Trimble[®] Yuma[®] Rugged Tablet Computer User's Manual

January 2010

©2010 Trimble Navigation Limited. All rights reserved.

TRADEMARKS

Trimble , the Globe & Triangle logo, and Yuma are trademarks of Trimble Navigation Limited, registered in the United States Patent and Trademark Office and in other countries.

Microsoft, Windows, and the Windows logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Microsoft products are licensed to OEMs by Microsoft Licensing, Inc., a wholly owned subsidiary of Microsoft Corporation.

The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Trimble Navigation Limited is under license.

All other brand and product names are trademarks or registered trademarks of their respective owners.

NOTE

Display images shown may vary slightly from actual display. Information in this manual is subject to change without notice.

Table of Contents

Chapter 1	Getting Started	1-1
	Getting the Tablet Computer Running	1-2
	Unpacking	
	Installing Battery Packs and Connecting to AC Power.	
	Turning the Tablet Computer On and Off	1-5
	Taking a Look at the Tablet Computer	
	Front Side	
	Rear Side	1-9
	Bottom Side	. 1-10
	Expansion Slot Side	. 1-11
Chapter 2	Operating Your Tablet Computer	2-1
	Using the Touchscreen	2-2
	Touchscreen Calibration Utility	
	Using the Input Panel	
	Opening the Input Panel	
	Managing the Input Panel	
	Using the Audio Features	
	Connecting Audio Devices	2-7
	Using the Communication Features	2-8
	Using the Wireless LAN (WiFi)	2-8
	Using the Bluetooth Wireless Feature	. 2-11
	Using the Virtual-GPS Application	. 2-13
	GPS Info	. 2-14
	Settings	. 2-16
	Data View	. 2-20
	Using the Camera	. 2-21
	Using the G-Camera Application	. 2-21
	Using Camera Switching Utility	. 2-34
	Using the System Utility	. 2-35

	Wireless Switch	2-35
	Quick Button Define	
	Help	2-37
Chapter 3	Managing Power	3-1
	Battery Pack	
	Charging the Battery Pack	
	Initializing the Battery Pack	
	Checking the Battery Level	
	Replacing the Battery Pack	
	Battery Low Signals and Actions	
	Power Management	
	Hybrid Sleep or Normal Sleep Mode	
	Hibernation Mode	
	Power-Saving Tips	3-8
Chapter 4	Expanding Your Tablet Computer	4-1
	Connecting a Serial Device	4-2
	Connecting a USB Device	4-3
	Using ExpressCards	4-4
	ExpressCard Type	
	Inserting and Removing an ExpressCard	
	Using the SD Card Reader	4-6
Chapter 5	Using BIOS Setup and System Recovery	5-1
	BIOS Setup	5-2
	When to Use	
	How to Use	
	Information Menu	5-4
	Main Menu	5-5
	Advanced Menu	5-5
	Boot Menu	
	Exit Menu	
	System Recovery Error! Bookmark not of	defined.
Chapter 6	Caring for the Tablet Computer	6-1
	Taking Care of the Tablet Computer	6-2
	Location Guidelines	
	General Guidelines	6-2
	Cleaning Guidelines	6-2

	Battery Pack Guidelines	
	Touchscreen Guidelines	6-3
Chapter 7	Troubleshooting	7-1
	Preliminary Checklist	
	Solving Common Issues	
	Battery Problems	7-4
	Bluetooth Wireless Transmission Problems	7-4
	Display Problems	7-5
	Hardware Device Problems	
	Hard Disk Drive Problems	7-5
	Wireless LAN Problems	7-5
	Power Management Problems	7-7
	Software Problems	7-8
	Sound Problems	7-8
	Startup Problems	7-9
	Other Problems	7-9
	Resetting the Tablet Computer	7-10
	Warning Messages	7-11
	G-Camera Application	
	Virtual-GPS Application	7-12
	System Utility	7-13
Appendix A	Regulatory Information	A- 1
	On the Use of the System	A-2
	Class B Regulations	
	Safety Notices	
	On the Use of the RF Device.	A-5
	USA and Canada Safety Requirements and Notices	A-5
	European Union CE Marking and Compliance Notices	
	ENERGY STAR	A-11
	Earning the ENERGY STAR®	A-11
	Remember, saving energy prevents pollution	A-12

Preface

This manual contains information that will help you operate this rugged tablet computer. It is divided into 7 chapters and 1 appendix.

- Chapter 1, **Getting Started**, takes you through the process of setting up the tablet computer and identifying its external components.
- Chapter 2, **Operating Your Tablet Computer**, tells you how to use the tablet computer's components and features.
- Chapter 3, **Managing Power**, provides information on power management.
- Chapter 4, **Expanding Your Tablet Computer**, provides information on installing and using peripheral devices.
- Chapter 5, Using BIOS Setup and System Recovery, describes the BIOS Setup utility that configures the tablet computer's BIOS settings and system recovery utility that reinstalls the Microsoft® Windows® operating system to the table computer.
- Chapter 6, Caring for the Tablet Computer, gives you tips on care and maintenance.
- Chapter 7, **Troubleshooting**, gives solutions to common problems you may encounter when using the tablet computer.
- Appendix, **Regulatory Information**, provides regulatory statements and safety notices on your tablet computer.

Notational Conventions

Throughout this manual, the following conventions are used to distinguish elements of text.

NOTE: identifies additional information that requires special attention.

CAUTION: identifies important information that, if not followed, may result in loss of data or damage to the tablet computer.

Hardware and keyboard keys are shown in a bold typeset. For example:

Press the F1 key to complete.

A title, command, setup item, or button that you can see on the screen is shown in boldface. A value or an option that you can select for a setup item is shown in italic. For example:

Select When I press the power button, set it to *Shut down*, and then tap the Save changes button.

Getting Started

Congratulations on purchasing this rugged tablet computer. The rugged design allows you to use it in harsh outdoor environments. You can use it under blazing heat, subzero cold, driving rain or dusty surroundings – places you could not take a consumer-grade tablet computer.

This chapter tells you step by step how to get the tablet computer up and running. You will find instructions for the following procedures:

- Unpacking
- Installing Battery Packs and Connecting to AC Power
- Turning the Tablet Computer On and Off
- Taking a Look at the Tablet Computer (An Explanation of External Components and their Functions)

Getting Started 1-1

Getting the Tablet Computer Running

This section guides you through the procedures for getting the tablet computer ready for operation.

Unpacking

After unpacking the shipping carton, you should find these standard items:

- Tablet Computer
- Accessories:
 - AC adapter, power cord, and plugs
 - Battery pack (2)
 - Extended cap
 - Stylus
 - Hand strap
 - Tether for stylus
 - Cleaning cloth
 - Screen protector film (2)
 - Windows 7 Certificate of Authenticity Label (COA)
 - Quick Start Guide

Inspect all the items. If any item is damaged or missing, notify your dealer immediately.

Keep the shipping carton and packing materials in case you need to ship or store the tablet computer in the future.

1-2 Getting Started

Installing Battery Packs and Connecting to AC Power

The tablet computer operates either on the external AC power or internal battery power. It is suggested that you use AC power when you start up the tablet computer for the first time.

CAUTION: Use only the AC adapter included with your tablet computer. Using other AC adapters may damage the tablet computer.

1. Fit the two battery packs into place on both sides.



- 2. Remove the rubber cap from the included stylus to expose a Phillips screwdriver, or use a small #1 Phillips head screwdriver to secure the two screws on each battery taking care not to over tighten.
- 3. Plug the DC cord of the AC adapter into the power connector (===) of the tablet computer (••).

Getting Started 1-3

4. Plug the female end of the AC power cord into the AC adapter and the male end into an electrical outlet (2).



5. When the AC adapter is connected, the battery pack is charging. The battery status indicator () shows three different states:

Solid green: battery is fully charged. **Solid amber**: battery is charging.

Blinking red: battery capacity is below 10%.

CAUTION:

 When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the tablet computer. A reverse procedure may damage the AC adapter or the tablet computer.

When unplugging the connector, always hold the plug head. Never pull on the cord.

1-4 Getting Started

Turning the Tablet Computer On and Off

Turning On

- 1. Make sure that the tablet computer is either connected to AC power or the battery is charged.
- 2. Press the power button (**U**). Notice the screen appears blank for 8-10 seconds but the power LED lights up.



The power indicator (**(**)) shows 2 different states:

Solid green: tablet computer is turned on.

Blinking green: tablet computer is in sleep mode.

Getting Started 1-5

Turning Off

To turn off the tablet computer, use the "Shut Down" command of your operating system.

CAUTION: Wait for at least five seconds after turning off the tablet computer before turning it back on.

When you finish a working session, you can stop the tablet computer by shutting it down or leaving the tablet computer in Sleep or Hibernation mode:

To stop in this mode	Do this	
Off	Use the Windows Start Menu in the lower left and follow the shutdown procedure.	
	You can force the tablet computer to turn off by pressing and holding the power button for more than 6 seconds. (This is not the recommended method for turning off your tablet computer, but may be necessary if the system is locked up.)	
Hybrid Sleep	Press the power button for less than 4 seconds or use the Windows Start Menu to put the unit in Hybrid Sleep mode.	
Hibernation	Use the Windows Start Menu to put the tablet computer in hibernation mode.	

Press the power button to resume or turn on the tablet computer from any of these modes. (See "Power Management" in Chapter 3 for more information.)

NOTE: By configuring in the BIOS Setup Utility, you can have the tablet computer automatically start up or resume when external AC power is plugged in. (See "Advanced Menu" in Chapter 5 for information.)

1-6 Getting Started

Taking a Look at the Tablet Computer

This section identifies the external components of the tablet computer and briefly describes the function of each component.

NOTE: Depending on the model you purchased, the appearance of your tablet computer may not be exactly the same as those shown in this manual.

Front Side



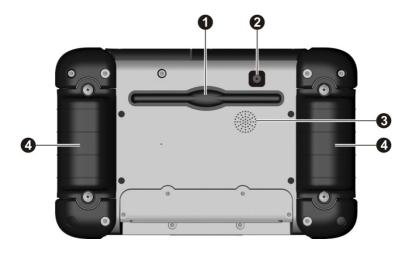
Ref	Component	Description	
0	Webcam Lens	Allows you to use your tablet computer's camera function.	
2	LED Indicators	Shows the current status of the tablet computer.	
	Power (1)	Solid green: tablet computer is turned on. Blinking green: tablet computer is in Sleep mode.	
Solid amber: battery is ch		Solid green: battery is fully charged. Solid amber: battery is charging. Blinking red: battery's capacity is below 10 %.	
•	Hard Disk Drive	Blinking green: hard disk drive is in use.	
Wireless Y Solid green: wireless antenna is on. NOTE: WiFi/Bluetooth on/off state is set via the OSD		Solid green : wireless antenna is on. NOTE : WiFi/Bluetooth on/off state is set via the OSD utility.	

Getting Started 1-7

Ref	Component	Description	
8	F1 Button	Short press: launches Microsoft Internet Explorer. Long press: (>2 seconds) rotates the display orientation from landscape (default) to portrait.	
4	F2 Button	Short press : launches the G-Camera application.	
6	F3 Button	Short press: launches the input panel. Long press: (>2 seconds) first long press locks the keypad and disables the touchscreen. The second long press unlocks the keypad and enables the touchscreen.	
6	Power Button ()	Turns the tablet computer power ON and OFF (Hybrid Sleep mode by default).	
		NOTE: Depending on your settings in Windows, you can place the tablet computer in Sleep/Hibernation/Shutdown mode with the power button. See "Power Management" in Chapter 3 for more information.	
•	Directional Button	Serves as the UP / DOWN / LEFT / RIGHT arrow keys (except pointer on screen). F2 + UP arrow key increases the sound volume. F2 + DOWN arrow key decreases the sound volume. F2 + LEFT arrow key decreases the LCD brightness. F2 + RIGHT arrow key increases the LCD brightness.	
8	Enter Button	Serves as the Enter key.	
		F1 + Enter key resets the computer (same as Alt+Ctrl+Del on a keyboard).	
		F2 + Enter key places the tablet computer in power saving mode, which changes the Windows Power Plan to "Power Saver" mode and changes the brightness about 45 nits. Pressing F2 + Enter again turns the power saving mode OFF, returning to the Windows Power Plan to the setting from before power saving mode.	
		NOTE : The power saving mode works only when on battery power.	
9	LCD Touchscreen	Displays and receives information for the tablet computer.	
•	Microphone	Receives sound and voice for the tablet computer.	

1-8 Getting Started

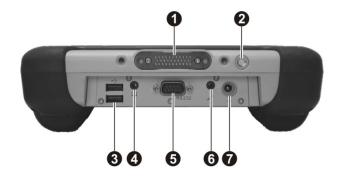
Rear Side



Ref	Component	Description	
0	Stylus Holder	Provides a convenient place to store the stylus. Use the stylus on the touchscreen and to loosen screws on the battery pack and expansion slots.	
2	CMOS Camera Lens	Allows you to use the camera function.	
8	Speaker	Sends out sound and voice from your tablet computer.	
4	Battery Packs	Supplies power to your tablet computer when external power is not connected.	

Getting Started 1-9

Bottom Side

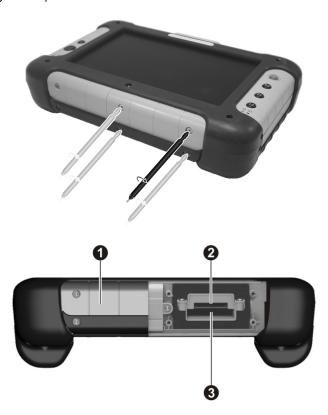


Ref	Component	Description
0	Docking Connector	Connects to a docking station.
2	External GPS Antenna pass-through Connector	Will support connection to an external GPS antenna once the active vehicle dock accessory is available.
8	USB Ports	Each of the two ports connects a USB device, such as a USB flash drive, printer, keyboard, joystick, and more.
4	Audio Output Connector	Connects a set of headphones, external speakers with amplifier, or an audio recording device.
6	Serial Connector RS232	Connects a serial communication device.
6	Microphone Connector	Connects an external microphone.
0	Power Connector	Connects the AC adapter.

1-10 Getting Started

Expansion Slot Side

NOTE: To access the SDIO and ExpressCard slots, use the Phillips screwdriver end of the stylus or a small #1 Phillips head screwdriver to release the four screws as shown securing the compartment cover.



Ref	Component	Description
0	WiFi, GPS, and Bluetooth Wireless Antenna	Inside is the antenna for WiFi, GPS, and Bluetooth® wireless transmission.
2	SDIO Slot	Accepts a Secure Digital (SD) card for removable storage media and I/O (input/output) function.
8	ExpressCard Slot	Accepts an ExpressCard for additional functions.

Getting Started 1-11

CAUTION:

- There are no user-serviceable parts in the antenna compartment. Disassembly of this area will void your warranty.
- Do not remove Allen screws securing the antenna compartment cover.

Extended Cap

The extended cap allows you to extend the tablet's seal against dust and water while using SDIO or ExpressCard's. After removing the expansion slot cover, use the Phillips screwdriver end of the stylus or a small #1 Phillips head screwdriver to screw in the four screws on the extended cap.



1-12 Getting Started

Operating Your Tablet Computer

This chapter provides information about the use of the tablet computer.

Described in this chapter are the operating basics of these components/ features:

- Touchscreen
- Input Panel
- Audio Features
- Communication Features (WiFi and Bluetooth)
- GPS
- Camera
- System Utility

Using the Touchscreen

The touchscreen is a touch-sensitive device that allows you to easily communicate with the tablet computer by controlling the location of the pointer on the screen.

CAUTION:

- Do not use the screwdriver end of the stylus on the touchscreen or it will scratch your screen. Use only the spring-tip end of the stylus.
- Install the screen protector film to keep the touchscreen clean and protected.
 Screen protectors extend the life of the display by providing a protective and replaceable barrier between abrasive grit and the surface of the display.

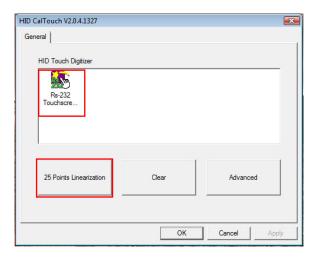


Here are some common terms that you should know when using the touchscreen:

Term	Action
Тар	Tap gently on the touchscreen to select or open an item. Tapping is the same as clicking the left button on a PC mouse.
Tap and hold	Touch and hold the stylus lightly on the display. A circle of dots will appear to indicate that a pop-up menu will soon appear. Lift up the stylus and a pop-up menu appears. Select the desired function. This action is similar to a right mouse click on a PC.
Drag	Hold the stylus on the screen and drag across the screen to select text and images.

Touchscreen Calibration Utility

When there is a noticeable discrepancy in the placement of the stylus on the screen and the indicated position of the onscreen pointer, use the calibration utility under $Start \rightarrow All \ Programs \rightarrow TouchKit \rightarrow CalTouch$ to correct the error.



Tap the **RS-232 Touchscreen** icon and then tap **25 Points Linearization**. Tap and hold each of the 25 targets to calibrate the touchsreen.

Using the Input Panel

Use the Input Panel to enter text and perform various keyboard functions. There are two types of Input Panels for you to use:

• Writing Pad

Allows you to write on the writing pad, like writing on a piece of paper. Your handwriting will be converted into typed text.

• Touch Keyboard

Allows you to enter text by tapping the keys with your stylus, like pressing the keys on a standard keyboard.

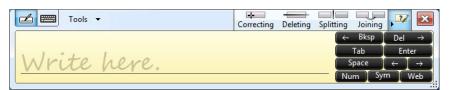
Opening the Input Panel

To open the Input Panel, press F3.

By default, the touch keyboard appears on the screen. To switch between the two types, tap or at the upper left corner of the Input Panel.



Touch Keyboard



Writing Pad

NOTE: There are two other ways to open the Input Panel:

- Tap the Input Panel icon, which appears when you use the stylus to tap a text entry area. A text entry area might be the address bar in a web browser or a text box in a dialog box.
- Tap the Input Panel icon on the Windows taskbar.

Managing the Input Panel

The Input Panel floats on top of the screen by default. To move the Input Panel so it doesn't cover an area of the screen that you want to use, place your stylus on the title bar and drag Input Panel to a new location on your screen.

To increase the size of the Input Panel, select the lower corners and drag.

You can also dock the Input Panel so that it's anchored at the top or the bottom of the screen. In the Input Panel, tap Tools, point to Docking, and then tap Dock at top of Screen or Dock at bottom of Screen.

When you tap the Close button _____, the Input Panel closes.

NOTE: For more information on using the Input Panel, see Windows' online help.

Using the Audio Features

The audio subsystem of your tablet computer features:

- Volume control
 - Press the F2 + UP arrow key to increase the sound volume
 - Press the **F2 + DOWN** arrow key to decrease the sound volume
- Integrated speaker (**①**)
- Microphone (♠) (②) and audio-out (♠) (③) connectors
- Integrated microphone



Connecting Audio Devices

For higher audio quality, you can send sound through external audio devices such as speakers, headphones, or earphone set using the audio-out connector.



NOTE:

- After connecting an external audio device, make sure that you specify the use of the correct audio device in Windows.
- When using the external speakers/headphones, you cannot use the internal one.

Using the Communication Features

Using the Wireless LAN (WiFi)

A few of the WiFi features include:

- Peer-to-Peer (Ad-Hoc) and Access Point (Infrastructure) modes supported
- WEP (Wired Equivalent Privacy) 64/128-bit data encryption
- IEEE 802.11b/g standard compliance

Technology	802.11b	802.11g
Stated Maximum Throughput (Mbps)	11	54
Band (GHz)	2.412 ~ 2.462	2.4
Modulation Technology	DSSS (Direct Sequence Spread Spectrum)	OFDM (Orthogonal Frequency Division Multiplexing)

NOTE: 802.11g mode is backward compatible with 802.11b mode.

It takes approximately 30 seconds for your tablet computer to make a successful WiFi connection and approximately 10 seconds to disconnect.

Turning the WiFi Radio On and Off

NOTE: If there is no icon located on the Windows taskbar, tap Start → All Programs → System utility → OSD to add the icon to the taskbar.

1. Tap and hold the stylus on the icon located on the Windows taskbar until a ring appears then lift up and the menu appears. (You need to tap on the taskbar to show the hidden icons.)

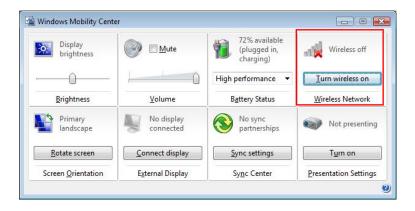




The Wireless Switch is enabled (On) by default, which is indicated by the button being green. You can tap **Wireless Switch** to turn it on or off.

Ensure that the Windows Mobility Center has Wireless turned on.
 Tap Start → Control Panel. In the search box on the right of the window, type Windows Mobility Center, and then, in the list of results, tap Windows Mobility Center.

The Wireless Network is turned on by default. To turn off or on the wireless network, tap Turn wireless off or Turn wireless on.



NOTE: The status of wireless switch will persist through Sleep mode or turning off the tablet computer.

Connecting to a Wireless Network

To connect to a wireless network:

- 1. Make sure that the wireless LAN radio is "on" indicated by the Wireless LED indicator (Y) glowing in green and the Wireless Network icon appears without a red X.
- 2. Tap the Wireless Network icon on the taskbar. (An orange light in the icon indicates connections are available.)

3. In the list of available wireless networks, tap a network, and then tap **Connect**.



4. Some networks require a network security key or passphrase. To connect to one of those networks, ask your network administrator or Internet service provider (ISP) for the security key or passphrase.

NOTE:

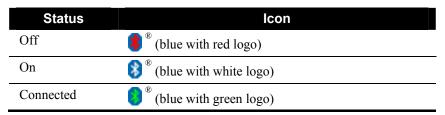
- Once you have connected to a wireless network, a profile is added in Windows. By default, Windows will automatically connect to the wireless network when it is in range.
- For more information on connecting to a wireless network, see Windows' online help.

Using the Bluetooth Wireless Feature

Your tablet computer has integrated Bluetooth capability for short-range (about 10 meters) wireless communications between devices without requiring a cable connection. With Bluetooth, data can be transmitted through walls, pockets and briefcases as long as two devices are within range.

NOTE: By default, your tablet computer's Bluetooth feature is in the discoverable and pairable mode.

The status of the Bluetooth connection is indicated by the Bluetooth icon located in the Windows system tray in the lower-right part of the screen.



You can use the Bluetooth Utility to configure Bluetooth connection settings and transfer files.

Turning the Bluetooth Radio On and Off

NOTE: If there is no icon located on the Windows taskbar, tap Start → All Programs → System utility → OSD to add the icon to the taskbar.

1. Tap and hold the stylus on the icon located on the Windows taskbar until a ring appears then lift up and the menu appears. (You need to tap on the taskbar to show the hidden icons.)

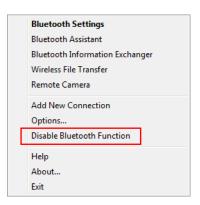




The Wireless Switch is enabled (On) by default, which is indicated by the button being green. You can tap **Wireless Switch** to turn it on or off.

2. The Bluetooth function is enabled by default, as indicated by the Bluetooth icon 3 on the Windows taskbar. (You need to tap on the taskbar to show the hidden icons.)

To turn off or on the Bluetooth function, tap and hold the stylus on the Bluetooth icon until a ring appears, then lift up and the menu appears. Tap Disable Bluetooth Function or Enable Bluetooth Function.



NOTE: The status of wireless switch will persist through Sleep mode or turning off the tablet computer.

For detailed information on using the Bluetooth Utility, open the Bluetooth Utility User Guide on your tablet computer by tapping **Help**. Tap on the Contents, Index, or Search tab to browse the contents of the User Guide.

Using the Virtual-GPS Application

Your tablet computer has a GPS (Global Positioning System) receiver module built in and includes the Virtual-GPS software.

Virtual-GPS shows the GPS signal availability status of the system's GPS module, allowing you to check if the GPS feature is working properly. Virtual-GPS also allows you to create virtual COM ports which can connect to two or more GPS applications at the same time.

Virtual-GPS is a unified user interface utility that allows you to manage and configure the following:

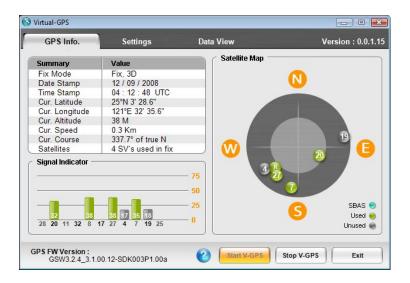
- GPS information
- Settings
- Data view

To open the G-camera application, double tap the Virtual-GPS program icon on the Windows desktop or tap Start → All Programs → Virtual-GPS → Virtual-GPS.

The first time Virtual-GPS is launched it automatically scans all COM ports. If a COM port is found, the system will open the port and GPS data will be entered, all information will appear on the "GPS Info." tab and will be continuously updated. The default GPS COM port is COM2 (at 9600 baud).

GPS Info

The GPS Info. tab provides an overview of the system status.



Upon tapping **Stop V-GPS**, the data feed will stop (the COM port will be closed) and all the related information will be frozen on the screen until you tap the **Start V-GPS** button to start it up again.

The next time Virtual-GPS is launched, it will remember the last state (whether the port was open and acquiring data, or closed).

A summary of the values can be viewed on the upper left side of the screen. It contains nine major values, namely:

- Fix Mode (2D/3D)
- Date Stamp
- Time Stamp
- Current Latitude
- Current Longitude
- Current Altitude

- Current Speed
- Current Course
- Satellites

The satellite map shows the satellites discovered and are placed on the satellite map according to their parsed latitude and longitude. Satellites are displayed in the following colors:

- indicates the SBAS satellite with PRN
- indicates the satellite is in view, in track, and in use with PRN
- indicates the satellite is in view, in track, but not in use with PRN

Tap the **Start V-GPS** button to start the Virtual-GPS.

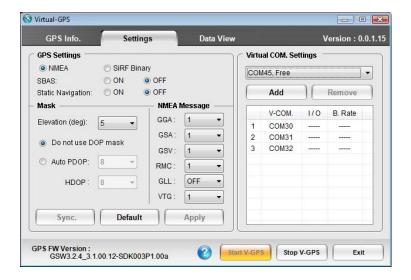
Tap the **Stop V-GPS** button to stop the Virtual-GPS.

Tap the **Exit** button to exit Virtual-GPS.

Settings

The Settings tab allows you to configure or view the following:

- GPS Settings
- Mask
- NMEA Message
- Virtual COM Port Settings



GPS Settings

Select NMEA or SiRF Binary (default is NMEA) format of message.

Turn SBAS (Satellite-Based Augmentation System; WAAS, EGNOS, MSAS) ON/OFF (default is ON). It is a system that supports wide-area or regional augmentation through the use of additional satellite broadcast messages.

Turn Static Navigation ON/OFF (default is OFF). It freezes the position of a tracking object when its speed is below the threshold.

Mask

Select the elevation (0 to 90 degrees) for covering some satellites with a specific angle (default is 5 degrees).

Select **Do not use DOP** (Dilution Of Precision) **mask** (default is on) or the **Auto PDOP** (Position 3D Precision) / **HDOP** (Horizontal Precision – 1 to 50, default is Gray out / 8). DOP is used in geometrics engineering to describe the geometric strength of satellite configuration on GPS accuracy.

NMEA Message

These settings can only operate in NMEA format. Configure the data log frequency (off, 1 to 10 seconds) of GGA (default 1 second), GSA (default 1 second), GSV (default 1 second), RMC (default 1 second), VTG (default 1 second), and GLL (default is off).

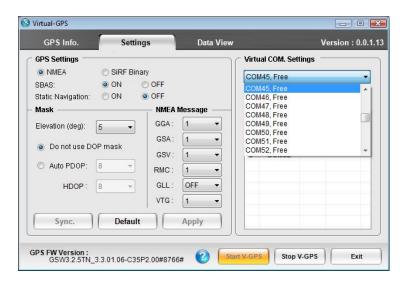
Virtual COM Port Settings

In the Virtual COM. Settings section, select the drop-down arrow to display a list of available virtual COM Ports. Create/delete the virtual COM port and show the related information including the port number and status. Status is displayed in the drop-down list to the right of the COM port number and includes the following:

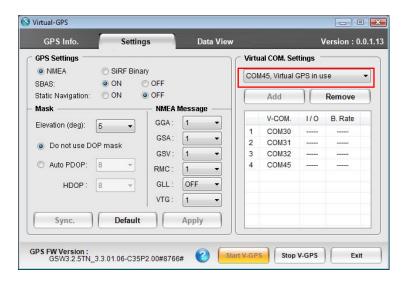
- **Virtual GPS in use** the COM port number is in use for Virtual-GPS.
- Free the COM port number is not in use. Only COM ports with a Free status can be selected as the new virtual COM port number.
- Other in use the COM port number is used by others.

To create a virtual COM port:

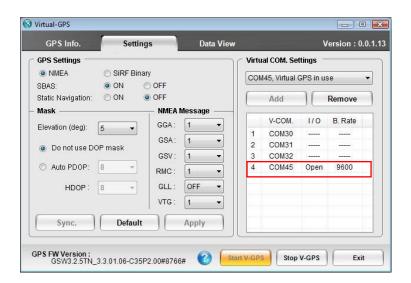
1. Select a COM port number with **Free** status.



2. Tap **Add** and the virtual COM port is shown on the list and the status will change to **Virtual GPS in use**.



IMPORTANT: Make sure that the COM port number used by the third-party GPS application to connect to the Virtual-GPS COM port is the same. You can scan for COM port or select COM port manually using the third-party's GPS application. COM 45 in this example is occupied if third-party's GPS application is connected.



To remove a virtual COM port:

- 1. Select a COM port number with Virtual GPS in use status.
- Tap Remove and the virtual COM port is removed and the status will change to Free.

The available COM port numbers are from 1 to 70.

The V-COM column shows the created virtual COM port number.

The I/O column shows if the application is used (Open) or not used (----).

The B. Rate column shows the baud rate from other GPS application that is using the virtual COM port.

16 virtual COM ports can be created. When you attempt to add the 17th COM port a warning message will pop-up.

Tap **Apply** to save and execute the settings. The settings would not be changed even if the system were returned from Sleep mode.

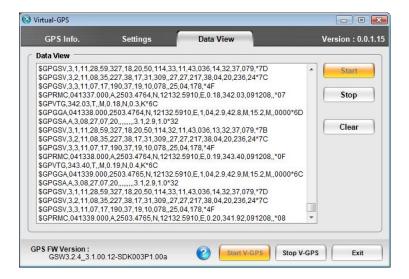
Tap **Default** to cancel the current settings and restore the default settings. Tap **Apply** to complete the changes.

Tap **Sync.** to synchronize current settings and update the status of the GPS settings.

Data View

The Data View tab shows a summary of raw data string received from satellites which is viewable but not editable. The Data View window is auto-scrollable and will be cleared as soon as GPS signal is disconnected. You can start or stop as well as clear the message log.

Data will be returned in either NMEA or SiRF Binary format depending on the selection chosen on the Settings page.



Using the Camera

A camera located on the front and rear side of your tablet computer allows you to take pictures. The G-Camera software has been installed or you can install another third-party application to use the camera feature.

Using the G-Camera Application

G-Camera is a unified user interface utility that allows you to perform the following:

- Take pictures
- Record video
- Path tracking and capture
- GPS configuration

To open the G-camera application, double tap the G-Camera program icon on the Windows desktop or tap Start → All Programs → G-Camera → G-Camera. Once G-Camera is launched it automatically scans for the camera. If the camera device is not found, G-Camera will appear on screen without an image.



Mode setting buttons

Camera Mode ____

The Camera Mode icon is amber when selected and is selected by default. When opening G-camera, Camera mode allows you to configure the camera settings and take photos. The live image always appears in 640×480 resolution.





Tap this button or press **Enter** to take photos. When the photo is being taken the button will light amber and the live image will be frozen until the image capture is complete.



Tap this button to switch between two camera modules (The Front

Camera - 1.3 M and the Back Camera - 2 M — if available). If using the 1.3 M module, only the following buttons are available: GPS Info, Continuous, Self Timer, Image Size, Display, Folder Location, and Shutter Sound. All the other buttons are grayed-out. The 1.3 M module does not support 1600×1200 image size. When using the 2 M module (default), all the buttons are available. When switching from 2 M module in 1600×1200 image size to 1.3 M module, the image size will be changed automatically to 1280×1024

The settings for Camera and Camcorder mode should be synchronous.



Tap this button and then choose **Enable** or **Disable** (default). Selecting **Enable** allows G-Camera to obtain the correct focus on a subject without requiring you to adjust the focus manually. This function is applicable for taking pictures where the subject is only a short distance from the camera. The following icon appears in the preview image when Macro is enabled:





Tap this button to set the light compensation in different lighting conditions. Select **Enable** when using G-Camera in an environment where light source is weak. Select **Disable** (default) when using G-Camera in an environment with adequate lighting. The following icon appears on the

preview image when Night Mode is enabled:

GPS Information



Tap this button to enable or disable (default) the GPS data to be displayed and printed on the photo. The format of GPS data is: Longitude, Latitude, Altitude, Speed, Magnetic or True Course.

- Longitude W (West) or E (East) *A.aaaaaa* (6-digits after the decimal point)
- Latitude S (South) or N (North) *B.bbbbbb* (6-digits after the decimal point)
- Altitude C.ccc (3-digits after the decimal point), displayed in meters
- Speed *D.ddd* (3-digits after the decimal point), displayed in Kilometers
- Magnetic or True course *E.eee* (3-digits after the decimal point).

Virtual GPS must be running for valid GPS data to be entered in the photo. Press the **GPS Settings** button in the upper tool bar and ensure that Virtual GPS is acquiring data. (See below under "GPS Settings.")

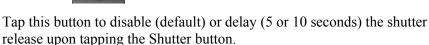
Continuous



(P)

Tap this button to enable or disable (default) the taking of 3 photos continuously in just one tap of the Shutter button.

Self Timer





Tap this button to set the photo's image size and format: 640x480 (default) / 1280x1024 / 1600x1200 (available only with 2 M module).



Tap this button to enable (default) or disable the display of pop-up OSD information.



Tap this button to configure the color of the image.

The following items can be configured by pressing the "+" or "-" icon on the adjustment bar on the bottom of the screen:

- Brightness = 0 to 20 levels (default is 10)
- Contrast = 0 to 15 levels (default is 8)
- Saturation = 0 to 15 levels (default is 9)

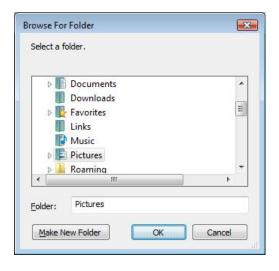
The configuration of the image color will be synchronized with the settings of the live image and photo.



Tap this button to set the location of the folder for storing photos and videos, as well as KML format.

The default location for storing photos and videos is C:\Users\"User's name"\Pictures.

The following screen appears:



When the storage space of the folder location is low, a warning message appears on screen.

When a folder that was created in G-Camera was changed outside the G-Camera utility, the folder name will not be detected the next time G-Camera is launched.

Shutter Sound

Tap this button to enable (default) or disable the shutter sound upon tapping the Shutter button.

Power Saving Power Saving

Tap this button to enable (default) or disable power saving. When enabled, the image area blanks out after the camera has been idle for a period of time. To continue use, tap anywhere in the live image.

Camcorder Mode

Camcorder mode allows you to configure the camcorder settings and video recording behavior. The live image always appears in 640×480 resolution and only supports the WMV video format.





Tap these buttons to adjust the microphone's sound recording level (0 to 20). The sound recording level synchronizes with the system's. When the sound is turned off, the buttons for this function will not appear.



Tap this button to start or stop the video recording process. The Record button will flash during the recording process and the timer will record the elapsed time (hour/minute/second). The Camera switch and Video size button will be grayed-out.

Camera Switch

Tap this button to switch between the front - 1.3 M and the back - 2 M (default) camera modules. The camera switch setting synchronizes with the Camera modes'.



Tap this button to enable or disable the microphone. This feature only supports the system with a microphone device. When enabled the adjustment bar will display on top of the screen. When disabled the adjustment bar will be grayed-out.



Tap this button to set the video size (320x240 / 640x480 default).



Tap this button to enable (default) or disable the OSD feature (includes the timer and sound adjustment bar).

Browser Mode

Browser mode allows you to view the photo and video with the corresponding file details created in Camera mode.

Viewing Photos





Tap these buttons to select the previous or next file in the current folder.



Tap this button to enable or disable (default) the EXIF data that includes: Manufacturer, Model, Date and Time, Image Size, GPS Latitude Reference (East or West), GPS Latitude, GPS Longitude Reference (North or South), GPS Longitude, and Altitude.



Tap this button to remove the current photo on display. The message "Are you sure you want to delete this item?" appears. Tap **OK** to confirm deletion.

Viewing Videos



Volume down / up 🗐)

Tap this button to adjust the volume level (0 to 20). The volume level synchronizes with the system's.



Tap this button to go back 5 seconds of the current video.



Tap this button to start or stop viewing the video. Upon tapping **Play** the timer (hour/minute/second) would start counting and you can stop the playback temporarily anytime by tapping **Pause**.



Tap this button to go forward 5 seconds of the current video.



Tap this button to capture a specific image in the video that is currently playing to be saved as a photo file.



Tap this button to enable (default) or disable the OSD feature that includes the translucent dark background for timer and volume adjustment bar.



Tap this button to remove the current video on display. The message "Are you sure you want to delete this item?" appears. Tap **OK** to confirm deletion.

Path Logger Mode



Path Logger mode allows you to start logging (interval of 6 seconds) the GPS data and the photo with position information and track as a path. After it stops tracking, it will output as KML file. You can view the path with photos in Google Earth TM.



Path Tracking

Tap this button to start recording the path and photo. Tap this button again to stop tracking and build the KML file automatically. All path log and photos from the period will be saved in one folder.

If the data is invalid, the KML file will not be built. Check the GPS connection status and signal strength before starting this function.



Tap this button to stop tracking and timer count temporarily. Tap the **Resume** button to continue tracking and timer count.

GPS Settings

Upon tapping the GPS Settings button, the Virtual-GPS utility screen appears.



NOTE: If the Virtual-GPS utility is removed or not detected, a warning message: "Virtual-GPS program was not detected. Check if Virtual-GPS program was installed properly" appears. If the "Stop V-GPS" button has been pushed the application will not "see" a COM Port and you will have to restart Virtual-GPS to reopen the port.

To return to using the G-Camera application, you can tap anywhere on the G-camera application, or you can minimize or exit the Virtual-GPS application.

Using Camera Switching Utility

NOTE: The Camera Switching Utility is not recommended for use with G-Camera.

The Camera Switching Utility allows you to specify which camera lens (the front or rear lens) you want to use for the camera software you will be using. Follow this procedure to switch the camera lens:

- 1. Close all applications that use the camera function.
- Open the Camera Switching Utility by double tapping the Camera Switching Utility program icon on the Windows desktop or tap Start → All Programs → Camera Switching Utility → Camera Switching Utility. The following screen appears.



- 3. Tap the camera lens you want to use. Do not exit the program.
- 4. Open your application that uses the Camera function. You must keep the Camera Switching Utility open while using your Camera application.

NOTE: G-Camera will not work if the Camera Switch Utility is open.

Using the System Utility

Wireless Switch

The Wireless Switch allows you to manage the Wireless radio (wireless LAN and Bluetooth – refer to Chapter 2 on turning on/off wireless LAN radio and Bluetooth radio). When you receive the tablet computer, this switch is on by default

Tap and hold the stylus on the icon located on the Windows taskbar until a ring appears. (You need to tap on the taskbar to show the hidden icons.) Lift up the stylus and the menu appears.



NOTE: If there is no icon located on the Windows taskbar, tap Start → All Programs → System utility → OSD to add the icon to the taskbar..

Quick Button Define

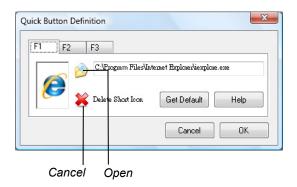
The three quick buttons F1, F2, and F3 are located on the left side of the LCD panel. The quick launch key utility allows you to re-define the F1, F2, and F3 quick launch keys.

To start the utility, tap and hold the stylus on the icon on the Windows taskbar until a ring appears. (You need to tap on the taskbar to show the hidden icons.) Lift up the stylus and select the item **Quick button**.

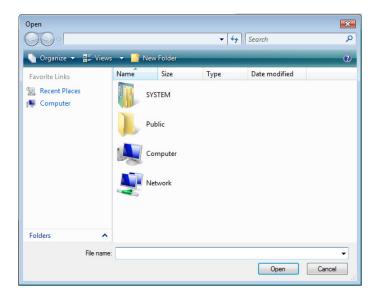


Defining the buttons:

- 1. Tap the F1, F2, or F3 folder to select the quick launch button that you want to redefine.
- 2. To assign a program, tap the Open icon.



3. Browse to the folder containing the desired program. Select the program filename and tap **Open** to complete the process.



4. The appropriate icon will then appear in the box.

Help

An online Help of the System Utility is available onscreen. Tap and hold the stylus on the icon on the Windows taskbar until a ring appears, then lift up the stylus so the menu appears and then select the **Help** item to access the System Utility User Guide.

Managing Power

Your tablet computer operates either on external AC power or on battery power.

This chapter tells you how you can effectively manage power. To maintain optimal battery performance, it is important that you use the battery in the proper way.

The topics in this chapter include:

- How to charge the battery pack
- When to initialize the battery pack
- How to check the battery level
- How to replace the battery pack
- What happens when the battery is low and what actions to take
- What is Power Management
- How to save power

Managing Power 3-1

Battery Pack

The operating time of a fully charged battery pack depends on how you are using the tablet computer. When your applications often access peripherals, you will experience a shorter operating time.

NOTE: Care and maintenance information for the battery is provided in the "Battery Pack Guidelines" section in Chapter 6.

WARNING:

- Do not disassemble the battery pack. There are no user-serviceable parts inside.
 Doing so may present risk of exposure to harmful chemicals, explosion, fire or high temperatures.
- Contact your local waste disposal service provider regarding the disposal or recycling of used battery packs.

Charging the Battery Pack

To charge the battery pack, connect the AC adapter to the tablet computer and an electrical outlet. The Battery Status Indicator () on the tablet computer glows amber to indicate that charging is in progress. When the battery is fully charged, the Battery Status Indicator glows green.

The charging times are as follows:

Battery Type	Charging Time
Standard \times 2	Up to 5.5 hours
Extended \times 2	Up to 7 hours

NOTE: The battery level may automatically lessen due to the self-discharge process (0.21 % per day), even when the battery pack is fully charged (100 %). This discharge occurs whether the battery pack is in or out of the tablet computer.

3-2 Managing Power

Initializing the Battery Pack

You need to initialize when the actual operating time of a battery pack is much less than expected.

To initialize the battery pack, fully charge, then discharge completely by changing the Windows Power Plan to High Performance (tap the icon on the Windows taskbar) and leave the AC adapter unplugged. Recharge the battery pack completely by plugging in the AC adapter.

Checking the Battery Level

NOTE: Any battery level indication is an estimated result. The actual operating time can be different from the estimated time, depending on how you are using the tablet computer.

You can check the approximate battery level using the battery meter. To read the battery level in Windows, click the battery icon (when running on battery power or when running on external power) on the taskbar.

NOTE: Upon replacing the battery pack, the reading on the battery meter is not accurate. Windows will automatically do an update every 10 seconds to get the latest correct reading.

Replacing the Battery Pack

If you rely on battery power for a long period of time, consider purchasing an additional set of batteries from your dealer to use for backup.

To replace the battery packs, follow these steps:

- 1. Close open applications and shut down the tablet computer.
- 2. Make sure that the tablet computer is not connected to AC power.
- 3. Use the Phillips screwdriver end of the stylus, or use a small #1 Phillips head screwdriver, to remove the two screws securing each battery pack and then lift out each battery pack.

Managing Power 3-3

4. Fit the replacement battery packs into place and secure each with the two screws. Do not over tighten.



NOTE: You can still operate the tablet computer on one battery while replacing the other battery pack. Operating on one battery for an extended period is not recommended as an empty battery pack slot exposes the computer's internal parts to environmental hazards such as dust and water.

3-4 Managing Power

Battery Low Signals and Actions

The battery icon changes appearance to indicate the current state of the battery.

Battery Icon	Battery Level	Description	
	Discharging	The icon shows the charge remaining in 10-percent increments until the charge reaches the low-battery level.	
	Low	The battery charge has reached the low-battery level (10% by default).	
	Critically low	The battery charge has reached the critical battery level (5% by default). By default, Windows will display a notification and put your computer into Hibernation.	

When the battery is low, the computer's Battery Charge Indicator () also blinks red to alert you to take actions. Always respond to low-battery by connecting the AC adapter, placing your computer in Hibernation mode, or turning off the computer.

Managing Power 3-5

Power Management

The power management feature helps reduce the power consumption to extend the battery life.

Your tablet computer supports ACPI (Advanced Configuration and Power Interface) for power management. Power supply to different components is controlled on an as-needed basis. This allows maximum power conservation and performance at the same time.

Windows comes with pre-defined Power Options (**Balanced**, **Power Saver**, and **High Performance**) for you to select. By default, your tablet computer is in Balanced mode which works in this way:

What	Default on Battery	Default on AC Power
The tablet computer automatically enters Sleep mode.	Hybrid Sleep only: The computer has been inactive for 15 minutes.	Normal Sleep only: The computer has been inactive for 30 minutes.
The tablet computer automatically enters Hibernation mode.	The computer has been inactive for 360 minutes.	The computer has been inactive for 360 minutes.
Power to hard disk is automatically turned off.	The hard disk has been inactive for 10 minutes.	The hard disk has been inactive for 20 minutes.
The display is dimmed.	The computer has been inactive for 2 minutes.	The computer has been inactive for 5 minutes.
Power to the display is automatically turned off.	The computer has been inactive for 5 minutes.	The computer has been inactive for 10 minutes.

For detailed information on power management, see Windows' Help.

Hybrid Sleep or Normal Sleep Mode

You can quickly place your tablet computer in Sleep mode (Hybrid Sleep on battery or normal Sleep on AC power) using the power button on the Windows Start Menu or using the tablet computer's power button (default setting).

3-6 Managing Power

There are two types of Sleep mode—Hybrid Sleep and normal Sleep. By default, Hybrid Sleep is activated for battery power. Hybrid Sleep is a very low power state that combines the quick-resume benefits of Standby with the data protection benefits of Hibernation.

Hibernation Mode

Hibernation is a very useful feature. People frequently open many applications when they use computers. It takes some time to get all these applications open and running, and normally they all have to be closed before the computer can be turned off.

When you use the hibernation feature, you do not have to close the applications. The tablet computer stores the state of your tablet computer to a file on the hard disk and then shuts down. The next time you turn on your tablet computer, you return to exactly where you left off.

To place your tablet computer in Hibernation mode, tap the Windows Start Menu, tap the arrow at the bottom right corner, and select the Hibernation option.

NOTE: You can redefine the power button on the Windows Start Menu or the tablet computer's power button so that it can be used for placing the computer in Hibernation. (For more information, see Windows' Help on Power Options.)

Managing Power 3-7

Power-Saving Tips

Aside from enabling your tablet computer's power saving mode (see previous section), you can do your part to maximize the battery's operating time by following these suggestions.

- Do not disable Power Management. Choose a power plan that saves power. A power plan is a collection of hardware and system settings that control how your tablet computer manages power.
- Decrease the LCD brightness to the lowest comfortable level.
- Shorten the length of time before Windows turns off the display.
- Many USB devices use power just by being connected. If you use a
 USB mouse, you can save power by disconnecting the mouse and
 using the touchpad. If you use a USB flash drive, unplug it when you
 are not using it.
- If you work with an application that uses an ExpressCard, exit the application when you finish using it.
- If you have an ExpressCard installed, remove it when not in use. Some ExpressCards drain power even while they are inactive.
- Deactivate the Wireless LAN function if you are not using it.
- Deactivate the Bluetooth wireless feature if you are not using it.
- Turn off the tablet computer when you are not using it.

3-8 Managing Power

Expanding Your Tablet Computer

You can expand the capabilities of your tablet computer by connecting other peripheral devices. When using a device, be sure to read the instructions accompanying the device together with the relevant section in this chapter.

This chapter gives guidelines on installing and using these devices:

- Serial device
- USB device
- ExpressCard
- SD card

Connecting a Serial Device

Your tablet computer has a serial port for connecting a serial device such as a serial mouse or serial communication device (modem).

Follow this procedure to connect a serial device:

- 1. Make sure the tablet computer is not turned on.
- 2. Plug the device cable to the serial port on the lower front part of the tablet computer.



3. Turn on the tablet computer.

NOTE: Portable modems that derive power through the serial port cannot be used with the tablet computer. Instead, use a modem that is powered by its own internal battery or external AC power.

Connecting a USB Device

Your tablet computer has two USB ports for connecting USB devices, such as a digital camera, scanner, printer, modem, and mouse.

The USB ports support transfer rates up to 12 Mbps for USB 1.1 devices and 480 Mbps for USB 2.0 devices.

To connect a USB device, simply plug the device cable into one of the USB ports ().



Using ExpressCards

NOTE: The ExpressCard interface is not compatible with the PC card interface. You need optional adapters for using PC cards on your tablet computer.

Your tablet computer has an ExpressCard slot.

ExpressCard supports the PCI Express and USB 2.0 serial data interfaces (supporting speeds of up to 2.5 Gbps and 480 Mbps respectively), improving speed in data transfer while conserving power usage.

ExpressCard Type

The ExpressCard slot can accommodate a 34 mm (ExpressCard/34) wide ExpressCard. Typical ExpressCards support a very extensive range of applications including memory, wired and wireless communication cards, and security devices.

Inserting and Removing an ExpressCard

To insert an ExpressCard:

- 1. Remove the four screws securing the compartment cover.
- 2. Locate the ExpressCard slot on the tablet computer.
- 3. Slide the ExpressCard, with its label facing up, all the way into the slot until the rear connectors click into place.



4. When a new card is seated, the tablet computer will detect it and try to install the appropriate driver. Follow the on-screen instructions to complete the process.

To remove an ExpressCard:

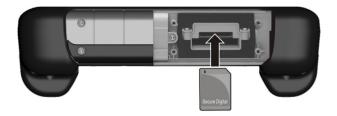
- 1. Tap the Safely Remove Hardware icon found on the Windows taskbar and, in the popup window, tap **Eject xxx** (where xxx is the name of the ExpressCard). The Safely Remove Hardware window appears.
- 2. Once it is safe to remove the card, push the ExpressCard slightly to release the card.
- 3. Pull the card out of the slot.
- 4. Replace the compartment cover and secure the four screws.

Using the SD Card Reader

Your tablet computer has a Secure Digital Input/Output (SDIO) Card Reader slot.

To insert a SD card:

- 1. Remove the four screws securing the compartment cover.
- 2. Locate the SD Card Reader slot on the tablet computer.
- 3. Align the card with its connector pointing to the slot and its label facing up. Slide the card into the slot until it reaches the end.



4. Windows will detect the card and assign it a drive name.

To remove a storage card:

- 1. Tap Start, then Computer.
- 2. Tap the Safely Remove Hardware icon found on the Windows taskbar and, in the popup window, tap **Eject xxx** (where xxx is the name of the SD Card). The Safely Remove Hardware window appears.
- 3. Once it is safe to remove the card, push the SD Memory Card slightly to release the card. Pull the card out of the slot.
- 4. Replace the compartment cover and secure with four screws.

Using BIOS Setup and System Recovery

BIOS Setup Utility is a program for configuring the BIOS (Basic Input/Output System) settings of the tablet computer. The BIOS is a layer of software, called firmware, that translates instructions from other layers of software into instructions that the tablet computer hardware can understand. The BIOS settings are needed by your tablet computer to identify the types of installed devices and establish special features.

System Recovery reinstalls Windows to your system and configures it to the system's factory default settings.

This chapter describes how to use the BIOS Setup and System Recovery.

BIOS Setup

When to Use

You need to run BIOS Setup utility when:

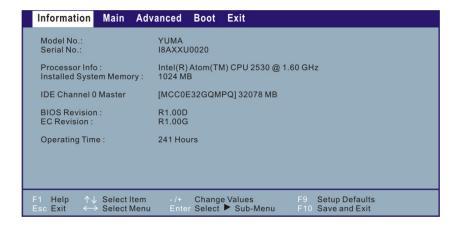
- You see an error message on the screen requesting that you run BIOS Setup utility.
- You want to restore the factory default BIOS settings.
- You want to modify some specific hardware settings.
- You want to modify some specific settings to optimize the system performance.

How to Use

NOTE:

- The BIOS Setup Utility screens shown in this chapter are for your reference only. The actual items or settings on your tablet computer may differ.
- The settings you select in your operating system might override similar settings in BIOS Setup Utility.

To run BIOS Setup Utility, press the **Enter** button when the prompt appears on the screen during system startup. The prompt shows up on the screen for only a few seconds. You must press the **Enter** button quickly. A small window appears, select **Launch System Setup** (by pressing the Directional Button) and then press **Enter** button again. The BIOS Setup Utility main screen appears as shown next.



The BIOS Setup Utility screen can be divided into four areas:

- On the top is the menu bar containing the titles of the available menus. Each menu title brings a specific menu.
- The left column of the menu displays the menu items.
- The top-right of the menu provides more detailed information when a menu item is highlighted.
- The bottom of the menu provides keyboard instructions for moving around and making selections.

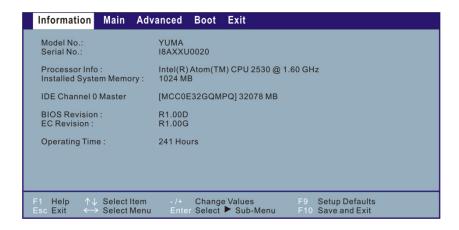
You must go through two or three levels to complete the setting for an item. In most cases, there are three levels: menu title, pull-down menu, and submenu.

Use the keyboard to move around and make selections. Keyboard information can be found at the bottom of the screen. A brief description of keyboard usage is listed next:

Button	Function
Left / right directional	Selects a menu title.
Up / down directional	Selects an item or option.
Enter	Opens or closes the option window when an item is selected.
F1	Displays help information.
F2 + up directional	Selects next higher value.
F2 + down directional	Selects next lower value.

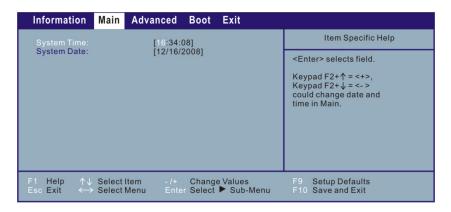
Information Menu

The Information menu contains the basic configuration information of the system.



Main Menu

The Main menu contains the system date and time settings as well as shows the basic configuration of the system.

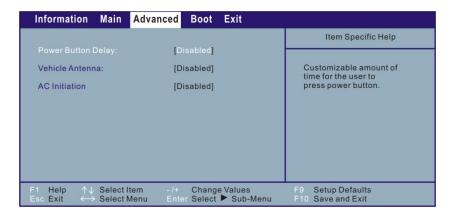


System Time sets the system time.

System Date sets the system date.

Advanced Menu

The Advanced menu contains various system settings.



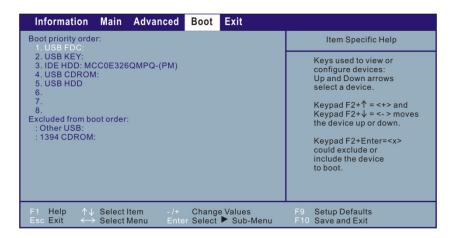
Power Button Delay allows you to set the amount of time to press power button before turning off the tablet computer. When set at *Disabled* the tablet computer will turn off immediately upon pressing the power button.

Vehicle Antenna allows you to switch to using the external antenna when your tablet computer is attached to the active vehicle dock.

AC Initiation determines if connecting AC power will let your computer automatically start up or resume from Sleep/Hibernation mode.

Boot Menu

The Boot menu sets the sequence of the devices to be searched for the operating system.



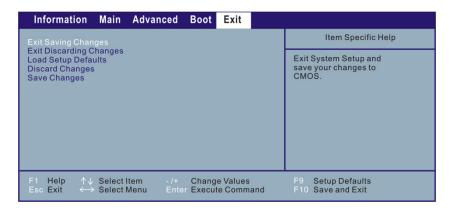
The bootable devices will be automatically detected during POST (Power-On Self-Test) and shown here, allowing you to set the sequence that the BIOS uses to look for a boot device from which to load the operating system.

A brief description of keyboard usage is listed next:

Button	Function		
\uparrow , \downarrow	Selects (highlights) a boot device.		
F2 + ↑	Moves the device up.		
F2 + ↓	Moves the device down.		
F2 + Enter	Moves the highlighted boot device from the "Boot priority order" list to the "Excluded from boot order" list, and vice versa.		

Exit Menu

The Exit menu displays ways of exiting BIOS Setup Utility. After you are finished modifying your settings, you must save and exit so that the changes can take effect.



Exit Saving Changes saves the changes you have made and exits BIOS Setup Utility.

Exit Discarding Changes exits BIOS Setup Utility without saving the changes you have made.

Load Setup Defaults loads the factory default values for all the items.

Discard Changes restores the previous values for all the items.

Save Changes saves the changes you have made.

System Recovery

You need to run System Recovery when:

- Your Windows operating system does not start at all.
- You want to restore the factory default Windows settings.

WARNING: Using this feature will reinstall Windows to your system and configure it to the system's factory default settings. All data on the hard disk drive will be lost.

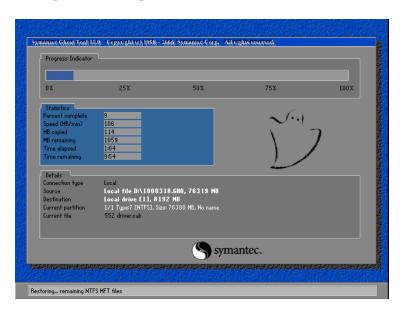
Use the Recovery DVD supplied with your tablet computer to run System Recovery:

- 1. Back up the data you want.
- 2. Connect an external DVD drive to your tablet computer.
- 3. Depending on the type of your DVD drive, you may need to connect external AC power to the drive. If the DVD drive consumes power through the USB connector, make sure that the tablet computer is on.
- 4. Insert the Recovery DVD to the DVD drive.
- 5. Turn on or restart your tablet computer.
- 6. During system startup when the message "Press any key to boot from CD or DVD..." appears at the upper left corner of the screen, press the Enter button. The message shows up on the screen only briefly. You must press the Enter button quickly.



NOTE: If you have changed the booting order in BIOS Setup so the IDE HDD has priority over USB CDROM, press the **Enter** button quickly when the initial screen appears during system startup. A small window appears. Select **Select Boot Device** (by pressing the Directional Button) and press **Enter**. Select **USB CDROM** and press **Enter**. This allows you to boot from the external DVD drive.

- 7. The message "Initializing recovery environment, please wait..." appears on the screen.
- 8. When the message "Press any key to continue . . ." appears, press the Enter button.
- 9. The following screen appears showing the recovery progress. Wait till the process is completed.



- 10. When completed, the message "os Recovery complete" appears. Press the **Enter** button to continue.
- 11. When the message "please press any key to shutdown the machine." appears, press the **Enter** button to shut down your tablet computer.
- 12. Disconnect the external DVD drive.
- 13. Turn on your tablet computer.



Caring for the Tablet Computer

Taking good care of your tablet computer will ensure trouble-free operation and reduce the risk of damage to your tablet computer.

This chapter gives you guidelines covering these areas of maintenance:

- What to note when using and storing the tablet computer
- How to clean the tablet computer
- What to note when using the battery pack
- What to note when traveling with the tablet computer

Taking Care of the Tablet Computer

Location Guidelines

 Keep the tablet computer at least 13 cm (5 inches) away from electrical appliances that can generate a strong magnetic field such as a TV, refrigerator, motor, or a large audio speaker.

General Guidelines

- Do not place heavy objects on top of the tablet computer as this may damage the display.
- The screen surface is easily scratched. Use the screen protector film to protect it. Do not use paper towels to clean the display but use the included cleaning cloth. Avoid touching it with a pen or pencil.
- To maximize the life of the backlight in the display, allow the backlight to automatically turn off as a result of power management. Avoid using a screen saver or other software that prevents the power management from working.

Cleaning Guidelines

- Use a soft cloth moistened with water or a non-alkaline detergent to wipe the exterior of the tablet computer.
- Gently wipe the display with a soft, lint-free cloth. Do not use alcohol
 or detergent on the display.

Battery Pack Guidelines

- Recharge the battery pack when it is nearly discharged.
- The battery pack is a consumable product and the following conditions will shorten its life:
 - frequently charging the battery pack

- using, charging, or storing the battery at high temperatures (warmer than room temperature)
- It is recommended that you do not charge the battery pack at temperatures higher than 40 °C (104 °F). A higher environment temperature will cause the battery pack's temperature to rise. Avoid charging the battery pack inside a closed vehicle and in hot weather conditions.
- To maximize the battery pack's operating efficiency, store it in a cool dark place removed from the tablet computer and with $30 \% \sim 40 \%$ charge remaining.

Touchscreen Guidelines

- In order to protect the LCD panel use the included screen protector film.
- Use your finger or the included stylus on the display. Using a sharp or metallic object may cause scratches and damage the display, thereby causing errors.
- Use a soft cloth to remove dirt on the display. The touchscreen surface has a special protective coating that prevents dirt from sticking to it. Not using a soft cloth may cause damage to the special protective coating on the touchscreen surface.
 To clean off hard to remove dirt, blow some steam on the particular area and gently wipe away using a soft cloth.
- Do not use excessive force on the display. Avoid placing objects on top of the display as this may cause the glass to break.
- When there is a noticeable discrepancy in the operation of the touchscreen function (stylus touch does not correlate to the proper location on the screen), recalibrate the touchscreen display (see Chapter 2).

Troubleshooting

This chapter tells you what actions to take when solving common tablet computer problems. It is divided into three sections:

- Preliminary checklist
- Solving common problems
- Resetting the tablet computer

Troubleshooting 7-1

Preliminary Checklist

Here are helpful hints to follow when you encounter any problem:

- Try to isolate which part of the tablet computer is causing the problem.
- Make sure that you turn on all peripheral devices connected to the tablet computer before turning on the tablet computer.
- If an external device has a problem, make sure that the cable connections are correct and secure.
- Make sure that all the device drivers are correctly installed.
- Make notes of your observations. Are there any messages on the screen? Do any indicators light? Detailed descriptions are useful to the service personnel when you need to consult one for assistance.

If any problem persists after you follow the instructions in this chapter, contact an authorized dealer for help.

7-2 Troubleshooting

Solving Common Issues

For easy reference, the problems are divided into these categories.

Problem Type	Go to
Battery Problems	P. 7-4
Bluetooth Wireless Transmission Problems	P. 7-4
Display Problems	P. 7-5
Hardware Device Problems	P. 7-5
Hard Disk Drive Problems	P. 7-5
Wireless LAN Problems	P. 7-5
Power Management Problems	P. 7-7
Software Problems	P. 7-8
Sound Problems	P. 7-8
Startup Problems	P. 7-9
Other Problems	P. 7-9

Troubleshooting 7-3

Battery Problems

The battery does not charge (Battery Status indicator does not light amber).

- Make sure that the AC adapter is properly connected.
- Make sure that the battery is not too hot or cold. Allow time for the battery pack to return to room temperature.
- Make sure that the battery pack is installed correctly.
- Make sure that the battery terminals are clean.

The operating time of a fully charged battery becomes shorter.

• If you often partially recharge and discharge, the battery might not be charged to its full potential. Initialize the battery to solve the problem (see chapter 3).

The battery operating time indicated by the battery meter does not match the actual operating time.

• The actual operating time can be different from the estimated time, depending on how you are using the tablet computer. If the actual operating time is much less than the estimated time, initialize the battery.

Bluetooth Wireless Transmission Problems

I cannot connect to another device with Bluetooth wireless technology.

- Make sure that both devices have Bluetooth turned on.
- Make sure that the distance between the two devices is not over 10 meters and that there are no walls or other large obstructions between the devices.
- Make sure both devices are turned on and have been configured to be discoverable.
- Make sure that both devices are compatible.

7-4 Troubleshooting

Display Problems

Nothing appears on the screen.

- During operation, the screen may automatically turn off as a result of power management. Press any key to see if the screen comes back.
- The brightness level might be too low. Increase brightness by pressing the F2 button for more than 2 seconds, then pressing the cursor-control button's LEFT arrow.

The characters on the screen are dim.

• Adjust the brightness and/or contrast.

Hardware Device Problems

The tablet computer does not recognize a newly installed device.

- Determine if a device driver needs to be installed. (Refer to the documentation that came with the device.)
- Determine if the device needs any jumper or switch settings. (Refer to the documentation that came with the device.)
- Check the cables or power cords for correct connections.
- For an external device that has its own power switch, make sure that the power is turned on.

Hard Disk Drive Problems

The hard disk drive error message appears on the screen.

• The hard disk drive has defects. Ask your dealer for help.

Wireless LAN Problems

I cannot use the wireless LAN feature.

• Make sure that the wireless LAN feature is turned on.

Troubleshooting 7-5

Transmission quality is poor.

- Your tablet computer may be in an out-of-range situation. Move your tablet computer closer to the Access Point or another wireless LAN device it is associated with.
- Check to see if there are interferences in the surrounding environment. These could include microwave ovens, cordless telephones, wireless video cameras, medical equipment, and large metal objects. See the next item for solving radio interference problems.

Radio interference exists.

- Move your tablet computer away from the device causing the radio interference such as microwave oven and large metal objects.
- Plug your tablet computer into an outlet on a different branch circuit from that used by the affecting device.
- Consult your dealer or an experienced radio technician for help.

I cannot connect to another wireless LAN device.

- Make sure that the wireless LAN feature is turned on.
- Make sure that the SSID setting is the same for every wireless LAN device in the network.
- Your tablet computer is not recognizing changes. Restart the tablet computer.
- Make sure that the IP address or subnet mask setting is correct.

I cannot communicate with the tablet computer in the network when Infrastructure mode is configured.

- Make sure that the Access Point your tablet computer is associated with is powered on and all the LEDs are working properly.
- If the operating radio channel is in poor quality, change the Access Point and all the wireless station(s) within the BSSID to another radio channel.
- Your tablet computer may be in an out-of-range situation. Move your tablet computer closer to the Access Point it is associated with.

7-6 Troubleshooting

- Make sure that your tablet computer is configured with the same security option (encryption) as the Access Point.
- Use the Web Manager/Telnet of the Access Point to check whether it is connected to the network.
- Reconfigure and reset the Access Point.

I cannot access the network.

- Make sure that the network configuration is appropriate.
- Make sure that the user name or password is correct.
- You have moved out of range of the network.
- Turn off power management.

Power Management Problems

The tablet computer does not enter Sleep or Hibernation mode automatically.

- If you have a connection to another computer, the tablet computer does not enter Sleep or Hibernation mode if the connection is actively in use.
- Make sure that the Sleep or Hibernation time-out is enabled.

The tablet computer does not enter Sleep or Hibernation mode immediately.

• If the tablet computer is performing an operation, it normally waits for the operation to finish.

The tablet computer does not resume from Sleep or Hibernation mode.

- The tablet computer automatically enters Sleep or Hibernation mode when the battery pack is empty. Do any one of the following:
 - Connect the AC adapter to the tablet computer.
 - Replace the empty battery pack with a fully charged one.

Troubleshooting 7-7

Software Problems

An application program does not work correctly.

- Make sure that the software is correctly installed.
- If an error message appears on the screen, consult the software program's documentation for further information.
- If you are sure the operation has stopped, reset the tablet computer. (See "Resetting the Tablet Computer" later in this chapter.)

Sound Problems

No sound is produced.

- Make sure that the volume control is not set too low. Increase the volume by pressing the F2 button for more than 2 seconds, then press the cursor-control button's UP arrow.
- Make sure that the tablet computer is not in Sleep mode.
- If using an external speaker, make sure that the speaker is properly connected.

Distorted sound is produced.

 Make sure that the volume control is not set too high or too low. In most cases, a high setting can cause the audio electronics to distort the sound.

The external audio device does not work.

- Make sure that your tablet computer is equipped with the driver needed
- Tap the speaker symbol on the taskbar and check the Windows volume control.
- Check the volume control of your tablet computer.

7-8 Troubleshooting

Startup Problems

When you turn on the tablet computer, it does not respond and the Power Indicator does not light green.

- If you are using external AC power, make sure that the AC adapter is correctly and securely connected. If so, make sure that the electrical outlet works properly.
- If you are using the battery power, make sure that the battery is not discharged.

When you turn on the tablet computer, it stops after POST.

• Restart your tablet computer.

Other Problems

The date/time is incorrect.

- Correct the date and time via the operating system or BIOS Setup program.
- After you have performed everything as described above and still
 have the incorrect date and time every time you turn on the tablet
 computer, the RTC (Real-Time Clock) battery is at the end of its life.
 Call an authorized dealer to replace the RTC battery.

Troubleshooting 7-9

Resetting the Tablet Computer

You may have to reset (reboot) your tablet computer on some occasions when an error occurs and the program you are using hangs up.

If the tablet computer operation seems to hang up, first wait. It is possible that the tablet computer is processing data. Periodically check the hard disk drive in-use indicator. If it flashes irregularly, the program may be accessing data and preventing you from using the keypad. If you are sure the operation has stopped and you cannot use the "restart" function of the operating system, reset the tablet computer.

You can reset the tablet computer by pressing **F1** + **Enter** on your tablet computer. If this does not work, turn off the tablet computer with the power button. Wait for at least five seconds and turn it on again.

CAUTION: Resetting will cause any unsaved data to be lost.

7-10 Troubleshooting

Warning Messages

G-Camera Application

Message	Description
Unable to scan the GPS COM port.	G-Camera will scan the GPS COM port for GPS Information or Tracking. This message will appear when auto-scan GPS COM port has failed.
The available disk space is not enough, please change to another disk.	This message will appear when the storage space where video and photos are saved is not enough.
The available disk space is not enough or the folder has been removed and does not exist. Please change to another disk.	This message will appear when the space is not enough or the folder which is set for saving the file was removed.
The system is currently tracking the GPS route. Do you really want to exit?	When tracking the path or saving the KML file and the user taps X to exit, this message will appear.
The camcorder is currently performing an operation. Do you really want to exit?	When recording or saving the video and the user taps X to exit, this message will appear.
The camera is currently performing an operation. Do you really want to exit?	After pressing the shutter button, the counter is counting down, taking pictures continuously, or saving the photo. At this time, the user taps X to exit. This message will appear.
Unable to locate the front camera device or it does not exist!	G-Camera application will scan the camera. If the device is not found, this message will appear.
Unable to locate the rear camera device or it does not exist!	G-Camera application will scan the camera. If the device is not found, this message will appear.
G-Camera is used by other users. Please close G-Camera from other user; otherwise, function cannot be properly performed.	G-Camera application can only be used by a single user. If the second user wants to use the camera, the other user needs to close the G-Camera application.
Press the Start Tracking button to start recording KML file.	This message will appear when entering Path Logger mode.

Troubleshooting 7-11

Message	Description
GPS info of path tracking is being recorded into KML file.	This message appears when the KML file is recording.
Saving KML file, please wait	This message will appear when the user quits the program, and the KML file is being saved.
Virtual-GPS program was not detected. Please check if Virtual-GPS program was installed properly.	When tapping the Virtual-GPS button and the software is not detected, this message will appear.

Virtual-GPS Application

Message	Description
Unable to start the Virtual-GPS service. Please try again.	Virtual-GPS service should automatically start when system starts. If not, it may need to reboot again.
Unable to open the GPS device. Please check the GPS device status.	The Virtual-GPS application will automatically scan the real GPS COM port. If the real COM port is occupied, does not exit, or connection failed, this message will appear.
Virtual-GPS is unable to create more than 16 virtual COM ports.	The Virtual-GPS application only allows the user to create 16 virtual COM ports. When the user adds the 17th COM port, this message will appear.
Unable to remove it because this COM port is being used by another GPS application.	When the COM port is occupied by another GPS application and the user tries to remove the COM port, this message will appear.
Unable to execute the Virtual-GPS program because file may be lost. Please re-install Virtual-GPS program again.	If the Virtual-GPS software is not functioning properly or not found, this message will appear.

7-12 Troubleshooting

System Utility

Message	Description
The power saving feature can only be enabled when operating your system in battery mode.	The power saving function can only be used in battery mode. If the user switches to power saving function in AC power mode, this message will appear.
You have entered the wrong information: XXXXXXXX. The system cannot find the file specified. Please re-enter a valid directory.	In Quick Button definition (the user can set the F1 \sim F3 program), if the user sets an invalid program or types the wrong location, this message will appear when pressing the F1 \sim F3 button.

Troubleshooting 7-13



Regulatory Information

This appendix provides regulatory statements and safety notices on your tablet computer.

NOTE: Marking labels located on the exterior of your tablet computer indicate the regulations that your model complies with. Please check the marking labels and refer to the corresponding statements in this appendix. Some notices apply to specific models only.

On the Use of the System

Class B Regulations

USA

Federal Communications Commission Radio Frequency Interference Statement

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Please note:

The use of a non-shielded interface cable with this equipment is prohibited.

Canada

Canadian Department of Communications Radio Interference Regulations Class B Compliance Notice

This Class B digital apparatus meets all requirements of the Canada Interference-Causing equipment regulations.

Cet appareil numérique de Classe B respecte toutes les exigences du Règlement Canadien sur le matériel brouileur.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Safety Notices

About the Battery

Caution Texts Concerning Lithium Batteries

DANISH

ADVARSEL! Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

NORWEGIAN

ADVARSEL: Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

SWEDISH

VARNING: Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

FINNISH

VAROITUS: Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan valmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

ENGLISH

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

DEUTSCH

VORSICHT: Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleich-wertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

FRENCH

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

Attention (for USA Users)

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

About the AC Adapter

- Use only the AC adapter supplied with your tablet computer. Use of another type of AC adapter will result in malfunction and/or danger.
- Do not use the adapter in a high moisture environment. Never touch the adapter when your hands or feet are wet.
- Allow adequate ventilation around the adapter when using it to operate the device or charge the battery. Do not cover the AC adapter with paper or other objects that will reduce cooling. Do not use the AC adapter while it is inside a carrying case.
- Connect the adapter to a proper power source. The voltage requirements are found on the product case and/or packaging.
- Do not use the adapter if the cord becomes damaged.
- Do not attempt to service the unit. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

On the Use of the RF Device

NOTE: The information in this section applies to models with the wireless LAN module.

USA and Canada Safety Requirements and Notices

Radio Frequency Interference Requirements and SAR

The FCC with its action in ET Docket 93-62 has adopted a safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC certified equipment. The wireless LAN module meets the Human Exposure limits found in OET Bulletin 65, 2001, and ANSI/IEEE C95.1, 1992. Proper operation of this radio according to the instructions found in this manual will result in exposure substantially below the FCC's recommended limits. The following safety precautions should be observed:

- Do not touch or move antenna while the unit is transmitting or receiving.
- Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.
- Do not operate the radio or attempt to transmit data unless the antenna is connected; if not, the radio may be damaged.

Use in specific environments:

- The use of wireless devices in hazardous locations is limited by the constraints posed by the safety directors of such environments.
- The use of wireless devices on airplanes is governed by the Federal Aviation Administration (FAA).
- The use of wireless devices in hospitals is restricted to the limits set forth by each hospital.

Explosive Device Proximity Warning

WARNING: Do not operate a portable transmitter (such as a wireless network device) near unshielded blasting caps or in an explosive environment unless the device has been modified to be qualified for such use.

Use on Aircraft Caution

CAUTION: Regulations of the FCC and FAA prohibit airborne operation of radio-frequency wireless devices because their signals could interfere with critical aircraft instruments.

EMC Requirements

This device uses, generates and radiates radio frequency energy. The radio frequency energy produced by this device is well below the maximum exposure allowed by the Federal Communications Commission (FCC).

This device complies with the limits for a Class B digital device pursuant to Part 15 subpart C of the FCC Rules and Regulations. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The FCC limits are designed to provide reasonable protection against harmful interference when the equipment is installed and used in accordance with the instruction manual and operated in a commercial environment. However, there is no guarantee that interference will not occur in a particular commercial installation, or if operated in a residential area.

If harmful interference with radio or television reception occurs when the device is turned on, the user must correct the situation at the user's own expense. The user is encouraged to try one or more of the following corrective measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by the manufacturer could void the user's authority to operate this device.

European Union CE Marking and Compliance Notices

Statements of Compliance

English

This product follows the provisions of the European Directive 1999/5/EC.

Danish

Dette produkt er i overensstemmelse med det europæiske direktiv 1999/5/EC.

Dutch

Dit product is in navolging van de bepalingen van Europees Directief 1999/5/EC.

Finnish

Tämä tuote noudattaa EU-direktiivin 1999/5/EC määräyksiä.

French

Ce produit est conforme aux exigences de la Directive Européenne 1999/5/EC.

German

Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 1999/5/EC.

Greek

Το προϊόν αυτό πληροί τις προβλέψεις της Ευρωπαϊκής Οδηγίας 1999/5/ΕС.

Icelandic

Þessi vara stenst reglugerð Evrópska Efnahags Bandalagsins númer 1999/5/EC.

Italian

Questo prodotto è conforme alla Direttiva Europea 1999/5/EC.

Norwegian

Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 1999/5/EC.

Portuguese

Este produto cumpre com as normas da Diretiva Européia 1999/5/EC.

Spanish

Este producto cumple con las normas del Directivo Europeo 1999/5/EC.

Swedish

Denna produkt har tillverkats i enlighet med EG-direktiv 1999/5/EC.

Local Restrictions of IEEE 802.11b/g Radio Usage

CAUTION: Due to the fact that the frequencies used by 802.11b/g wireless LAN devices may not yet be harmonized in all countries, 802.11b/g products are designed for use only in specific countries or regions, and is not allowed to be operated in countries or regions other than those of designated use. As a user of these products, you are responsible for ensuring that the products are used only in the countries or regions for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country or region of use. Any deviation from permissible settings and restrictions in the country or region of use could be an infringement of local law and may be punished as such.

The European variant is intended for use throughout the European Economic Area. However, authorization for use is further restricted in particular countries or regions within countries, as follows:

General

European standards dictate maximum radiated transmit power of 100 mW Effective Isotropic Radiated Power (EIRP) and the frequency range 2400-2483.5 MHz.

Belgium and the Netherlands

In Belgium and the Netherlands, the product may not be used outdoors. See the instructions next under the heading "Turning Off the Wireless LAN Radio."

France

Departments in Which the Wireless LAN Module Can Be Used (Indoors Only)

The wireless LAN module can currently be used indoors only in the following 38 departments of mainland France. Please turn off your wireless LAN radio when operating the device in areas/places other than the 38 departments listed:

01	Ain Orientales	36	Indre	66	Pyrénées
02	Aisne	37	Indre et Loire	67	Bas Rhin
03	Allier	41	Loir et Cher	68	Haut Rhin
05	Hautes Alpes	42	Loire	70	Haute Saône
08	Ardennes	45	Loiret	71	Saône et Loire
09	Ariège	50	Manche	75	Paris
11	Aude	55	Meuse	82	Tarn et Garonne
12	Aveyron	58	Nièvre	84	Vaucluse
16	Charente	59	Nord	88	Vosges
24	Dordogne	60	Oise	89	Yonne
25	Doubs	61	Orne	90	Territoire de Belfort
26	Drôme	63	Puy du Dôme	94	Val de Marne
32	Gers	64	Pyrénées Atlantique		

Departments in Which the Wireless LAN Module's Maximum EIRP Not Shown in the Previous Table

Frequency Ranges (MHz)	Indoors	Outdoors
2400 – 2446.5	10 mW	Not permitted
2446.5 – 2483.5	100 mW	100 mW on private property with Ministry of Defense approval

Turning Off the Wireless LAN Radio

NOTE: Turning the wireless LAN radio off is not the same as disabling the wireless LAN card. It is not necessary to disable the card to meet the regulatory requirements.

While operating the tablet computer in those French departments that do not allow use of the wireless LAN equipment, the user of the equipment must turn off the wireless LAN radio in order to comply with local regulations (see Chapter 2 for more information).

ENERGY STAR



ENERGY STAR® is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

Please reference ENERGY STAR® related information from www.energystar.gov.

As an ENERGY STAR® Partner, MiTAC Technology Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

An ENERGY STAR® qualified computer uses 70% less electricity than computers without enabled power management features.

Earning the ENERGY STAR®

- When every home office is powered by equipment that has earned the ENERGY STAR[®], the change will keep over 289 billion pounds of greenhouse gases out of the air.
- If left inactive, ENERGY STAR® qualified computers enter a low-power mode and may use 15 watts or less. New chip technologies make power management features more reliable, dependable, and user-friendly than even just a few years ago.
- Spending a large portion of time in low-power mode not only saves energy, but helps equipment run cooler and last longer.

Regulatory Information

- Businesses that use ENERGY STAR® enabled office equipment may realize additional savings on air conditioning and maintenance.
- Over its lifetime, ENERGY STAR® qualified equipment in a single home office (e.g., computer, monitor, printer, and fax) can save enough electricity to light an entire home for more than 4 years.
- Power management ("sleep settings") on computers and monitors can result in much savings annually.

Remember, saving energy prevents pollution

Because most computer equipment is left on 24 hours a day, power management features are important for saving energy and are an easy way to reduce air pollution. By using less energy, these products help lower consumers' utility bills, and prevent greenhouse gas emissions.