English

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Getting Started

Congratulations on your purchase of the Duo-Touch II Tablet PC! Your new Duo-Touch II 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 II 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 II 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 II 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 technical.publications@gd-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 II Tablet PC with the following features and parts:

Standard Parts

Standard Features

Optional Features

Optional Accessories

Where to Look For Information

About Your Duo-Touch II Tablet PC

About Windows XP

About Windows Vista

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 II will be damaged if exposed to contaminants when doors 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
- Some vents 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 II 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 II at temperatures above 140°F (60°C) or below -4°F (-20C)
- Do not store the Duo-Touch II 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 II On
- Calibrating the Display

More Basics

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

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.

Best Practices for the Duo-Touch II

This section provides Duo-Touch II with recommended practices intended to maximize the service life of the equipment and provide resolution to common issues. For more detailed discussions of care, maintenance and troubleshooting, see the sections below:

- Operating with Battery Power
- Customizing Your BIOS Settings
- Maintenance and Storage
- Troubleshooting

General Daily Operations

1. **Missing Case Feet, Port Covers and Doors**: Inspect for broken, loose or missing parts and fasteners.

   a. Items such as missing case feet can present alignment and fit issues when the Duo-Touch II is used in a vehicle dock. A loose fit condition can subject the Duo-Touch II to excessive vibration and shock from daily driving conditions.

   b. Missing port covers or doors create contaminant entry points which may lead to system failure.

   c. Replacement port covers, doors, and case feet are available as field kits. contact your support

representative for order requests.

2. **Screen Cleaning**: The Duo-Touch II display, with proper usage and cleaning, will last for the anticipated field life of the product (3 to 5 years) without significant degradation in view ability or function.

    a. For mild cleaning tasks use the micro-fiber cleaning cloth provided with your unit. Tougher contaminates such as oily fingerprints may require light dampening with clean water, and will be effective for most contaminants without damaging the screen surface. This method should always be tried before stronger solutions are considered.

    b. For tougher cleaning tasks, a mixture of Isopropyl Alcohol and Water (50/50) used with the cleaning cloth is effective and will not damage the Touch Screen surface.

    c. Never use paper products such as paper towels or wipes to clean the display surface. Paper products are abrasive and act much like fine sandpaper causing irreversible damage to the screen surface and anti-glare hard coat.

    d. Both replacement Display Cleaning Cloths and approved Display Cleaning solution are available as Field Kits. Contact your support representative for order requests.

3. **Screen Overlay Use**: A screen overlay is recommended for environments with high contaminant potential.

    a. A Screen overlay provides protection from damage caused by use of foreign objects or surface contaminants, and maximizes the useful life of the screen surface.

    b. Worn, scratched, or otherwise damaged screen overlays can be replaced.

    c. Contaminants on the screen overlay surface should be removed by following the same cleaning methods noted above.

    d. The screen overlay has a negligible impact on overall display brightness/viewability and provides enhanced screen clarity while maximizing the screen surface useful life.

    e. Screen Overlays are available as Field Kits. Contact your Support Representative for order requests.

4. **Use of the Touch Screen Stylus**: If your Duo-Touch II has the optional integrated Touch Screen use the included stylus. Foreign objects such as ball point pens or hand tools should never be used for Touch Screen input; they will cause damage to the screen surface.

    a. A clean finger tip can be used for Touch Screen input with out damaging the screen surface. Fingertip use may introduce contaminants to the Touch Screen surface and increase periodic screen cleaning requirements.

    b. Replacement Styli are available as Field Kits. Contact your Support Representative for order requests.

NOTE: Available Field Kits and can be ordered through the iCare Servenet Portal, or by contacting the Client Care Center (CCC) at 800-638-9270, option 2. Access to the iCare Servenet Portal requires a User Name and Password. Portal access will be setup upon request.

5. **Ensure that the computer is operated and stored within its specified temperature range.**

    1. Operating Temperature -4° F to 140° F (-20° C to 60° C)

    2. Storage Temperature -67° F to 167° F (-55° C to 75° C)

6. **Conserve battery charge when possible to maximize battery life during daily use.**

    1. Partial discharge/charge cycles are preferred compared to draining the battery completely and recharging.

7. **Avoid prolonged exposure to temperature extremes.**

    1. Cold temperature extremes may result in reduced available energy from the battery. This energy is recoverable as the battery warms to a nominal temperature of 68° F (20°C).

    2. Prolonged exposure to high temperatures can result in a permanent reduction in available energy from the battery.

    3. Battery charging is disabled below 32° F (0°C) and above 113° F (45°C) to protect the lithium ion cells in the battery.

8. **Power Down:** Exit all applications, and shutdown or reboot at the end of each work day. If the computer is left powered overnight, ensure that all applications are closed and perform a restart prior to beginning daily operations.

    1. This practice ensures that all applications (and system resources used by those applications) are reinitialized each work day.

    2. Unless an application is specifically designed for 24/7 operation, a daily practice of restarting (resetting) an application can minimize the potential for a wide variety of operational anomalies often perceived as a hardware failure.

9. **Use of the Duo-Touch II in a Vehicle Dock**:

    1. Never attempt to operate the Duo-Touch II or read the display while driving. This is extremely distracting and may increase potential for accidents.

Tips for New Owners

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

- **Take the Windows tutorials**

  For Windows XP, select "Get Going with Tablet PC" from the Start Menu.

  For Windows Vista, select Start, Welcome Center, Tablet PC Pen Training.

- **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 Tablet PC or carrying case**

- **Be careful when placing your Tablet PC 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 Tablet PC and accessories**
  In the workplace, Tablet PCs 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 secure the Tablet PC 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.

Power Management

1. **Power Management Applications**: The use of Windows Power Management or Duo-Touch II Power Saver (if equipped) applications is recommended to provide maximum battery run time and prolong battery service life. Default settings allow the Duo-Touch II to enter a Standby/Suspend state after a set period of inactivity. Extending or Disabling the Standby/Suspend time-out period will increase power consumption and reduce operational time on battery power.

   The Duo-Touch II will resume/wake from Standby by pressing the Power Button.

2. **Display backlight power settings**: Extending or disabling the display backlight time-out period increases power consumption and reduces operational time on battery power. The display backlight will resume power with keyboard or cursor activity.

3. **Shutdown**: Shutdown the Duo-Touch II when it will not be used for extended periods to conserve battery power. Depending on the configuration of the Duo-Touch II there are specific considerations:

   1. Basic Configuration – No PC Card devices, RF Modems or external device connections. When using a basic configuration unit, there are no special considerations for power management.

   2. Integrated RF Devices – Disable integrated or user installed RF devices when not in use as they can consume battery power unnecessarily

   3. Externally connected devices – Some externally connected devices may be powered by the Duo-Touch II. It is best to exit any application utilizing these devices prior to powering off. Restarting the application should reinitialize the device. Externally connected devices or peripherals using Duo-Touch II battery power may result in reduced battery run times.

File Management

Backups: It is good practice to backup essential data and files periodically. Any data or files stored in volatile memory (RAM) can be lost in the event of a hard reset or unexpected shutdown. Contacts, tasks, calendar, email, and documents should be safeguarded against loss.

Battery Charging

1. **Charge the battery at room temperature** (approximately 68° F [20° C]) for best results. Charge acceptance is optimum at this temperature and requires the least amount of time to fully recharge. At room temperature the Duo-Touch II battery requires approximately three (3) hours to recharge from a fully discharged state.

2. **Charge the Duo-Touch II Battery at the end of each work day:**

    c. Exit all applications and power off.

    d. Connect to external power; Verify External Power LED.

    e. Verify charge indicator LED.

3. **At the beginning of each work day:**

    a. Check for battery charge status (Recommend Fully Charged)

4. **During each work day:**

    a. Connect AC Charger, Vehicle Dock, or Vehicle Power Adapter whenever possible.

    b. Verify charging indicator LED.

Storage

1. **Storing the Duo-Touch II for five (5) days or less**

    a. Install the battery pack and connect the Duo-Touch II to external power and allow the battery pack to fully charge. The charging LED will be solid orange while charging and green when battery charging is complete.

    b. Shut down the Duo-Touch II and store in a cool, dry location.

2. **Storing the Duo-Touch II for longer than five (5) days.**

    a. Lithium Ion batteries can be permanently damaged if the Duo-Touch II is stored for extended periods requiring battery replacement.

    b. If the computer will be stored for more than 5 days, backup files and data, fully charge the battery, and then discharge it to 40% and remove the battery.

    c. The Duo-Touch II and battery should be stored in a cool, dry location.

3. **When storing Li-Ion battery packs for extended periods, consider these factors**

    a. Fully charged Li-Ion battery packs deteriorate faster than partly discharged ones. For ideal storage, charge the packs to 100% and then discharge them to a 40% charge before storage.

    b. Do not allow stored Li-Ion packs to discharge completely, as this may permanently damage them. Stored packs should be recharged to 40% capacity every six (6) months.

    c. Storing packs at temperatures near 0°C (45°F) slows down self-discharge and battery aging; packs that are stored for a long period should be kept at low temperatures where practical.

    NOTE Store batteries as close as practical to 0°C (45°F) without allowing the batteries to freeze or reach 0°C (32°F).

    d. If you store battery packs at normal ambient temperatures, use the following charge policy to maintain battery pack condition:

i. Store batteries within the temperature range of 15°C to 30°C (59°F to 86°F).

ii. Charge installed packs every 5 days to maintain their charge capacity.

iii. Charge uninstalled packs every six (6) months to 100%, then discharge to 40% and return to storage.

Troubleshooting

These are basic troubleshooting tips. For more complete help with troubleshooting, see the Troubleshooting section at the end of this Help file.

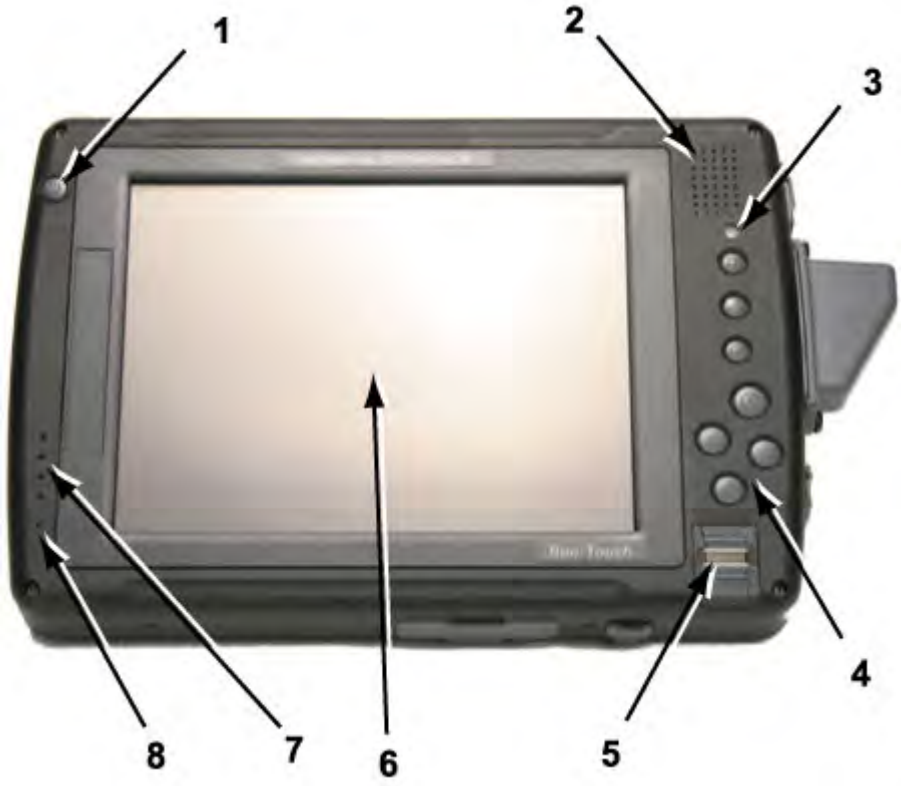
1. **Battery Power – Battery does not charge**
2. **Battery Power – Short run time**
3. **Lock-ups**
   a. Determine if the Digitizer, Touchscreen, or keypad inputs are recognized.
   b. Attempt to close any programs that are not responding (press the **Security key**, **Task Manager**).
   c. If Task Manager does not list any suspect programs/applications, perform a reboot.
   d. Restart applications and try the specific operation again.
   e. If the Shut down Menu does not respond, press and hold the power button for approximately 10 seconds to perform a forced shutdown. Note: Any unsaved data will be lost when using this shutdown method.
4. **RF Communications**
   a. If coverage is historically good at this location, check the signal strength. Reposition the computer slightly to increase signal strength. Wait approximately five (5) minutes. Determine if there is RF activity. Applications provided with RF devices generally provide diagnostic capability.
   b. If not resolved, exit all applications, restart the applications, and try RF communications again.
   c. If not resolved, connect external power and perform a restart.
   d. Restart applications and try RF communications again.
5. **Additional Information is Available**
   a. The Duo-Touch II Getting Started Guide included with the original shipment packaging.
   b. The Duo-Touch II factory installed Windows image includes a resident help file with a link on the desktop; alternately Help can be accessed via the following path: **Start -> All Programs -> Mobile Computer Tools**.
   c. Please contact your Support Representative for any additional questions.

Getting Familiar with your Tablet PC

The Duo-Touch II is a rugged , weather-sealed Tablet PC 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 II Tablet PC. This document uses the landscape view as the default orientation.

Front View



#	Feature	Description
1	Power Button	Press this button to turn the unit on or off or to hibernate
2	Speaker	Use the integrated speaker for audio output
3	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.
4	Hot Keys	Speeds common functions such as changing the display orientation
5	Fingerprint Scanner	Optional Fingerprint Scanner for additional security.
6	Display	8.4" TFT SVGA Outdoor Transmissive Display with Digitizer Control Panel and optional Touch Screen
7	LED Status Indicators	The LEDs light up when a particular function of the computer is active
8	Microphone	Use the sealed, integrated microphone for audio input

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, a mouse, scanners, printers and other USB devices. USB devices can be chained together on a single cable.
3	CF Slot	Housing for (optional) GPS electronics and antenna or CF Slot for Compact Flash Cards and devices.
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.

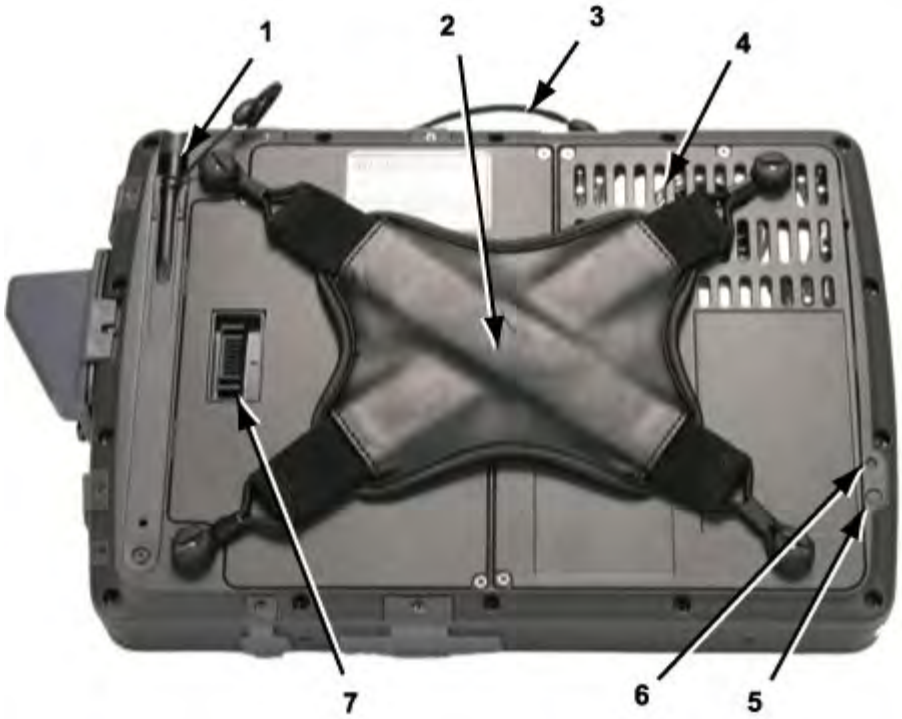
Top Edge View

#	Feature	Description
1	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.
2	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.
3	Pen Tether Slot	Thread your pen tether through this slot.
4	Pen Storage Slot	Store the pen / stylus here when not using it.

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	Hand Strap	Allows Duo-Touch II to be held with one hand (optional device).
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 II.
5	RF ON/OFF Button	This button enables/disables WLAN , WWAN, Bluetooth, and GPS radios.
6	Master Reset Key	Use the stylus tip in this hole to perform a hard reset of your Duo-Touch II. 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.
7	Second Battery Connector	Attach a second, external battery to this connector to extend battery life.

Buttons and Hot Keys

The Duo-Touch II 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. **NOTE** 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		OK/Enter Key	Press this key just like you would press the **Enter Key** on a desktop computer. For example, use this key to execute a command, 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

Programming Hot Keys

Power Button

RF ON/OFF Button

Master Reset Key

LED Status Indicators

The Duo-Touch II 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 powered on
2		HDD Status LED	**Blinking Green**	Accessing the Hard Disk Drive
3		Battery Status LED	**Green**	Fully Charged
			Orange	Charging
			Red	Battery capacity is less than 10%
4		Power Status LED	**Solid Blue**	Unit is turned on
			Blinking Blue	Unit is suspended

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

Display and Pen Basics

Your Duo-Touch II has an 8.4" TFT SVGA outdoor viewable DynaVue™ (patent-pending) 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.

Using the Pen / Stylus

Changing the Display Orientation

Switching Between Digitizer and Touch Screen Modes

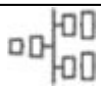
Calibrating the Display

Ambient Light Sensor

Adjusting Screen Brightness

See Maintenance and Storage for information on how to clean the display.

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

Disk Drives

Your Duo-Touch II 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 II 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. There is also a Solid State Hard Drive option.

Card Slots

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

Optional External Drives

The Duo-Touch II has three USB external drive options that may be connected to the Tablet USB ports. 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 II 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 to clean DVDs or CDs. 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

Computer Security

Your computer includes several different security features to help prevent theft and protect data. These include a security slot, multiple levels of password protection, an optional fingerprint scanner, and stealth mode.

Security Slot

A security slot located on the left side of the computer lets you connect a Kensington compatible computer security lock. You can connect the computer to an immovable object to prevent theft. Insert the lock into the notch and turn the key to secure the lock. Some keyless models are also available. See the documentation that comes with your lock for more information.

Passwords

Passwords protect your computer from unauthorized access. When set, no one can access the computer without entering the correct password.

There are three types of passwords you can set:

- **Supervisor Password** secures your computer against unauthorized entry to critical parameters in the BIOS Utility
- **User Password** secures your computer against unauthorized use, and allows limited access to the BIOS Utility
- **Hard Disk Password** protects your data by preventing unauthorized access to your hard disk, even if the hard disk is physically removed from the computer and installed in another computer

NOTE Do not forget your Setup and Hard Disk password! If you forget your password, please get in touch with your dealer or an authorized service center.

Fingerprint Scanner (Optional)

The optional swipe style fingerprint scanner can be used for all standard security uses. The optional fingerprint scanner provides a greater level of security and convenience for your Duo-Touch II and your private data. Use the fingerprint scanner instead of passwords for the following:

- Logging in to your Tablet PC
- Logging into secure websites or when opening password protected applications
- Providing encryption security for individual files

Fingerprint Scanner Software

Before using the fingerprint scanner, you must first install compatible software. There are various software packages available.

CAUTION Before installing any third party software, ensure it is approved for use with your Tablet PC.

NOTE When accessing some secure websites, you may need to specify you are using the scanner instead of a password. Refer to the fingerprint scanner software documentation for setup instructions.

Stealth Mode

Your computer has a Stealth Mode feature for users who may need to use it where light or sound could be dangerous or disruptive, such as military personnel. Enabling Stealth Mode allows you to disable sound and light features such as system beeps, the fan, and the display backlight. Refer to the BIOS Setup Utility section to configure the Stealth Mode feature.

Trusted Platform Module (TPM)

The TPM can be enabled or disabled in the System BIOS utility under the Advanced, Trusted Computing section. TPM provides a platform root of trust which uniquely identifies a particular platform and provides various crypto capabilities including hardware-protected storage. See the TPM vendor's help files for more information.

Making Connections

Your Duo-Touch II 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: Keep port doors closed when not in use. Internal components of the Duo-Touch II 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 on external power or on battery power.

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 II 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.

To turn off the computer

For Windows XP:

From the Start menu, select **Turn Off Computer,** then select **Turn Off.**

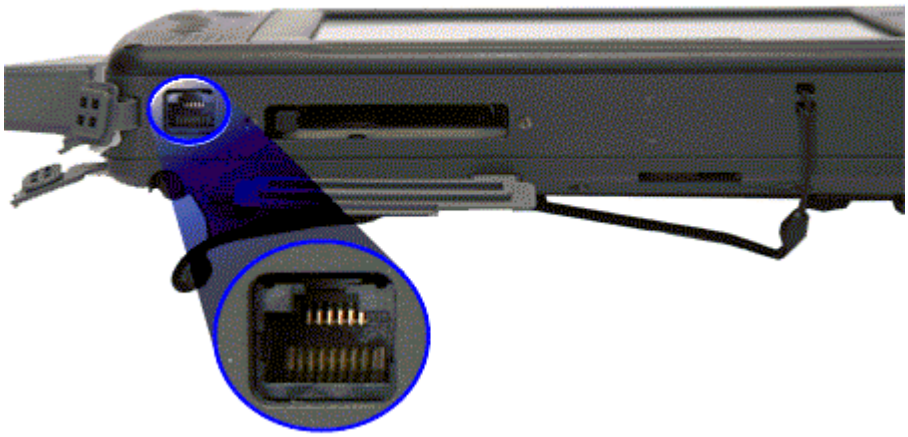
For Windows Vista:

Select the Start button , select the **Arrow** button, then select **Shut Down**.

NOTE 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 Managing Power 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.

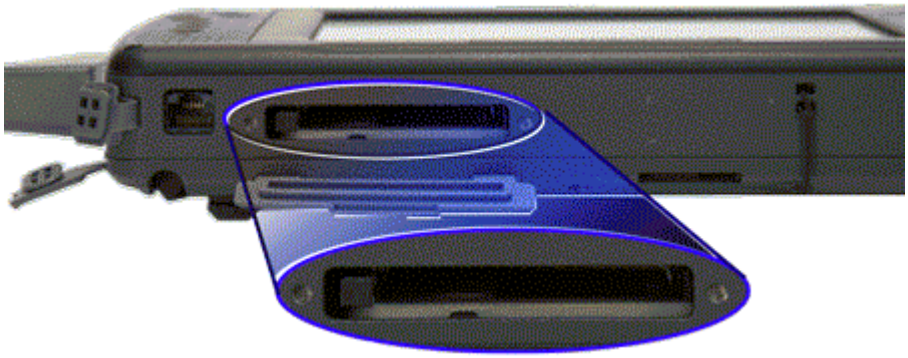
CAUTION Plug your modem into an analog telephone jack only. Most homes use analog lines. Do not use digital lines, such as PBX and ISDN systems found in many offices. Digital lines may damage your modem. If you are unsure as to the type of port you have to plug into, contact your building superintendent.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

NOTE Port access to connect the modem is disabled for the Australian market.

Attaching USB Devices

The two Universal Serial Bus (USB) 2.0 ports enable you to attach USB devices such as keyboards, a mouse, scanners, and printers.

Using PC Cards



The Duo-Touch II 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 II 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

Ejecting a PC Card

Using CompactFlash Cards

Your Duo-Touch II 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. The CompactFlash slot is also used to house the optional GPS radio and antenna.

Installing a CompactFlash Card

Ejecting a CompactFlash Card

GENERAL DYNAMICS
Itronix

Audio

Your Duo-Touch II 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: Fn + ESC = Volume Up; Fn + OK= Volume Down, or
- Open the Windows volume control program by Double-tapping the speaker icon in the taskbar .

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2007 November 14
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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 II has superior wireless capabilities. Depending on your configuration, it supports up to four optional wireless radio technologies: PC card wireless technologies; Bluetooth, Wireless LAN (WLAN), and GPS.

Each Duo-Touch II comes standard with three antennas for wireless communication; two WLAN and one Bluetooth. GPS and PC Card radio antenna are optional accessories.

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

Your Duo-Touch II has an RF ON/OFF button on the back. This can be used to turn off Bluetooth and disable WLAN, WWAN, and GPS radios. The radios can also be enabled or disabled in the BIOS on the Advanced tab, Extended Configuration. For a more detailed look at wireless communications, click here.

Bluetooth Radio (optional)

The Duo-Touch II includes an integrated Class 1 Bluetooth option. Its maximum range is about 100 meters.

Turning the power to the Bluetooth and GPS radios on or off and enabling/disabling the WLAN

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

Read About Bluetooth

WLAN Radio (optional)

The Duo-Touch II has an integrated 802.11 A/G/N WLAN radio option. Its typical range is 100 to 300 meters in open spaces and 30 to 100 meters indoors. Internal antennas are provided for the WLAN radio.

Turning the power to the Bluetooth and GPS radios on or off and enabling/disabling WLAN radios

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

Read About WLAN

Read About In-Building WLANs

Read About Building-to-Building WLANs

Read About Combination WLANs

GPS (optional)

About GPS

The Global Positioning System (GPS) is a worldwide radio-navigation system formed from a constellation of satellites and their ground stations. GPS uses these satellites as reference points to calculate positions accurate within 10 meters.

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

NOTE GPS is not intended for use in buildings

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 the tips above 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.

PC Card Radios

Your Duo-Touch II supports the following PC Card radio technologies:

- EDGE/HSDPA/HSUPA
- 1x E-V-DO Rev 0, Rev A

User accessible PCMCIA bay for PC Card radios*

It is the responsibility of the customer to verify that all appropriate agency approvals have been met with the regard of there radio. General Dynamics-Itronix make no performance representations, warranties or guarantees, either express or implied, oral or written, with respect to the customer installed radio.

Operating with Battery Power

The Duo-Touch II uses Dynamic Power Management (DPM) so you can reduce the amount of energy used, especially during periods of inactivity. It is powered by a smart Li-ION battery pack. A CMOS coin battery maintains the Real Time Clock and CMOS memory. There is also an optional second external battery pack that effectively doubles your battery powered runtime.

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 II battery and unit are only weather sealed when the battery is properly installed and the battery door is closed. Shelter the computer when you install or replace the battery. To prevent damage when the unit is in use, keep the battery door closed with all screws in place and secured tightly.

Installing the Battery

Replacing the Real Time Clock Battery

Battery Calibration

The battery calibration process fully charges, discharges, and recharges the battery. This allows the Windows battery gas 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

BIOS Level Battery Calibration

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.

NOTE External power is required for battery calibration.

Battery Charging

When you use the AC adapter to connect your Duo-Touch II 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. When the battery is fully charged, the LED will turn 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, such as the wireless radio, cause increased battery consumption.

If a second external battery is attached to your Duo-Touch II, 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 II's specific configuration. Generally, a battery pack is good for 300 - 500 charge/discharge cycles during its useful life (70% of original capacity).

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 II is equipped with a fan to remove heat from the processor.

CAUTION The Thermal Grate gets warm during use of the Duo-Touch II. 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

CAUTION When battery power is low, the alarm beeps or displays 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:

1. Connect the AC power adapter

2. Save your work and then select Shut Down from the Start menu

3. Turn off the computer and replace the discharged battery with a charged battery (See Battery Charging).

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

Refer to Battery Tips for more information about how you can conserve battery power. Refer to Managing Power for information about how you can setup your computer to effectively manage power for your unique use patterns.

Managing Power

Your computer has power management capability 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. The power management unit monitors system activity, such as the hard drive, keyboard, mouse, or any devices attached to a port. If it does not detect activity for a period of time, the computer stops some or all of these devices in order to conserve energy.

Your computer employs a power management scheme that supports ACPI (Advanced Configuration and Power Interface), allowing for maximum power conservation and maximum performance at the same time. Windows handles all power-saving chores for your computer.

For more information search for Power Options in Microsoft (R) Help and Support.

Low-Power States

Your computer can enter three different low-power states to conserve power: **Standby/Sleep, Hibernate** and **Power Off**. These states can be entered manually or after a period of inactivity.

Standby/Sleep

Most devices in the system are powered off, but the contents of system memory are retained. Standby/Sleep is sometimes referred to as Suspend to RAM. When the computer returns from standby mode, the desktop appears with the same files and programs open as when the computer was suspended. Resume time is very quick.

Hibernate

Hibernate, or Suspend to Disk, is similar to Standby, except that the current state of the computer is copied to the hard disk in a special file. After this occurs, all devices in the computer are turned off. When the computer returns from hibernation, the desktop appears with the same files and programs open as when the computer was suspended. Hibernation saves more power than Standby, but takes slightly longer to resume.

Power Off

All applications are closed and the system is shutdown.

Entering Low-Power States

From the **Start Menu**, select **Shut Down** to display a dialog that allows you to manually enter low-power states.

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

How your battery behaves in cold conditions

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

What to do if applications are keeping the CPU busy

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. 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.

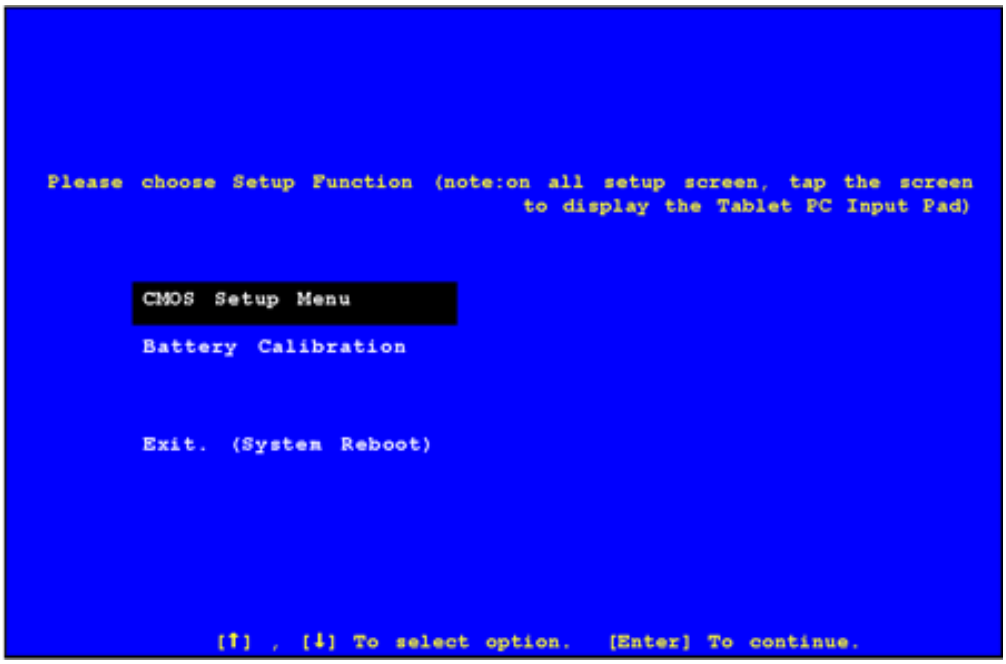
Using the BIOS Setup Utility

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 **OK/Enter key** .

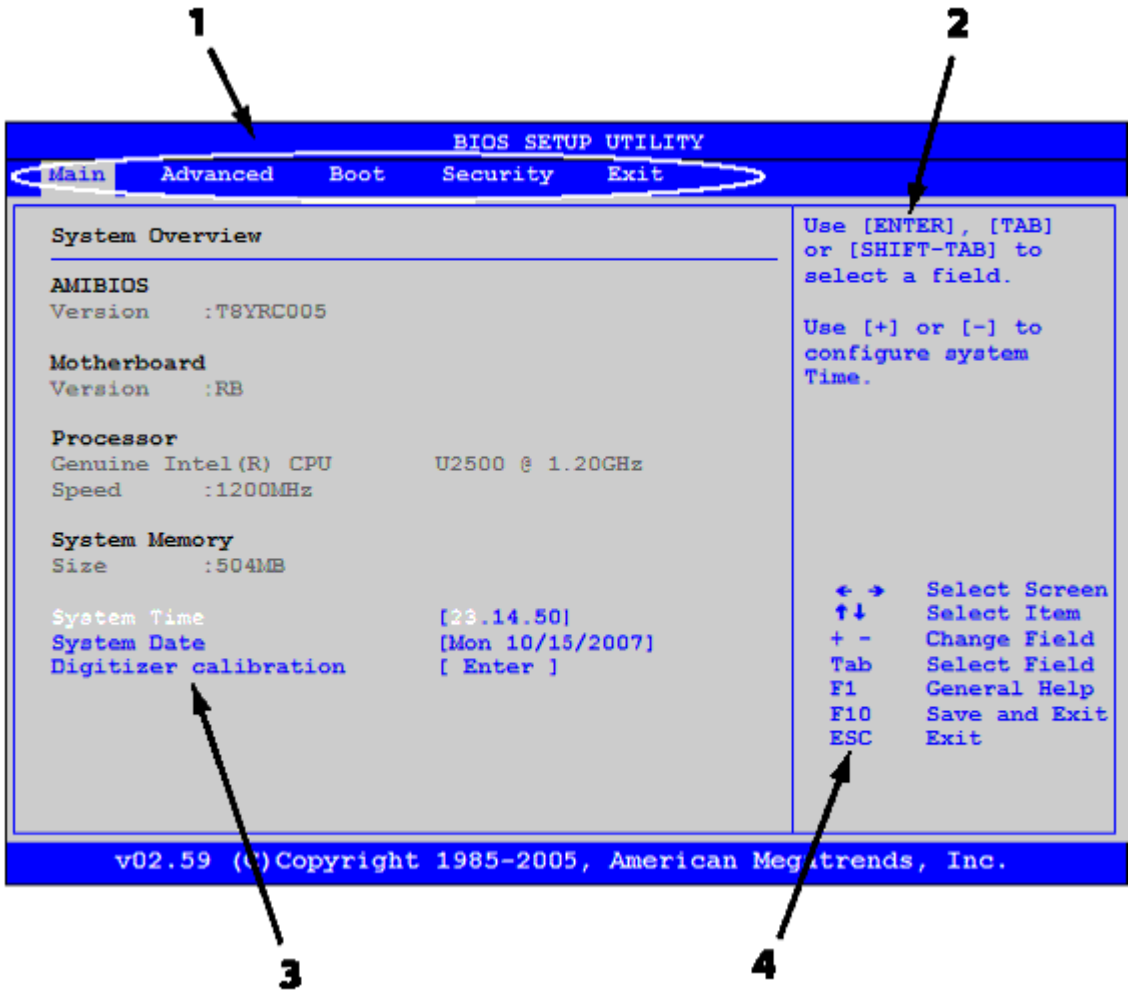
You will then see the following screen:



Use your **Line Up** or **Line Down** hot keys to highlight ***"CMOS Setup Menu"*** and press the **OK/ 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 Setup Utility has five menu options in the Menu Bar (1) at the top of the window. To navigate between the screens you must tap on the screen with the pen/stylus to see the **Tablet PC Input Pad** and use the arrow keys or attach a 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
Exit	Use to exit the current Setup session

The Field and General Help Windows

The Field Help Window (2) 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.

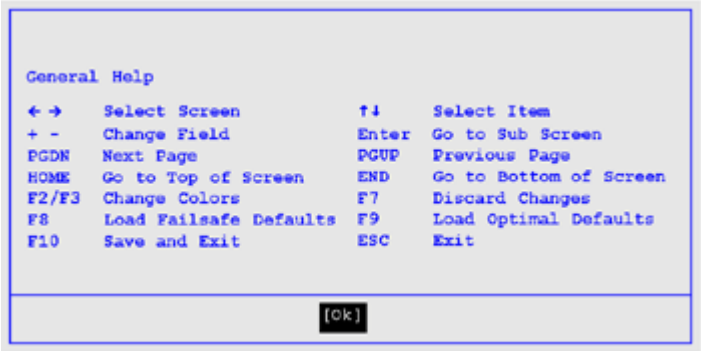
The Field List (3) is on the lower left side of the BIOS Setup Utility screen. It displays the actual field titles and entry fields for the BIOS settings.

The Navigation Menu (4) is on the lower left side of the BIOS Setup Utility screen. It displays the navigation keys used with an external keyboard.

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 II, use the Setup Utility's Tablet PC Input Pad described below:

The General Help Window describes the Tablet PC Input Pad keys and their functions. You can access it by selecting **F1**on the Tablet PC Input Pad. 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



Tablet PC Input Pad

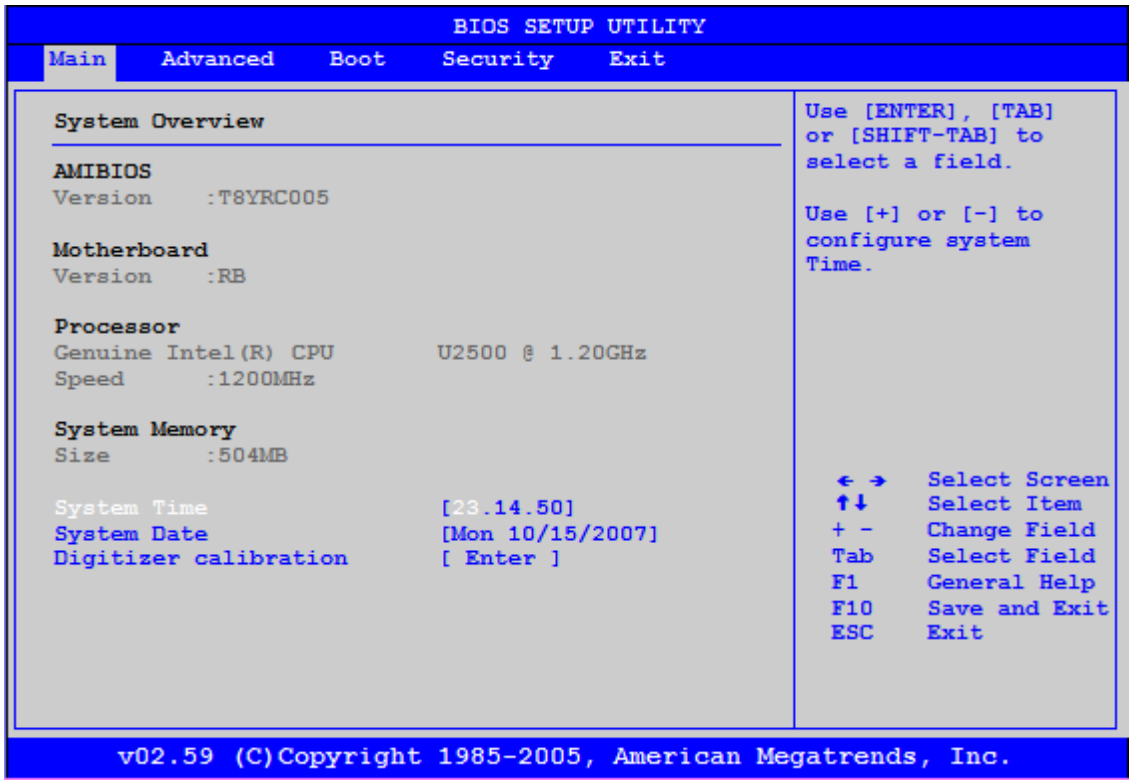
The Setup Utility has a unique Tablet PC Input Pad that appears when you hover over or tap your pen anywhere on the screen. Use the Tablet PC Input Pad to navigate between setup screens, between fields on each screen and to make any field changes. To avoid making unintentional field changes, we recommend 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 pad. 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 **OK/Enter key** to view a list of options for each field.

If you need to input characters, tap **FnA** on the Tablet PC Input Pad to expand it to a larger Tablet PC Input Pad that includes characters. Press **FnA** again to return to the small input pad.

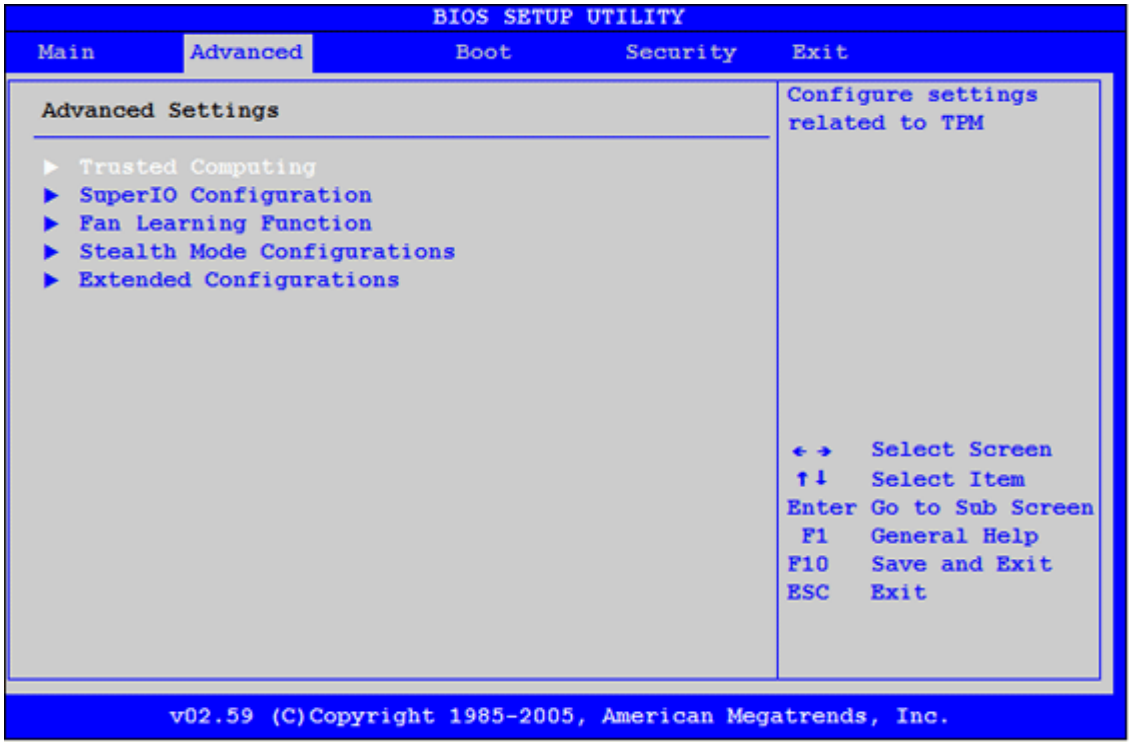
NOTE The Tablet PC Input Pad disappears after a few seconds of inactivity and when you change screens.

The Main Menu



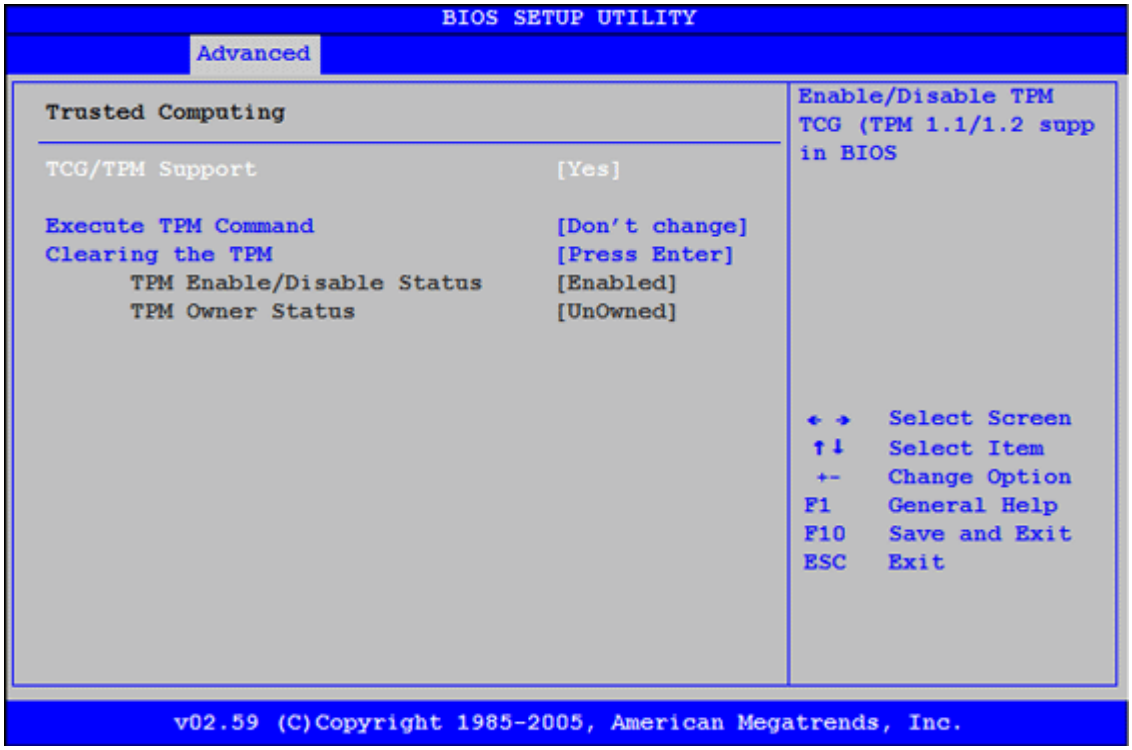
Field	Setting	Function
AMIBIOS	for information only	Version
Motherboard	for information only	Version
Processor	for information only	Type and Speed
System Memory	for information only	Size
System Time	HH:MM:SS	Configure system time
System Date	MM/DD/YYYY	Configure system date
Digitizer Calibration	Opens the Digitizer Calibration Utility	Begins the digitizer calibration. Once you have calibrated the display, the computer will restart.

The Advanced Menu



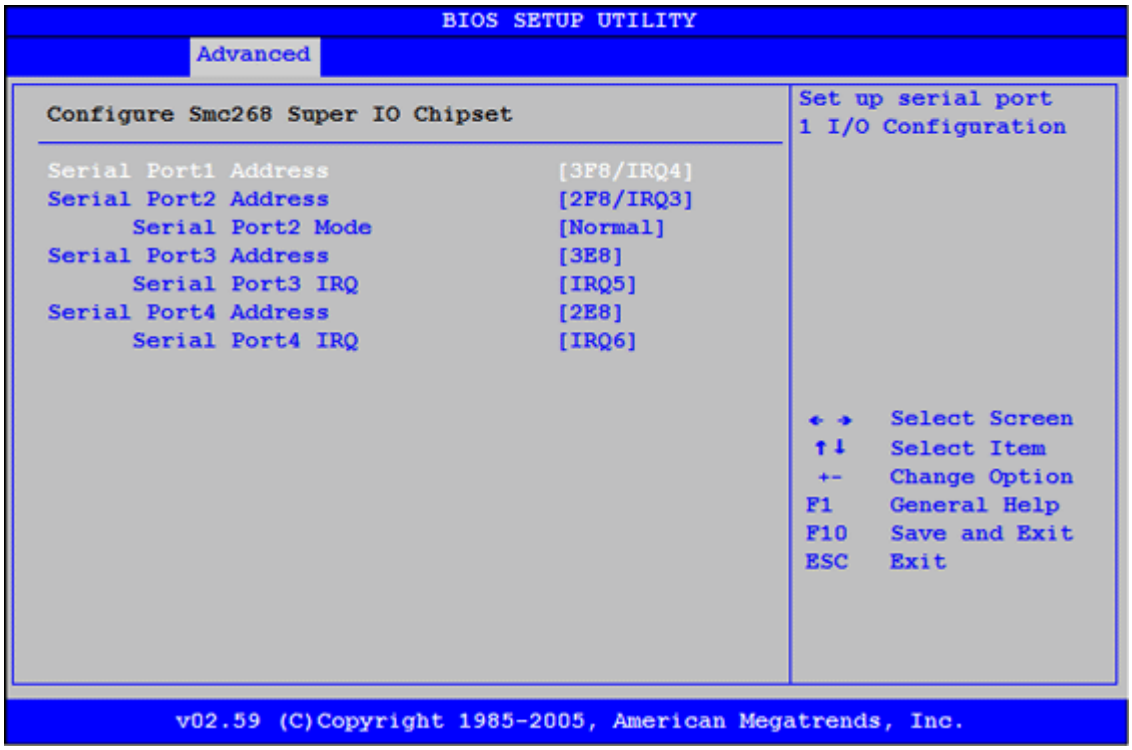
Field	Setting	Function
Trusted Computing	Sub-Menu	Configure settings related to TPM
SuperIO Configuration	Sub-Menu	Configure I/O port interrupt and IRQ settings
Fan Learning Function	Sub-Menu	Fan Learning Function will take 2 minutes to finish procedure
Stealth Mode Configurations	Sub-Menu	Depending on Stealth Mode setting, LED , FAN Beeps, LCD Brightness, Audio and Wireless devices will keep silent when you need
Extended Configuration	Sub-Menu	Other special function settings including low battery beep, radio wakeup, etc ...

Trusted Computing



Field	Setting	Function
TCG/TPM Support	**Yes** No	Enable/Disable TPM TCG (TPM 1.1/1.2) support in BIOS
Execute TPM Command	**Don't Change** Disabled Enabled	Enable (Activate) / Disable (Deactivate) / Don't change (leave settings in last configuration) Enable (Activate) / Disable (Deactivate) Command to TPM
TPM Enable/Disable Status	**Disabled**	This displays the current status of the TPM
TPM Owner Status	**Unowned**	This displays the current Ownership status of the TPM

SuperIO Configuration

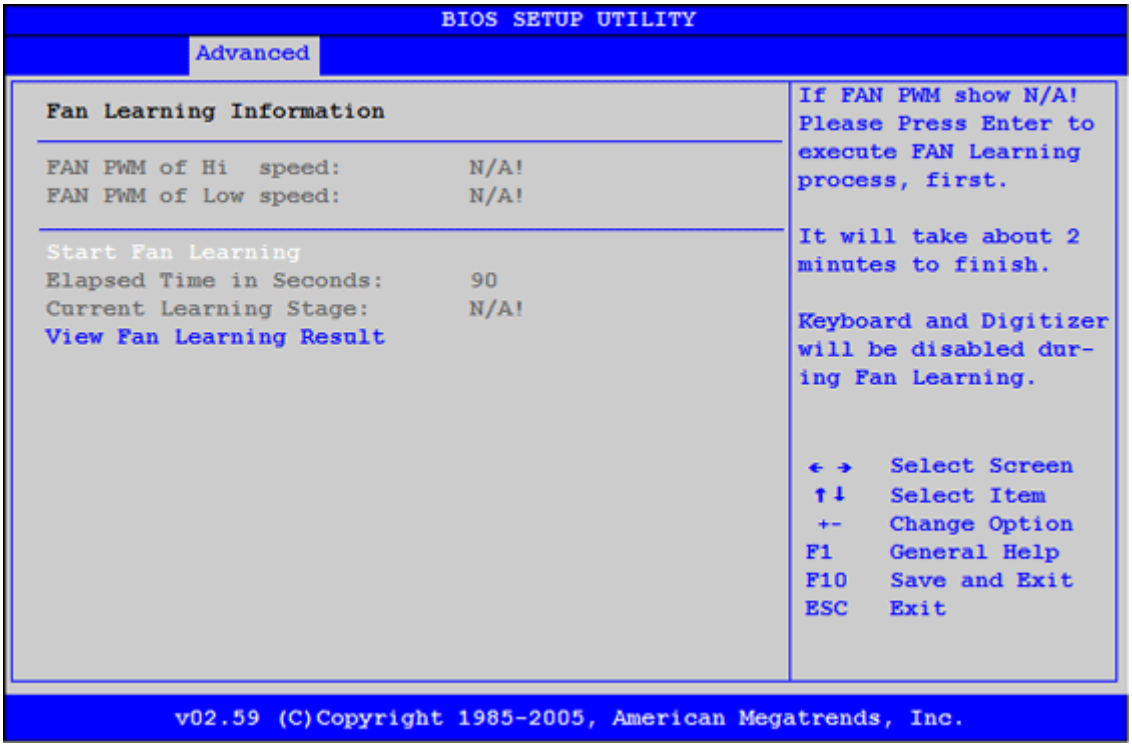


Field	Setting	Function
Serial Port1 Address	Disabled **3F8/IRQ4** 3E8/IRQ4 2E8/IRQ3	Select serial port 1 interrupts and IRQ settings
Serial Port2 Address	Disabled **2F8/IRQ3** 3E8/IRQ4 2E8/IRQ3	Select serial port 2 interrupts and IRQ settings
Serial Port3 Address	Disabled 3F8 2F8 **3E8** 2E8	Sets address for serial port 3
Serial Port3 IRQ	IRQ4 **IRQ5** IRQ10 IRQ11	Sets IRQ for serial port 3
Serial Port4	Disabled	Sets address for serial port 4

Address	3F8 2F8 3E8 **2E8**	
Serial Port4 IRQ	IRQ3 **IRQ6** IRQ10 IRQ11	Sets IRQ for serial port 4

Fan Learning Function

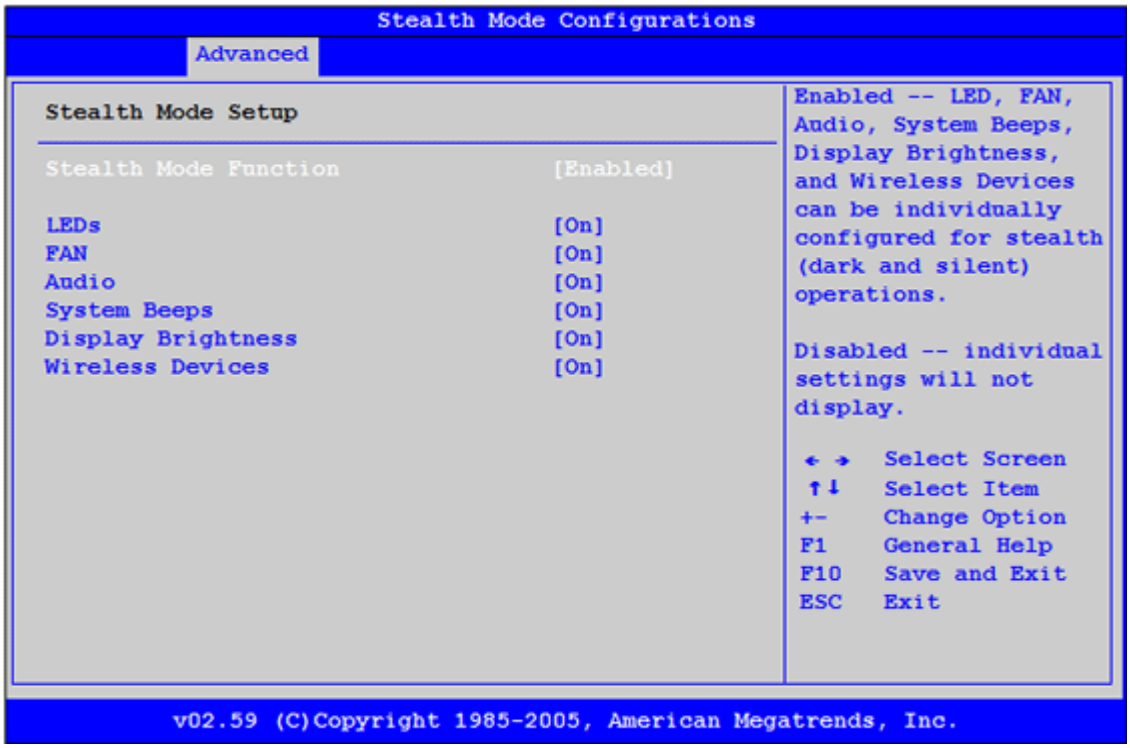
The purpose of the Fan Learning Function is to calibrate the fan's performance. The fan's throughput will be decreased over time and the Fan Learning Function adjusts the fan's efficiency allowing the fan to operate properly.



Stealth Mode Setup

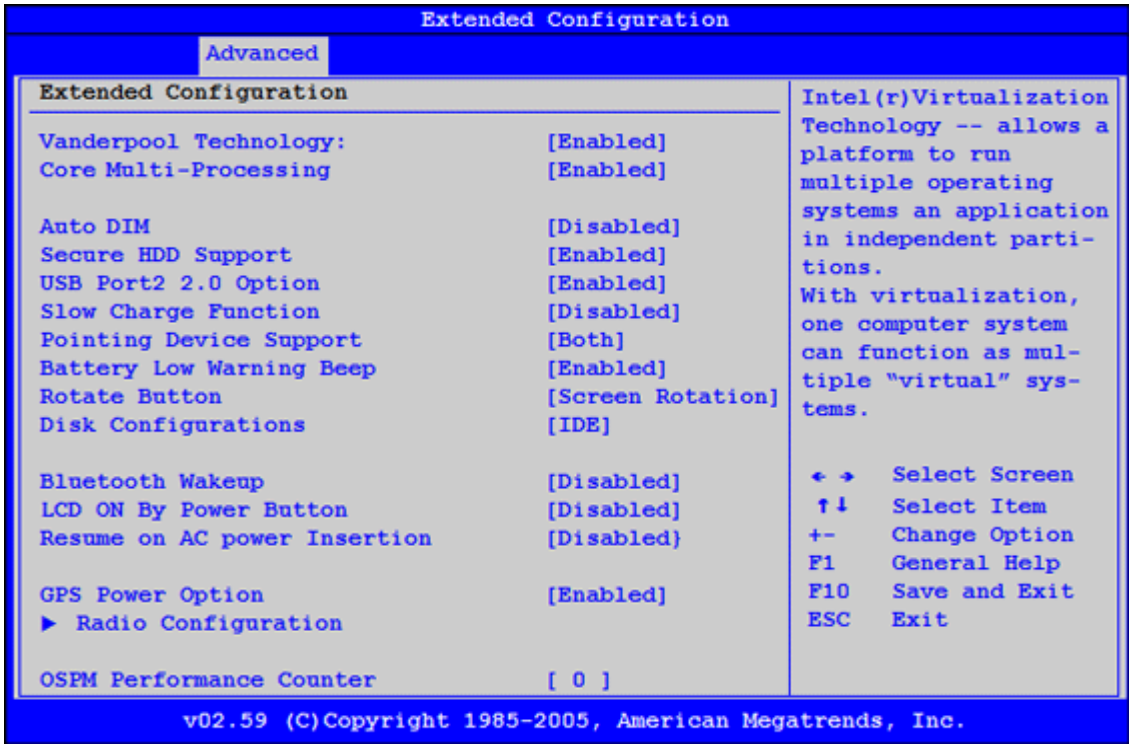
The Duo-Touch II has stealth mode capability so it can be used in an environment where sound and light could be dangerous to the user.

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



Option	Stealth Mode Function Disabled	Stealth Mode Function Enabled	
		On	Off
LEDs	LEDs function as normal	On -- all LEDs function normally	Off -- LEDs remain un-lit
Fan	Fan functions as normal	On -- fan functions normally	Off -- FAN does not run (beware of overheating the unit)
Audio	Audio functions as normal. (The default volume level is set to mid range.)	On -- Audio volume levels are maintained when unit powers up	Off -- Audio volume is set to zero when unit powers up
System Beeps	Beeps are heard during POST.	On -- System beeps (battery low, no boot device)	Off -- System beeps are disabled
Display Brightness	The default brightness level is mid range.	On -- brightness levels are maintained when unit powers up	Off -- brightness levels set to zero when unit powers up
Wireless Devices	Wireless devices function as normal.	On -- all wireless devices are turned on when unit powers up	Off -- all wireless devices are turned off when unit powers up

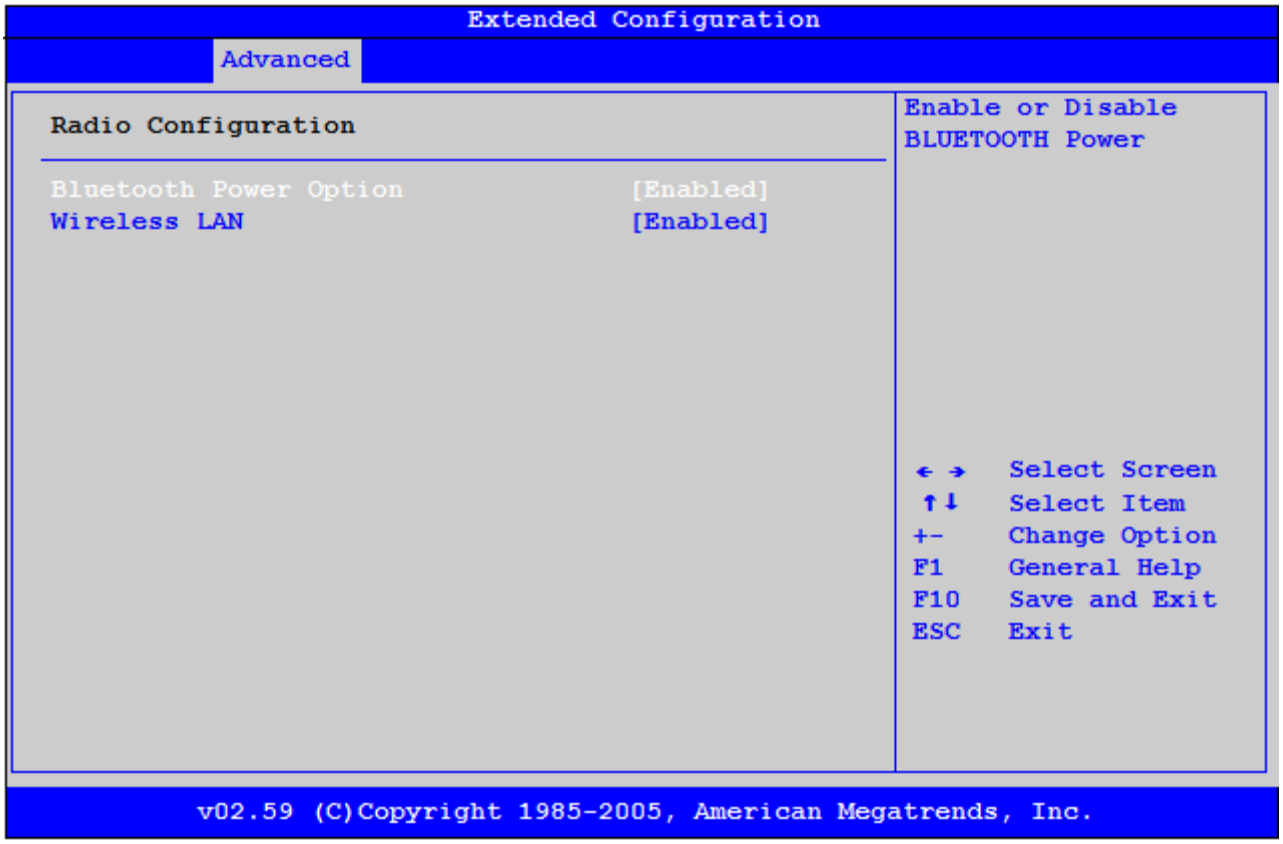
Extended Configuration



Field	Setting	Function
Vanderpool Technology	**Enabled** Disabled	Intel (r) Virtualization Technology -- allows a platform to run multiple operating systems an application in independent partitions. With virtualization, one computer system can function as multiple "virtual" systems.
Core Multi-Processing	**Enabled** Disabled	Enabled -- Use multi-processing core Disabled -- Use only one processor core
Auto DIM	**Disabled** Enabled	Enabled -- Display will dim slightly when on battery power. Disabled -- Display brightness will not dim when on battery power.
USB Port2 2.0 Option	**Enabled** Disabled	Enabled = bottom/backside USB port is USB 2.0 Disabled = bottom/backside USB port is USB 1.1
Slow Charge Function	**Disabled** Enabled	Enabled -- Slow charge function is enabled Disabled -- Battery charges at normal rate
Pointing Device Support	**Both** Digitizer Touch Panel	Both -- Use both touch panel and digitizer Digitizer -- Use digitizer only Touch Panel -- Use touch panel only
Battery Low Warning Beep	**Enabled**	Enabled -- System will sound 3 beeps every 10 seconds if battery charge drops below 7%

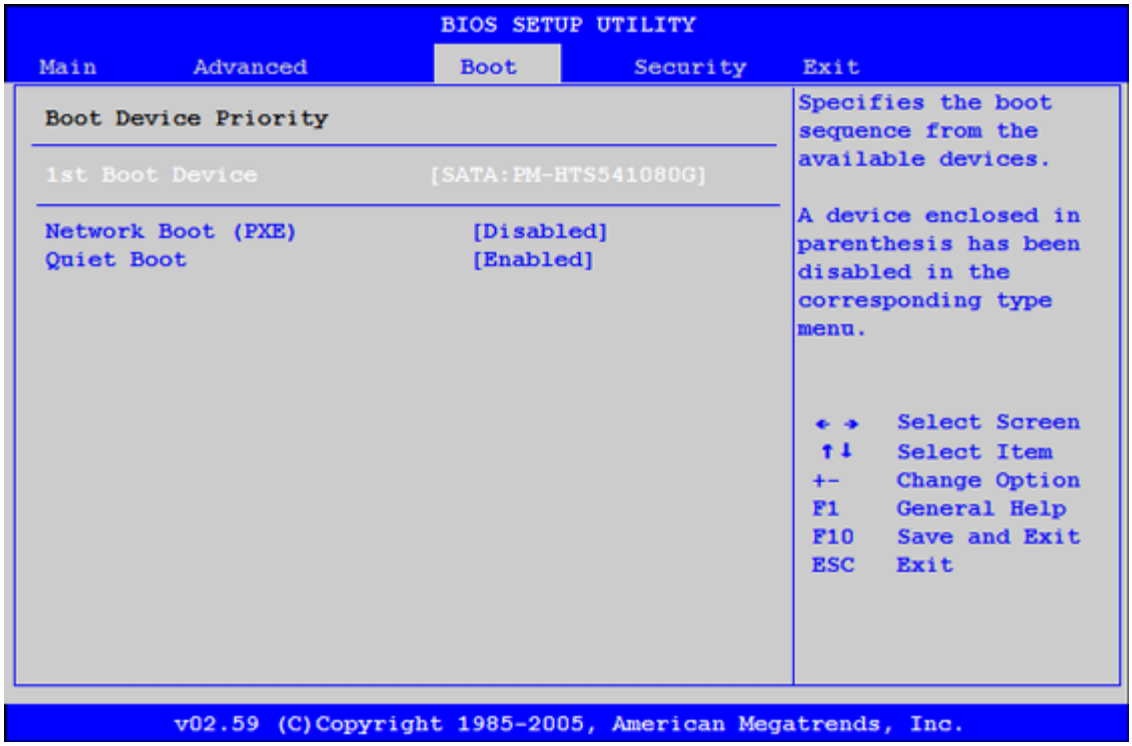
	Disabled	Disabled -- System will not beep if battery low
Rotate Button	**Screen Rotation** Backlight Toggle	Screen Rotation -- Pressing Rotate button will rotate screen. Backlight Toggle -- Pressing Rotate Button will toggle the backlight on and off.
Disk Configurations	**IDE** AHCI	IDE Combined -- Standard IDE Configuration Mode AHCI Mode -- Advanced Configuration Mode for SATA drive
Bluetooth Wakeup	**Disabled** Enabled	Enabled -- System will awake up from standby if a Bluetooth signal is detected Disabled -- System will not awake up from standby if a Bluetooth signal is detected
LCD ON By Power Button	**Disabled** Enabled	Enabled -- If display is set in OS to turn off, it will turn back on with power button during runtime. Disabled -- Display will not turn on with power button during runtime; pressing button will cause the unit to hibernate.
Resume on AC power Insertion	**Disabled** Enabled	Enabled -- System will wake from standby or hibernation state when AC power is inserted. Disabled -- System will not wakeup when AC power is inserted. Power button will cause unit to hibernate if pressed.
GPS Power Option	**Disabled** Enabled	Turn on/off GPS
Radio Configuration	Sub-Menu	Radio function settings, including Bluetooth and Wireless LAN
OSPM Performance Counter	**0** 1	Select the following timers for OS power management to be used: 1 = OS uses ACPI Power Management Timer 0 = Allow OS to use either ACPI Management Timer or Internal Processor Clock

Radio Configuration



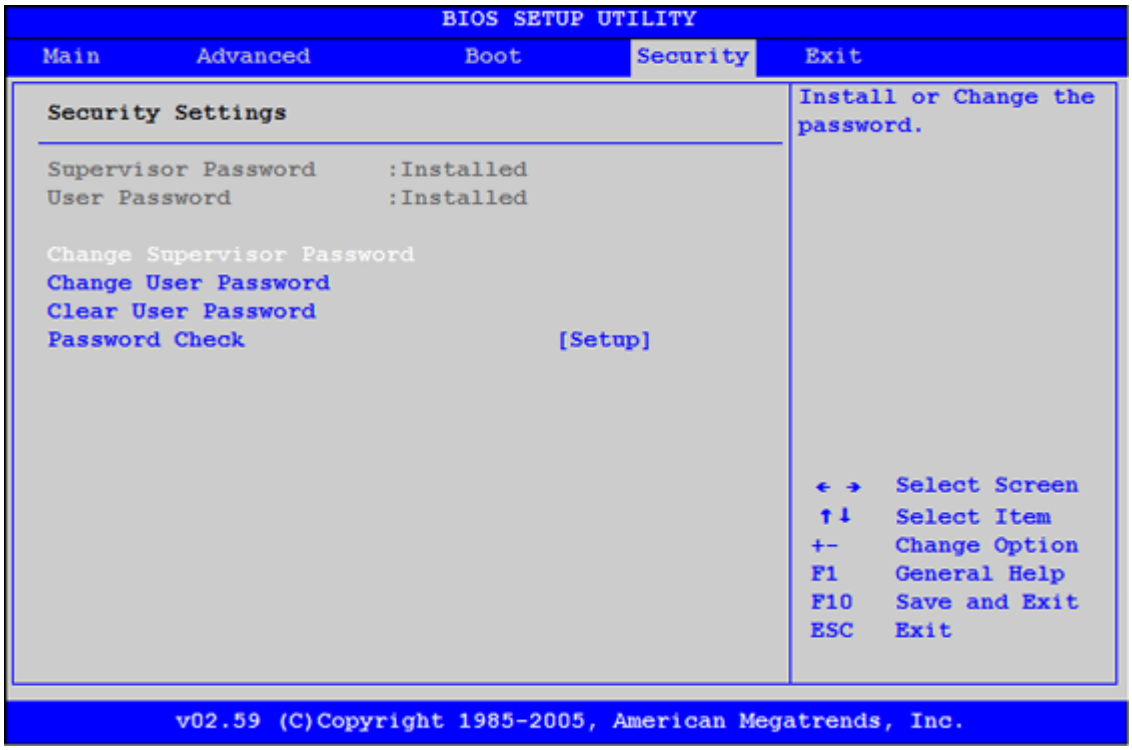
Field	Setting	Function
Bluetooth Power Option	**Enabled** Disabled	Enable or disable Bluetooth power
Wireless LAN	**Enabled** Disabled	Enable or disable Wireless LAN

The Boot Menu



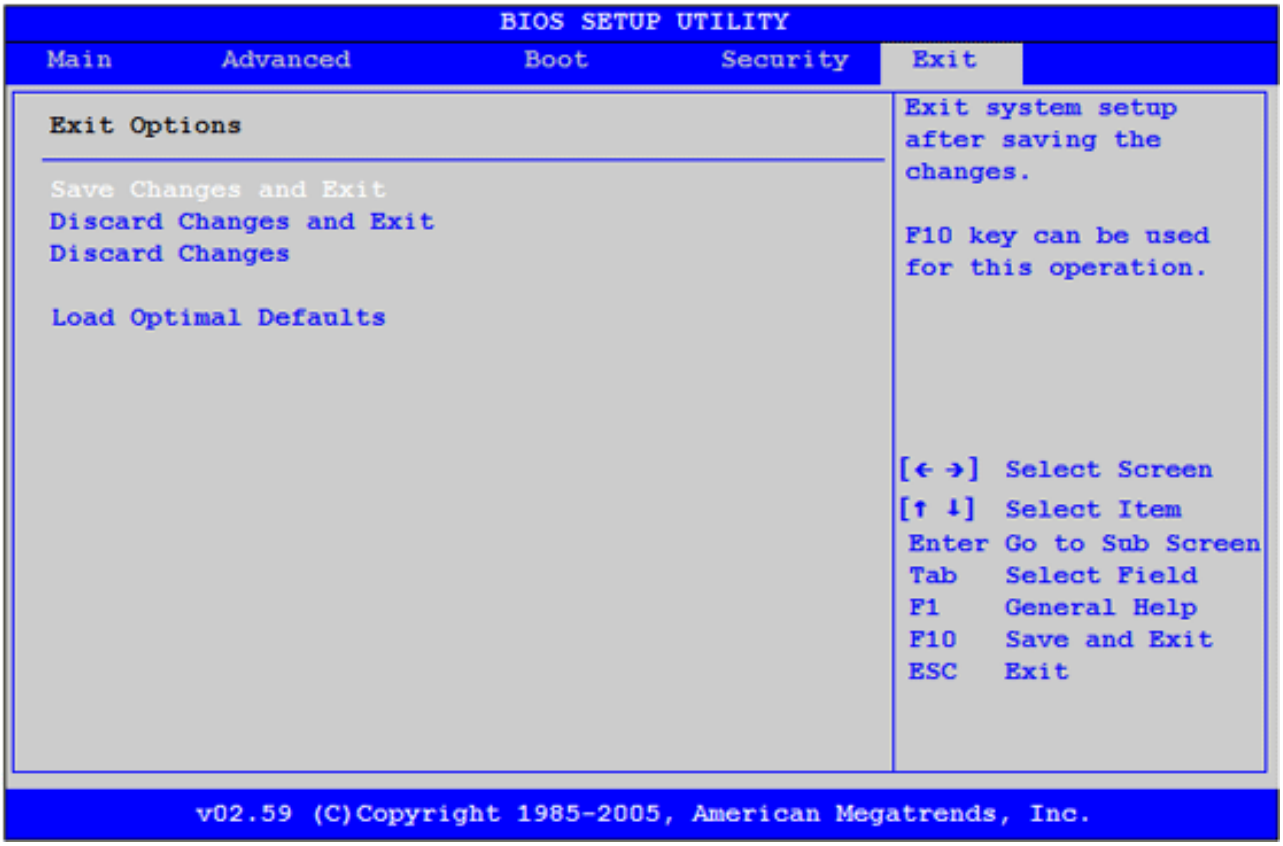
Field	Setting	Function
1st Boot Device (multiple devices may be displayed)	Removable Dev. CD/DVD **HDD: SATA:PM-HTS541080G** Network:Realtek Boot Agent USB Device Disabled	Specifies the boot sequence from the available devices. A device enclosed in parenthesis has been enabled in the corresponding type menu. Removable Devices = FDD CDROM = CDROM Realtek Boot Agent = Ethernet boot (NOTE: There are a variety of boot devices available, only currently installed options are displayed)
Network Boot (PXE)	Enabled **Disabled**	If Enabled boot from the network becomes available.
Quiet Boot	**Enabled** Disabled	If Disabled: Displays normal POST messages. If Enabled: Displays OEM Logo instead of POST messages.

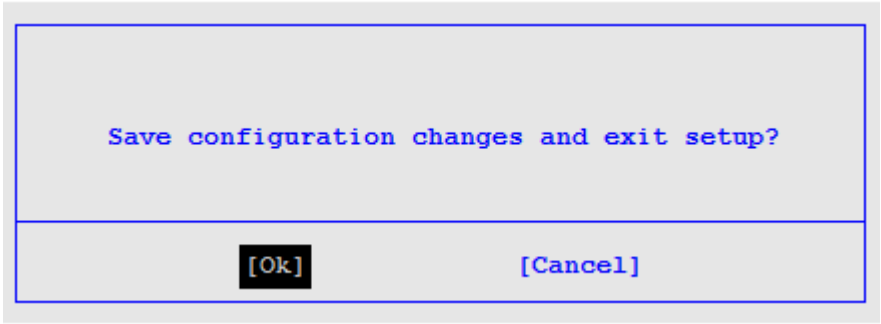
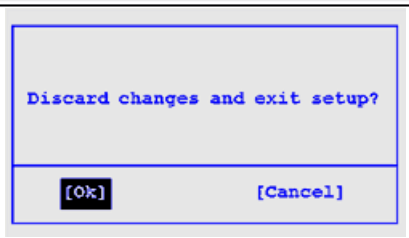
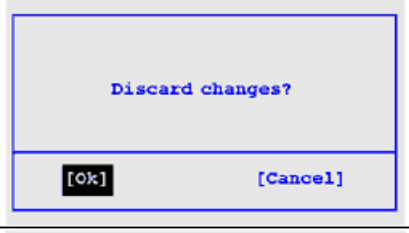
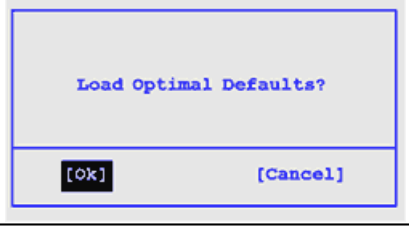
The Security Menu



Field	Setting	Function
Supervisor Password	Installed **Not Installed**	Information Only
User Password	Installed **Not Installed**	Information Only
Change Supervisor Password	N/A	Install or Change the password
Change User Password	N/A	Install or Change the password
Clear User Password	N/A	Clears/Removes the User Password (NOTE: This option only displays if a User Password has been installed)
Password Check	**Setup** Always	Determines when a password is required by the system. (NOTE: This option only displays if password(s) are installed)

The Exit Menu



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

Maintenance and Storage

The Duo-Touch II 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 II 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 mild cleanser and one part water. Do not use ammonia, abrasive cleaners, or bleach as this may damage the unit. 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.

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. A Display Cleaning Kit is available.

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, please follow the storage guidelines listed below.

- 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.

Backup and Recovery

Data Backup

There are several methods to backup your data. It is best to regularly use all the methods below to ensure the greatest data integrity, provide the fastest recovery options, and minimize downtime.

After you have installed all your applications and have your computer configured as desired, create a backup of drive C: using the Hard Disk Backup and Recovery Utility. Then, use the Windows Backup Utility on a frequent basis to backup your daily data. It is recommended that you schedule the Windows Backup Utility to run automatically.

Save Important System Information (WinXP only)

By default, your computer is set up to automatically save certain critical information, such as the registry, on a regular basis. This information is saved as a Restore Point. You can also create Restore Points manually by using the System Restore utility. Select Start, All Programs, Accessories, System Tools, System Restore. Then, follow the instructions on the Wizard.

Backup your Files

You can backup files in case they are accidentally erased or corrupted.

For Windows XP: Select Start, All Programs, Accessories, System Tools, Backup. You can schedule backups to run automatically on a regular basis. To set this up, talk to your help desk or IT department.

For Windows Vista: Click the Start button, open the Control Panel, and select Backup Your Computer under System and Maintenance.

Backup Drive C:

You can make an exact copy of drive C: and save the backup image on the Recovery Partition of your hard disk (usually drive D:). In the future, you can restore drive C: to its previous state should it become corrupted. To make a backup copy of drive C:, use the Hard Disk Backup and Recovery Utility. Select Start, All Programs, Mobile Computer Tools, Hard Disk Backup and Recovery. You will be prompted for additional information.

NOTE The Hard Disk Backup and Recovery Utility is only available on computers configured with a Recovery Partition.

Data Recovery

There are several methods to restore your data. It is best to start with the least destructive and fastest recovery options.

Try this first: Restore System Information (WinXP only)

If you are having problems with your system, restore system information to an earlier state, or Restore Point. To restore to an earlier state, select Start, All Programs, Accessories, System Tools, System Restore. Then, follow the instructions on the Wizard.

Try this next: Restore a Backup

You can restore files and folders that you have backed up using the Windows Backup Utility. See instructions below:

For Windows XP: Select Start, All Programs, Accessories, System Tools, Backup.

For Windows Vista: Click the Start button, open the Control Panel, and select Backup Your Computer under System and Maintenance. This will bring you to the Backup and Restore Center where you can restore files and

folders.

Try this last: Restore Entire Contents of Drive C:

If none of the above steps restore your disk image to a stable state, you may need to restore your disk to its original factory image or an image you saved using the Hard Disk Backup and Recovery Utility. Restoring a previously saved disk image overwrites the entire contents of drive C:. Before running this process, save your data to another location, such as a USB flash drive.

For Windows XP: Select Start, All Programs, Mobile Computer Tools, Hard Disk Backup and Recovery. You will be prompted for additional information.

For Windows Vista: Click the Start button, open the Control Panel, and select Backup Your Computer under System and Maintenance. This will bring you to the Backup and Restore Center. From here, you can restore your entire computer from a Windows Complete PC Backup and Restore Image. Click on Restore Computer to begin the process.

NOTE The Hard Disk Backup and Recovery Utility is only available on computers configured with a Recovery Partition. If it is not available, you will either need to contact your company's help desk about obtaining a Recovery CD or return your unit for service.

Optional Equipment and Accessories

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

A complete list of optional peripherals and accessories is listed on the General Dynamics Itronix Website.

CAUTION When purchasing any additional accessories, purchase only those accessories that are approved for use with your Tablet PC. 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 Tablet PC, you may cause it 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.

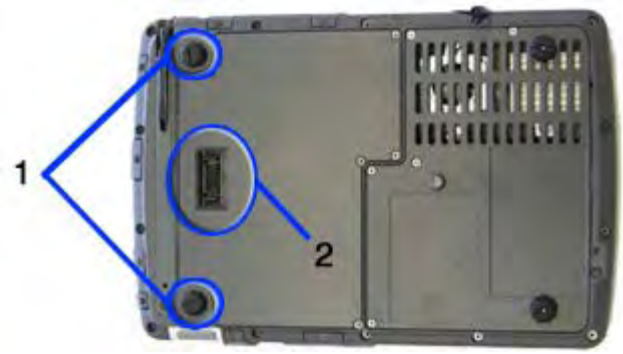
Second Battery

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

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 II 's desk mount enables you to experience desktop functionality with your Duo-Touch II. 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 II.

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

NOTE Power must be applied to the dock for the ports to function.

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.

CAUTION Do not pinch or crush the vehicle adapter cables.

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).

Vehicle Dock

The optional vehicle docks allow 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.

Different vehicle docks provide for various requirements. Contact your Sales Representative for additional information.

Memory Upgrade

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. The maximum memory configuration is 1.2 GB.

Inserting a Memory Card

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

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

2. *For Windows XP:* 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.

3. *For Windows Vista:* Right click on Computer and select Properties to open the System Screen. This will show the memory that is detected by Windows.

CAUTION Only use memory cards approved for use in your Tablet PC. Failure to do so may void your warranty.

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 II, 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

Type of Equipment to be Protected

Quality of Electrical Wiring and Service

Equipment Selection

Troubleshooting

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

1. First, look through the categories in this section for a solution.
2. If you do not find a solution for your problem here, try one of the resources listed below under "For More Help."
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
- Communications programs don't seem to work or they lock Windows
- When I rotate the display to portrait orientation my application does not work or does not display correctly

Batteries

- **The battery does not charge**
- **The batteries take much longer than seven hours to charge**
- **The batteries don't last very long**
- **The gas gauge isn't full after charging the battery**
- **The gas gauge reads "full," but the charging indicator light is still lit**
- **My battery seems to have less and less capacity**

Hard Disk

- The hard disk will not spin up so the computer can't boot up
- I can't save files because the disk is full
- Disk Read Error

- Hard disk recovery

Landline Modems

- The modem doesn't work
- The modem doesn't dial a number
- The modem dials and receives an answer but does not establish a connection
- Communications programs such as HyperTerminal don't seem to work or they lock Windows
- The modem dials and the answering modem generates tone, but our modem does not begin the training sequence to establish a connection

Miscellaneous

- The computer shuts off unexpectedly
- The speaker volume is too high or too low
- The computer won't turn on
- The computer won't turn off
- The computer enters suspend mode too quickly
- The computer doesn't automatically suspend
- The system date and time are incorrect
- I receive an "out of memory" error message
- Holding down the Power button to reset the computer doesn't always work

PC Cards

- I can't remove the PC card
- Disk Read Error
- The system does not recognize the PC Card CD-ROM when it is inserted into the PC Card socket
- The computer locks up when I remove the PC card

Pen / Display

- When I try to use the pen on my display, nothing happens
- The display warps or pillows in high humidity

- The touch screen doesn't respond after a suspend
- I cannot change the orientation
- The display performance is slow
- I can’t read the display
- The underlined, inverse, and hypertext characters are difficult to read on the screen
- I can’t see the cursor while using the DOS editor
- The display appears to have random pixels darkened after scrolling
- I changed my display resolution, but I see no difference on the screen
- The display cuts off the right side of the application or page in portrait mode

FAQs

- How do I calibrate the pen/display?
- How do I change the main battery?
- How do I adjust the speaker volume?
- How do I clean the display screen?
- How do I change the display screen's brightness?
- How do I change the display orientation?
- How do I switch between Digitizer and Touch Screen modes?
- How long will the battery last?
- How do I optimize the Duo-Touch II for left handed use?

Service and Support

We are committed to providing you, our client, with the products and support services necessary for success in your enterprise.

Client Care Center

The 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)

General Dynamics Itronix Client Care Center – The CCC is an internal central point for telephone warranty support for all GD-Itronix products. Our Technical Service Representatives know your product and provide input and support for problem resolution.

One call to the convenient Client Care Center number (800-638-9270, Opt 2) allows a single entry point of access to meet all your needs. You may also use the new web portal at www.gd-itronix.com/CCC. The CCC receives calls from 5am-5pm Pacific Time, Monday through Friday except weekends or holidays.

Technical Service Representatives provide the following support services:

• Product troubleshooting

• RMA origination for service return

• RMA status check on product service

• Check status Warranty/Service Kit orders

• Coordinate requests for product upgrades

• Radio registration

• icareServeNet registration and training

icareServeNet, the General Dynamics Itronix web portal, provides 24x7 access to create RMA's, check the status of Service Requests, search the knowledgebase. This service is provided as part of GD-Itronix' standard product warranty, but does require registration for user-id and password.

GD-Itronix offers service uplift programs for clients who wish to expand their support coverage beyond the basic warranty. Coverage and details of these programs are available on line at www.gd-itronix.com

Product Support - Downloads

It's easy to get the software updates you need to keep your configuration current and get the most from your product. Simply go to the General Dynamics Itronix Website, then from the menu on the left, click on **Products**, and choose Tablet PCs. Downloads are listed by model (Duo-Touch II) and product number (IX350).

GENERAL DYNAMICS
Itronix

Duo-Touch® II Help

Documentation Feedback

We strive to create accurate, convenient and highly useful product documentation for all our products. With this in mind, we'd like to hear from you and encourage your feedback. If you have comments or suggestions about our online Help or other product documentation, click here.

Please include the following information when submitting feedback:

- Product name
- Place and date of purchase
- Name of online Help or other document
- Topic title (for online Help) or page number
- Localized document language (such as English, French, German, Spanish)
- Type of feedback (for example, need for clarification, grammatical errors, incorrect information)
- Your suggestion for how to improve the document