English
Deutsch
Français
Italiano
Español

Welcome to
Duo-Touch.
Help

ITRONIX

Getting Started

Congratulations on your purchase of the Itronix Duo-Touch Tablet PC! Your new Duo-Touch features the most innovative advances in portable computing technology. It combines state-of-the-art ergonomics, patented RF technology, and a rugged, durable architecture to provide you with a Tablet PC that is compact, powerful, and easy to use virtually anywhere.

Designed for a wide range of business productivity applications, the Duo-Touch is an ideal choice for mobile workers who are on the go throughout the day. It offers flexibility, durability and dependability along with ruggedness and portability to make it quick and easy to transport to any work location, indoors, outdoors, or in your vehicle.

This online document, *Duo-Touch Help*, contains all the information you need to set up and use your new Tablet PC. For information on printing, searching, navigating or using *Duo-Touch Help*, see How to Use This Help System. To optimize readability, we recommend you view this document in landscape orientation. If you have suggestions for how we may improve this document, please e-mail techpubs@itronix.com.

Unpacking Your System

After opening the package, carefully inspect the contents. Contact your dealer if any items are missing or appear damaged. The shipping carton should contain a Duo-Touch Tablet PC with the following features and parts:

Standard Parts

- Duo-Touch Tablet PC
- AC Adapter and Power Cord
- (1) Digitizer Pen with Tether
- (5) Pen replacement tips and (1) removal tool
- Cleaning cloth
- *Duo-Touch Quick Start Guide*

Standard Features

- 8.4" TFT SVGA Active Matrix Color Display
- Display with two touch functions, an active digitizer touch panel and a passive touch screen
- Seven (7) Hot keys
- Internal 56K V.92 Fax/Modem
- RF ON/OFF button
- Internal Gigabyte Ethernet LAN
- Li-Ion Battery
- Two (2) USB 2.0 Ports
- One Type II PC Card Slot
- One Type II CompactFlash Slot
- Audio Jacks for external speakers and microphone
- Internal Speaker and Microphone
- Multi-I/O Expansion Connector
- Second Battery Connector (to attach the optional second battery)
- Microsoft Windows XP Tablet PC Edition 2005
- 3-year limited warranty

Optional Features

- 802.11 b/g WLAN radio
- Bluetooth Class II radio
- GPS radio
- Wireless WAN radios and antennas (CDMA and GPRS)
- DDR Memory
- Hard Driver Heater

Optional Accessories

The following items are normally optional, but some vendors may include them in the standard package. Some items may not be available in some countries, or some vendors may choose not to carry all the items. A complete list of Itronix optional peripherals and accessories is listed on the Itronix website.

- Carry Case

- Desk Mount

- Second Battery

- External USB Floppy Disk Drive

- External USB DVD/CD-RW Drive

- RJ-11 Cable

- Shoulder Strap

- Tip and Ring Cable

- Vehicle Dock

- USB 2.0 Port Replicator

- USB to Serial Cable

CAUTION When purchasing any of the accessories listed above, purchase only those accessories that are approved for use with your computer. The above accessories are proprietary items. Your system vendor can obtain these approved accessories. If you use items that are not approved for use with this computer, you may cause your computer to malfunction, or to emit or receive electromagnetic radiation in excess of local regulations. For non-proprietary accessories such as PC Cards or printers, ensure that the accessory functions properly in your computer before making the purchase. Your system vendor may be able to recommend reliable brands and models.

Where to Look For Information

About Your Duo-Touch Tablet PC

This Help System describes the key elements and functions of your computer. Be sure to read it thoroughly before you begin using your Duo-Touch and refer to it whenever needed.   It includes a table of contents, search function, index and glossary to make finding the information you need quick and easy. See How to Use this Help System for information about navigating, printing or otherwise using this document.

Please refer to the Service and Support section if you have questions not answered in this document.

About Windows

For more extensive information and help about Windows, go to the following from the Start Menu:

- *Help and Support*. View extensive Tablet PC Help. From here you can also view several *Tablet PC Tutorials*.

- *Tour Windows XP*. View an online orientation of Windows XP.

- *Get Going with Tablet PC.* Learn the basic information about using your Tablet PC.

Precautions

You can use your computer under a wide range of environmental conditions. However, to ensure long use and continued high performance, consider the following factors when setting up your computer:

- Follow all warnings and instructions noted in this documentation, including the notification section

- Follow all warnings and instructions noted in **Windows Help and Support**, found on the Start Menu

- The first time you use your computer, we recommend that you carefully read the section on Power Management to familiarize yourself with basic battery information and ensure optimum performance

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

- **CAUTION** Internal components of the Duo-Touch will be damaged if exposed to contaminants. When dust covers, the PC card door, or the bottom access panel are open on the computer, shield the unit from all contaminants such as liquids, rain, snow, and dust.

- Unplug the computer from the power outlet before cleaning. Use a damp cloth for cleaning. Do not use aerosols, solvents, or strong detergents

- Slots and openings in the computer case are for ventilation purposes. Do not block or cover these openings or the system could overheat

- There is a label on the bottom of the Duo-Touch containing information on the power requirements of this system. These requirements must be followed. If you are unsure of your local power supply, consult your dealer or local power company

- Do not step on or place anything on the power cord

- If you use the computer with an extension cord, ensure that the total ampere ratings of all the devices sharing the extension do not exceed the rating of the extension cord or the rating of the wall outlet

- Unless instructed, never push foreign objects into the computer through any of the slots or openings. Dangerous voltages are present, which could cause electric shock, fire, or damage sensitive components

- For best results, use a power strip with a built-in surge protector. Do not use inferior extension cords as this may result in damage to your computer

- Do not operate the Duo-Touch at temperatures above 140°F (60°C) or below -4°F (-20C)

- Do not store the Duo-Touch at temperatures above 167°F (75°C) or below -67°F (-55°C)

The First Time...

Using your computer for the first time involves:

- Connecting the AC Adapter
- Turning the Duo-Touch ON/OFF
- Calibrating the Display

More Basics

The next section, Getting Familiar with Your Computer, contains basic information you need to efficiently use your Duo-Touch.

Startup Problems

If your computer does not start properly, try these solutions:

- Connect the AC adapter to charge the battery if it is not charged.

    NOTE The Power Status LED should be solid blue and the Power LED on the AC adapter should be lit if the AC adapter is connected and functioning properly. Additionally, one of the power icons should appear in the task tray.

- If the AC adapter is connected, make sure the electrical outlet you are using works.

- Check to make sure the battery is installed and charging properly.

- If the battery does not begin charging, remove the battery, connect the AC adapter, and turn on the computer by pressing the power button; then reinstall the battery. The Battery Status LED is orange while the battery is charging.

The Troubleshooting section lists additional solutions you can try.

Tips for New Owner

- **Read the Troubleshooting section for common questions and answers about the Duo-Touch**

- **Take the Windows tutorials**
  Select "Get Going with Tablet PC" from the Start Menu.

- **Take responsibility for backup**
  Back up files often. Users who need to manage large amounts of data may wish to use backup devices such as a ZIP drive.

- **Don't leave passwords anywhere on your notebook or carrying case**

- **Be careful when placing your notebook on an airport security conveyor belt**
  In most airports, security conveyor belts are safe for computers. If you are not sure, ask the security staff. You should keep a close eye on your computer.

- **Tape your business card to the notebook and accessories**
  In the workplace, notebooks and accessories may often look exactly alike, leading to equipment mix-ups. Prevent such mix-ups by placing your name on your equipment.

- **Use a lock**
  For added security, consider purchasing a Kensington lock to put into the security slot on the left side of your computer. Use the Kensington lock to secure the computer to a desk or table.

- **Develop ergonomic work habits**
  The science of ergonomics studies the relationship between health and a suitable work environment. For more information on ergonomics, contact your nearest computer bookstore, or local library. The Internet also has information on this and other related subjects.
  NOTE Using a computer for extended periods of time with a poor workstation setup or incorrect work habits can cause health problems.

Getting Familiar with your Tablet PC

The Itronix Duo-Touch is a rugged, weather-sealed Tablet PC system built for the demanding environment of the mobile worker. This computer is a superior work tool for collecting, managing, and communicating information in the field.

This section describes the external and internal features of your Duo-Touch Tablet PC. This document uses the landscape view as the default orientation.

Front View
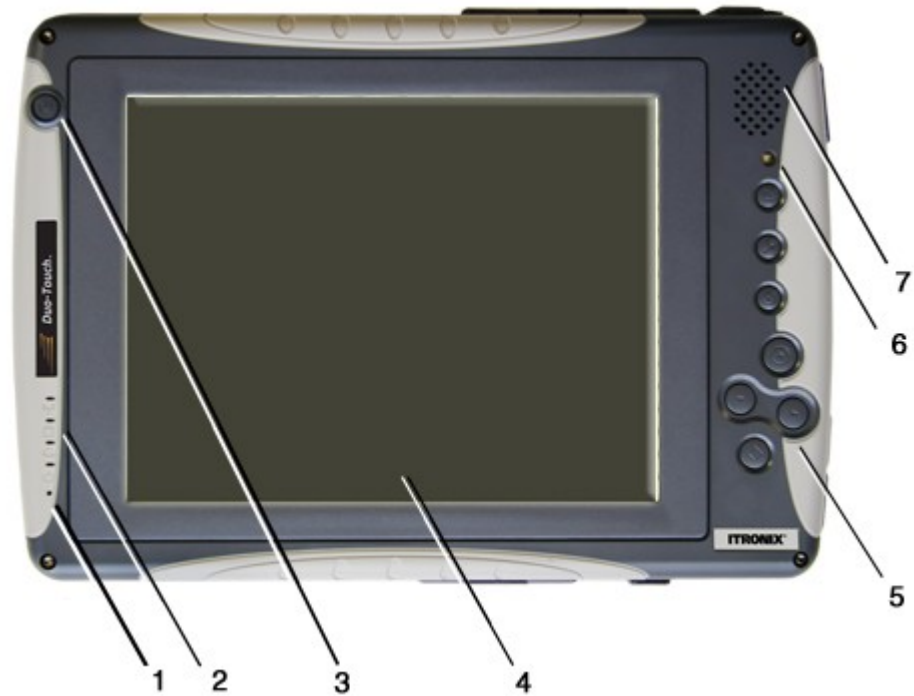
#	Feature	Description
1	Microphone	Use the sealed, integrated microphone for audio input
2	LED Status Indicators	The LEDs light up when a particular function of the computer is active
3	Power Button	Press this button to turn the unit on or off or to hibernate
4	Display	8.4" TFT SVGA Outdoor Transmissive Display with Digitizer Control Panel and Touch Screen
5	Hot Keys	Speeds common functions such as changing the display orientation
6	Ambient Light Sensor	When enabled, the Ambient Light Sensor adjusts the display backlight in response to ambient light conditions. It is disabled by default. See Display and Pen Basics for more information.
7	Speaker	Use the integrated speaker for audio output

Right Side View
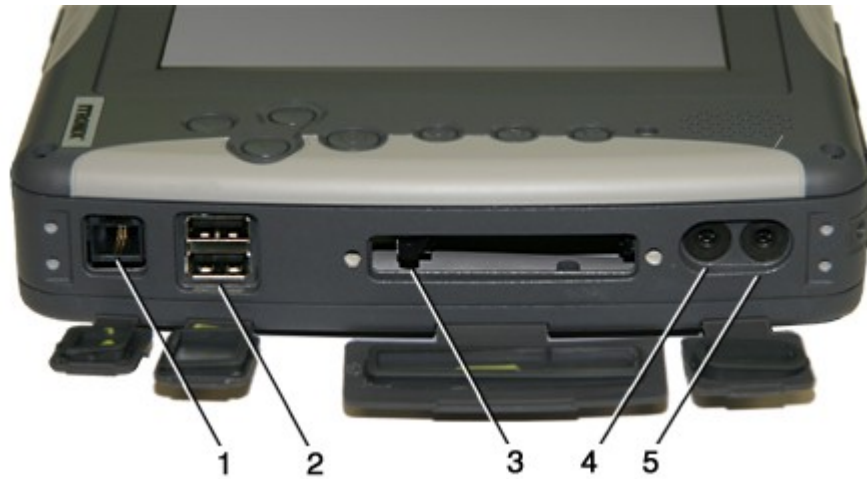
#	Feature	Description
1	Fax/modem RJ-11 Jack	The fax/modem can transmit data using the 56 Kbps V.90 or V.92 protocol, and send and receive faxes at 14.4 Kbps.
2	2 USB 2.0 ports	The Universal Serial Bus (USB) enables you to attach keyboards, mice, scanners, printers and other USB devices. USB devices can be chained together on a single cable.
3	CompactFlash Slot	CompactFlash card support.
4	Audio-Out Jack	Connect external speakers or a stereo headset to this jack to listen to multimedia (mono only).
5	Audio-In Jack	Connect a microphone to this jack to record audio.

Left Side View

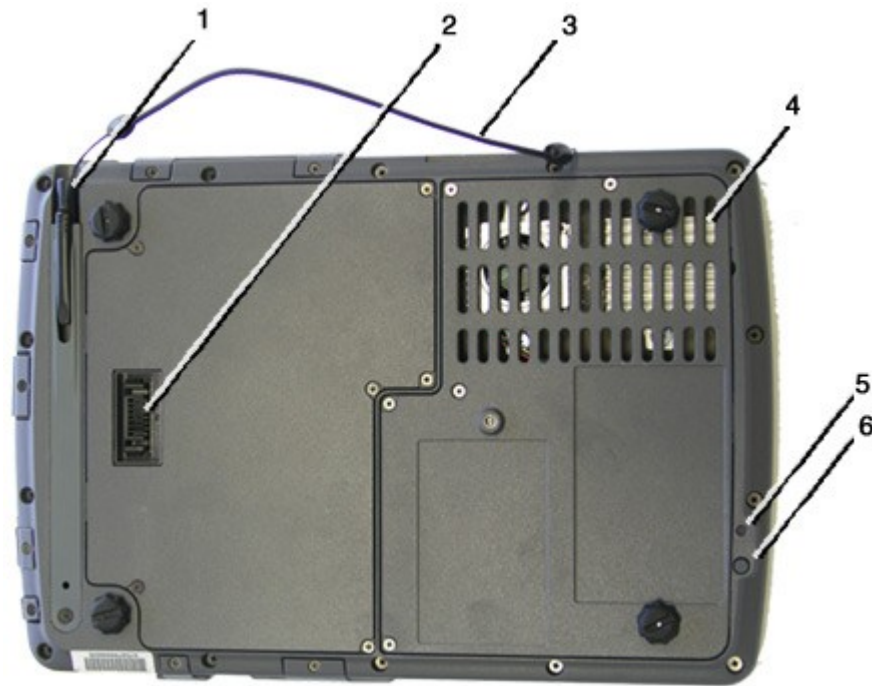| #	Feature	Description
1	Security Slot	Your computer has a Security Slot that can be used with a standard laptop locking device, such as a Kensington Lock.

Top Edge View

#	Feature	Description
1	Pen Storage Slot	Store the pen / stylus here when not using it.
2	LAN RJ-45 Jack	With an Ethernet LAN (Local Area Network) you can make LAN connections without installing PC Cards. Connection speed is 10/100/1000 Mbps.
3	Type II PC Card Slot	The PC Card Slot supports 32 bit Card Bus 2.1 interface as well as Zoom Video when in landscape orientation. You can use this slot with PC Card Radios.
4	Pen Tether Slot	Thread your pen tether through this slot.

Bottom Edge View

#	Feature	Description
1	Multi-IO Extension Slot	Use this Multi-IO extension slot with the Desk Mount or the Vehicle Dock.
2	DC-in Jack	Power the Tablet PC by connecting the AC adapter or vehicle adapter.

Back View

#	Feature	Description
1	Pen / Stylus Slot	Use the pen provided with your Tablet PC to navigate and input on the touch panel display. Store it in the slot when not using it.
2	Second Battery Connector	Attach a second, external battery to this connector to extend battery life.
3	Pen Tether	Attach a pen tether to the tether slot to keep the pen with the Tablet PC.
4	Thermal Grate	Covers the fan. Do not cover this grate while using the Duo-Touch.
5	Master Reset Key	Use the stylus tip in this hole to perform a hard reset of your Duo-Touch. You will then need to press the power button to restart the computer. **CAUTION** Any unsaved files or data will be lost during a hard reset.
6	RF ON/OFF Button	This button turns off Bluetooth and disables WLAN , WWAN, and GPS radios.

ITRONIX®

Buttons and Hot Keys

The Duo-Touch has seven Hot Keys to speed common functions. Additionally, it has a Power Button, an RF On/Off Button, and a Master Reset Key.

Hover the mouse over each number on the picture to see a description

#	Icon	Hot Key	Description
1		Rotate Key	Use this key to switch between portrait and landscape orientation on the display. It rotates the screen in 90° increments. You can also program it to execute a specific function. **NOTES** You will need to calibrate the display for each orientation and choose a primary orientation. Some applications may not display as well in portrait orientation. For example, you may need to scroll right to view all the contents on the page.
2		Security Key	Press this key like you would press **Ctrl**+**Alt**+**Del** on a desktop computer.
3		Escape Key	Press this key to go back or escape to the previous context or window. You can also program it to execute a specific function.
4		Enter Key	Press this key just like you would press **Enter** on a desktop computer. For example, implement an action, navigate deeper or move forward through content.

5		Line Up Key	Press this key to move the cursor up one line. You can also program it to execute a specific function.
6		Line Down Key	Press this key to move the cursor down one line. You can also program it to execute a specific function.
7		Function Key (Fn)	Press this key in combination with another key to perform more functions. See the standard key combinations listed below.

FN + Hot Key Combinations

Fn + Hot Key Combinations	Icons	Description
Fn + Line Up		Page up
Fn + Line Down		Page down
Fn + Enter		Speaker volume down
Fn + Escape		Speaker volume up
Fn + Security		Display brightness down
Fn + Rotate		Display brightness up
Line Down + Line Up		Switch display between digitizer and touch screen option (if equipped) while in Windows

Programming Hot Keys

You can program the **Escape**, **Rotate**, **Line Up** and **Line Down** hot keys to perform specific functions. To program one of these hot keys, do the following:

1.   Select the **Buttons / Device / Brightness Properties** icon 🖥 in the taskbar .

2.   Then, select the **Tablet Button** tab. This allows you to associate any of the above listed buttons with any .exe or .com in the system.
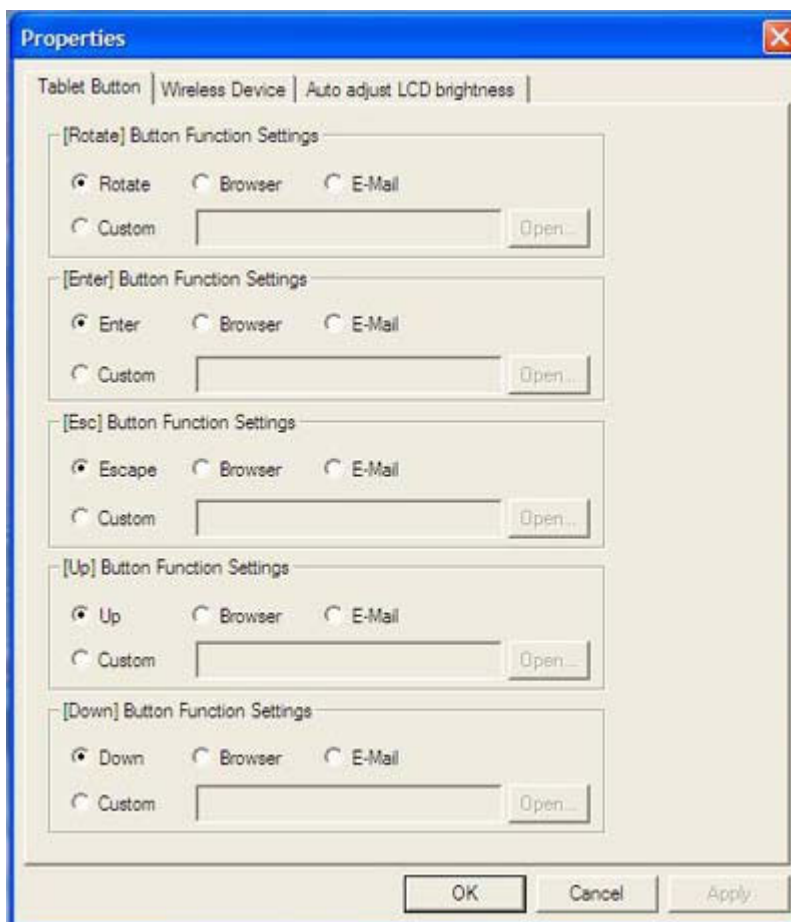
Power Button

The power button is located at the top left corner above the display when the unit is in landscape orientation. Press this button to turn the unit on or off or hibernate.

RF ON/OFF Button

This button is located on the back of the Tablet PC. It turns off Bluetooth and disables WLAN , WWAN, and GPS radios.

NOTE The Bluetooth radio is enabled whenever the unit is turned on, even if the RF ON/OFF button had been used to turn it off.

Master Reset Key

The master reset key is located in a recessed hole on the back of the Tablet PC. To perform a hard reset, insert the end of a paper clip into this hole. You will then need to press the power button to restart the computer.

CAUTION Any unsaved files or data will be lost during a hard reset.

ITRONIX®

LED Status Indicators

The Duo-Touch has four LED status indicators located left of the display when the unit is in landscape orientation. The LEDs light up when a particular function of the computer is active. LED numbers are from top to bottom when the Tablet PC is in landscape orientation.

#	Icon	LED	Light	Description
1		Wireless Radio Status LED	**Solid Blue**	Integrated radio(s) are connected
			Blinking Blue	Integrated radio is active
2		HDD Status LED	**Green**	Accessing the Hard Disk Drive
3		Battery Status LED	**Green**	Fully Charged
			Orange	Charging
			Blinking Red	Battery capacity is less than 10%
4		Power Status LED	**Solid Blue**	Unit is turned on
			Blinking Blue	Suspend to RAM

NOTE LEDs can be disabled by using the Setup Utility to activate Stealth Mode.

Display and Pen Basics

Your Duo-Touch has an 8.4" TFT SVGA outdoor transmissive display with digitizer control panel and touch screen. It is an active matrix color display with integrated graphics capabilities that provides excellent readability both indoors and outdoors.

Changing the Display Orientation

You can change between landscape and portrait orientation by pressing the rotate hot key. Each time you press the key, the screen rotates 90° counter-clockwise. You can also change the orientation via the input panel by tapping **CTRL+ALT** and then selecting one of the arrow keys.

NOTE Some applications may not display properly in portrait orientation.

Ambient Light Sensor

Your Tablet PC display has an ambient light-sensor near the display. It automatically dims the display backlight in low light conditions. When enabled, this feature conserves battery power.

To enable or disable the ambient light sensor, perform the following:

1. Select the **Buttons / Device / Brightness Properties** icon in the taskbar.
2. Select the **Auto adjust LCD brightness** tab.

3. From the auto adjust LCD brightness tab you can activate or deactivate the auto brightness adjust. You can also choose the backlight brightness level for four different categories of ambient light level: dark, indoor, outside, and blaze.

ITRONIX®

Display and Pen Basics

Your Duo-Touch has an 8.4" TFT SVGA outdoor transmissive display with digitizer control panel and touch screen. It is an active matrix color display with integrated graphics capabilities that provides excellent readability both indoors and outdoors.

Changing the Display Orientation

You can change between landscape and portrait orientation by pressing the rotate hot key . Each time you press the key, the screen rotates 90° counter-clockwise. You can also change the orientation via the input panel by tapping **CTRL+ALT** and then selecting one of the arrow keys.

NOTE Some applications may not display properly in portrait orientation.

Ambient Light Sensor

Your Tablet PC display has an ambient light-sensor near the display. It automatically dims the display backlight in low light conditions. When enabled, this feature conserves battery power.

To enable or disable the ambient light sensor, perform the following:

1. Select the **Buttons / Device / Brightness Properties** icon   in the taskbar .
2. Select the **Auto adjust LCD brightness** tab.

3. From the auto adjust LCD brightness tab you can activate or deactivate the auto brightness adjust. You can also choose the backlight brightness level for four different categories of ambient light level: dark, indoor, outside, and blaze.

Adjusting Screen Brightness

If you have trouble reading your display, you can adjust the screen brightness using hot keys. An on-screen brightness bar pops up to show the brightness levels when you press one of the following:

- Press **FN+Rotate** to increase brightness

- Press **FN+Security** to decrease brightness

NOTE If the **Auto Adjust Brightness** function is enabled, the backlight adjustment may change depending on ambient light conditions.

Using the Pen / Stylus

Use the pen /stylus provided with your Duo-Touch Tablet PC like you would use a mouse on a desktop PC. The following common mouse functions can all be performed with your pen:

Single-click: Tap once with the pen

Double-click: Tap twice with the pen.

Right-click: In Digitizer Mode, tap while holding down the button on the pen. In Touch Screen Mode, tap and hold.

Mouse-rollover: In Digitizer Mode, hover your pen above the display. For example, when you roll your mouse over an icon you see a popup description of the icon. Hover your pen over the icon to see this description.

In addition to these mouse functions, you can use the pen to draw or write in some Tablet PC applications.

CAUTION Use only the pen included with the unit. Never use sharp, hard, or abrasive implements on the touch panel such as ball point pens, pencils, or keys. They could damage the screen.

Calibrating the Display

Your Duo-Touch has two touch modes, digitizer touch panel and touch screen. The calibration for each is different. Calibrate the display based on the mode you are using.

Switching Between Digitizer Touch Panel and Touch Screen

Using Hot Keys: Press the **Line Up** and **Line Down** hot keys simultaneously to switch the display between digitizer and touch screen modes while in Windows. You will hear one beep for touch screen mode and two beeps for digitizer mode.

Using Windows:

1.   Select the **Buttons / Device / Brightness Properties** icon   in the taskbar .
2.   Select the **Device On / Off** tab.

3. Select the **Digitizer / Touch Screen** button to change between digitizer and touch screen modes.

Calibrating the Digitizer Touch Panel

1. From the Start Menu, select **Control Panel**.

2. If you are in Classic View continue to step 3. If you are in Category View select **Printers and Other Hardware** and continue to step 3.

3. Select **Tablet and Pen Settings** and then select the **Settings** tab.

4. Under the Calibration field, choose the orientation you want to calibrate, either Landscape or Portrait.
    NOTE The Duo-Touch must be in the orientation you are calibrating and each orientation must be calibrated separately.
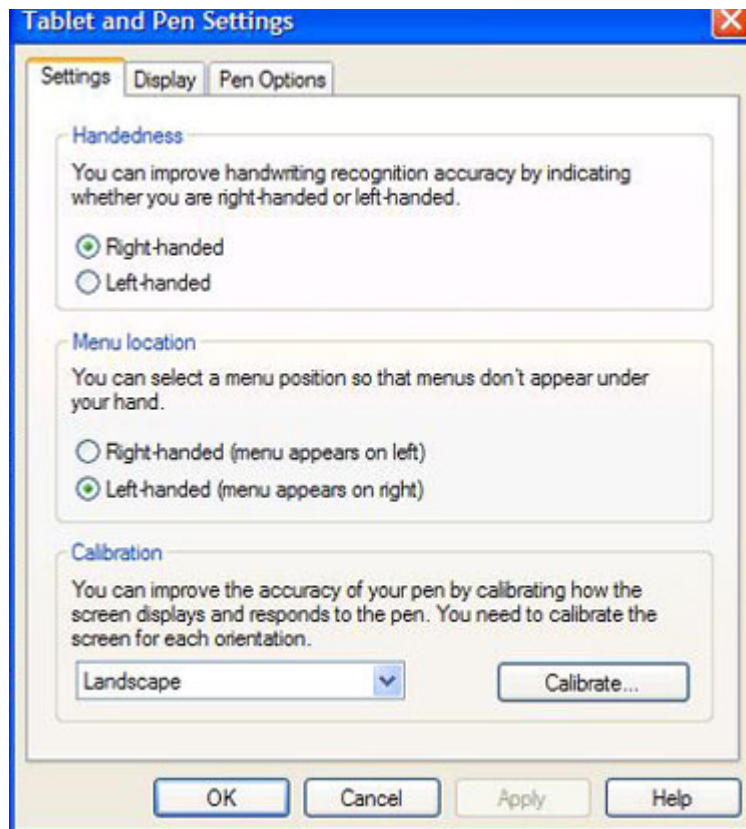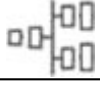
5. Tap the **Calibrate** button.

6. After you have completed calibration by touching the cross-hairs with your pen, select **OK** to have the new settings take effect.

Calibrating the Touch Screen

1. From the Start Menu, select **All Programs, Mobile Computer Tools, Touch Screen Calibrator**.

ITRONIX®

Ports and Connectors

Icon	Ports and Connectors	Connection	Location
	RJ-11	Phone line/modem (internet and fax)	Right Side
	RJ-45	Ethernet	Top Edge
	DC-in	AC Adapter (power)	Bottom Edge
	2 USB 2.0	USB Peripherals such as a mouse or printer	Right Side
	Multi-I/O Extension Slot	Vehicle Dock, Desk Mount	Bottom Edge
	Audio In	Microphone	Right Side
	Audio Out	Speakers or headphones	Right Side
	PC Card Slot	Type II PC Cards	Top Edge
	CompactFlash Slot	CompactFlash Cards	Right Side
no icon	**Security Slot**	Computer lock such as a Kensington lock	Left Side

Disk Drives

Your Duo-Touch comes with several components for reading and writing (recording) information.

The Hard Disk Drive (HDD)

The hard disk drive provides high-capacity storage and fast access. The operating system and most programs are stored here. Your Duo-Touch identifies the hard disk drive as drive C:. Your hard disk drive may include an optional hard drive heater to allow operation in certain environments.

Card Slots

You can also use the PC Card Slot and CompactFlash Card Slot for additional data storage.

Optional External Drives

The Duo-Touch has three USB external drive options. You do not have to power down the Tablet PC to connect any of these drives because they are "hot pluggable".

- **USB Floppy Disk Drive (FDD):** The floppy disk drive provides a convenient way of storing and transferring small files. It uses standard 3.5-inch, 1.44 MB disks.

- **USB CD-ROM Drive:** The CD-ROM drive can be used to read data from CDs, including audio or video CDs.

- **USB DVD / CD-RW:** The DVD / CD-RW drive is a read/write drive. It can be used to write data to a recordable CD. It can also read data from DVDs and CDs, including audio or video disks.

NOTE The Duo-Touch identifies the drive with the letter following the highest partition letter. For example, if your highest drive partition is drive E:, the DVD/CD-RW or CD-ROM will be assigned to drive F:. However, the floppy drive will always get assigned to drive A: or B:.

Precautions for Handling DVDs and CDs

Keep these precautions in mind when handling DVDs and CDs.

- Always hold the disk by the edges; avoid touching the surface of the disk

- Use a clean, dry, cloth to remove dust, smudges, or fingerprints. Wipe from the center outward

- Do not write on the surface of the disk

- Extremes in temperature may damage disks. Store disks in a cool dry place

- Do not use benzene, thinners, or cleaners with detergent. Only use cleaning kits designed for DVDs or CDs

- Do not bend or drop the disks

- Do not place objects on top of disks

- Do not expose to direct sunlight for long periods

Making Connections

Your Duo-Touch is equipped with a full array of ports and connectors, including standard input/output (I/O) ports for quickly and easily adding peripherals such as a USB printer. Refer to documentation included with individual devices for details on connecting these devices to your computer. Along with the standard ports found on most computers, your computer also includes modem and LAN ports for advanced communications technology.

CAUTION Internal components of the Duo-Touch will be damaged if exposed to contaminants. When dust covers, the PC card door, or the bottom access panel are open on the computer, shield the unit from all contaminants such as liquids, rain, snow, and dust.

Attaching Power

You can operate the computer while the battery is charging, while on external power or on battery power only.

Attaching the AC Adapter

1. Connect the supplied AC adapter power cord to the AC adapter.
2. Connect the AC adapter to the DC power port on your computer.
3. Connect the AC adapter power cord to an AC outlet.

Alternately, you can attach the optional vehicle adapter.

Turning the Duo-Touch On and Off

To turn on the computer

Press the power button once, and then give the system time to respond. The Power LED should illuminate and the unit should boot into Windows XP Tablet PC Edition 2005.

To turn off the computer

1. From the Start menu, select **Turn Off Computer**.
2. Then, select **Turn Off.**

3. If you need to leave the system for a short time, or if you want to conserve battery power, you can put the computer into hibernation mode by pressing the power button. See Power Management for additional information.

CAUTION Shutting down the computer improperly could result in lost or corrupted data.

Ethernet

The Ethernet LAN (RJ-45 Jack) on the top edge of the computer enables you to make LAN connections without installing PC cards. Connection speed is 10/100/1000 Mbps.

Internet and Fax

The fax/modem RJ-11 jack can transmit data using the 56 Kbps V.90 or V.92 protocol, and send and receive faxes at 14.4 Kbps. In some countries, local regulations may not permit the use of the fax/modem designed for this system. In this case, you may use a PCMCIA modem.

CAUTION Plug your modem into an analog telephone jack only. Most homes use analog lines. Do not use digital lines, such as PBX and ISDN systems found in many offices. Digital lines may damage your modem. If you are unsure as to the type of port you have to plug into, contact your building superintendent. Simple detection and protection devices are also available at most computer stores and should be used to protect the Duo-Touch.

Attaching USB Devices

The two Universal Serial Bus (USB) 2.0 ports enable you to attach USB devices such as keyboards, mice, scanners, and printers. USB devices can be chained together on a single cable.

ITRONIX®

Using PC Cards

The Duo-Touch has a Type II PC Card Slot located on the top side of the computer. It supports 32 bit Card Bus 2.1 interface as well as Zoom Video when in landscape orientation. You can use this slot to interface between your Duo-Touch and a variety of communications devices, such as network adapters, SCSI adapters, fax/modems, and PC Card Radios. It can also provide additional data storage capacity.

Installing a PC Card

1. The top side of a PC Card is usually identified with a label. Insert the card into the slot with the top up and the edge with pinhole contacts going in first. You will feel some resistance as the card slides into the back of the slot.

2. PC Cards require drivers, or a program that allows the operating system to use a specific device. Many drivers are included with Windows, but if not, you will be prompted to install the driver included with your card.

   NOTE Please read the instructions included with individual PC Cards. Some cards may be inserted with power on, while others require that the computer be turned off.

Removing a PC Card

1. If a PC Card is in use, you must shut down the Card before removing it.

2. Select the Safely Remove Hardware icon on the right side of the Windows tray taskbar .

3. Choose the PC Card from the list of devices; then select Stop and OK.

4. When the Windows message appears, telling you that it is safe to remove the card, select OK.

5. Press the eject button (1) on the PC Card slot to release the eject button. It is spring loaded and remains hidden until it is pressed.

6. Press the eject button again to release the PC Card.

ITRONIX®

Using CompactFlash Cards

Your Duo-Touch can use Type 1 CompactFlash Cards for secure data storage. If you store any user-installed application programs and associated data on CompactFlash, these programs and data will not be lost after a hard reset. Files stored on CompactFlash Cards can be created, deleted, moved and amended in exactly the same manner as files stored in memory.

Installing a CompactFlash Card

1. Open the CompactFlash port cover on the right side of the computer.
2. Position the CompactFlash Card with the label facing up and carefully insert it into the socket. Your Duo-Touch should automatically detect most CompactFlash Cards.

Removing a CompactFlash Card

1. If a CompactFlash Card is in use, you must shut down the Card before removing it.
2. Select the Safely Remove Hardware icon 🔌 on the right side of the Windows tray taskbar .
3. Choose the CompactFlash card from the list of devices; then select Stop and OK.
4. When the Windows message appears, telling you that it is safe to remove the card, select OK.
5. Press the eject button on the Card slot to release the eject button. It is spring loaded and remains hidden until it is pressed.
6. Press the eject button again to release the CompactFlash Card.

72_0127_001
05 May 2005

Audio

Your Duo-Touch has integrated audio as well as audio jacks so you can connect external audio components

#	Feature	Description
1	Microphone	Integrated microphone for audio input
2	Speaker	Integrated speaker for audio output
3	Audio-out jack	Connect external speakers or a stereo headset
4	Audio-in jack	Connect an external microphone for audio recording

Changing the volume

- Use the volume function keys; or
- Open the Windows volume control program by double-tapping the speaker icon in the taskbar.

Securing the Tablet PC with a Lock

Your computer has a Security Slot (1) on the left side. It can be used with a standard laptop locking device, such as a Kensington Lock. You can connect the Duo-Touch to a large object with the lock to prevent theft of your Tablet PC. See the documentation that comes with your lock for more information.

Attaching to the Desk Mount or Vehicle Dock

Use the Multi-IO extension slot to connect the Desk Mount or the Vehicle Dock or custom external devices.

Wireless Communication

The Duo-Touch has superior wireless capabilities. Depending on your configuration, it supports up to four wireless radio technologies: GPRS / EDGE or 1xEV-DO, Bluetooth, Wireless LAN (WLAN), and GPS.

It includes three antennas for wireless communication; two internal antennas and one PC-Card Radio antenna.

Use only the supplied or an approved antenna(s). Unauthorized antennas, modifications, or attachments could impair call quality, damage the phone, or result in violation of FCC regulations.

Your Duo-Touch has an RF ON/OFF button on the back. This can be used to turn off Bluetooth, and disable WLAN , WWAN, and GPS radios.

Bluetooth Radio (optional)

The Duo-Touch includes an integrated Class 2 Bluetooth option. Its typical range is 10 meters.

NOTE Using the Bluetooth radio and the WLAN radio at the same time will degrade the WLAN radio's performance.

Turning the power to the Bluetooth or WLAN radios on or off

1. Turn your Tablet PC over so you are looking at the back.
2. Press the radio on/off button.

Read About Bluetooth

Bluetooth systems create a personal-area network (PAN), that may fill a room or may encompass no more distance than that between the cell phone on a belt-clip and the headset on your head.

When Bluetooth-capable devices come within range of one another, an electronic conversation automatically takes place to determine whether they have data to share or whether one needs to control the other. The devices form a network.

Once this network is established, the devices randomly hop frequencies in unison so they stay in touch with one another and avoid other networks that may be operating in the same room.

One of the ways Bluetooth devices avoid interfering with other systems is by sending out very weak signals of 1 milliwatt. By comparison, the most powerful cell phones can transmit a signal of 3 watts. The low power limits the range of a Bluetooth device to about 10 meters, cutting the chances of interference between your computer system and your portable telephone or television. Even with the low power, the walls in your house won't stop a Bluetooth signal, making the standard useful for controlling several devices in different rooms.
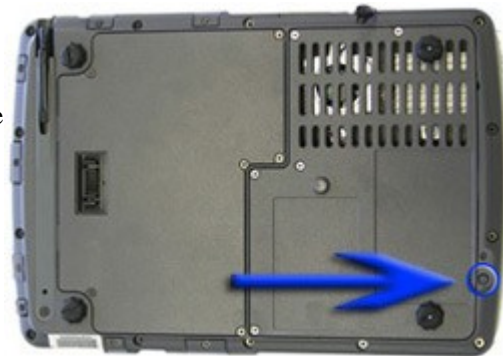
WLAN Radio (optional)

The Duo-Touch has an integrated 802.11b WLAN radio option. Its typical range is 100 to 300 meters in open spaces and 30 to 100 meters indoors. An internal antenna is provided for the WLAN radio.

NOTE Using the Bluetooth radio and the WLAN radio at the same time will degrade the WLAN radio's performance.

Turning the power to the Bluetooth or WLAN radios on or off

1. Turn your Tablet PC over so you are looking at the back.
2. Press the RF ON/OFF button.
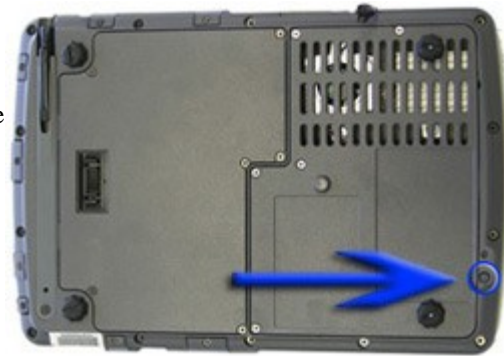
Read About WLAN

A wireless local-area network (WLAN) provides all the features and benefits of traditional LAN technologies, such as Ethernet and Token Ring, without the limitations of wires or cables. This means connectivity does not depend on an infrastructure buried in the ground or hidden behind the walls. Instead connectivity needs can move and change at the speed of the organization. This technology has several immediate applications, including:

- IT professionals or business executives who want mobility within the enterprise, perhaps in addition to a traditional wired network

- Business owners or IT directors who need flexibility for frequent LAN wiring changes, either throughout the site or in selected areas

- Any company whose site is not conducive to LAN wiring because of building or budget limitations, such as older buildings, leased space, or temporary sites

- Any company that needs the flexibility and cost savings offered by a wireless, building-to-building bridge to avoid expensive trenches, leased lines, or right-of-way issues

WLANs use a transmission medium, just like wired LANs. Instead of using twisted-pair or fiber-optic cable, WLANs use either infrared light (IR) or radio frequencies (RF). Of the two, RF is far more popular for its longer-range, higher- bandwidth, and wider coverage. Most wireless LANs today use the 2.4-gigahertz (GHz) frequency band, the only portion of the RF spectrum reserved around the world for unlicensed devices. The freedom and flexibility of wireless networking can be applied both within buildings and between buildings.

Read About In-Building WLANs

WLAN technology can take the place of a traditional wired network or extend its reach and capabilities. Much like their wired counterparts, in-building WLAN equipment consists of USB , Personal Computer Interface (PCI), and Industry-Standard Architecture (ISA) client adapters, as well as access points, which perform functions similar to wired networking hubs. Similar to wired LANs for small or temporary installations, a WLAN can be arranged in a peer-to-peer or ad hoc topology using only client adapters. For added functionality and range, access points can be incorporated to act as the center of a star topology and function as a bridge to an Ethernet network as well.

Within a building, wireless access points enable computing that is both mobile and connected. With a WLAN installed in a notebook or hand-held PC, users can move freely within a facility while maintaining access to the network.

Applying wireless LAN technology to desktop systems provides an organization with flexibility impossible with a traditional LAN. Desktop client systems can be located in places where running cable is impractical or impossible. Desktop PCs can be redeployed anywhere within a facility as frequently as needed, making wireless ideal for temporary workgroups and fast-growing organizations.

Read About Building-to-Building WLANs

In much the same way that a commercial radio signal can be picked up in all sorts of weather miles from its transmitter, WLAN technology applies the power of radio waves to truly redefine the "local" in LAN. With a wireless bridge, networks located in different buildings can be integrated into a single local-area network. When bridging between buildings with traditional copper or fiber-optic cable, freeways, lakes, and even local governments can be impassible obstacles. A wireless bridge makes them irrelevant, transmitting data through the air and requiring no license or right of way.

Without a wireless alternative, organizations frequently resort to wide area networking (WAN) technologies to link together separate LANs. Contracting with a local telephone provider for a leased line presents a variety of drawbacks. Installation is typically expensive and rarely immediate. Monthly fees are often quite high for bandwidth that by LAN standards is very low. A wireless bridge can be purchased and then installed in an afternoon for a cost that is often comparable to a T1 installation charge alone. Once the investment is made, there are no recurring charges. In addition, today's wireless bridges provide the bandwidth one would expect from a technology rooted in data, rather than voice, communications.

Read About Combination WLANs

Recently a combination of the in building and building to building WLAN has been developed. Two examples are parking lots that are equipped with outdoor access points and vehicles that are equipped with access points.

In the first example, a user is connected and disconnected with the company LAN as they approach or leave the parking area. This allows the user full fast access while in the vehicle. In most cases, the user will still be able to gain access to a portion of the company LAN through a slower and more expensive RF or landline WAN while they are outside of the WLAN area.

In the second example, a user connects to the company WAN with an RF modem located inside the vehicle. When the user leaves the vehicle, the computer is connected to the vehicle using a WLAN connection. The vehicle can either contain a store of information or simply be a pass through to the WAN.

WWAN Radios

Your Duo-Touch supports two integrated WWAN (Wireless Wide Area Network) radio technology options, GPRS/EDGE or 1xEV-DO. Both radio options include Watcher™ network monitoring software.

GPRS / EDGE option

The integrated Sierra Wireless AirCard™ 775 network card for GPRS / EDGE data connections supports quad-band (800/900/1800/1900 MHz) for worldwide GSM frequency bands. For specific information about your GPRS / EDGE radio, please refer to the manufacturer's documentation.

1xEV-DO option

The integrated Sierra Wireless AirCard 580 network card for CDMA 1xEV-DO data connections up to 2.4 Mbps supports dual-band (800/1900 MHz) frequency. For specific information about your 1xEV-DO radio, please refer to the manufacturer's documentation.

PC Card Radios

Your Duo-Touch supports several PC Card radios:

- CDMA 1xEV-DO/1xRTT (850/1900Mhz)
- GSM / GPRS (900/1800Mhz and 1900Mhz)

See the PC Card Radio manufacturer for more information on using each radio.

Read About CDMA

CDMA is a digital cellular technology that enables multiple users to share the same radio spectrum at the same time without compromising quality or security. It does this by encoding each conversation with a unique digital code called Pseudo-Random Code Sequence (PRCS). It then breaks up the conversation and spreads it over many frequencies. The conversation is reassembled on the end using the PRCS. This spread-spectrum technique requires less power and enables greater capacity than analog radios. It also enables each call to be secure and free from interference.

Along with excellent voice support, CDMA offers three types of data services:

- SMS sends, receives and acknowledges short text messages similar to a two-way pager.
- Circuit-switched data enables dial-up modem connections over the cellular network at speeds up to 14.4 kbps.
- Packet-switched data provides Internet Protocol connectivity at speeds up to 153 kbps.

Read About GSM / GPRS

Global System for Mobile Communications (GSM) is a digital cellular technology that uses Time Division Multiple Access (TDMA) where up to eight simultaneous calls can coexist on the same radio frequency. GSM is a globally accepted standard that gives mobile users quality, secure voice and data transmission worldwide. Along with voice support, GSM provides data support including Circuit Switched Data and Short Message Service (SMS).

General Packet Radio Service (GPRS) adds value to the GSM network by providing high-speed wireless Internet and data communication using instant connections. The user can send and receive data immediately without dial-up modem connections and at much greater speeds than available with traditional GSM networks. GPRS uses packet switching technology where the data is broken up into smaller, related "packets" before transmitting and reassembling the content at the other end. This means radio resources are only used when actually transmitting and receiving, freeing bandwidth for more users.

Improving Radio Coverage

Wireless connectivity between radio-equipped portable terminals and host computers is unique and maintaining this wireless connectivity over a wide area is fundamental to the usefulness of the network. As such, the scope and reliability of radio coverage is a primary concern. Therefore, one of the most important features of the wireless network is the degree of radio coverage provided. Coverage is influenced by terrain, buildings or a crowded room. There are many things that can be done to improve coverage depending on location.

In any location

1. Performance can vary significantly at different times of the day.
2. Weather can affect performance.

On the street

1. Try all sides of a building to see which side provides the strongest radio signal.
2. Move from under trees. Pine needles absorb radio signals more than leaves.
3. Move away from overhead electrical wires.
4. Radio signals reflect off other buildings. Even in the signal shadow, the signal could be reflected back by another building.
5. Try not to hold the unit. If possible, place it in vehicle, on a cabinet or desk.
6. If holding the unit, turn the unit in 90-degree increments to avoid shielding it with your body.
7. The signal is 1 - 2 feet across; therefore, moving several feet in any direction may give different results.

Inside a Building

1. Move toward windows.
2. Signals do not penetrate ground, therefore, there will probably be no signal in basements.
3. Reflective coatings on windows reflect radio signals. Try the side of the building that is least likely to have coated windows.
4. Closed metal blinds can reflect radio signals.
5. Dropped ceilings sometimes hide an accumulation of electrical cable.

Electromagnetic Interference (EMI)

1. Electromagnetic Interference (EMI) is generated by switching circuitry closets or Un-interruptable Power Source (UPS) systems found near computer rooms and can block the radio signal.
2. Look for significant sources of electromagnetic radiation. The problem may emanate from a source between location and the radio base station.

When to use landline communication

If these tips do not improve radio signal strength, switch to landline communication. Switching to landline communication is faster than searching for and trying to improve the radio signal.

Power Management

The Duo-Touch uses dynamic power management (DPM) so you can reduce the amount of energy used, especially during periods of inactivity. Effective use of power management options can greatly conserve and extend your battery life.

Your Duo-Touch includes a smart Li-ION battery pack and a Real Time Clock coin battery. There is also an optional second external battery pack that effectively doubles your battery powered runtime.

ITRONIX®

Battery Calibration

The battery calibration process empties and charges the battery one time. This allows the Windows battery gauge to accurately monitor battery status.

It is recommended you calibrate your battery:

- the first time you use it
- after it has been stored for awhile
- if the gas gauge has become inaccurate.
- for optimum performance, we recommend calibrating the battery and optional secondary battery every three months

You can calibrate your main battery or optional second external battery from the BIOS Setup Utility. You can also calibrate the main battery from within Windows.

Windows Level Battery Calibration

To run the Battery Calibration program from Windows, select **Start, Programs**, and **Mobile Computer Tools**.

After starting calibration, the Battery Calibration application requires no further input from the user. The calibration consists of four steps:

1. Partial Discharge.
2. Charge - the battery is fully charged to 100 %.
3. Discharge and calibrate:
   First, the battery is discharged all the way down to zero. Then the battery is 'calibrated' but not charged. You may stop the process after this point and let the battery charge outside of the Battery Calibration application.
4. Charge - if the Battery Calibration continues running, the battery will fully charged to 100%.

NOTE The unit will not go into suspend mode while Battery Calibration is running.

CAUTION Do not disconnect AC power while Battery Calibration is running. If AC remains disconnected for more than two minutes, the application will terminate.

CAUTION Do not remove the battery while Battery Calibration is running. Doing so will cause the application to terminate immediately.

BIOS Level Battery Calibration

1. Plug in the AC adapter.
2. Restart the computer and when the startup screen appears, press the **Enter** hot key. This starts the Setup Utility.
3. Select the Setup function "Battery Calibration". Press the **Line Up** or **Line Down** keys to select the option
4. Press **Enter** to continue.

```
Please choose Setup Function (note:on all setup screen, tap the screen
                                    to display the Tablet PC Input Pad)
        CMOS Setup Menu

        Battery Calibration


    Exit. (System Reboot)




[↑] , [↓] To select option.   [Enter] To continue.
```
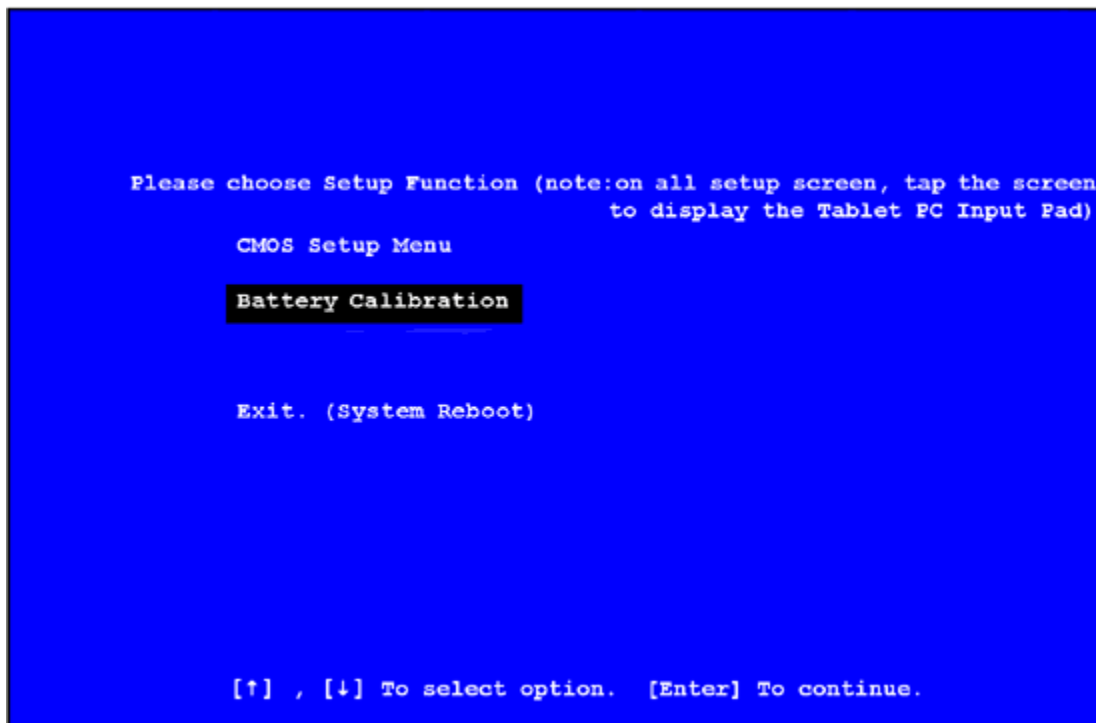
5. Next, choose which battery you want to calibrate, the primary battery or optional secondary battery.

```
The calibration process empties and charges the battery. This allows the
Windows battery gauge to accurately monitor battery status.
Battery Calibration will take from 10 to 16 hours, depending on how much
power the battery may already contain.

Primary Battery (Last Calibration Date:12/16/2004 Capacity= 3672mA/h)

Secondary Battery

Exit.




[↑] , [↓] To select option.   [Enter] To continue.
```
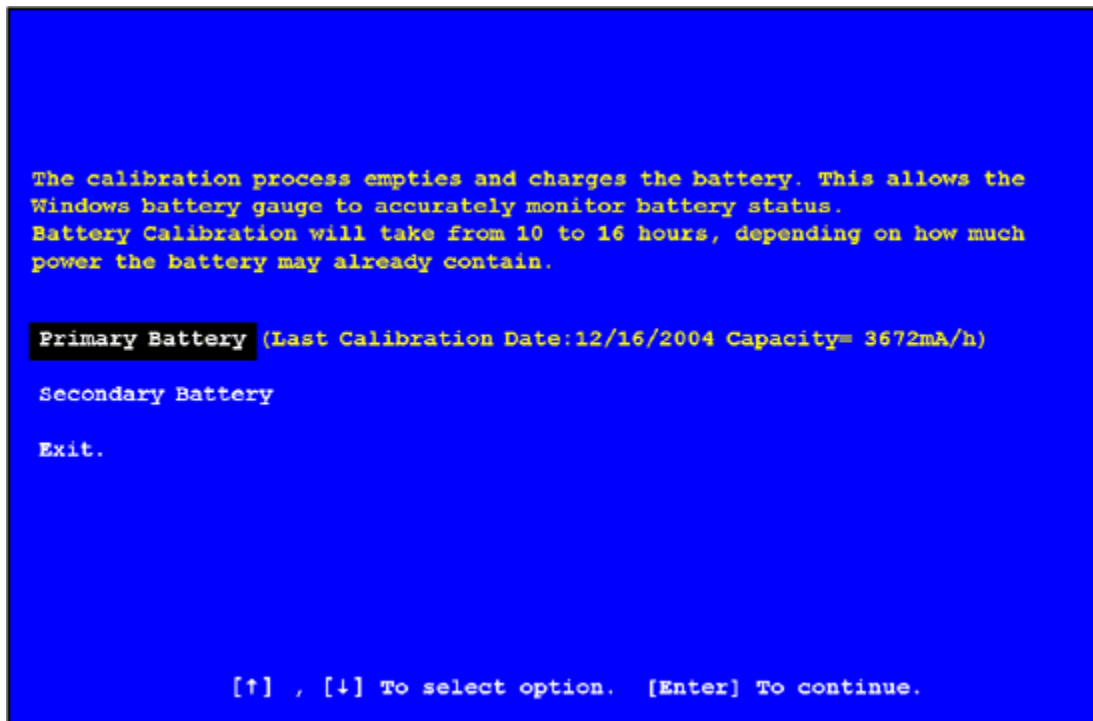
6. You will be prompted to make sure the AC adapter and Battery are present. Do this and then Select **Yes** to begin "battery auto-learning".

Battery Calibration takes from 10 to 16 hours, depending on how much power the battery already contains. You can speed up calibration by starting with a fully charged battery.

Battery Charging

When you use the AC adapter to connect your Duo-Touch to a power outlet, the internal battery automatically begins to recharge. While the battery is charging, the Battery Status LED turns orange after 6-12 seconds and stays solid orange until the battery is fully charged. Then it turns green.

If your computer is turned off, a fully discharged battery takes about 3 hours to recharge. If your computer is turned on and is not in suspend mode , it takes about 3-5 hours to recharge the battery. Refer to the following table:

	Charging	**Discharging**
System On	3-5 hours	3 hours
System Off (Suspend to RAM and Suspend to Disk)	3 hours	_

NOTE A fully charged Li-Ion battery can run the Tablet PC for approximately 3 hours of normal use. (According to Battery Mark benchmark tests). Use of external devices, the media bay and wireless radio causes increased battery consumption.

If a second external battery is attached to your Duo-Touch, this battery will begin charging once the main battery is fully charged.

Using the Battery

About the Battery

The battery is a Lithium-Ion "smart" battery. It contains a temperature sensor and a memory device that stores information about the battery, such as how much charge is left and how many times it has been recharged. The parameters for the "management" of the battery are also kept in the battery's memory. The life expectancy will depend strongly on the care of the battery, the individual usage pattern and the Duo-Touch specific configuration.

CAUTION Shutdown the computer and remove from external power before removing the battery to prevent potential loss of data.

The battery pack is most efficient at room temperature. However, its efficiency fails as the temperature varies from that range. The chart below shows approximate capacity values with respect to temperatures.

Temperature	Capacity
-10°C	50%
0°C	80%
20°C	100%
45°C	100%
55°C	80%

To prevent damage, the charge circuitry is turned off for temperatures that are too high (above approximately 115°F or 46°C) or too low (below approximately 32°F or 0°C). Your Duo-Touch is equipped with a fan to remove heat from the processor.

CAUTION The Thermal Grate gets warm during use of the Duo-Touch. Do not block the flow of air to the Thermal Grate.

NOTE A "cold-soaked" battery has an even lower capacity and may not power a unit.

Monitoring Battery Power

There are two ways to monitor how much power the battery has left:

1. Hover your pen over the battery icon in the taskbar to check your battery power status. The status will show as a pop-up.
2. Alternately, select Start, Control Panel. If you are in Category View, select **Performance and Maintenance**, and then select **Power Options**. If you are in Classic View, select **Power Options** and then tap the **Power Meter** tab to see how much battery power remains.

NOTE If you do not see the battery icon, enable it in **Start, Control Panel, Power Options**. Choose the Advanced tab and select "Always show icon on the taskbar."

Low Battery Alarms

How your computer responds to a low battery condition can be set by going to Start, Control Panel, Power Options, and selecting the Alarms tab.

Two different power alarms can be enabled or disabled: the Low Battery Alarm, and the Critical Battery Alarm. Use the slide bar to set the power level at which the alarms are activated. Click on the Alarm Action button to choose whether the alarm sounds, displays a message, or both.

CAUTION When battery power is low, the Battery Status LED will blink red and the alarm will beep or display a warning on your screen. Take immediate action, such as saving files or connecting to the AC adapter , or data may be lost.

When the computer alerts you that the battery is low, immediately do one of the following:

- Connect the AC power adapter
- Save your work and suspend to disk (Hibernate) by pressing the Power Button
- Save your work and then select Turn Off Computer, Turn Off from the Start menu
- Turn off the computer (or suspend to disk) and replace the discharged battery with a charged battery (See Battery Replacement)

NOTE Do not restart the computer until you have connected to an AC adapter, or replaced the discharged battery with a charged battery.

Power Saving Modes

Adjust the default power management settings by going to **Control Panel, Power Options**.

Power Button

On the **Advanced** tab of **Power Options,** the **Power buttons** dialog box allows you to set different actions to take when the power button is pressed. You may have the Tablet PC standby, hibernate, or shut down altogether. You can also have the power button do nothing (not recommended) or specify a choice between standby, restart and turn off.

CAUTION holding the Power Button down for more than ten seconds will force a power off while operating under any situation, resulting in the loss of any unsaved information.

Standby

Most devices are powered down in a low power state. Resume the unit by pressing the power button once to resume to point at which the unit was suspended.

Hibernate

Suspend to Disk is similar to turning off the computer, except that the current state of the computer is copied to the hard disk as a special file. When the computer returns from suspend mode , the desktop appears with the same files and programs open as when the computer was suspended. Suspend to Disk is very useful when you don't want to take the time to shut down all open programs one by one to shut off the computer, only to have to open the same programs and files the next time you use the computer. This mode is also called hibernation mode.

Suspend-to-disk File

The Suspend to Disk file will be saved by Windows to the hard disk. The size of the file corresponds to the amount of system memory. Please make sure there is enough space on the hard disk.

Shut Down

System is shutdown.

Initiating Suspend Mode

There are three ways to initiate suspend mode. The settings can be adjusted in the **Power Schemes** tab in **Power Options**:

1. When not used for a set period of time, the computer automatically enters suspend mode
2. Select **Start, Turn Off Computer, Stand By**
3. Press the **Power Button** (if enabled in **Power Options**)

Power Saving Tips

Avoid operating the fax/modem, or audio and video applications when using battery power. Operating a fax modem, video, or audio equipment or turning on the Wireless LAN increases the computer's power requirements.

Decreasing display brightness can also save power. Decrease brightness by pushing **FN**+**Security**. Increase it by pushing **FN**+**Rotate**.

Battery Installation and Replacement

Over time, the battery's capacity gradually decreases. We recommend that you replace your battery when you notice that it begins to store significantly less charge. Change the main battery pack as follows (you may want to print this topic for reference):

CAUTION The Duo-Touch battery and unit are only weather sealed when the battery is properly installed and the battery door is closed. Keep the battery door closed and all screws are in place and secure when the unit is in use to prevent damage. Shelter the computer when you install or replace the battery.

Installing the Battery

1. Turn off the computer.
   CAUTION The Duo-Touch should always be shut down prior to battery removal, because data may be lost when the battery is removed.

2. Unplug the power supply if connected.

3. Turn the computer upside down.

4. Remove the three screws on the secondary battery, if installed and remove the battery.
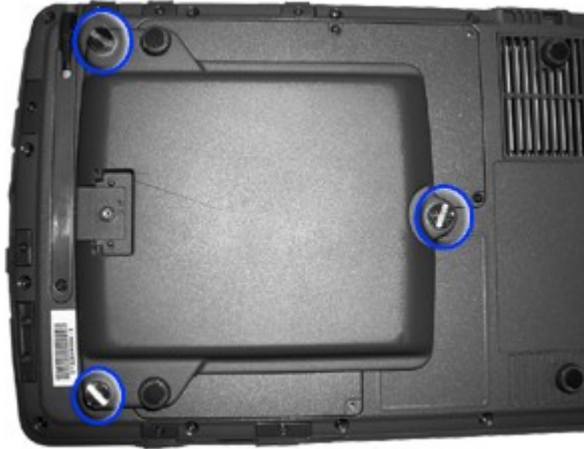
5. Using a Phillips screwdriver, remove the six screws from the battery cover and remove the battery cover.
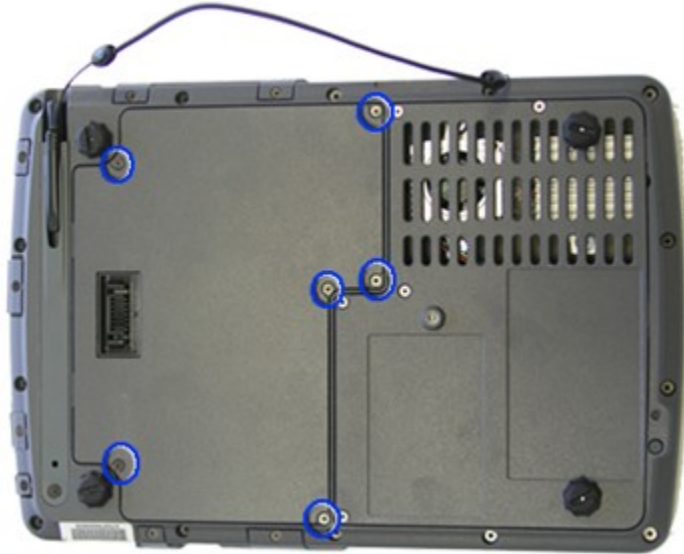
> **CAUTION** Internal components of the Duo-Touch will be damaged if exposed to contaminants. When dust covers, the PC card door, or the bottom access panel are open on the computer, shield the unit from all contaminants such as liquids, rain, snow, and dust.

6. Using the tab on the battery, lift the battery pack up and out of the battery bay.

7. Orient the replacement battery correctly and insert it into the battery compartment, making sure it is fully seated.

8. Replace the battery cover over the battery bay and install the six screws.

9. Install the secondary battery if equipped.

10. Completely charge the battery before using the Tablet PC on battery power.

NOTE When the battery is installed and the computer is connected to AC power, it starts charging automatically. At moderate temperatures, approximately 70° Fahrenheit (21°C), the battery will be fully charged in 3-5 hours. In warmer or cooler temperatures, the battery can take much longer to fully charge. Battery calibration is disabled if the temperature is > 122°F (50°C) or < 41°F (5°C).

Replacing the Real Time Clock Battery

The Real Time Clock has a replaceable coin battery located under the battery pack. Only replace with the same coin cell type as the original.

1. Remove the battery pack.
2. Lift the coin battery out of the holder.
3. Install a new coin battery with the positive terminal up.
4. Re-install the battery pack.

Battery Tips

Tip 1. Avoid excessive heat and cold

- Your battery will last longer during the day if it is used, charged and stored between 50°F and 86°F (10°C and 30°C).

- Charge the battery nightly where the temperature will remain around 68°F (20°C). Your battery may not last as long through the day if you charge it at higher or lower temperatures.

- Allow unrestricted airflow while the computer is connected to external power. Make sure that the fan inlet and outlet are unobstructed.

- Avoid exposing batteries to hot or cold temperatures for long periods.

How your battery behaves in warm conditions

- To prevent possible damage to the battery, the system may not allow a charge if the battery temperature is above 122°F (50°C), such as in a closed, unattended vehicle during the summer. In this case, the Battery Power Indicator may indicate that the computer has stopped charging your battery; however, your battery may not be fully charged.

- If possible, turn off or suspend your computer while the battery is charging in a warm environment to avoid over-heating.

- In warmer temperatures, your battery may take much longer to fully charge.

How your battery behaves in cold conditions

- When using a battery in cold conditions, the battery capacity may drain significantly faster.

- To prevent possible damage to the battery, the system will not allow a charge if the battery temperature is below 41°F (5°C), such as in a closed, unattended vehicle during the winter. In this case, the Battery Power Indicator may indicate that the computer has stopped charging your battery; however, your battery may not be fully charged.

- In cooler temperatures, your battery can take much longer to fully charge.

Tip 2. Prevent wasted power

- Manually turn off or suspend your computer whenever you are not using it.

- Reduce the screen brightness. Decrease brightness by pushing **Fn + Rotate**. Increase it by pushing **Fn + Security**.

- Use the AC adapter or vehicle adapter whenever possible.

- Select either the **Portable/Laptop** or **Max Battery** power scheme. Both of these power schemes help to conserve battery power. **Max Battery** provides the most battery conservation by always keeping the processing speed lower. However, this may affect your application performance. **Portable/Laptop** automatically adjusts the processing speed as required by your applications.

- When running on battery power, make sure your system suspends automatically after a few minutes of inactivity. PC Cards, radios, custom applications, or modified system settings may affect this.

- Remove PC Cards and unplug peripherals when you are not using them. They may draw power from the system even when not in use.

- Avoid operating the fax/modem, or audio and video applications when using battery power. Operating a fax/modem, video, or audio equipment increases the computer's power requirements.

- Don't use screen savers as they draw excessive current, especially "3D" screen savers.

- Avoid or minimize using applications that keep the CPU busy a large percentage of the time. The following will help you determine if your system is running such applications:

Identifying power wasting programs

To determine if applications or processes are keeping the CPU busy

1. Start the Task Manager utility. To open Windows Task Manager, right-click an empty space on the taskbar, and then select Task Manager.

2. Select the Performance tab to view running applications, and the Process tab to view running processes.

3. Watch the CPU Usage. It is okay if the processor usage is occasionally 100 percent, but if it is 100 percent most of the time, this may indicate a problem.

What to do if applications are keeping the CPU busy

- If possible, close applications that keep the CPU busy when you are not using them.

- Turn off or suspend your computer whenever you are not using it. This will help to conserve power.

- Install the Mobile System Monitor utility. This utility throttles the CPU when running on battery power. You can set the throttle level to 25%, 50%, 75% or 100%.

    Throttling may affect application performance. Some applications keep the CPU busy waiting for user input or radio messages. Throttling the CPU will unlikely affect the performance of these applications. Other applications, especially graphics-intensive mapping, video and DVD playback applications, may be visibly slower if you throttle the CPU. You will want to adjust the throttling to an acceptable level.

    #### *To install Mobile System Monitor*

    1. Select **Start, Run...**
    2. Enter the following command: "C:\Drivers\Throttle\Setup.exe"

    After installing this utility, you can set the throttle level by right-clicking the **Mobile System Monitor** icon in the System Tray area of the Taskbar.

- Inform your organization's help desk. They may have an updated version of the application.

Tip 3. Calibrate your battery

- Over time, the accuracy of the Windows battery gas gauge may be affected by repeated charging and discharging of the battery. Calibrating the battery every three or four months helps to keep the gas gauge accurate. For information on calibrating the battery, refer to Battery Calibration.

Tip 4. Get a good charge

- Your computer will charge more quickly if it is turned off or suspended.

- In warmer or cooler temperatures, your battery can take much longer to fully charge.

- If your battery is charged in a cold (less than 41°F/5°C) or very warm (greater than 122°F/50°C) environment, it is possible that the Battery Charge LED will indicate that the charge has stopped; however, this does not necessarily mean that your battery is fully charged.

Tip 5. Prevent data loss

Follow these guidelines to prevent data loss when removing your battery or storing your computer:

- You will lose data if you remove the battery while the computer is operating or suspended. To prevent this, shutdown your computer or put it into hibernate (suspend-to-disk) mode before removing your battery.
- If you plan to store your computer for more than a few days, shutdown your computer or put it into hibernate mode. Remove the battery before storing the computer.

Tip 6. Clean terminals

- Dirty terminals can be a cause of charging problems. Clean battery terminals with a cotton swab dipped in isopropyl alcohol. Make sure that the alcohol has evaporated before reinstalling the battery.

Tip 7. Storing batteries

- Store the battery within the recommended temperature range: 10°C to 30°C (50°F to 86°F).
- Unused or stored batteries can lose power over time. When you install a battery that has not been used for awhile, connect external power to the computer and fully charge your battery.
- Battery calibration may increase the capacity of a battery stored for a period of time. For information on calibrating the battery, refer to Battery Calibration.
- It is recommended that the battery is recharged every six months while in storage.

BIOS Setup Utility

Customizing Your BIOS Settings

This chapter explains how to use the Setup Utility to modify the BIOS settings. The Setup Utility displays and allows you to modify the Tablet PC's components and configure the devices that are connected to it. This information is used to test and initialize components at start-up time and to make sure everything runs properly when the system is operating.

The BIOS is installed with a set of default values. You may be able to increase system performance by changing some of the timing values in the Setup Utility, but this can be limited by the kind of hardware you are using. In certain circumstances, the system may generate an error message that asks you to make changes to the CMOS settings using the Setup Utility. This happens when the system finds an error during the POST (Power On Self Test) that it carries out at startup.

CAUTION It is not recommended that you change any settings since this may cause the unit to not function properly.

If you are not sure how to configure the BIOS settings, it is recommended that you load optimal defaults by selecting that option on the Exit Menu or by selecting **F9** on the popup input panel.

ITRONIX®

Using the BIOS Setup Utility

The BIOS Setup Utility allows you to configure your computer's basic settings. When you turn your computer on, the system reads this information to initialize the hardware so that it will operate correctly. You can use the BIOS Setup Utility to change your computer's start-up configuration. For example, you can change your system's security routine.

Starting the BIOS Setup Utility

You can only start the Setup Utility shortly after the computer has been turned on. When you see the message "Press Enter button to enter SETUP" display at the bottom of the screen, press the **Enter key** .

You will then see the following screen:
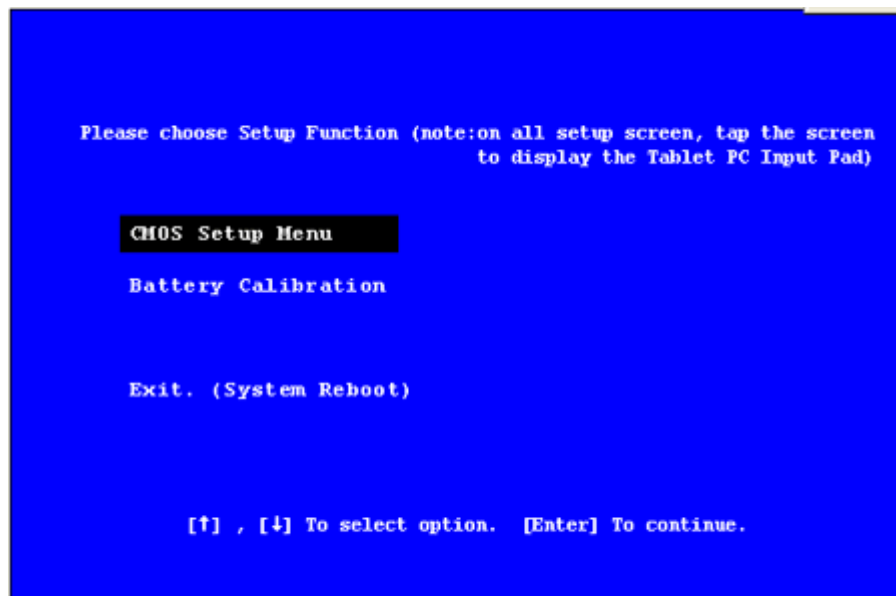
Use your **Line Up** or **Line Down** hot keys to highlight "CMOS Setup Menu" and press the **Enter** key. The system will start the Setup Utility and display the main menu of the utility.

CAUTION Incorrect settings can cause your system to malfunction. To correct mistakes, return to Setup and restore the Setup Defaults by going to the Exit Menu and selecting "Load Optimal Defaults".

Navigation and Help

The Menu Bar   The Field Help Window

```
                         BIOS SETUP UTILITY
  Main      Advanced        Boot       Security    Exit
 ┌─────────────────────────────────────────────┬──────────────────────┐
  System Overview                                Use [ENTER],
                                                 [TAB] to
  AMIBIOS                                         select a field.
  Version    :RB.03
  Build Date :01/06/05                            Use [+] or [-] to
  ID         :T8DRB003                            configure system Time.

  Processor
  Type       :Intel(R) Pentium(R) M processor 1.10GHz
  Speed      :1097MHz
  Count      :1

  System Memory                                   [← →] Select Screen
  Size       :1264MB                              [↑ ↓] Select Item
                                                  + -   Change Field
  System Time           [13.25.26]                Tab   Select Field
  System Date           [Fri 01/28/2005]          F1    General Help
  Digitizer calibration [ Enter ]                 F10   Save and Exit
                                                  ESC   Exit

       v02.57 (C)Copyright 1985-2004, American Megatrends, Inc.
```

The Menu Bar

The Setup Utility has five menu options in the Menu Bar at the top of the window. To navigate between these screens you must tap the left or right arrows on the popup input panel or on an attached USB keyboard.

Main	Use for basic system configuration
Advanced	Use to set the advanced features
Boot	Use to select the sequence of boot devices that are searched to load an operating system.
Security	Use to set user and supervisor passwords and to set backup and virus-check reminders
Exit	Use to exit the current Setup session

The Field and General Help Windows

The Field Help Window is on the right side of each menu. It displays the help text for the currently selected field. This text updates as you move the cursor from field to field.

NOTE The field help window refers to keys that are only available via an external USB keyboard. If you do not have an external keyboard attached to your Duo-Touch , use the Setup utility's popup input panel described below:

The General Help Window describes the popup input panel keys and their functions. You can access it by selecting **F1**on the popup input panel. However, the following keys are not available during Setup unless you have an external USB keyboard attached to the Tablet PC:

HOME
F2/F3
F8
END

```
  General Help

  ← →      Select Screen          ← →    Select Screen
  + -      Change Field           Enter  Go to Sub Screen
  PGDN   Next Page                PGUP   Previous Page
  HOME   Go to Top of Screen      END    Go to Bottom of Screen
  F2/F3  Change Colors            F7     Discard Changes
  F8     Load Failsafe Defaults   F9     Load Optimal Defaults
  F10    Save and Exit            ESC    Exit

                    [Ok]
```
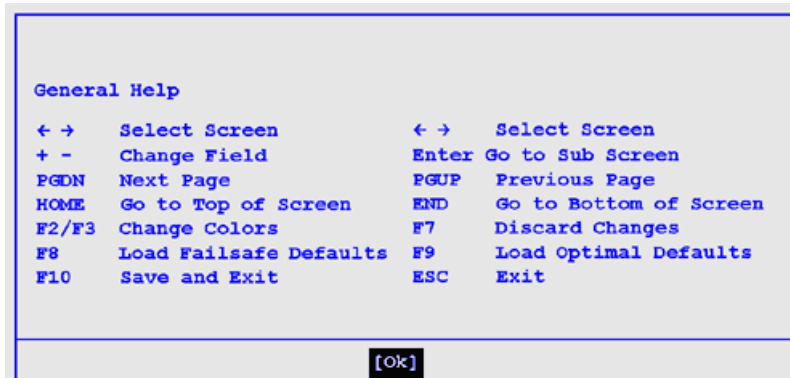
Popup Input Panel

The Setup Utility has a unique popup input panel that appears when you hover or tap your pen anywhere on the screen. Use the popup input panel to navigate between setup screens, between fields on each screen and to make any field changes. To avoid making unintentional field changes, we recommend you do not open the panel from the bottom right side of your screen. Instead tap anywhere on the left side of the display.

To navigate between the five menu screens tap the left or right arrows on the input panel. To toggle through the fields tap the up and down arrows. Alternately, you can use the Line Up and Line Down hot keys to toggle through the fields. Press the **Enter Key** to view a list of options for each field.

If you need to input characters, tap **FnA** on the popup input panel to expand it to a larger input panel that includes characters. Press **FnA** again to return to the small input panel.

NOTE The popup input panel disappears after a few seconds of inactivity and when you change screens.

The Main Menu

```
                        BIOS SETUP UTILITY
 Main      Advanced        Boot        Security      Exit

  System Overview                               Use [ENTER],
                                                [TAB] to
                                                select a field.
  AMIBIOS
  Version      :RB.03
  Build Date   :01/06/05                        Use [+] or [-] to
  ID           :T8DRB003                        configure system Time.

  Processor
  Type         :Intel(R) Pentium(R) M processor 1.10GHz
  Speed        :1097MHz
  Count        :1
                                                [← →]  Select Screen
  System Memory                                 [↑ ↓]  Select Item
  Size         :1264MB                           + -   Change Field
                                                Tab    Select Field
  System Time              [13.25.26]           F1     General Help
  System Date              [Fri 01/28/2005]     F10    Save and Exit
  Digitizer calibration    [ Enter ]            ESC    Exit


        v02.57 (C)Copyright 1985-2004, American Megatrends, Inc.
```
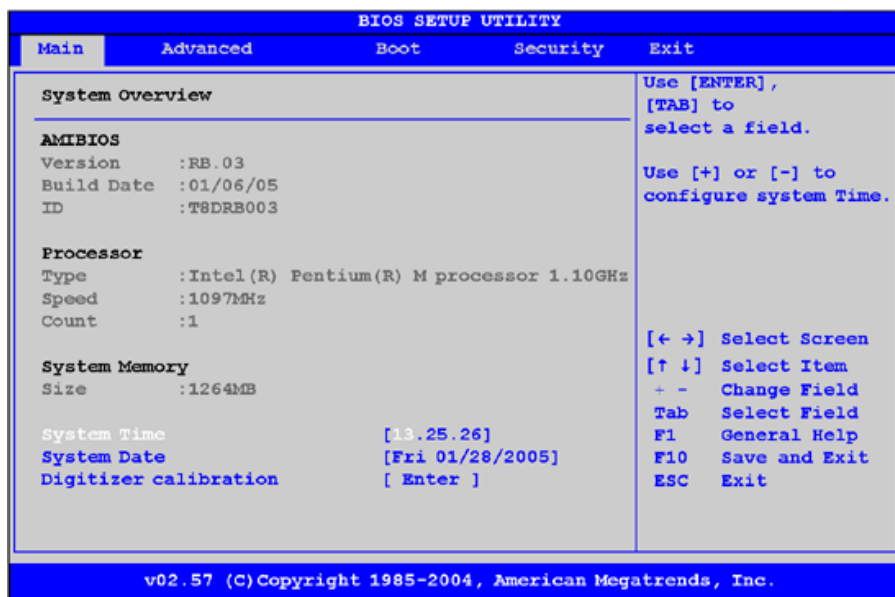
Field	Setting	Function
AMIBIOS	for information only	Version
Processor	for information only	Type and Speed
System Memory	for information only	Size
System Time	HH:MM:SS	Configure system time
System Date	MM/DD/YYYY	Configure system date
Digitizer Calibration	Opens Display Calibration	Begins the digitizer calibration. Once you have calibrated the display, the computer will restart.

The Advanced Menu
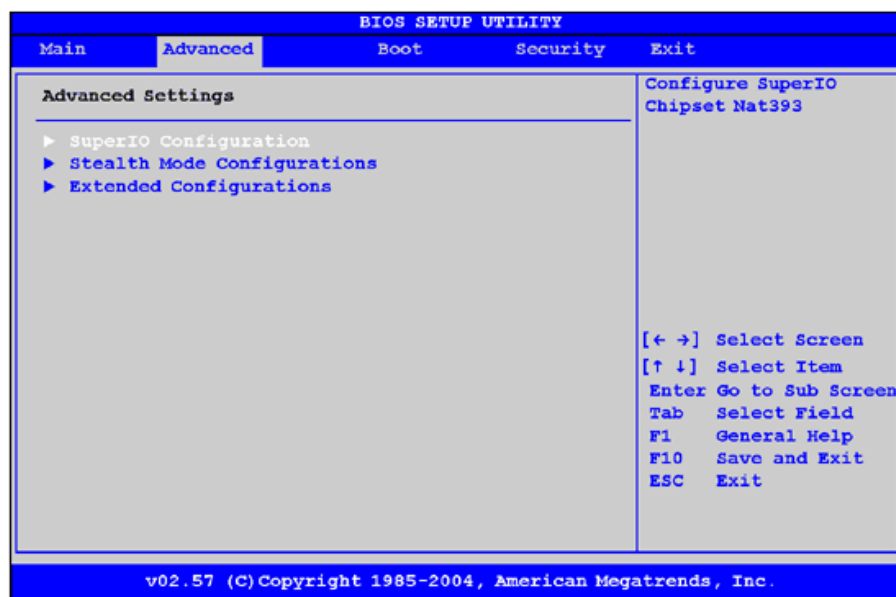
Field	Setting	Function
SuperIO Configuration	sub-menu	Configure SuperIO Chipset Nat393
Stealth Mode Configurations	sub-menu	Depending on Stealth Mode setting, LED , FAN Beeps, LCD Brightness, Audio will keep silent when you need.
Extended Configuration	sub-menu	Other special function settings including low battery beep, radio wakeupect...

SuperIO Configuration
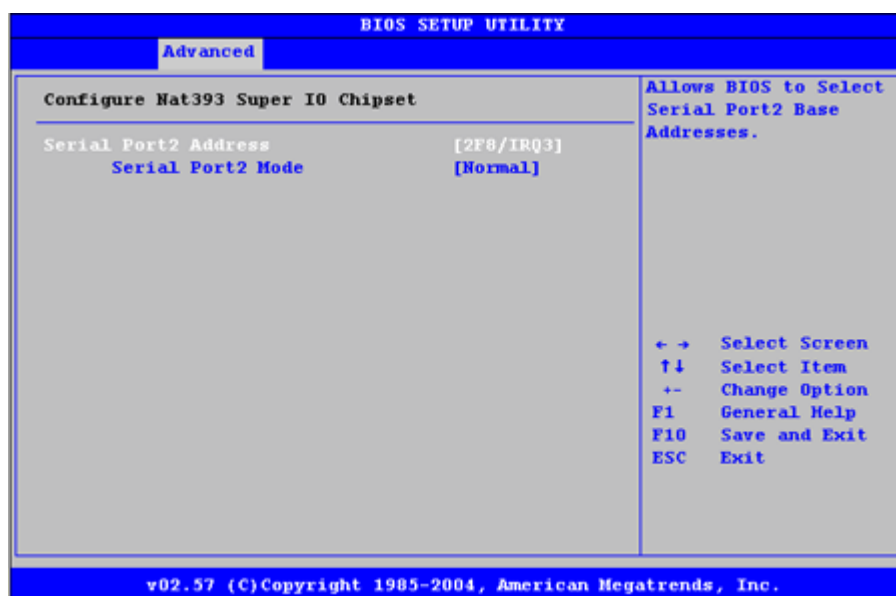
Field	Setting	Function
Serial Port2 Address	**Disabled** Enabled	Allows BIOS to Select Serial Port2 Base Addresses.

Stealth Mode Setup

The Duo-Touch has stealth mode capability so it can be used in an environment where sound and light could be dangerous to the user.

If stealth mode is set to "Disabled", the LEDs, Fan, system beeps, audio, and display brightness operate normally. If stealth mode is enabled, you can individually set LEDs, Fan, system beeps, audio and display brightness to "on" or "off".

Option	Stealth Mode Function Disabled	Stealth Mode Function Enabled	
		On	**Off**
LEDs	LEDs function as normal	LEDs function as normal	LEDs are disabled
Fan	Fan functions as normal	Fan functions as normal	Fan is disabled. Heat management is controlled solely through throttling
System Beeps	Beeps are heard during POST	Beeps are heard during POST	System beeper is disabled during boot up and resume
Audio	Preserved across suspend/resume and boot. The default volume level is set to mid range	Preserved across suspend/resume and boot. The default volume level is set to mid range	Volume is set to 0 across suspend/resume and boot. Use existing audio function keys (or existing software utility such as the speaker icon in the system tray) to restore volume
Display Backlight Brightness	Preserved across suspend/resume and boot. Brightness is restored to default when brightness level is set at 0. The default level is	Preserved across suspend/resume and boot. Brightness is restored to default when brightness level is set at 0. The default level is	Backlight Brightness is set to 0 across suspend/resume and boot. Use to restore the backlight brightness setting to the value it was at before

	mid range	mid range	suspend. Alternately, use display brightness function keys to restore display brightness more gradually

Extended Configuration

```
                    BIOS SETUP UTILITY
      Advanced

   Extended Configuration                          Enable or Disable
                                                   Slow charge function
   Slow Charge Function            [Disabled]
   RF MODULE OPTION                [Both RF Enable]

   RF Radio Wakeup                 [Disabled]


                                              ← →   Select Screen
                                              ↑↓    Select Item
                                              +-    Change Option
                                              F1    General Help
                                              F10   Save and Exit
                                              ESC   Exit



         v02.57 (C)Copyright 1985-2004, American Megatrends, Inc.
```
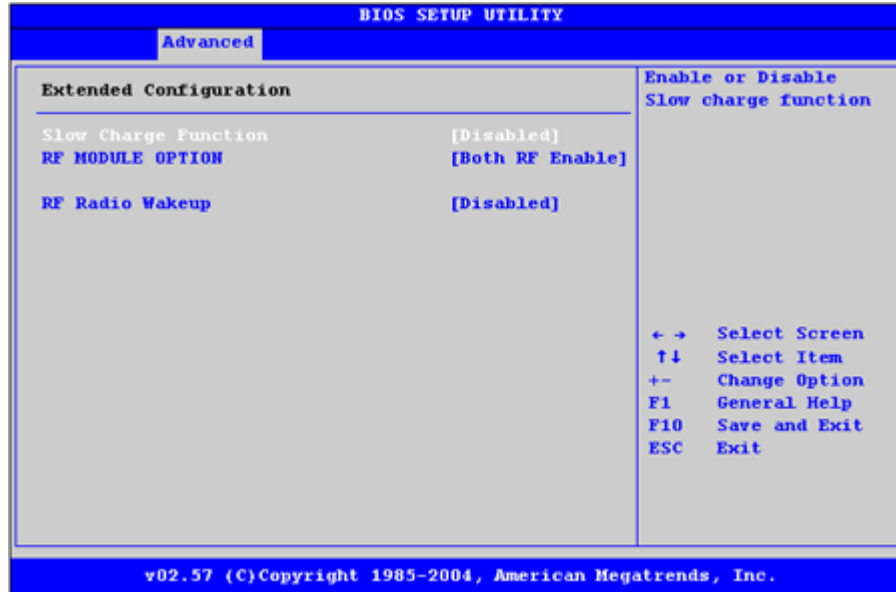
Field	Setting	Function
Slow Charge Function	**Disabled** Enabled	Enable or disable slow charge function
RF MODULE OPTION	**Both RF Enable** Disabled Wireless LAN Enable Bluetooth Enable	Select which RF module Support.
RF Radio Wakeup	**Disabled** Enabled	RF Radio Card will wake up system.

ITRONIX®

The Boot Menu

```
                        BIOS SETUP UTILITY
  Main      Advanced     Boot      Security    Exit

  Boot Device Priority                        Specifies the boot
                                              sequence from the
  1st Boot Device          [Removable Dev.]   available devices.
  2nd Boot Device          [CD/DVD]
  3rd Boot Device          [HDD:SM-HTS424040M9]  A device enclosed in
  4th Boot Device          [Network:Realtek Bo1]  parenthesis has been
                                              disabled in the
                                              corresponding type
                                              menu.


                                              ←  →   Select Screen
                                              ↑↓     Select Item
                                              +-     Change Option
                                              F1     General Help
                                              F10    Save and Exit
                                              ESC    Exit


       v02.57 (C)Copyright 1985-2004, American Megatrends, Inc.
```
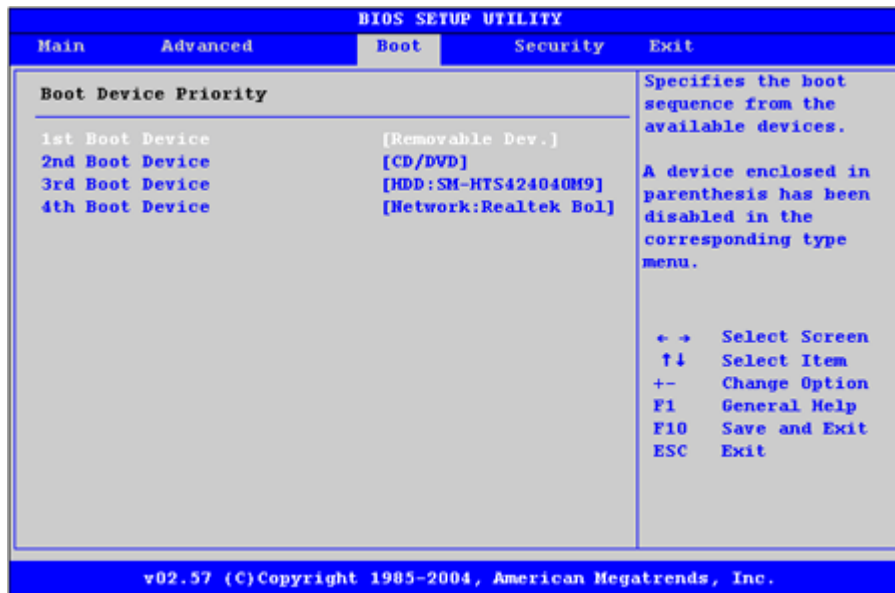
Field	Setting	Function
1st Boot Device	**Removable Dev.** CD/DVD HDD:SM-HTS424040M9AT00 Network:Realtek Boot Agent Disabled	Specifies the boot sequence from the available devices. A device enclosed in parenthesis has been enabled in the corresponding type menu. Removable Devices = FDD CDROM = CDROM Realtek Boot Agent = Ethernet boot
2nd Boot Device	Removable Dev. **CD/DVD** HDD:SM-HTS424040M9AT00 Network:Realtek Boot Agent Disabled	same as above
3rd Boot Device	Removable Dev. CD/DVD **HDD:SM-HTS424040M9AT00** Network:Realtek Boot Agent Disabled	same as above
4th Boot Device	Removable Dev. CD/DVD HDD:SM-HTS424040M9AT00 **Network:Realtek Boot Agent** Disabled	same as above

ITRONIX®

The Security Menu

```
                         BIOS SETUP UTILITY
  Main      Advanced        Boot      Security    Exit

  Security Settings                        Install or Change the
                                           password.
  Supervisor Password      :Not Installed
  User Password            :Not Installed

  Change Supervisor Password
  Change User Password

  Boot Sector Virus Protection   [Disabled]



                                           ← →   Select Screen
                                           ↑↓    Select Item
                                           +-    Change Option
                                           F1    General Help
                                           F10   Save and Exit
                                           ESC   Exit


         v02.57 (C)Copyright 1985-2004, American Megatrends, Inc.
```

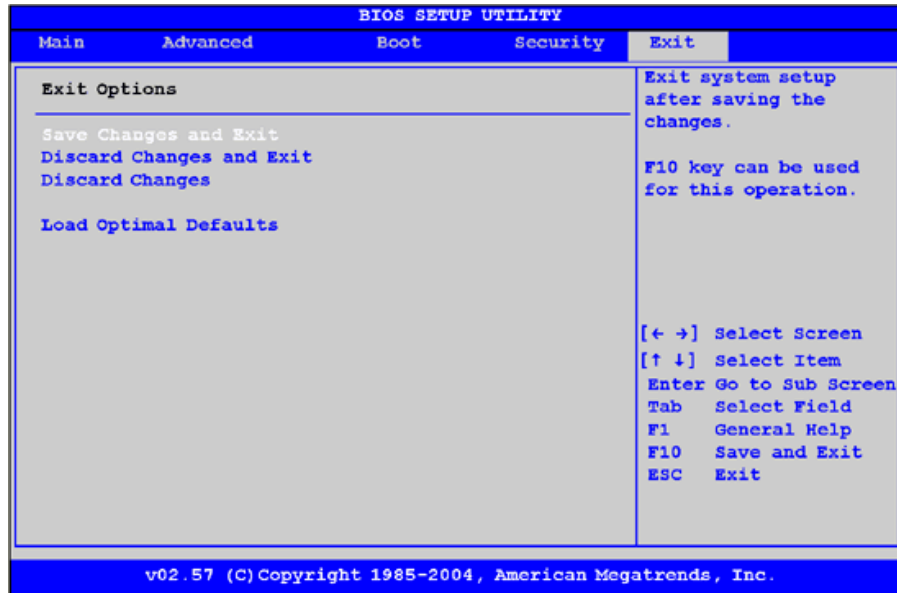| Field	Setting	Function
Change Supervisor Password		Install or Change the password
Change User Password		Install or Change the password
Boot Sector Virus Protection	**Disabled** Enabled	Enable/Disable boot sector virus protection

NOTE After inserting a password you have the option to set the password to Always or SCU.

ITRONIX®   Duo-Touch™ Help

The Exit Menu

```
                    BIOS SETUP UTILITY
  Main      Advanced        Boot      Security   Exit

  Exit Options                              Exit system setup
  ─────────────────────────────────────    after saving the
  Save Changes and Exit                     changes.
  Discard Changes and Exit
  Discard Changes                           F10 key can be used
                                            for this operation.
  Load Optimal Defaults


                                            [← →] Select Screen
                                            [↑ ↓] Select Item
                                            Enter Go to Sub Screen
                                            Tab   Select Field
                                            F1    General Help
                                            F10   Save and Exit
                                            ESC   Exit

       v02.57 (C)Copyright 1985-2004, American Megatrends, Inc.
```

Field	Screen	Function
Save Changes and Exit	Save configuration changes and exit setup? [Ok] [Cancel]	Exit system setup after saving the changes. **F10** key can be used for this operation
Discard Changes and Exit	Discard changes and exit setup? [Ok] [Cancel]	Exit system setup without saving any changes. **Esc** key can be used for this operation.
Discard Changes	Discard changes? [Ok] [Cancel]	Discards changes done so far to any of the setup questions. **F7** key can be used for this operation.
Load Optimal Defaults	Load Optimal Defaults? [Ok] [Cancel]	Load Optimal Default values for all the setup questions. **F9** key can be used for this operation.

Maintenance and Storage

The Itronix Duo-Touch is rugged and weather resistant. Handle it with the normal care required by any sophisticated electronic equipment, and the computer will provide reliable service even under harsh field conditions.

Follow the guidelines in this section to care for your unit.

Battery Maintenance and Storage

Maintaining Batteries

Follow these guidelines to maintain performance of Lithium-Ion (Li-on) batteries.

- Avoid exposing batteries to extremely hot or cold temperatures for long periods. To prevent possible damage to the battery, the Duo-Touch does not allow the battery to charge if the internal temperature of the battery gets too low (< 5°C or < 41°F) or too high (> 50°C or > 122°F).
- Charge the battery nightly where the temperature will remain around 20°C (68°F).
- Re-calibrate your battery every three months or when your battery performance degrades.

Storing Batteries

- Store the battery within the recommended temperature range: 10°C to 30°C (50°F to 86°F).
- Unused or stored batteries can lose power over time. When you install a battery that has not been used for awhile, connect external power to the computer and charge the battery.
- After storage, battery calibration may increase its capacity.

Tablet PC Maintenance and Storage

Maintaining Your Tablet PC

Follow these guidelines to help maintain the condition and performance of your computer.

- Turn off the computer when you are not using it.

- Charge the batteries daily or whenever their capacity is low.

- Operate the computer within the recommended temperature ranges of -20°C to +60°C (-4°F to +140°F).

Care and Cleaning

Physical Inspection   Periodically inspect the computer and accessories for wear, damage, loose or missing parts. Identifying and correcting potential problems early can help reduce the need to return the unit for service.

Outside Case   Like all tools, the outside of the computer will get dirty with use. The case is made of painted Magnesium and polycarbonate blend (plastic) doors and covers. These areas can be cleaned with a solution of one part Formula 409™ and one part water. To clean the outside case, follow the procedure below.

1. Disconnect external power and turn off the computer.

2. Using a soft, dry cloth (do not use paper products because they can scratch the surface, add a small amount of cleaning solution to the cloth and clean the computer case.

3. Wipe off any excess liquid with a soft cloth.

4. Reinstall the battery.

Display   Periodically inspect the display to make sure the brightness function is operating properly and that all pixels are operational. To clean the display assembly, use the same cleaning solution and procedure described earlier for the outside case. In some cases, you can use a small amount of isopropyl alcohol to remove streaks or smears. Use a soft, clean cloth to clean the display. Do not use paper products because they can scratch the screen.

External Power Connector   The external power connector may sometimes be exposed to moisture and/or contamination causing an unreliable connection to the external power source.

Clean the connector using a cotton swab dipped in isopropyl alcohol.

RJ-11/ RJ-45 / USB Connectors   Make sure these connectors are operating properly. During normal use, the connector pins can get dirty or become broken, bent, or pushed out of place. Clean the connector with a cotton swab dipped in isopropyl alcohol.

I/O Ports   Make sure the audio and Multi-IO ports are operating properly. Periodically inspect the ports for damage or contamination, and make sure their covers are attached and closed when not in use. The I/O covers can be replaced without returning the unit for service. Contact your local support person for more information.

PC Card Door and Connector   Whenever possible, make sure this door is closed and latched properly. When the PC Card door is closed, it provides a watertight seal for the PC Card socket. Shield the area from all contaminants such as liquids, rain, snow, and dust when the door is open.

Make sure the PC Card connector is operating properly by reading from or writing to a PC Card.

Storing Your Computer

If you plan to store the computer, follow these storage guidelines.

To store the computer

- Files and data should be saved before storing the computer.
- Contact your organization's help desk about the procedure for backing up files or data.
- Exit all applications and use the appropriate procedure to exit from your operating system.
- Turn off the computer by going to the **Start** menu and selecting **Shutdown**.
- Remove the battery from the unit and store it in a dry place.
- Store the computer within the recommended temperature ranges of -55°C to +75°C (-67°F to +167°F).
- If you use PC cards, refer to the manufacturer's instructions you received with the card for storage and care information.

Optional Equipment and Accessories

The Itronix Duo-Touch has several equipment and accessory options to further enhance your mobile computing experience.

A complete list of Itronix optional peripherals and accessories is listed on the Itronix website.

CAUTION   When purchasing any additional accessories, purchase only those accessories that are approved for use with your computer. Some accessories are proprietary items and can be obtained through your system vendor. If you use items that are not approved for use with this computer, you may cause your computer to malfunction, or to emit or receive electromagnetic radiation in excess of local regulations. For non-proprietary accessories such as PC Cards or printers, ensure that the accessory functions properly with your computer before making the purchase. Your system vendor may be able to recommend reliable brands and models.

Second Battery

For longer battery life, you can attach an optional second, external battery to the connector on the back of the Tablet PC.

Attaching a Second Battery

1. Remove the two left feet (1) on the back of the unit.
2. Line up the second battery connector (2) with the connector on the external battery.

3. Press until battery is firmly seated.
4. Tighten the three screws to secure the battery in place.

5. Screw the feet into the battery for safekeeping.

6. Use the Setup Utility Calibration program to Calibrate the battery.

Desk Mount

The Duo-Touch 's desk mount enables you to experience desktop functionality with your Duo-Touch. The desk mount includes the following ports:

- Stand holder connector (this is the unit interface)
- DC in
- 2 USB 2.0 ports
- 15-pin CRT port for an external monitor
- Extra battery charger

1. Extra Battery Charging Slot
2. Stand Holder Connector (unit interface)
3. LED

1. Guides
2. Stand Holder Connector (unit interface)
3. 2 USB 2.0 ports
4. Extra Battery Charging Slot
5. 15-pin CRT port for External Monitor

To use the desk mount:

1. Ensure the port cover on the extension slot is open and the port cover for the AC power is closed.
2. Line up the bottom of the unit with the guides and press down while feeding the rubberized IO port cover through the opening provided.

3. Apply external power to the desk mount. The LED in the front of the desk mount will light along with the Power Status LED on the Duo-Touch.

The desk mount includes a slot so you can simultaneously charge the main battery and an additional battery.

Vehicle Adapter

The Vehicle Adapter is an optional device that supplies power from the vehicle battery to operate the computer and charge the battery installed in the unit. It typically connects to the vehicle battery using the cigarette lighter socket.

To prevent possible damage to the battery, the system will not allow the battery to charge at extreme temperatures. Be aware of the following charging characteristics, especially if the computer is left unattended in a closed vehicle.

- If the temperature is <20°C the battery will take longer to charge.
- If the temperature is <5°C (<41°F) the battery will not charge
- If the temperature is >50°C (>122°F) the battery will not charge

NOTE The Vehicle Adapter is not designed for long-term fixed use.

To connect the vehicle adapter

1. Insert the Vehicle Adapter's power cord into the power port (DC-in jack) on the bottom side of the computer.
2. Insert the cigarette lighter adapter into the vehicle's cigarette lighter socket, turning it slightly to make a good connection.

The Power Status LED illuminates to indicate that current is reaching the unit. When you connect the vehicle adapter, it automatically begins charging the computer's battery. At moderate temperatures, around 21°C (70ºF), the battery will be fully charged in approximately 3-5 hours. However, under extremely cold or hot temperatures, or if the system is on, it will take longer to charge the battery (up to 16 hours).

ITRONIX®

Vehicle Dock

The optional vehicle dock allows for the functionality of a desk mount in your vehicle. It can charge your unit's battery as well as an attached expansion battery. The dock features two USB ports, two serial ports, and an external monitor/CRT connector. It also includes a locking mechanism to secure your Tablet PC.

72_0127_001
05 May 2005

Memory

Adding memory allows the computer to operate faster, handle more tasks simultaneously, and work more efficiently with large files. Users who increase memory demands by adding additional programs may notice slower operating speeds. Adding memory offsets this slowdown. The Tablet PC includes a memory card slot for adding additional memory.

Calculate memory size by adding the size of the memory module to the existing built-in memory. For example: 128 MB (module) + 128 MB (built-in memory) = 256 MB Total.

If you add memory to your Duo-Touch, it will automatically detect the change in RAM capacity when it restarts. You can verify RAM capacity has changed in the Setup Utility or in Windows:

1. **Setup**: Press the **Enter key** during boot-up. Then select CMOS Setup menu. This screen shows the amount of system memory.

2. **Windows**: Right click (tap and hold) on **My Computer** and select properties. The bottom of the **System Properties, General** tab lists the memory detected by Windows.

Surge Protection

A large number of computer and high technology equipment damage is directly related to AC power and telephone line problems. These problems can include surges, spikes, noise, interference, and weather-related problems, which in turn can cause glitches, hang-ups, crashes, performance slow downs, and down time with computer equipment. The market is flooded with hundreds of AC power line surge suppressors advertising high performance surge protection; only a few of them actually provide adequate protection.

This section provides guidelines for selecting a quality surge suppressor to be used with your Duo-Touch, and it helps identify a few sources for products with acceptable performance.

Selecting the Right Surge Protection

Consider the level of quality you need when selecting a surge suppressor. This depends on factors such as surge environment, the type of equipment to be protected, and the quality of the electrical wiring and service.

Surge Environment

Surge environment refers to the damage potential from electrical surges in a particular geographical area. A high quality suppressor should be used if there is frequent lightning activity in the area and the location service is fed by overhead utility poles.

Type of Equipment to be Protected

If the computer is equipped with a modem, the modem should also be surge protected. Protecting the power line without protecting the modem line provides only partial protection.

Quality of Electrical Wiring and Service

Wiring should be up to current NEC standards and have verified good AC grounds. It is important that your computer system be plugged into a grounded AC outlet when charging and that all peripherals connected to your system reference the same AC ground.

Equipment Selection

There are a number of companies that sell quality surge suppressors. When you are looking for a surge suppressor, consider these things.

- Expect to pay at least $50 for a good quality surge suppressor.
- The surge suppressor should be a UL 1449, 497, and 1283 listed for surge suppression, modem surge protection, and RFI/EMI noise filtering respectively.
- The surge suppressor should have diagnostic LEDs that verify good AC ground, proper wiring, and proper surge operation. On/off switches that light are not recommended since they can produce electrical noise.
- The Joule ratings should be a minimum of 480 Joules for the AC surge circuit.
- The Joule ratings should be a minimum of 240 Joules for the modem.
- The modem surge circuit should present low capacitance to the modem line or it will slow the transmission rate. Capacitance should be specified at less than 50 picofarads.
- Quality surge suppressor manufacturers generally offer a lifetime warranty.
- Consider obtaining a protected equipment coverage policy which insures the equipment in the event of surge damage.
- The devices that will be attached to the computer also need to be surge protected.

Troubleshooting

This section is designed to help you determine and fix problems you might encounter while operating the Duo-Touch . Try the following things in order:

1. First, look through the categories in this section for a solution.

2. If you don't find a solution for your situation here, try one of the resources listed below.

3. If you are having a problem with a computer application , use the online help that comes with the application to find a solution.

4. If you still cannot resolve your problem, contact the help desk at your organization.

For More Help

- Windows Help is already installed on your system. To access this information, select **Start,** *Help and Support*.

- Take the Windows Tutorials. Select **Start**, *Get Going with Tablet PC*.

- Third-party Windows manuals are available from your local bookstore.

Applications

- ***My application locks up, acts strangely, or produces a General Protection Fault (GPF) error***

  - If you've tried to resolve the problem and your application still doesn't respond, you may need to restart your computer as described below.

    To reboot your computer, select Start, Turn Off Computer, Restart. If that does not work, try pressing the **Securitykey** once to bring up the Windows Task Manager. Then select Shut Down, Restart.

  - The data on the hard disk could be corrupted. Run SCANDISK.

  - Windows is out of memory/resources. Exit Windows and restart Windows.

- **Communications programs don't seem to work or they lock Windows**

When you first try to use your communications application, the system responds with a message asking if you want to install the modem. Answer "Yes" to this question and follow the instructions on the screen to install it.

- ***When I rotate the display to portrait orientation my application does not work or does not display correctly***

Some applications do not display or work properly in portrait orientation due to the rugged nature of your Duo-Touch 's display screen. Use these applications in landscape orientation.

Batteries

- **The battery does not charge**

  - To prevent possible damage to the battery, the system will not allow a charge if the battery temperature is extremely hot or cold (such as in a closed, unattended vehicle). If possible, charge the battery in a location with a moderate temperature of around 20°C (68°F).

  - If possible, turn off the computer while the battery is charging.

  - If the battery is new or has been stored for a week or more, follow this procedure:

  1. Make sure the computer is turned off.

  2. Unscrew and open the battery cover, then remove the battery.

  3. Connect the AC adapter to the computer and an AC wall outlet, and then turn on the computer by pressing the Power Button. The Power Status LED will be solid blue when connected to external power .

  4. Let the computer complete the boot process. Then reinstall the battery and replace the battery door.

  5. Allow the system to remain idle for one hour with the AC adapter connected to the computer.

     The Battery Status LED is orange when the battery starts charging.

  6. If the battery still fails to charge after an hour, remove the battery, wait several seconds, and then install it again.

     If the battery does not begin charging within several minutes, return the unit for service.

- *The batteries take much longer than seven hours to charge*

Under moderate temperatures, about 21°C (70°F), the computer's battery takes approximately 3 hours to completely charge while suspended and 3-5 hours to charge while powered on. Under extremely cold or hot temperatures, however, the battery can take up to 16 hours to fully charge.

- *The batteries don't last very long*

As your battery ages, the maximum capacity that it can hold naturally decreases, and even the best maintained batteries eventually need to be retired. Consider replacing the battery if you are not getting the usage you need from it.

- *The gas gauge isn't full after charging the battery*

  - This may indicate that the charging process terminated prematurely.

  - Calibrate the battery to align the gas gauge with the battery capacity.

- *The gas gauge reads "full," but the charging indicator light is still lit*

If you charge your battery daily, rely on the gas gauge reading to determine battery capacity. The charging process may continue even if the gas gauge reads full. External power can be removed because the battery is virtually full.

- *My battery seems to have less and less capacity*

  - If your battery is new, or if your are using it for the first time, you will need to calibrate it prior to using it.

  - As your battery ages, the maximum capacity that it can hold naturally decreases, and even the best maintained batteries eventually need to be retired. Consider replacing the battery if you are not getting the usage you need from it.

Hard Disk

- **The hard disk will not spin up so the computer can't boot up**

This occurs if the unit is exposed to extremely low temperatures. This is not a hardware failure associated with the hard disk. Allow the computer to warm to room temperature. The minimum cold or soft boot temperature is 5°C (41°F).

- *I can't save files because the disk is full*

Report this situation to your supervisor or your organization's help desk.

- *Diskette Read Error*

Any card in the PC card socket except for a properly formatted memory card will cause this error since it is trying to read the PC card.

- *Hard disk recovery*

Your hard disk may have a Recovery Partition containing a copy of the original drive C: factory disk image. If you have a Recovery Partition, you can access it from Windows or from a bootable USB floppy or CD:

To recover your hard disk from Windows

From within Windows, select **Start, All Programs, Mobile Computer Tools, Hard Disk Recovery**.

To recover your hard disk from a USB floppy or CD-ROM

1. Attach an external USB keyboard and an external USB floppy or CD-ROM drive.

2. Boot from the floppy or CD-ROM drive.

3. Change to the Recovery Partition (usually drive E:).

4. From the DOS command line, run RECOVER.BAT.

If you do not have a Recovery Partition, or are unable to access it, you can recover your hard disk from Recovery CDs. This method requires that you have an external bootable and spannable USB CD-ROM drive. If you do not have Recovery CDs, you can obtain them by calling your company's help desk, or by calling 1-800-638-9270 and selecting option 1, or by e-mailing ccc@itronix.com.

Landline Modems

- *The modem doesn't work*

  - When you first try to use HyperTerminal or similar application , the system responds with a message asking if you want to install the modem. Answer "Yes" to this question and follow the instructions on the screen to install it.

  - Make sure the communication settings are correct in your application. Refer to the online Help for your application.

- *The modem doesn't dial a number*

Check these things:

  - If you are using an external modem, make sure the cables are attached correctly.

  - Make sure your communications parameters are correct in your application. Refer to the online Help for your application.

- *The modem dials and receives an answer but does not establish a connection*

  - You may have incorrect parameters selected for your application to talk with the remote modem. Refer to the online Help for your application.

  - You may need to adjust your modem's baud rate or protocol selection.

- *Communications programs such as HyperTerminal don't seem to work or they lock Windows*

  - If you are using the internal modem, be sure to specify the proper communications port .

  - When you first try to use HyperTerminal or similar application, the system responds with a message asking if you want to install the modem. Answer "Yes" to this question and follow the instructions on the screen to install it.

- *The modem dials and the answering modem generates tone, but our modem does not begin the training sequence to establish a connection*

Although the problem may appear to originate from the computer, the source of the problem is the answering modem. Try setting up the answering modem to generate the correct V.22 tone, which can usually be done by sending an AT command to the modem.

Miscellaneous

- **The computer shuts off unexpectedly**

  - The computer has entered suspend mode. Press the power button to resume.

  - The battery capacity may be low. Connect external power to charge the battery, or replace the battery with a fully charged one.

  - The battery contacts may be dirty. Turn off the computer, remove the battery, and clean the contacts.

- *The speaker volume is too high or too low*

Increase the volume by pressing **FN**+**Escape**; decrease the volume by pressing **FN**+**Enter**.

- *The computer won't turn on*

  - The battery may not be installed properly, or it may not be fully charged. Make sure a fully charged battery is properly installed.

  - Connect external power to charge the battery if it is not charged.

  - If you are using the AC adapter , check the electrical outlet you are using to make sure it is working properly.

  - If the Duo-Touch does not turn on, restart the computer by holding down the Power Button for at least 10 seconds and then release it.

  - If the Power Button does not work to reset the unit, press the Master Reset Key on the back side of your Duo-Touch.

- *The computer won't turn off*

Press and hold the Power Button for at least 10 seconds.

- *The computer enters suspend mode too quickly*

When there is no activity for a period of time, the computer turns off or enters suspend mode. To extend this time, use the Power Management program and increase the non-activity time to enter suspend.

- *The computer doesn't automatically suspend*

  - Check to make sure the COM ports are off. For example, exit any application that uses COM ports.

  - Make sure external power is not connected. Depending on power settings, some systems will not suspend automatically when they are connected to external power.

  - Make sure the standby time is set properly in the Power Management program.

- *The system date and time are incorrect*

Reset the correct date and time by choosing the Date/Time icon from Control Panel and making the appropriate changes.

- *I receive an "out of memory" error message*

  - Too many applications may be running at the same time. Close applications you don't need.

  - If you're using desktop wallpaper, set wallpaper to None. To do this, choose Display from Control Panel and make the appropriate change.

- Make sure you have enough space on your hard disk . Contact your supervisor or your organization's help desk for assistance.

- Set up a permanent swap file. Contact your supervisor or your organization's help desk for assistance.

- ***Holding down the Power button to reset the computer doesn't always work***

  - Try resetting the computer again. If this doesn't work, press the Security key.

  - Alternately, use your stylus tip to press the Master Reset Key on the back of the unit.

  - If none of these solutions work, remove all power, including the battery pack, and allow the unit to remain idle for ten minutes. After ten minutes, connect external power and retry.

PC Cards

- **I can't remove the PC card**

  - Press the ejector button located inside the PC card door on the side of the computer. The button will pop out. Press the ejector button again to eject the PC card. Slide the card out.

  - If the ejector button malfunctions when you press it, release the button and then press it again.

- *Diskette Read Error*

Any card in the PC Card socket except for a properly formatted memory card will cause this error since it is trying to read the PC Card.

- *The system does not recognize the PC Card CD-ROM when it is inserted into the PC Card socket*

  - There is a delay of 10 to 15 seconds before the CD-ROM drive is recognized.

  - Drivers may not be installed. Contact your organization's help desk for assistance.

- *The computer locks up when I remove the PC card*

Before you remove the card, select the PC card icon on the taskbar (in the tray area near the clock in the lower right corner), and choose "Stop [*card name*] card."

Pen / Display

- **When I try to use the pen on my display, nothing happens**

    - If you cannot select objects accurately with the pen, you may need to recalibrate the display. Display calibration depends on the display mode you are using, digitizer mode or touch screen mode. Press the Line Up + Line Down Keys simultaneously to switch between display modes. You will hear one beep when entering touch screen mode and two beeps when entering digitizer mode.

    - If you are using a conventional pen/stylus, verify you are in touch screen mode (see above)

- *The display warps or pillows in high humidity*

The computer remains functional; however, moving the computer to a more suitable environment will allow the display to recover.

- *The touch panel doesn't respond after a suspend*

The touch panel needs a few seconds to work after a suspend. Wait a moment and try again.

- *I cannot change the orientation*

Your screen resolution may be set to low. To increase screen resolution select **Start, Control Panel, Display Properties**. Then select the **Settings** tab and adjust the resolution.

- *The display performance is slow*

The temperature may be too cold. Move the computer to a warmer operating environment.

- *I can't read the display*

    - Adjust the brightness level up by pressing **FN**+**Rotate** and adjust it down by pressing **FN**+**Security**.

    - Your display may be off. Tap your pen on it once.

    - If that doesn't work the automatic power-saving mode may have shut off (suspended) the computer. Press the power button to resume.

- *The underlined, inverse, and hypertext characters are difficult to read on the screen*

Change the color scheme. From the **Start Menu** select the **Control Panel**. Choose **Display** and then tap the **Appearance** tab to make changes to the color scheme.

- *I can't see the cursor while using the DOS editor*

Press **INSERT** on the input panel to change from insert mode to overwrite mode and to enable a block cursor. When it defaults to insert mode, the DOS editor uses an underline cursor which is less visible than the block cursor for overwrite mode.

- *The display appears to have random pixels darkened after scrolling*

Contact your supervisor or your organization's help desk for information about correcting this problem.

- *I changed my display resolution, but I see no difference on the screen*

Try restarting your computer for the changes to take effect.

- *The display cuts off the right side of the application or page in portrait mode*

Some applications do not display properly in portrait mode. For example, you may need to scroll to the right to view all the contents on the page. For best visibility, use these applications in landscape orientation.

FAQs

- **How do I calibrate the pen?**

Calibrate your display based on whether you are using Digitizer Mode or Touch Screen Mode.

Switching Between Digitizer and Touch Screen Modes

Using Hot Keys: Press the **Line Up** and **Line Down** hot keys simultaneously to switch the display between digitizer and touch screen modes while in Windows. You will hear one beep for touch screen mode and two beeps for digitizer mode.

Using Windows:

1. Select the **Buttons / Device / Brightness Properties** icon in the taskbar.
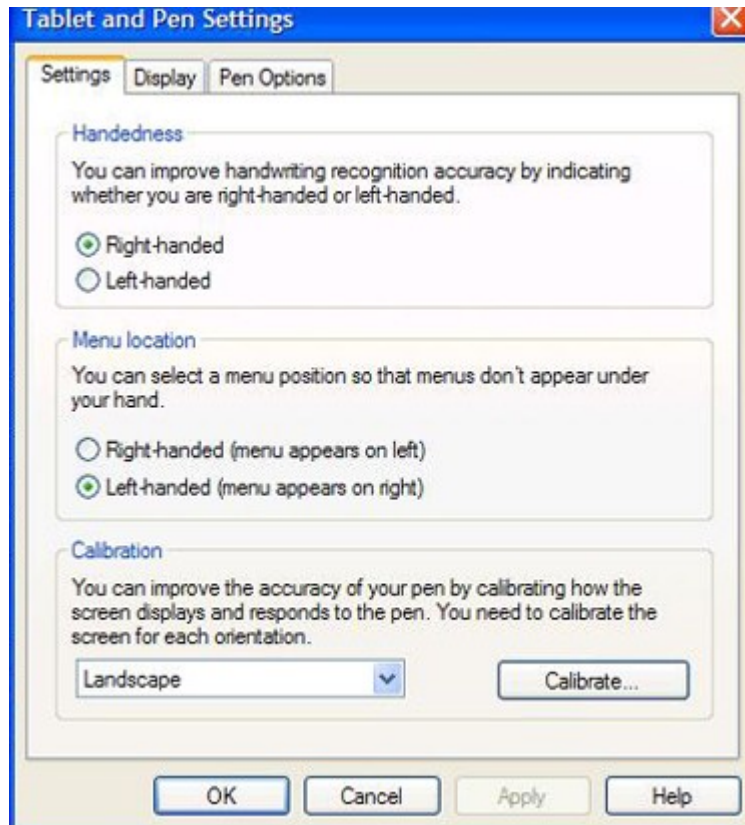2. Select the **Device On / Off** tab.

3. Select the **Digitizer / Touch Screen** button to change between digitizer and touch screen modes.

Calibrating the Digitizer Touch Panel

1. From the Start Menu, select **Control Panel**.
2. If you are in Classic View continue to step 3. If you are in Category View select **Printers and Other Hardware** and continue to step 3.
3. Select **Tablet and Pen Settings** and then select the **Settings** tab.

4. Under the Calibration field, choose the orientation you want to calibrate, either Landscape or Portrait.

5. Tap the **Calibrate** button.
6. After you have completed calibration by touching the cross-hairs with your pen, select **OK** to have the new settings take effect.

Calibrating the Touch Screen

1. From the Start Menu, select **All Programs, Mobile Computer Tools, Touch Screen Calibrator**.
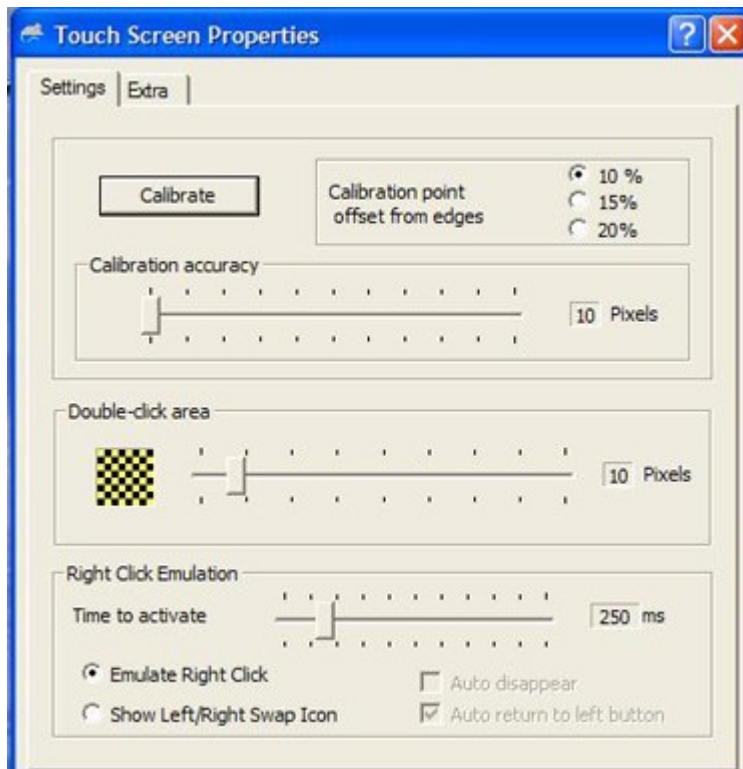
2. Select the **Settings** tab.

3. Tap the **Calibrate** button.

4. Follow the on screen instructions. After you have completed calibration, select **OK** to save and exit.

- *How do I change the main battery?*

  1. Turn off the Tablet PC and remove external power.

  2. Turn the unit over and remove the cover screw with a Phillips screwdriver.

  3. Lift out the battery and replace it with a new battery.

  4. Screw the cover on and press the power button.

- *How do I adjust the speaker volume?*

  You can change speaker volume by tapping the volume icon in the Windows tasktray or by using the following hot key combinations:

  - Press **FN**+**Escape** to increase volume

  - Press **FN**+**Enter** to decrease volume

- *How do I clean the display screen?*

  To clean the display assembly, use the same cleaning solution and procedure described earlier for the outside case. In some cases, you can use a small amount of isopropyl alcohol to remove streaks or smears. Use a soft, clean cloth to clean the display. Do not use paper products because they can scratch the screen.

- *How do I change the display screen's brightness?*

- Press **FN+Rotate** to increase display brightness.

- Press **FN+Security** to decrease display brightness.

- *How do I change the display orientation?*

  You can change between landscape and portrait orientation by pressing the rotate hot key. You can also change the orientation via the input panel by tapping **CTRL+ALT** and then selecting one of the arrow keys.

  NOTE Some applications may not display properly in portrait orientation.

- *How long will the battery last?*

  The main Li-Ion battery lasts approximately 3 hours with normal use. You can increase your runtime on battery power by using a second external battery.

- *How do I optimize the Duo-Touch for left handed use?*

  - You can select a left-handed preference. Select **Start**, **Control Panel, Tablet and Pen Settings**. Then select the **Settings** tab and check **Left-handed** in the **Handedness** and **Menu location** fields.

  - You can change the screen orientation 90°, 180°, or even 270°. See the answer to "How do I change the display orientation?" above.

  - You can change the hand strap on the back of the Tablet PC for the use that best suits you.

Service and Support

Our commitment at Itronix is to provide you, our client, with both the products and support services necessary for success in your enterprise.

Client Care Center

The Itronix Client Care Center strives to consistently provide world-class service and continually make improvements thanks to valuable input and ideas from our customer base.

Product Support - Downloads

Get the software updates you need to keep your configuration current.

Client Care Center (CCC)

THE ITRONIX *"ONE CALL"* CLIENT CARE CENTER
1-800-638-9270

The convenient **"One Call"** Client Care Center number, **800-638-9270**, allows a single entry point of access to meet all your needs (or new web portal at www.itronix.com/CCC), including:

- Troubleshooting and/or RMA Origination
- Trial/Demo/Pilot Unit Orders and Status Updates
- Placing and Checking Status on Unit and/or Parts Orders
- RMA Status check on Service Unit and Warranty/Service Parts Orders
- New Accessory, Peripheral and Service Parts Orders
- Proof of Delivery Status Updates for Service and New Unit Orders
- International New Unit & Accessory, Peripheral and Service Parts Orders
- Centralized access for all Invoicing and Finance related issues

The **Itronix "One Call"** Client Care Center access number in the America's is **800-638-9270.** Automated selections on the recording have been changed, so please listen to the recording closely and choose from the following options:

1	New to Itronix and would like to purchase products for the first time or interested in becoming an Itronix Business Partner
2	Technical Assistance Center for Troubleshooting, Unit Exchange Information, Warranty Unit and Service Parts Orders
3	Speak with your assigned point of contact
4	New Orders for Accessories, Peripherals and Service Parts Ordering (such as batteries or chargers)
5	Finance, Invoicing or Credit Related Issues and Proof of Delivery
8	Non-urgent message with reply within 48 hours

You can also e-mail us at ccc@itronix.com

NOTE For support and queries in Europe, Middle East and Africa, please Click Here or call +44 (0)24 7671 4800

Services Expertise: Itronix provides in-field support provided by a network of Field Service Managers whose expertise focuses on specific vertical applications and industries. Strategically located to provide nationwide support, they can provide both first level and escalated customer support. In addition, the Field Managers perform regular site visits to receive feedback on customer satisfaction, training or individualized support needs, product performance and future value-add post-installation support needed for anticipated changes in the customer environment and user community or profile, as well as to garner input on future product designs. For more information on our comprehensive services offering, please Click Here.

Product Support - Downloads

Itronix Corporation makes it easy to get the software updates you need to keep your configuration current and get the most from your Itronix product. Simply go to the Tablet PC section of the Product Support downloads page on the Itronix website. Downloads are listed by model (Duo-Touch) and product number (IX325).

Glossary

A

AC adapter: The standard charging device shipped with the Duo-Touch that supplies power from an AC wall outlet to operate the Tablet PC and charge its battery.

antenna: If you have a wireless modem installed in your computer, this device sends and receives radio waves for this modem.

application: A program designed for a specific purpose such as solving a particular business or mathematical problem.

B

battery status LED: An indicator on the LED light bar that indicates when battery capacity is low, when the battery is charging and when the battery is fully charged.

BIOS Setup Utility: A utility that allows you to change default settings for your hardware options and power management.

bit: The smallest unit of computer data (binary digit).

Bluetooth: A short range wireless radio technology.

C

ccc: Client Care Center. Call or e-mail the Itronix Client Care Center for service and support. 1-800-638-9270. ccc@itronix.com

CDMA: Code-Division Multiple Access

CRM: Common Radio Module

CTO: Configure To Order

D

desktop: The screen background for Windows on which windows, icons, and dialog boxes appear.

DPM: Dynamic Power Management

dust cover: A rubberized cover that provides added protection for the USB and Audio ports when they are not being used.

E

EDGE: Enhanced Data rates for GSM Evolution

external power: Any of the approved devices used to supply power to the Duo-Touch, including the AC adapter, the desk mount, the vehicle adapter, and the vehicle dock.

F

fast charge: A method of quickly increasing the battery capacity while the Duo-Touch is attached to external power. This is the normal and preferred charging method. It takes approximately four hours to fully charge the battery using this method.

G

GPRS: General Packet Radio Services

GSM: Global System for Mobile Communications

H

hard disk: A rigid magnetic storage device that provides fast access to stored data. The standard hard disk for the Duo-Touch is rugged to withstand more shock and vibration than hard disks in typical notebook computers.

hardware: The electronic components, boards, peripherals, and equipment that make up your computer system.

I

indicator lights: The small lights that blink or remain on or off to indicate activity on the system. They include an Power light, a Battery light, a Hard Disk light, and a Wireless Radio light.

L

LAN: Local Area Network

LCD: Liquid Crystal Display

LED: Light Emitting Diode

M

megabytes (MB): A unit of memory measurement equal to approximately one million bytes (1,048,576 bytes).

megahertz (MHz): A measurement of electrical frequency equal to one million cycles per second.

microphone: A device that allows a user to talk into the computer, or to another person.

MS-DOS: Microsoft Disk Operating System. The standard, single-user operating system of IBM-compatible computers.

O

online help: A help utility available on-screen while you are using an application.

operating system: A set of programs that manage the overall operation of the computer.

P

PC card: A self-contained, credit card-sized device that can be used to store programs, data, or to expand the capabilities of your computer.

Pen: See Stylus.

PME: Power Management Event

port: An interface between the computer and external devices.

Power On Self Test (POST): A diagnostic test run by the computer's BIOS system when the computer restarts.

power port: A port used to connect the external power supply to the Duo-Touch.

power status LED: The bottom light on the LED panel, this light is blue when the computer is powered on. It blinks blue when suspended.

PRCS: Pseudo-Random Code Sequence

R

radio on/off light: The top status light. If your computer is equipped with a radio modem, this light indicates radio activity.

RAM: Random Access Memory

Random Access Memory (RAM): The computer's primary working memory in which program instructions and data are stored so they are accessible directly to the central processing unit (CPU).

RJ-11 connector: A port used by the internal modem to communicate over standard voice grade telephone lines.

RJ-45 connector: This is the standard Ethernet network connector, supporting 8 copper wires. You plug an RJ-45 cable into an RJ-45 port.

RTC: Real Time Clock

rugged: The unique design of the Duo-Touch allows it to withstand the day to day rigors of the mobile workforce.

S

Self-Monitoring Analysis and Reporting Tool (SMART): This technology reports on a variety of hard drive attributes. With SMART you should be able to receive system warnings about your hard drive and avoid costly lost data with early warning.

serial port: A port that can be used to connect a printer or modem.

slow charge: A method of increasing the battery capacity while the computer is attached to external power. This method uses lower AC voltage. It takes approximately 16 hours to fully charge the battery using this method.

SMS: Short Message Service.

software: System, utility, or application programs expressed in a computer-readable language. Software programs tell the hardware components what to do.

speaker: Located on the top of the computer, the speaker provides sound for the unit.

stylus: The stylus (also called pen) is the implement used to navigate and input on the display. Only use the Itronix stylus provided with your Duo-Touch.

suspend mode: Suspend mode turns off certain functions of the computer if there is no activity for a user-specified time. The computer also enters suspend mode if the battery capacity becomes critically low and external power is not connected or the battery is not replaced. Some systems do not automatically enter suspend mode when they are connected to external power.

SVGA: The Duo-Touch has an 8.4" SVGA TFT active matrix display. It is a transmissive color display designed for excellent readability indoors or outdoors.

T

Taskbar: The area along the bottom of the screen that contains the Start button and buttons for windows, documents, or applications that are open.

TDMA: Time Division Multiple Access.

U

UMTS: Universal Mobile Telecommunications Service

USB: Universal Serial Bus

utility: A program that helps you maintain and improve the efficiency of the computer system.

V

vehicle adapter: An optional device that supplies power from the vehicle battery to operate the computer and charge the battery installed in the unit. It typically connects to the vehicle battery using the cigarette lighter socket.

vehicle dock: An optional, vehicle-based docking station designed to safely secure the computer in a vehicle. You can also use the vehicle dock to charge batteries, or to communicate with other devices.

Video Graphics Array (VGA): This is a video standard that allows for resolutions up to 640x480 with up to 16 colors at a time. It also allows for 320x200 resolution with 256 colors.

W

WAN: Wide Area Network

WLAN: Wireless Local Area Network

WPAN: Wireless Personal Area Network

Identification

Duo-Touch (IX325) Help

Copyright Notice

© Copyright 2005 Itronix Corporation. All rights reserved. No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any other language or computer language in whole or in part, in any form or by any means, whether it be electronic, mechanical, magnetic, optical, manual, or otherwise, without the prior written consent of Itronix Corporation, South 801 Stevens Street, Spokane, Washington 99204.

Disclaimer

This document is printed in the U.S.A. Itronix Corporation reserves the right to revise the manual and make periodic changes to the content without a direct or inferred obligation to Itronix to notify any person of such revision or changes. Itronix Corporation does not assume responsibility for the use of this help manual, nor for any patent infringements or other rights or third parties who may use the manual.

This document contains valuable trade secrets and proprietary information of Itronix Corporation.

This product is available for purchase under the terms of the Itronix Hardware Purchase and Software License Agreement. Itronix hardware products may be reconditioned, or be manufactured from parts and components that may be new, used, rebuilt, or recycled and in some cases, the hardware product may not be new and may have been previously installed. In any event, Itronix warranty terms apply.

Trademark Notice

Itronix is a registered trademark of Itronix Corporation.
Duo-Touch is a registered trademark of Itronix Corporation
Microsoft, MS, Windows, and MS-DOS are registered trademarks of Microsoft Corporation.
IBM is a trademark of International Business Machines Corporation.

Compliance Statements

The Duo-Touch™ (IX325) computer has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

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

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

The Duo-Touch (IX325) Tablet PC 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.

The REN is used to determine the quantity of devices which 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 (5.0). 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.

The Duo-Touch (IX325) Tablet PC may be connected to the telephone network using the RJ-11 jack provided.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, 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 provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact the equipment manufacturer for repair and/or warranty information. Do not attempt repairs of this equipment yourself without obtaining manufacturer authorized parts and documentation. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

Compliance Statement for Canada

NOTICE The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). 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 made 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.

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

The Ringer Equivalence Numbers (REN) are:

Duo-Touch (IX325) non-radio: 0.5B

Duo-Touch (IX325) Motient: 0.5B

Duo-Touch (IX325) Cingular: 0.5B

Duo-Touch (IX325) CDPD: 1.3B

NOTICE 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 Numbers of all the devices does not exceed 5.

The Duo-Touch (IX325) Tablet PC may be connected to the telephone network using the RJ-11 jack provided.

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic 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 fax machine, you should complete the following:

This information is entered through the FAX application software you have installed. Consult your FAX software documentation for instructions about entering this information.

Warnings and Cautions

WARNING It is important that only authorized Itronix personnel attempt repairs on Itronix equipment as this might void any maintenance contract with your company. Unauthorized service personnel might be subject to shock hazard on some Itronix equipment if removal of protective covers is attempted.

The product you have purchased is powered by a rechargeable battery. The battery is recyclable and, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Do not crush the battery or place it in a fire. Check with your local solid-waste officials for details on recycling options or proper disposal.

CAUTION Internal components of the Duo-Touch (IX325) Tablet PC will be damaged if exposed to contaminants. When dust covers, the PC card door, or the bottom access panel are open on the computer, shield the unit from all contaminants such as liquids, rain, snow, and dust.

CAUTION To reduce the risk of fire, use only a No. 26 AWG or larger CSA Certified and/or UL Recognized telecommunication line cord set.

CAUTION The Duo-Touch (IX325) is a Mobile device. When using Radio's Users must maintain 20 cm from all antennas. It is recommend that radios only be operational when in desk mount or on desktop locations. Do not operate Radio's when transporting with shoulder strap, Lap-held or hand-held positions.

The Duo-Touch (IX325) may contain the radio transmitters listed below. The following statements are relevant when using these radios:

Each internal radio may or may not have an individual FCC Identifier label. That FCC Identifier label is not applicable to this configuration. Only the external FCC ID shown on the Tablet PC is applicable.

The Duo-Touch (IX325) Tablet PC must not be co-located or operating in conjunction with any other antenna or transmitter than specified in the certification of the FCC Identifier shown on the PC label.

The WAN antenna is located externally at the upper right side (PCMCIA slot) of the display screen.

The WLAN embedded antenna is located internally in the upper section of the display screen.

The Bluetooth embedded antenna is located internally in the left side edge of the display screen.

This device may contain a WLAN radio transmitter, a WAN radio transmitter and a Bluetooth radio transmitter. To comply with FCC RF exposure requirements when using the WAN radio transmitter, a minimum separation distance of 20 cm must be maintained between the external dipole antenna and all users/bystanders. When using the WLAN transmitter, a minimum separation distance of 20 cm must be maintained between the top center edge of the LCD display and all users/bystanders. When using the Bluetooth transmitter, a minimum separation distance of 20 cm must be maintained between the left side edge of the LCD display and all users/bystanders. The WAN radio, WLAN transmitter, and the Bluetooth should be turned off before carrying the Tablet PC order to comply with FCC RF exposure requirements

"The equipment has been approved to [Commission Decision "CTR21"] for pan-European single terminal connection to the Public Switched Telephone Network (PSTN). However, due to differences between individual PSTNs provided in different countries the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problems, you should contact your equipment supplier in the first instance.

Safety Information

Enclosed with each IX325 Tablet PC is the Radio Specific Safety information. Do not proceed with out reviewing the information provided on that document.

Do not proceed beyond a **WARNING** or **CAUTION** until the indicated conditions are fully understood and met.