Application shortcut keys
- Brightness up/down keys
- Cursor control keys
- Control keys
- Windows key.

Feature keys are located as shown in the following figure. Key operations are described after the figure.

*Keyboard layout*



- |                                       |                         |
|---------------------------------------|-------------------------|
| <b>A</b> – Applications Shortcut Keys | <b>D</b> – Control Keys |
| <b>B</b> – Brightness Up/Down Keys    | <b>E</b> – Windows Key  |
| <b>C</b> – Cursor Control Keys        |                         |

- Application shortcut keys — Ten application shortcut keys allow you to launch applications directly from the keyboard. For details about each key, refer to the section that follows, “Using Application Shortcut Keys.”
- Brightness up/down keys — The brightness up/down keys let you adjust the NEC MobilePro display panel brightness.

- 
- **Cursor Control Keys** — Cursor control keys let you position the cursor on the screen where you want. The cursor indicates where the next typed text is inserted.
  - **Control Keys** — **Ctrl**, **Alt**, **Fn**, and **Shift** are controls used in conjunction with other keys to change their functions. To use control keys, press and hold the Control key while pressing another key.
  - **Windows Key** — The Windows key displays the Start menu.

## ***Using Application Shortcut Keys***

The NEC MobilePro provides application shortcut keys located at the top of the keyboard. Use these keys to launch applications directly from the keyboard. The key defaults are listed in the following table.

### ***Default Application Shortcut Keys***

<b>Icon</b>	<b>Application</b>
	Inbox
	Microsoft Internet Explorer
	Calendar
	Contacts
	Tasks
	Microsoft WordPad
	Microsoft Excel Viewer
	Microsoft PowerPoint Viewer

---

## ***Default Application Shortcut Keys***

<b>Icon</b>	<b>Application</b>
	Voice Recorder
	Calculator
	Brightness Up
	Brightness Down

---

## ***Defining Application Shortcut Keys***

There are three ways to use the application shortcut keys:

- as default Microsoft or BSQUARE application shortcut keys
- customized to launch other applications
- defined as standard Windows application function keys [F1 – F10], which only operate as programmed by the application in use.

Follow these steps to define or re-define your application shortcut keys:

1. Tap on Start, Settings, Control Panel, MobilePro Settings. The MobilePro Setting Properties dialog appears.
2. On the Quick Launch tab, select either Default Settings, Custom Settings, or Function Keys from the pull-down.
3. If you selected Custom Settings, you can click on each icon shown in the Application shortcut keys window and use the Browse... button to assign an application to the button.

---

Application shortcut keys can only be used in one mode at a time. If you define them as function keys, you cannot use them to launch applications.

## ***Using Other Function Keys***

In addition to the application shortcut keys, your NEC MobilePro is equipped with default function keys as described in the following table.

### ***Default Function Keys***

<b>Key</b>	<b>Function</b>
Fn + Space	Bright/Half Bright
Fn + Shift	Num Lock
Fn + 4	Pound Key
Fn + 5	Euro
Fn + Voice Recorder Icon	Reverse the screen
Alt (left) + <	Contrast Down
Alt (left) + >	Contrast Up
Alt + Left Arrow	Home
Alt + Right Arrow	End
Alt + Up Arrow	PgUp
Alt + Down Arrow	PgDn
Alt + L	Display LCD only
Alt + D	Display LCD and External Monitor

---

## Adjusting MobilePro Settings

Your MobilePro is equipped with a MobilePro Settings applet. To access MobilePro Settings, simply tap Start, Settings, Control Panel, and double tap the MobilePro Settings icon to display the applet's window.

The MobilePro Settings applet allows you to configure a variety of properties on your NEC MobilePro and includes the following features:

- **Q Launch** — Allows you to define custom shortcut keys for various applications.
- **External Monitor** — Allows you to display the same image on both the display panel and an external monitor.
- **Color Palette** — Lets you select a 256-color display or the default 64K color display.
- **LCD Suspend/Resume** — Allows you to designate a suspend option for the display panel lid, when closed.
- **IrDA** — Allows you to select the speed for IR transfer.
- **Built-in Modem** — Allows you to specify a country for use of the built-in modem.



**CAUTION** Select the appropriate country setting for your built-in modem to ensure compliance with the country's telephone lines. An incorrect country setting may damage your device or the telephone line.

---

- **Asset View** — Lets you view ROM and OS version information, the amount of system memory and the memory type, and the system ID.

---

## ***Using the Voice Recorder***

The MobilePro features a voice recorder application to record and play voice memos. Recording is dictation quality only and not intended for musical recording. Recording voice memos with the MobilePro is easy.

### ***Recording Memos***

Follow these steps to record with the Microsoft Voice Recorder:

1. Tap Start, Programs, Accessories, then select Voice Recorder.
2. Hold your MobilePro with the microphone facing you.
3. Tap the record button (red dot) and speak into the microphone.
4. When you are finished recording, tap the Stop button (black square). A beep sounds when the recording stops.

To play back your recording, tap to highlight your selection and tap the Play button (green triangle) or simply double tap your selection.

You may want to modify the recording format to improve the quality of playback. To modify the recording format, tap Tools, Recording Format and use the drop-down box to change the format to PCM and to modify the Attributes to a higher sampling rate.

---

**Note** Recording works best if you position the microphone about three inches away from your mouth while speaking.

Memory required for voice memo storage varies depending on user settings.

---

### ***Selecting Menus***

The Voice Recorder provides a variety of menu selections under the File and Tools selections. Refer to the online help provided with the voice recorder application for details about its use. Just tap the question mark icon in the upper right-hand corner of the screen to access the online help.

---

## Using PC Cards

Your NEC MobilePro comes with a PC Card slot that supports one Type II PC Card. All PC Cards are approximately the same size, have a standard 68-pin connector and vary only in thickness. PC Cards add a variety of storage and communication functionality to your MobilePro.

---

**⚠ CAUTION** Windows CE .NET supports the hot swapping of PC Cards. However, to avoid data loss, do not remove a PC Card while in use. When using a PC Card in the MobilePro, also use AC power. The batteries alone may not provide enough power for some PC Cards to operate properly.

---

**Note** Use the AC adapter when using PC Cards. Using the adapter can help you avoid potential data loss caused by the high-energy consumption of some PC Cards.

---

### Inserting PC Cards

Follow these steps to install a PC Card:

1. With the PC Card facing up, insert the card into the PC Card slot on the right side of the system.

#### *Inserting a PC Card*



**A** – PC Card Eject Button

**B** – PC Card Slot

- 
2. Verify that the PC Card is securely in the slot.



**CAUTION** Make sure you align the PC Card correctly for insertion. Inserting a PC Card incorrectly can damage the card and/or the NEC MobilePro.

---

## ***Removing PC Cards***

Follow these steps to remove a PC Card from the MobilePro:

1. Locate the PC Card eject button beside the PC Card slot and press it to release the card from the slot.
2. Once the card is released, pull it the rest of the way out of the slot.

## ***Using CompactFlash Cards***

Your NEC MobilePro comes with a CompactFlash (CF) card slot that supports one Type II CompactFlash card. A CF card provides a storage device for your MobilePro and when inserted, creates a *Storage Card 2* folder. To view the contents of the folder, double tap the My Computer icon on your MobilePro desktop, then double tap the Storage Card 2 folder.



**CAUTION** Windows CE .NET supports the hot swapping of CF cards. However, to avoid data loss, do not remove a CF card while in use. When using a CF card in the MobilePro, also use AC power. The batteries alone may not provide enough power for some CF cards to operate properly.

---

**Note** Use the AC adapter when using CF cards. Using the adapter can help you avoid potential data loss caused by the high-energy consumption of some CF cards.

---

---

## Inserting CF Cards

Follow these steps to install a CF card:

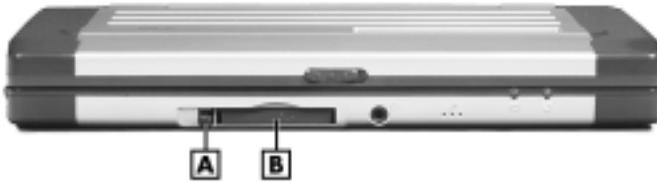
1. With the CF card facing up, insert it into the CF card slot.

---

**Note** When you insert a CF card, a button pops out of the card bay. Pivot the button towards the left side of the unit until it fits into the recessed space next to the slot.

---

### Locating the CF Card slot



**A** – CF Card Eject Button

**B** – CF Card Slot

2. Verify that the CF card fits securely into position.



**CAUTION** Make sure you align the CF card correctly for insertion. Inserting a CF card incorrectly can damage the card and/or the MobilePro.

---

## Removing CF Cards

Follow these steps to remove a CF card from the MobilePro:

---

**Note** Pivot the CF card button out of the recessed space before beginning the following procedure.

---

1. Save your data if you are storing it on the inserted CF card.

- 
2. Press the button beside the CF card.
  3. When the card pops out slightly, pull it out of the slot.

## ***Using the IR Port***

With the NEC MobilePro, you can send and receive data to and from another similarly equipped device using the infrared (IrDA) communication port. In addition, you can use the IR port to synchronize data with your host PC, in place of using the PC Connect cable.

Before using the MobilePro for IrDA communication, first configure/enable the IR port on your host system, then install Microsoft ActiveSync on your host system.

---

**Note** If you configure/enable the IrDA port on your host system after installing Microsoft ActiveSync, you must re-install Microsoft ActiveSync before establishing IrDA communication between systems.

---

Follow these steps to use the IR port to communicate with another MobilePro or your host PC:

1. Remove the PC Connect (USB or serial) cable from the MobilePro before attempting IrDA communication.
2. Open the display panels on the two units that you want to use for communication.
3. Position the MobilePro units so that the IR ports face each other. Position the units from 2 to 20 inches apart.
4. Be sure that nothing obstructs the path between the IR ports on both units, and that the ports are aligned properly.
5. Send your data by using the “Send To” selection in the Windows Explorer File menu.

Highlight the file you want to transfer and choose “Infrared Recipient” from the Send To selections. Your file is transferred to the other device. The receiving device uses the File/Receive command to receive the infrared transmission.

---

**Note** If the units are too far apart or if something blocks the path between the two ports, data may not be sent or received correctly.

---

## ***Resetting the MobilePro***

Occasionally you may need to reset your MobilePro. For instance, you may need to reset after restoring data from your host PC, after modifying the MobilePro's configuration, when you are unable to power on using the Power button, or when the operating system stops responding.

The MobilePro is equipped with a reset button that allows you to restart the MobilePro operating system while preserving any saved data. This method is similar to a "warm boot" on your host PC.

---

**Note** To ensure the safety of your information at all times, you should perform regular backups of your MobilePro information to your host PC. For more information, see the section in Chapter 3, "Backing Up and Restoring Data."

---

Before using the reset button to reset the MobilePro, close any open files or applications, if possible. When you reset the MobilePro, you may lose open/unsaved files.

Follow these steps to use the reset button to reset the MobilePro:

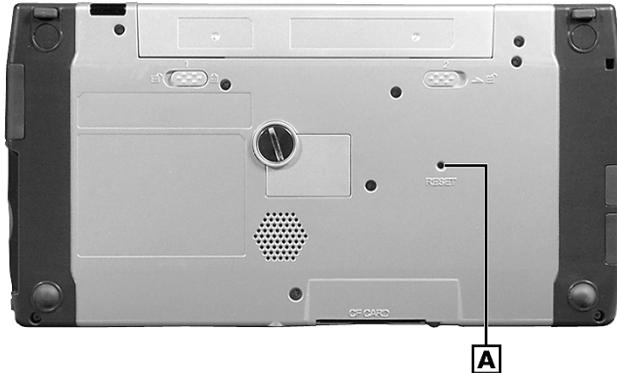
1. Open the display panel and remove the stylus from its holder.
2. Power on the MobilePro.
3. Turn over the MobilePro.
4. Locate the reset button on the bottom of the MobilePro (see the following figure).
5. Using the stylus, press the reset button. (You may need to press the button more than once.) This resets the unit.

---

**⚠ CAUTION** The reset button design requires the use of the stylus. Only use the MobilePro 900c stylus to reset the system. Use of another tool can damage the MobilePro.

---

### *Reset button*



A – Reset Button

## ***Using the Application and Driver CD***

A variety of software applications, drivers, and utilities are provided on the NEC MobilePro 900c Application and Driver CD that ships with your MobilePro 900c system. Some of the drivers are already installed as part of your operating system environment.

The additional software on the Application and Driver CD lets you take full advantage of your system resources.

Use the Application and Driver CD with your host PC to install the required software. Some software applications install their own desktop icon allowing quick access to the application. You can also access some applications through the Start, Programs menu.

---

Follow these steps to use the Application and Driver CD:

1. Insert the Application and Driver CD in the CD-ROM drive of your host PC.
  - If auto-insert is enabled on your host PC, the CE Setup menu for the Application and Driver CD appears.
  - If auto insert is not enabled, go to Start, Run, browse for the CD-ROM drive.

The CE Setup menu provides a list of available software on the Application and Driver CD for use with the host PC and MobilePro 900c.

2. Select the driver or application you want to load.
3. Read any license agreement that appears and click OK to accept the agreement. The setup program automatically loads the software.
4. When prompted, click Finish to complete the installation and return to the CE Setup menu.

# 5

## Setting Up a Remote Connection

- Preparing for a Connection Setup
- Connecting the Internal Modem
- Connecting to an Internet Service Provider
- Connecting to a Remote Access Server
- Sending and Receiving E-mail
- Activating a Connection

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## ***Preparing for a Connection Setup***

Before you set up a dial-up connection for an Internet Service Provider (ISP) or Remote Access Server (RAS), and the associated e-mail properties, you need the following:

- Modem (your NEC MobilePro is equipped with an internal data/fax modem)
- ISP or RAS account
- Configuration information from your ISP or network administrator that may include some or all of the following:
  - Dial-up telephone number
  - TCP/IP settings
  - Port settings
  - User name and password, if required.

You must create a new connection for each ISP or RAS account that you want to establish. Once you have created a connection for an ISP, RAS, etc., you can define an e-mail account for each connection, if so desired. Follow the instructions in the sections that follow, “Connecting to an ISP,” “Connecting to a RAS,” and “Sending and Receiving E-mail,” to create the desired connections.

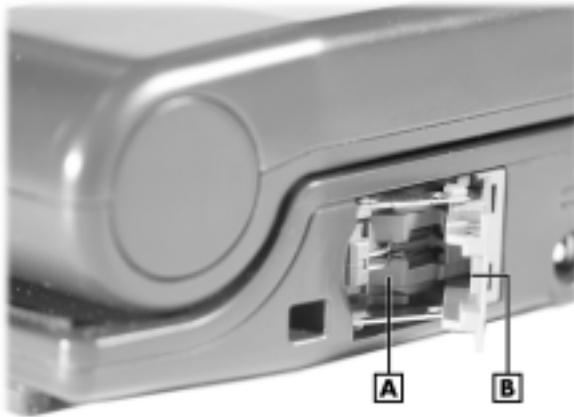
## ***Connecting the Internal Modem***

Follow these steps to connect an RJ-11 telephone cable to the internal modem:

1. Open the modem cover on the left side of the NEC MobilePro by pulling out the left side of the cover.
2. Carefully plug the RJ-11 telephone cable into the modem connector.

---

## Connecting the telephone cable



**A** – Modem Connector

**B** – Clip Side of Telephone Cable Connector Goes Here

---

**! WARNING** Do not connect the internal modem to a digital private branch exchange connector, or the digital side of an integrated digital network. Use only analog phone connections. Failure to do so may result in explosion or fire and will damage your modem.

During thunderstorms be sure to disconnect the modem phone cable from the NEC MobilePro. Failure to do so may result in explosion or fire.

---

3. Connect the other RJ-11 connector into an active (analog) phone jack. (Use a country-specific modem adapter if necessary.)

Now you are ready to create a connection for an ISP or RAS account.

---

## ***Connecting to an Internet Service Provider***

Once you have established an account with an Internet Service Provider (ISP) and gathered the necessary configuration information, you are ready to create a connection on your MobilePro for your ISP account.

Follow these steps to create a new connection for your ISP account:

1. Tap Start, Settings, and Network and Dial-up Connections.
2. Double tap the Make a New Connection icon.
3. Enter a name for the new connection.
4. Select Dial-Up Connection as the connection type and tap Next.
5. Use the drop-down box to select Internal Modem and tap Configure.
6. Select the required port settings and call options. Tap OK.
7. Tap TCP/IP Settings and configure the required General Settings and Name Servers. Tap OK.
8. Tap Next and enter the required dial-up telephone number. Tap Finish.

Once your ISP connection is established, you can configure your MobilePro to send and receive e-mail through your ISP. Follow the instructions in “Sending and Receiving E-mail” and “Activating a Connection,” later in this chapter, to send and receive e-mail through your ISP.

---

## ***Connecting to a Remote Access Server***

Once you establish an account with your RAS and gather the necessary configuration information, you are ready to create a connection on your MobilePro for your RAS account.

Follow these steps to create a new connection for your RAS account:

1. Tap Start, Settings, and Network and Dial-up Connections.
2. Double tap the Make a New Connection icon.
3. Enter a name for the new connection.
4. Select Dial-Up Connection as the connection type and tap Next.
5. Use the dropdown box to select Internal Modem and tap Configure.
6. Select the required port settings and call options. Tap OK.
7. Tap TCP/IP Settings and configure the required General Settings and Name Servers. Tap OK.
8. Tap Next and enter the required dial-up telephone number. Tap Finish.

Once your RAS connection is established you can configure your MobilePro to send and receive e-mail through your RAS. Follow the instructions in “Sending and Receiving E-mail” and “Activating a Connection,” later in this chapter, to send and receive e-mail through your RAS.

---

## ***Sending and Receiving E-mail***

Before configuring the necessary e-mail service information, you need some or all of the following settings:

- POP3 or IMAP4 Host
- Your user ID
- Your password, if required
- SMTP host
- Your e-mail address.

To send and receive e-mail through your ISP or RAS account, you must configure the services properties through your Inbox. Follow these steps to configure the e-mail services information:

1. Double tap Inbox, tap Services, and tap Options.
2. On the Services tab, tap Add.
3. Select the desired service type and enter the service name.
4. Tap OK.
5. Enter the information provided by your ISP provider or network administrator.

The Mail Services Definition screen consists of Required information and Optional information. Fill in all information as provided by your ISP or network administrator.

- Enter ISP information as follows:
  - Either POP3 Host or Server (for IMAP4 mail) — ISP host/server name
  - User ID — Your user id
  - Password — Your password, if required
  - SMTP Host — SMTP Host name
  - Return Address — Your e-mail address (if in a UNIX environment <your e-mail address>)

- 
- Enter RAS (Exchange server) information as follows:
    - Either POP3 Host or Server (for IMAP4 mail) — ISP host/server name
    - User ID — Domain\your user id\exchange alias
    - Password — Your password, if required
    - SMTP Host — Exchange server name
    - Return Address — Your e-mail address (if in a UNIX environment <your e-mail address>)

---

**Note** If you experience difficulty sending e-mail, check your *optional* configuration settings. If you experience difficulty receiving e-mail, check your *required* configuration settings.

---

## ***Activating a Connection***

Once you create a new connection for each desired service, activate the connection with that service to open communication and send or receive e-mail.

Follow these steps to activate a connection:

1. Double tap the Inbox icon.
2. Tap Services and verify that the service you want to connect is selected.

The currently selected service displays in the dropdown box and is designated with a dot. If necessary, modify your selection before connecting and tap OK.

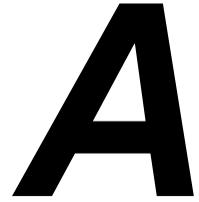
3. Tap Services (again, if necessary) and tap Connect.

The connection dialog box displays and may prompt you to enter a password. Otherwise, the connection dialog box displays the connection progress and indicates when the connection is successful.

4. Enter your password, if required.

Once the connection is established, you are ready to send and receive e-mail.





## **Troubleshooting**

- Solving Problems
- Replacing the Backup Battery

---

# Solving Problems

Your NEC MobilePro is designed to provide many hours of service while you are at home or on the road.

For optimum performance, frequently back up and synchronize the MobilePro data with your host PC. Then if something happens, most of your data is still available. If you have problems, check the information in the following table for possible solutions.

## ***Troubleshooting***

<b>Problem</b>	<b>Resolution</b>
The MobilePro has no power.	<p>Check that you installed the backup battery and that it is installed correctly (see "Installing the Backup Battery" in Chapter 1).</p> <p>Check the main battery (see "Installing the Main Battery" in Chapter 1).</p> <p>If you are using an AC adapter, make sure the connections are correct and secure (see "Connecting the AC Adapter" in Chapter 1).</p>
Nothing appears on the screen.	<p>Try pressing the Power button again (the unit might have turned itself off if it was not used for a specified time).</p> <p>Adjust the display panel brightness (see "Making Display Panel Adjustments" in Chapter 4).</p> <p>Check the backlight settings (see "Configuring the Backlight" in Chapter 4).</p> <p>Check the power connections.</p> <p>Try recharging the main battery (see "Installing the Main Battery" and "Connecting the AC Adapter" in Chapter 1).</p>

---

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## ***Troubleshooting***

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<b>Problem</b>	<b>Resolution</b>
A low battery message appears.	Recharge the main battery (see “Connecting the AC Adapter” in Chapter 1).
When using a PC Card, such as a modem, the unit powers off.	Connect the AC adapter to the unit when using PC cards that require large amounts of energy.
The AC adapter doesn’t work.	<p>Make sure that the main battery is installed (see “Installing the Main Battery” in Chapter 1).</p> <p>Check that the AC adapter connections are secure.</p> <p>Verify that the AC outlet being used is working. Do this by plugging in another electric device, such as a lamp.</p> <p>Check that the battery lock is in the locked position (see “Installing the Main Battery” in Chapter 1).</p>
The keyboard doesn’t respond.	<p>Reset the unit (see “Resetting the MobilePro” in Chapter 4).</p> <p>If you have installed handwriting recognition software, be sure that you have not set the “disable keyboard” parameter in that software.</p>
The USB port doesn’t work.	<p>Check that you installed the USB driver from the Application and Driver CD (see “Loading USB Files” in Chapter 1).</p> <p>Verify that the MobilePro PC Connection setting is set to “USB Connection” (see “Connecting to Your PC via USB Cable” in Chapter 1).</p>

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## ***Troubleshooting***

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<b>Problem</b>	<b>Resolution</b>
The serial port doesn't work.	<p>Check that the cable connections are secure.</p> <p>Verify that the MobilePro PC Connection setting is set correctly (see “Connecting to Your PC via Serial Cable” in Chapter 1).</p> <p>Check the availability of the serial port (see “Ensuring the Availability of the Serial Port” in Chapter 1).</p>
The IrDA port doesn't work.	<p>Check that nothing obstructs the path between the transmitting and receiving IR ports.</p> <p>Check the information in “Connecting to Your PC via Infrared Port” in Chapter 1 and “Using the IR Port,” in Chapter 4.</p>
The PC Card cannot be accessed.	<p>Make sure the card is inserted correctly and seated properly (see “Using PC Cards” in Chapter 4).</p> <p>Connect the unit to AC power using the adapter. Some cards do not operate properly unless the AC adapter is connected.</p>
The touch screen does not respond.	<p>Press <b>Ctrl Alt =</b> to calibrate the stylus input. Follow the on-screen instructions to complete the recalibration procedure.</p> <p>Reset the unit (see “Resetting the MobilePro” in Chapter 4).</p>

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## ***Troubleshooting***

<b>Problem</b>	<b>Resolution</b>
The reset button does not respond.	Use the MobilePro 900c stylus to reset the unit (see “Resetting the MobilePro” in Chapter 4).  Remove the main battery. Reinstall the battery and make sure it is seated properly.  Try resetting the unit again.  Be sure to make regular backups.

---

**Note** For further assistance, call NEC Solutions America Support Services at **1-800-632-4525**. See “Help Resources” in Chapter 1 for a list of available services from NEC Solutions America.

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## Replacing the Backup Battery

The MobilePro uses a CR2032 lithium coin-cell battery to maintain system configuration information. If the battery fails to maintain system configuration information, replace it with an identically rated battery from the same manufacturer.



**WARNING** The battery can explode if you use a battery that is not the same type battery (or an equivalent type) that ships with the MobilePro. Use only the same type battery or an equivalent type when replacing the battery.

Lithium acts as a catalyst when exposed to water and causes spontaneous combustion on contact.

---



**CAUTION** To prevent depleting the backup battery, never leave the backup battery in the system for prolonged periods of time without a main battery. The backup battery discharges in a short period of time. The backup battery is not rechargeable.

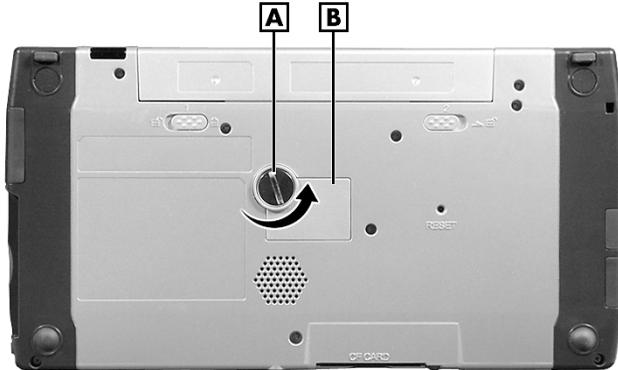
---

If you need to replace the battery, follow these steps:

1. Save your data, turn off unit power, and close the display panel. Disconnect any cables attached to the unit, such as the PC Connect cable.

- 
2. Locate the backup battery cover on the bottom of the unit.
  3. Using a coin (for example, a quarter), loosen the backup battery screw and remove the cover.

*Locating the backup battery cover and screw*



**A** – Screw

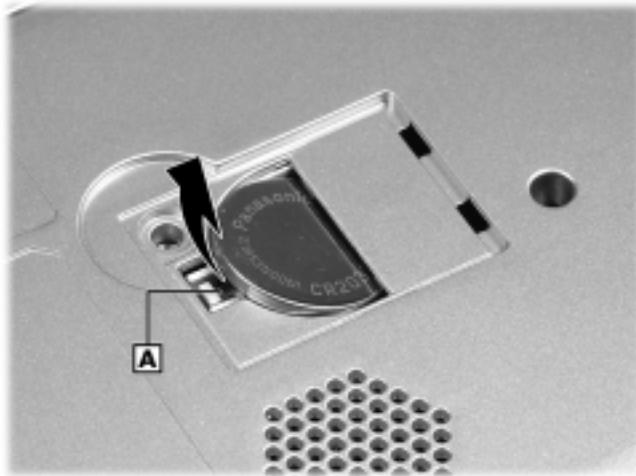
**B** – Backup Battery Cover

- 
4. Using the tip of the MobilePro 900c stylus, remove the used battery (see the following figure).
- 

**⚠ CAUTION** To prevent damage to the MobilePro, use the tip of the stylus to remove the battery. Using other tools can damage system components.

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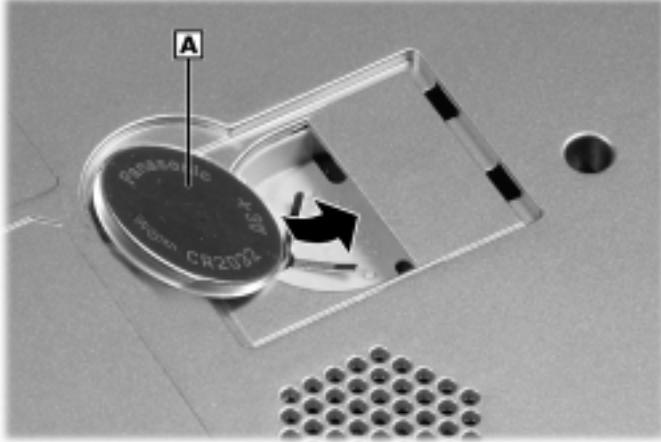
*Removing the backup battery*



A – Pry Point of Stylus

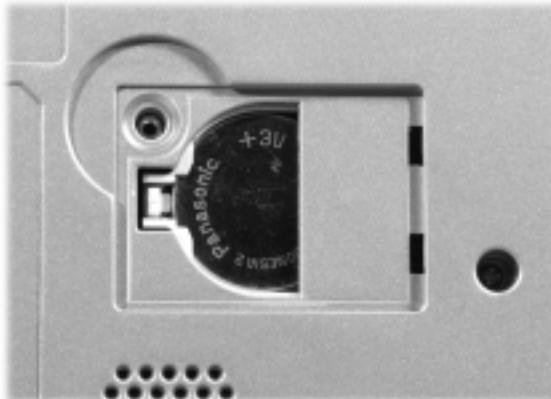
- 
5. With the positive (+) side of the battery facing up, insert the new battery into the battery socket as shown in the following figure.

*Inserting the backup battery*



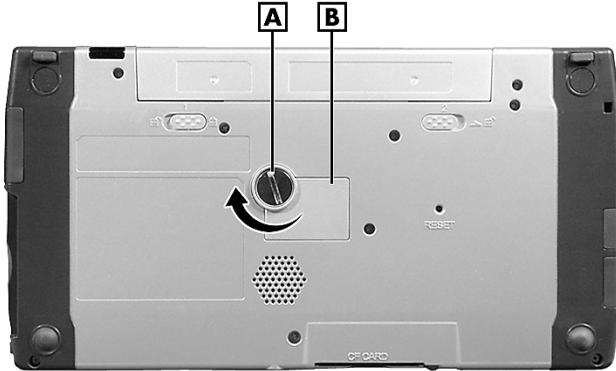
A – Backup Battery (+ side up)

*Checking the backup battery installation*



- 
6. Replace the backup battery cover. Tighten the screw to secure the cover.

*Replacing the backup battery cover*



A – Screw

B – Backup Battery Cover



**WARNING** The battery can explode if you use a battery that is not the same type battery (or an equivalent type) that ships with the MobilePro. Use only the same type battery or an equivalent type when replacing the battery.

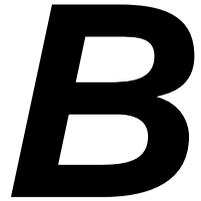
Do not recharge or disassemble battery.

Do not dispose of battery by burning it.

Lithium acts as a catalyst when exposed to water and causes spontaneous combustion on contact. Discard used batteries according to the manufacturer's instructions. Promptly dispose of used battery.

Keep battery away from children. If battery is swallowed, see a doctor.

---



## **Specifications**

- Base System
- Power
- Dimensions and Weight
- Recommended Environment
- Accessories
- Options

---

# Base System

The following specifications are standard except where noted.

## Processor

Intel® PXA255 processor at 400 MHz with Intel® XScale™ technology

## Memory

- 64 MB of SDRAM standard (100 MHz)
- 32 MB of Flash ROM + 32 MB of Flash ROM; NAND or NOR Flash type (the additional 32 MB of Flash ROM may be used to flash applications to field devices)

## Display

- 8.1-inch diagonal DSTN touch screen
- 64K colors
- 640 x 240 (half-VGA) resolution on display
- 9-level backlight control (software control)
- Up to 800 x 600 resolution on external analog monitor

## User Data Entry Methods

- 78-key QWERTY keyboard with stylus
- 17.5 mm center-to-center alpha key pitch
- Touch-typeable
- Touch screen (input via stylus)

## Buttons and Switches

- Power button — On keyboard; power on/suspend switch
- Software reset switch — Software reset.
- LCD close/off switch — Power on/suspend switch
- Recording switch — Start/stop recording; on keyboard.

---

## LEDs

- Battery status (green/amber)
- Notification (alert) indicator (amber)

## I/O Ports

- USB slave
- USB host
- Serial port (Direct Cable connection)
- IrDA 1.1 FIR (4Mbps) port
- VGA port (output)
- Headphone, stereo mini jack
- Modem port
- Power port (DC in)

## Modem

- Data — V. 90, 56 Kbps (AT command)
- Fax — 14.4 Kbps (Fax control command Class I)

---

**Note** Download speed is limited to 53 Kbps. Upload speed is limited to 33.6 Kbps. Actual speeds may vary depending upon line conditions.

The built-in modem requires a compatible service provider.

---

## Sound

- One built-in monaural speaker
- Stereo headphone, 3.5 mini jack
- Internal microphone

## Infrared (IrDA) Communication

- Baud rate — FIR 4 Mbps maximum
- Distance — 2 to 20 inches

---

## Serial Interface

Baud rate — 115.2 Kbps maximum

## Expansion

- One Type II PC Card slot
- One Type II CompactFlash card slot

## Pre-installed Operating System

Microsoft Windows CE .NET 4.2

# *Power*

## AC Adapter

- Input Voltage — 100 to 240 volts AC, 50 or 60 Hz
- Output Voltage — 12 volts, 2A max

## Batteries

- Standard main battery — One 2-cell rechargeable Li-Ion battery pack (included)
- Extended life main battery — One 4-cell rechargeable Li-Ion battery pack (optional)
- Backup battery — CR2032 battery (included)

## Memory Backup

Approximately 5 hours (with depleted main battery) at ambient temperature of 73°F (23°C).

---

**Note** The period for safe memory backup can vary with ambient temperature and other factors. Always make sure your MobilePro is powered off before you store it, and always recharge your MobilePro as soon as possible after depleting the main battery.

---

---

## Recharge Time

Use the AC adapter to recharge the MobilePro main battery.

- Recharging time — approximately 5 hours for the standard main battery when system power is off.
- Initial charge time for the main battery — approximately 10 hours with the system off.
- The system must be charged for 10 hours if the main battery is depleted for a prolonged period.
- The battery charger shuts off after about 3 hours. Disconnect and reconnect the AC adapter to continue charging the main battery.
- The backup battery is not rechargeable.

---

**Note** The main battery is not charged when the battery release lock is in the unlocked position.

---

## *Dimensions and Weights*

The following specifications are for the MobilePro 900 with the standard 2-cell main battery installed.

- Width — 9.69 in. (246.22 mm)
- Depth — 5.05 in. (128.18 mm)
- Height — 1.19 in. (30.25 mm)
- Weight (with standard main battery) — 1.8 lb. (830 grams)

## *Recommended Environment*

### Operating Environment

- Temperature — 32° to 104°F (0° to 40°C)
- Humidity — 35% to 85% (No condensation)

### Storage Environment

- Temperature — 14° to 140°F (-10° to 60°C)
- Humidity — 35% to 85% (No condensation)

---

## Accessories

Ship with system:

- Backup CR2032 battery
- AC adapter
  - MC-BA6 (US) Listed Direct Plug-In Power Unit
  - Input voltage: 100 to 240V AC; 50 or 60Hz, 13W
  - Output voltage: 12V DC 2000mA max
- Rechargeable 2-cell Lithium-Ion battery pack
- PC Connect USB cable
- RJ-11 telephone cable
- Stylus pen

## Options

Available options (U.S. and Canada only):

---

**Note** Check the NEC Solutions America Web site ([www.necsolutions-am.com/mobilesolutions](http://www.necsolutions-am.com/mobilesolutions)) for an updated list of available options for the MobilePro 900. At the Products & Services page, select Mobile Computers, select your system, and select Accessories for the list of options.

---

- AC Adapter (OP-MP9-ACADAPT)
- Standard Li-Ion Battery Pack, 2-cell (OP-MP9-BATTERY)
- Extended-Life Li-Ion Battery Pack, 4-cell (OP-MP9-EXTBATT)
- Battery Charger (OP-MP9-CHARGER)
- PC Connect Serial Cable (OP-MP9-LINKSER)
- Stylus Pen (OP-MP9-PEN)
- VGA Cable (MC-RC2)

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# Regulatory Statements for U.S. and Canada

The following regulatory statements include the Federal Communications Commission (FCC) Radio Frequency Interference Statement, the Note for Canada, battery disposal and replacement information, and the Declaration of Conformity.

## ***FCC Statement for United States Only***

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 **WARNING** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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**Note** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and radiates radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

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However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from the one to which the receiver is connected.

Use shielded and properly grounded I/O cables and power cable to ensure compliance of this unit to the specified limits of the rules.

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## FCC PART 68

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

All applicable registration jack USCOs, any facility interface codes and service order codes associated with the service of the equipment must be connected.

The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5). To be certain of the number of devices that may be connected to the line, as determined by the total RENs contact the telephone company to determine the maximum REN for the calling area.

If the MobilePro causes harm to the telephone network, the telephone company will notify you in advance that temporary termination of service may be required. But if advance notice isn't possible, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will advise you in advance to make the necessary modifications to maintain uninterrupted service.

If you have trouble with the MobilePro, please contact NEC Solutions America Support Services at 1-800-632-4525 for repair and warranty information. If the trouble is impacting the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

The equipment cannot be used with public coin telephones provided by the telephone company. Connection to Party Line Service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for information.)

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The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electric device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. In order to program this information into your MobilePro, refer to the manual for your communication software program.

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## IC CS-03

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**Note** The Industry Canada label identifies certified equipment.

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This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

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 **WARNING** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

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**Note** The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Number of all the devices does not exceed 5.

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## **Note for Canada**

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

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

### **FCC WARNING**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Properly shielded and grounded cables and connectors must be used for connection to host computer and/or peripherals in order to meet FCC emission limits.

AC adapter with ferrite core must be used for RF interference suppression.

## **Battery Replacement**

A lithium battery in some computers maintains system configuration information. In the event that the battery fails to maintain system configuration information, NECSAM recommends that you replace the battery. See “Replacing the Backup Battery” in Appendix A for battery replacement information.



**WARNING** There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

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**AVERTISSEMENT** Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

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## ***Battery Disposal***

The main battery is a Lithium-Ion battery.

The backup battery is a Lithium coin-cell battery.

Do not place used batteries in your regular trash.

The incineration, landfilling, or mixing of batteries with the municipal solid waste stream is **prohibited by law** in most areas.

Contact your local waste management officials for other information regarding the environmentally sound collection, recycling, and disposal of used batteries. If you purchased or are using this computer outside of the U.S. or Canada, contact a local NEC dealer in your country.

NEC Solutions (America), Inc.

# DECLARATION OF CONFORMITY

*We, the Responsible Party*

NEC Solutions (America), Inc.  
10850 Gold Center Drive, Suite 200  
Rancho Cordova, CA 95670

*declare that the product*

## MobilePro 900

is in conformity with part 15 of the FCC Rules. Operation of this product is subject to the following two conditions:  
(1) this device may not cause harmful interference, and  
(2) this device must accept any interference received, including interference that may cause undesired operation.

Product Type: HandHeld PC  
Equipment Classification: Class B peripheral

