User's Guide

Sahara Slate PC® i400 Series

Tablet PC

tabletkiosk
Taking the PC where it's never gone before.

Chapter **00**

PC®

SLATE PC®

Preface

Reading this manual will help you get the most out of your new Sahara Slate PC. If you are a new computer user, or just new to Tablet PCs, you should read through the manual carefully before first using your new Sahara Slate PC.

Visit us online at www.tabletkiosk.com for additional resources and information to help you get the most from your Sahara Slate PC i400 Series Tablet PC.

Copyright

©2007 Sand Dune Ventures, Inc. All Rights Reserved. All product information is subject to change without notice. Sahara Slate PC is a registered trademark and TabletKiosk is a trademark of Sand Dune Ventures, Inc.in the United States and/or other countries. Microsoft, Windows XP, Windows Vista and the Windows logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or othercountries. Intel, Core, Centrino Duo, Celeron, Core Duo Inside logo, Celeron Inside logo and Centrino Duo Inside logo are trademarks or registered trademarks of Intel Corporation in the United States and/or othercountries. The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by TabletKiosk is under license. Linux is a registered trademark of Linus Torvalds.

Chapter 00: Preface   i

Disclaimer

The specifications and information in this manual are subject to change without prior notice in order to improve reliability, design and/or function, but this does not represent a commitment on the part of the manufacturer. The manufacturer assumes no responsibility for errors or omissions in this document.

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use, or inability to use, the Tablet PC or this documentation, even if advised of the possibility of such damages.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without prior written permission of TabletKiosk.

If you have any questions regarding the Sahara Slate PC, or the information contained within this manual, please contact TabletKiosk at info@tabletkiosk.com.

Safety Instructions

For your safety and that of your equipment, please follow these rules for handling and care of your Sahara Slate PC. Keep this User's Manual handy for later reference by you and other users.

Never use sprays, liquids or cleaning detergents for cleaning the Sahara Slate PC Tablet. Use a micro fiber cloth for cleaning the touch screen. Avoid the use of tissue paper since the tissue fibers can easily lodge between the touch screen and the top cover of the tablet.

Never pour liquids into any openings or directly on the Sahara Slate PC. This could result in fire or electrical shock.

Ensure the voltage range of the power outlet is between 100V and 240V before connecting the Sahara Slate PC. Exceeding the

maximum rated voltage may cause damage to the AC adapter or to the Sahara Slate PC. This could result in fire or electrical shock.

When the AC adapter is plugged into an electrical outlet, place the power cord so it will not be stepped or walked on. Do not place objects over or on the power cord.

Use the Sahara Slate PC in a clean, dry, temperature controlled environment. Do not use the Sahara Slate PC in areas of high humidity, around water or outdoors while it is raining.

Never open or disassemble the Sahara Slate PC. For safety reasons, and to prevent permanent damage, the equipment should only be repaired by qualified service personnel.

Contact a qualified service center if any of the following issues should arise:

1. the AC adapter, power cord or plug is damaged

2. liquid has been spilled into the Sahara Slate PC

3. the Sahara Slate PC has been exposed to excessive moisture

4. the Sahara Slate PC exhibits errors and/or does not function according to specifications

5. the Sahara Slate PC has been dropped or otherwise physically damaged

Lithium batteries can be dangerous. There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to state or local hazardous waste requirements.

Under no circumstances should the user attempt to disassemble the power supply. The power supply has no user-replaceable parts and its insides contain components that are electrically

charged with hazardous voltage levels that can cause serious personal injury. A defective power supply must be returned to your dealer.

Safety Notices for the Power Cord

This equipment has a 2 or 3-wire power cord. Replace the power cord if it becomes damaged. Contact your dealer for an exact replacement.

In the U.S.A. and Canada, the power cord must be a UL-listed detachable power cord (in Canada, CSA-certified).

2-wire cord	SPT-2 18AWG
3-wire cord	SVT or SJT, 18 AWG, 3-conductor

The cord should be provided with a molded-on cord connector body at the other end. The cord length must not exceed 3 meters.

Outside the U.S.A. and Canada, the plug must be rated for 250 VAC, 2.5 amp minimum, and must display an international agency approval marking. The cord must be suitable for use in the end-user's country. Consult your dealer or the local electrical authorities if you are unsure of the type of power cord to use in your country. Voltage changes occur automatically in the power supply.

Notice of FCC Compliance

a.   Federal Communications Commission (FCC) Requirements, Part 15:

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 instruction manual 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 technician for help.

❖ Use only shielded I/O cables to connect I/O devices to this equipment.

You are cautioned the changes or modifications not expressly approved by the party responsible for compliance could void your authority to use the equipment.

b. Regulatory information / Disclaimers

Installation and use of this device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or

the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

c. For portable devices without co-location condition (eg. notebook pc)

    FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction

2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device was tested for typical lap held operations with the device contacted directly to the human body to the back side of the Tablet PC. To maintain compliance with FCC RF exposure compliance requirements,please follow operation instruction as documented in this manual.

d. SAR Exposure

    This device has been tested for compliance with FCC RF Exposure (SAR) limits in typical flat configurations.

    In order to comply with SAR limits established in the ANSI C95.1 standards, it is recommended when using a Tablet PC that the integrated antenna is positioned more than 1.5cm from your body or nearby persons during extended periods of operation. If the antenna is positioned less than 1.5cm from the user, it is recommended that the user limit the exposure time.

    For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment.

FCC Statement to Users for the FaxModem

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is the label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number for this equipment. IF REQUESTED, THIS INFORMATION MUST BE GIVEN TO THE TELEPHONE COMPANY.

The REN is useful to determine the number of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0).

To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the telephone company may disconnect your service temporarily. If possible, they will notify you in advance. But if advance notice isn't practical, you will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning. This equipment may not be used on coin service provided by the telephone company.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or their electronic device to send any message via a telephone facsimile machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission the following information:

❖ The date and time of transmission

❖ Identification of either business, business entity or individual sending the message;

❖ Telephone number of either the sending machine, business entity or individual.

In order to program this information into your fax/modem, please refer to the appropriate instructions in your fax/modem manual.

Note-TNV Safety Caution:
To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning. Do not use the telephone to report a gas leak in the vicinity of the leak.

Canadian EMI Compliance Statement

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

IC Warning statement:

a. WLAN

"To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing."

b. For LPD

"Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device."

This Class B digital apparatus complies with Canada RSS-210.

The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity (DoC) indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

European Union CE Marking Declaration

This product has been tested and found to comply with the EMC requirement subject to the EU directive for CE marking.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set

forth for an uncontrolled environment. End users must follow the

specific operating instructions for satisfying RF exposure compliance.

To maintain compliance with IC RF exposure compliance requirements,

please follow operation instruction as documented in this manual.

This page intentionally left blank.

Table of Contents

This page intentionally left blank.

Chapter **01**

Your Sahara Slate PC was designed to allow you to get up and running and quickly as possible. Due to the fact that the Sahara Slate PC ships to various countries around the world, set-up may vary slightly depending on where you are located.

If you have any questions that are not answered by this manual to your satisfaction, please visit our website at www.tabletkiosk.com for more information or to submit a support request.

What's in the Box

Your Sahara Slate PC should come securely packaged in its shipping container along with the below listed items[1]. Please contact your dealer immediately if you find that anything is missing or damaged.

1. Sahara Slate PC i400 Series Tablet PC [2]

2. Power Cord

3. AC Adapter

4. Slip Case

5. Simple Stand

6. User's Manual, Utilities/Drivers Disc, System Restore Disc [3]

7. Standard Lithium Ion Battery Pack

[1] Contents of the packaging may change without notice. Please check our

website at www.tabkletkiosk.com for the most up-to-date list if your package contents vary from this list.

² There are three models in the Sahara Slate PC i400 Series: i412T / i440T / i440D. Please check to make sure you have received the correct model

³ Please be sure to check that the System Recovery Disc matches the Operating System (OS) preloaded on your Sahara Slate PC. There will not be a System Restore Disc included if you ordered your Tablet PC without an OS option.

Setting Up Your Sahara Slate PC

Please read the following steps to begin using your new Tablet PC as quickly and trouble free as possible.

1. Inserting the Battery Pack (if your Tablet PC shipped from the dealer without it pre-inserted).

2. Connecting the Sahara Slate PC to an external power source

3. Connecting applicable peripherals and networking cables (optional)

4. Powering on the Sahara Slate PC

*5.* Navigating on-screen with the stylus pen

Step 1: Inserting the Battery Pack

Turn the tablet over and place it, screen down, on a solid, clean, flat surface.

CAUTION: When turning the Sahara Slate PC over, be careful not to place it on a surface that could scratch or damage the screen. Place the included slip case on the surface before carefully setting the computer down to protect the screen.

Align the battery into the battery compartment and then slide it into the computer until it clicks securely into place.

Slide the battery lock tab (the tab closest to the top of the tablet) in the opposite direction of unlock arrow engraved into the tab itself. Once the lock tabs clicks into position, the battery should be securely seated.
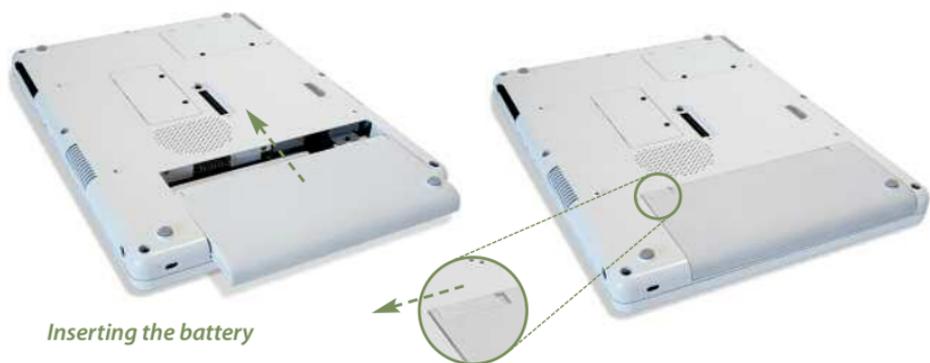
Inserting the battery

To Remove the Battery Pack

Turn off the Sahara Slate PC and remove the power cord from the "DC Power In" port. Turn over the computer and place it on a solid, flat surface. Slide the Locking Tab in the direction of the arrow engraved on the tab to set it in the unlock position. Use your other hand to slide the battery latch in the direction of the arrow engraved on the tab and hold it there. Use both hands to carefully side the battery out of the bay.

Removing the battery

Step 2: Connecting the Tablet PC to an external power source

Locate the AC Adapter and the power cord. Plug the power cord securely into the AC adapter. Plug the AC adapter's connection cable into the "DC Power In" port on the top of the Tablet. Once the adapter plug is securely in place, plug the power cord into an external power socket.

Plugging into an external power source
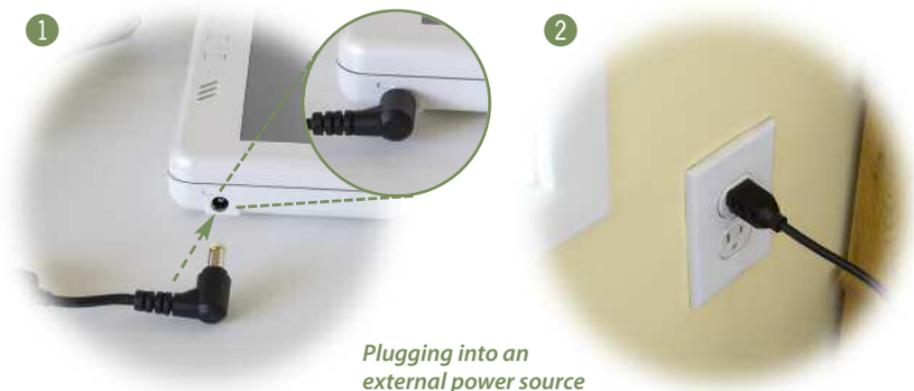
NOTE: When you first connect the tablet into an external power source, the battery charge indicator will begin to glow amber. When the battery is fully charged the indicator will turn green. (See the section entitled Battery Care for tips on maximizing battery life and performance.)

Step 3: Connecting applicable peripherals and networking cables (optional)

If you have any external peripherals you'd like to use with the tablet (i.e. USB mouse, USB keyboard, etc.) or are planning to connect to the internet and/or corporate LAN using a wired connection (RJ-45) as opposed to wirelessly, connect them now (see the next section, Getting to know your Tablet PC, to identify which ports to use).

Step 4: Powering on the Sahara Slate PC

Locate the three power switches on the top on the tablet. The far left switch (closest to the PCMCIA Expansion slot) is the computer's main power toggle. Slide it toward the right side of the unit and hold it there until it emits a blue glow (about one to two seconds) and then release it. The Sahara Slate PC will now boot up.

Powering on the Sahara Slate PC.
Slide and hold the toggle switch until it lights up blue.

Step 5: Navigating with the Stylus Pen

Unlike a standard laptop or desktop PC, standard navigational activities are completed using the stylus pen, or even your fingers if using the touch screen. The tablet will react to the pen differently depending on what mode you are using.

Touch Screen mode: Navigating with a touch screen is different than navigating with a mouse. The pen will interact with the computer whenever you touch it to the screen.

Hold the pen as if you were writing with a standard ink pen. Instead of sliding the pen around the screen to get to where you are going, just tap on what you want to interact with. Sliding the pen while lightly touching the tip to the screen will move the on-screen pointer around similarly to if you were using a mouse and holding down the left mouse button. In other words you would be performing what is know as a drag operation.

Also, remember that since the screen is sensitive to touch, resting your hand on the screen while using the pen might make the pointer react unpredictably.

TIP: When trying to select or activate something on the screen with the stylus pen, pay attention to the position of the pointer icon instead of the tip of the pen.

Tapping lightly on the screen will perform a standard left mouse button click. If you want to perform a right mouse button click, locate the <mouse icon> in the task bar and click on it. The "Visual Mouse" window screen should appear. Clicking on the top right box will perform the function of a right mouse button click.

Active Digitizer mode (i440D only): In this mode (the i440D will default to active digitizer mode when powered on for the first time) the pen doesn't even touch the screen to activate and move the pointer.

Hold the pen as if you were writing with a standard ink pen. Place the tip of the stylus just above the screen and move it around. The pointer should follow the tip of the pen. In this mode your hand may rest on the screen as it will not affect the behavior of the pointer.

TIP: When trying to select or activate something on the screen with the stylus pen, pay attention to the position of the pointer icon instead of the tip of the pen.

Tapping lightly on the screen with the tip of the stylus will perform a standard left mouse click. If you want to perform a right mouse click, press and hold down the tip of the stylus lightly on the screen. In a moment, an animated icon will draw around the pointer. Lift the stylus from the screen to complete the button press. (See the section *Using the Stylus Pen* in your operating system's chapter later in this manual for more information and tips to navigating and inputting text.)

Sahara
SLATE PC ®

This page intentionally left blank.

Chapter **02**

Touring Your Sahara Slate PC

The Sahara Slate PC features a number of physical characteristics designed to help you work as efficiently as possible. Take a moment to familiarize yourself with the controls and Input/ Output (I/O) ports on the faces and sides of the computer. Understanding the layout of the system will aid you when using the Sahara Slate PC in the field or on the go.

Front View

1. ***Battery Charge Indicator***
    Glows Amber when the battery is charging and changes to
    green when the battery is fully charged.

2. ***Hard Disk Drive Activity Light***
    Glows amber when the hard drive is being accessed

3. ***Built-in Stereo Speakers***
    Listen to music, movies, games and more.

4. ***Secure Attention Sequence (SAS)***
    A computer without an attached keyboard must support a
    hardware mechanism to generate the SAS which also known
    as "CTRL-ALT-DEL" or "CAD".

5. ***Screen Rotation***
    This button will rotate the screen counter clockwise 90º to a
    portrait orientation and then back to the original landscape
    orientation.

6.   Volume Up
This button will increase the volume of sound emitted from the computer's internal speakers and headphone port.

7.   Volume Down
This button will increase the volume of sound emitted from the computer's internal speakers and headphone port.

8.   Screen Mode Toggle (i440D only)
This button will toggle the i440D's input screen between electromagnetic active digitizer and touch screen. This button can be reprogrammed by the user.

8.   Programmable Function Key (i412T & i440T)
This button can be programmed by the user.

9.   Programmable Function Key
This button can be programmed by the user.

10. Programmable Function Key
This button can be programmed by the user.

11. Programmable Function Key
This button can be programmed by the user.

12. Finger Print Reader
Can be used to secure your system from unauthorized users. See Securing Your Tablet PC for more information and how to set up biometric security.

13. Dual Digital Microphone Array
Microphone array records audio with higher fidelity for more accurate voice recognition.

Top View

1. **DC Power In Jack**
   Plug the AC adapter's connection cable into this port to
   provide power to the computer.

2. **Ventilation Port**
   Fan exhaust port for expelling hot air from the interior of the
   Tablet PC. Do not block to prevent over heating.

3. **Wireless Networking Power Toggle**
   Slide toggle switch to the left to activate the wireless
   networking adapter's transmitter. The switch will glow blue
   when powered on. Slide switch back to the right to turn off
   wireless networking. Note: When not connected to a
   wireless network, turn off to conserve battery power.

4. **Bluetooth Power Toggle**
   Slide toggle switch to the left to activate the Bluetooth
   wireless transmitter. The switch will glow blue when
   powered on. Slide switch back to the right to turn Bluetooth
   off. Note: When not actively using a Bluetooth peripheral,
   turn off to conserve battery power.

5. **System Power/Resume Toggle**
   Sliding this button to the right and hold for 1-2 seconds will turn on the computer. Sliding this button while the computer is in Suspend Mode will resume normal operation. Sliding and holding for 4-6 seconds will immediately turn off the computer. Note: Using this switch to power off the computer is not recommended unless the computer has stopped responding to user input as it allows no time for the OS to shut down normally, and as a result, data loss may occur.
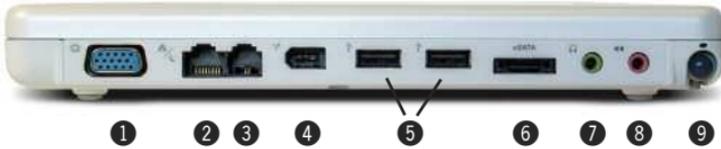
6. **PC Card (PCMCIA) Slot**
   Expansion port allows the connection of external peripherals that can extend the functionality of the computer. Compatible with standard Type I and Type II 32-bit and 16-bit PCMCIA cards.

7. **PC Card Eject Button**
   Use to eject a connected PC Card from the PC Card slot.

Left Side View

1. VGA Port
This port enables you to connect the Sahara Slate PC to any external display monitor that uses a cable with a standard male HD15 connector. Supports using the external monitor in clone, span and dual view modes. Great for driving an LCD or Plasma HDTV with a PC In (VGA) port.

2. LAN Port
This jack provides a standard RJ45 connection for accessing a network or high speed internet connection via an Ethernet cable. Supports 10/100/1000 bps protocols.

3. Modem Port
Use this RJ11 jack to connect the internal 56K voice/data/fax modem to your phone line using a standard telephone cable.

4. IEEE1394 (Firewire) Port
A fast external bus standard that supports isochronous data transfer rates of up to 400 Mbps (400 million bits per second). This makes it ideal for devices that need to transfer high levels of data in real-time, such as video devices and hard drives. The IEEE1394 port also supports both Plug-and-Play and hot plugging and can supply power to lower power peripheral devices.

5. Two USB 2.0 Ports
High speed (480 Mbs) Universal Serial Bus 2.0 ports for connecting peripherals such as a mouse, keyboard, wedge reader, CD/DVD drive, printer, digital camera and more. Backwards compatible with USB 1.1 devices.

6. eSATA (External Serial Advanced Technology Attachment) Port
With transfer speeds reaching three times that of USB 2.0 or IEEE1394, eSATA is an excellent choice for external disk storage. Supports both SATA II (300 Mbps) and SATA I (150 Mbps) hard drives.

7. Headphone / Audio Out
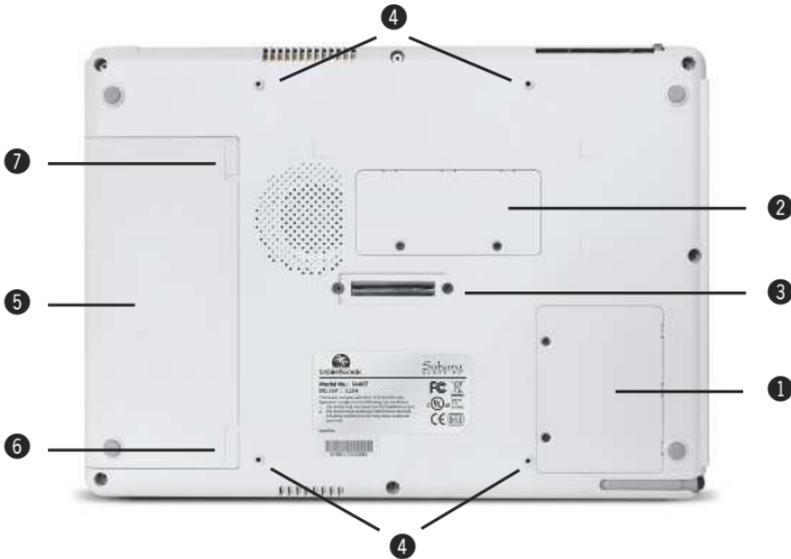Stereo audio port for connecting headphones, external speakers or other audio devices.

8. Audio In
Used to input stereo audio from external devices such as a microphone, radio or tape player.

9. Stylus Pen Holder
Secures the stylus pen to the Sahara Slate PC.

Back View

1. ***Wireless Networking Card Expansion Slot***
   Expansion slot contains wireless networking adapter. User upgradeable.

2. ***RAM (Memory) Compartment***
   Allows access to the user upgradeable memory slot. Primary RAM module resides on the other side of the motherboard and is NOT user upgradeable.

3. ***Docking Connector***
   This connector will allow the use of optional VESA mounting plate, docking station and other optional expansion devices.

4. ***VESA Mounting Screw Holders***
   Used to allow mounting with 75mm – 100mm VESA compatible attachments.

5. **Battery**
    The Sahara Slate PC comes equipped with a standard 6-cell lithium ion battery pack that can be removed by the user and replaced.

6. **Battery Latch**
    Used along with the battery lock to release the battery from its bay for removal.

7. **Battery Lock**
    Allows the battery to be locked into place during use to prevent accidental removal and subsequent power loss.

Right View

1. ***Anti-Theft Kensington Lock***
Used with the locking device (sold separately) to attach the
Sahara Slate PC to a desk, table, kiosk, or other stationary
apparatus to help prevent the computer from being stolen.

Bottom View

1. ***Docking Station Support Grooves***
Serves as a support and alignment guide when using the
Sahara Slate PC with the optional Docking Station.

2. ***Ventilation Port***
Cooling fan intake port. Do not block to help prevent
overheating.

This page intentionally left blank.

Chapter **03**

Battery Usage and Care

Depending on your system's configuration and your application usage, a fully charged battery should be able to run your Sahara Slate PC for between 3 – 4 hours.

Operations that will significantly reduce battery life include, but are not limited to, the following:

1. Using external bus powered optical, floppy and hard disk drives

2. Using wireless communications devices including the internal wireless networking card, Bluetooth adapter, PCMCIA Cards, or USB devices.

3. Using high-brightness display settings, 3D screen savers, or other computationally-intensive programs such as games, media players and 3D graphics applications.

4. Running the computer in maximum performance mode.

5. Using the computer in overly hot environmental conditions.

Using the Battery for the First Time

Before using the computer on battery power for the first time, the battery should be charged for at least four hours. Also, the Smart Battery IC within the battery pack should be calibrated in order to get an accurate reporting of the remaining battery life.

To calibrate the battery pack, follow these steps:

1. Turn the computer off. Connect the AC adapter and let the battery fully recharge.

2. Disconnect the AC Adapter and Power On the computer. Let the battery run down until it is so low that you hear continuous warning beeps and the system automatically enter the Suspend mode.

3. Reconnect the AC adapter, let the battery fully recharge and then run the computer with the external power still connected for at least five (5) continuous hours.

The battery pack should now be properly calibrated. If you find that battery life doesn't correspond to the battery status as reported by your operating system, repeat steps 2 -3 again.

If after performing a calibration for a second you still find you are having a problem with battery life, contact your dealer and arrange for a replacement as the battery may be defective.

In general, using the battery until the "Battery Low" warning indicator appears and then fully recharging the battery (full discharge/charge cycle) will ensure the accuracy of the battery status gauge.

If you find you are using the computer almost exclusively attached to an external power source, calibrating at least once a month is recommended.

Charging the Battery Under Typical Conditions

When you connect the computer to an electrical outlet, the Smart Battery IC in the battery pack checks the battery's charge and temperature. If charging is necessary, the battery indicator on the front of the Sahara Slate PC will glow amber and the AC adapter will automatically charge the battery.

When fully charged, the battery indicator will change to green and the battery's charge will be maintained while connected to the external power source. When the computer is disconnected from the electrical outlet, the battery indicator will turn off.

NOTE: The time to fully recharge the battery is approximately 90 – 100 minutes when the computer is powered off. The time to fully recharge the battery when the computer is in use varies according to the power requirements of the operations that the computer is performing while charging.

Problems Charging the Battery

Environmental conditions can affect the ability of the computer to charge the battery. If the battery is too hot from either being used in your computer or being exposed to an overly hot environment, the battery may not charge when you connect the computer to an electrical outlet.

If this occurs, disconnect the computer from the electrical outlet and allow it and the battery to cool to room temperature. Then reconnect the computer to an electrical outlet to continue charging the battery.

Battery Status

Both Windows XP and Windows Vista have an applet in the Control Panel that will display an icon in the Windows taskbar indicating when the computer is running on battery power or is attached to the AC adapter.

This applet also displays a meter that indicates approximately how much of a charge is remaining in the battery.

Low Battery Warnings

A beeping sound will be heard once to alert you to a "Battery Low" status.

When the battery's power level drops to a "Battery Very Low" status the beeping sound will be heard every second.

When this continuous beeping occurs, your battery has only approximately one to two minutes of charge left. You should save what you are working on and plug in the AC Power Adapter to avoid potential data loss.

When there is only one minute of battery charge remaining, the computer will suspend its current state to the hard drive and power off. Plug in the AC Adapter and turn the computer back on to resume your work.

About Battery Pack Usage

Over time, even with proper care, battery performance (the time the battery can operate the computer before needing to be recharged) will decrease. Depending on how often the battery is used, how many times it has been charged and the conditions under which it is used, you may need to purchase a new battery during the life of your computer

> **NOTE: To avoid damage, only use replacement batteries recommended by TabletKiosk. To prevent the loss of data when the system loses power, do not remove the battery pack while the power is on.**

> **NOTE: Do not dispose of batteries with household waste. When your battery no longer holds a charge, call your local waste disposal or environmental agency for advice on disposing of a lithium-ion battery.**

Real Time Clock Battery

In order to maintain certain system information while the power is off, the motherboard contains a small built-in battery pack that constantly supplies power to the system.

If the computer is left without a power source for long periods of time, this battery can be exhausted and system information will be lost. This will not affect any of your data stored on the computer's hard drive, but rather settings in the BIOS that tells the computer how to operate. It recommended, therefore, that if you plan to store the computer for a long time you periodically attach the battery pack, plug in the computer to an external power source and allow the battery to recharge.

If you find after removing the computer from storage that you have lost this system information (you will receive a BIOS error when you boot up for the first time) contact your dealer or visit TabletKiosk's website at www.tabletkiosk.com to obtain the proper BIOS settings.

Storing a Battery

When storing your computer for an extended period of time, it is recommended that you remove the battery pack and store it in a dry, cool location. Since a battery discharges during prolonged storage, you should fully recharge the battery before you use it again.

This page intentionally left blank.

Chapter **04**

Upgrading Your Sahara Slate PC

Out of the box, your new Sahara Slate PC is a powerful, mobile companion capable of accomplishing a wide variety of tasks with speed and precision. Depending on your system's configuration, there are still ways to make your Tablet PC do more and do it faster.

This chapter will focus on the procedures for upgrading, and/or replacing, your computer's memory (RAM), storage capacity (hard disk drive) and wireless networking card.

Before you Begin ANY Upgrade Procedure

Before attempting to add or remove any components within the Sahara Slate PC it is important that you always observe the following conditions/procedures:

1. The computer should be powered off, the power cable should be removed from the computer and the battery should be removed. (Refer to the section, *To Remove the Battery Pack*)

2. Any networking, modem and cables connected to other powered devices should be disconnected.

3. When disconnecting a cable from the computer, always pull on its connector, not on the cable itself. When reconnecting a cable, ensure that both the connector and corresponding pins are aligned properly with the cable before attempting to secure it in place.

4. All components should be handled with care. Do not touch the components or contacts on the cards or underside of the drives. Always hold such components by the edges or sides.

5. All electronic components inside a computer are sensitive to electrostatic discharges. It is therefore important that you properly ground yourself before attempting any of the following procedures either by using a wrist grounding strap or by periodically touching an exposed, unpainted metal surface.

6. You should only attempt upgrades and/or component replacements on a solid, clean, flat surface.

> **CAUTION: Damage resulting from the servicing of your computer that is not authorized by TabletKiosk is not covered by your computer's standard or optional extended warranty.**

Upgrading Memory (RAM)

You can increase your tablet's memory by installing a RAM (Random Access Memory) module on the computer's system board. Typically, the more RAM your computer has the better it will perform, especially when running multiple tasks or applications simultaneously.

Your Sahara Slate PC can accommodate two RAM modules. The primary module is factory installed on the motherboard underneath the display screen and cannot be upgraded by the user without voiding your computer's warranty. If you would like to upgrade this module, contact your dealer for instructions on sending your system in for service. The secondary module is located in the RAM compartment that is accessible on the back panel of the computer.

Refer to the following instructions and illustrations for information on how to upgrade your computer's secondary

memory module. Be sure to follow the procedures in the preceding section, *Before you Begin ANY Upgrade Procedure*.

1. Turn off your computer, turn it over and place it face down on a solid, flat surface. Be careful not to place it on something rough that could damage the display screen.

2. Locate the RAM module compartment near the center of the back panel of the system. Loosen the two screws that secure the RAM module compartment cover.

3. Lift the cover from the edge where the screw holes are located to remove it and set it aside. Inside is the RAM slot. Depending upon your system's configuration, it will either be empty or populated with an existing module.

4. If it is empty, proceed to step 6, otherwise, using your fingers or a small screwdriver, press the two plastic tabs on the sides of the RAM module away from the module. The top edge of the RAM module should pop up slightly.

5. Gently pull out the RAM module as shown in the illustration.
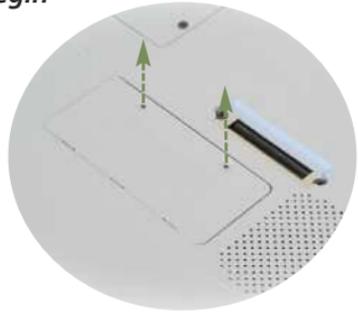
6. To insert a new RAM module, align the connector pins on the bottom of the RAM module with the RAM module socket and slide the module into the socket. Once properly inserted in the socket, press the RAM module down until it clicks into place.

7. Replace the cover on this compartment and then replace and tighten the screws.

> **NOTE: Your Sahara Slate PC supports dual channel RAM. In order to take advantage of this higher bandwidth feature, you'll need to install a memory module that matches the primary module installed on the other side of the motherboard at the factory. Check with your dealer if you are unsure what module your system currently has installed.**

Upgrading the Hard Disk Drive (HDD)

The computer's HDD is the storage facility that holds all the files on your computer. If you find you are running out of space, you might consider upgrading to a larger drive.

Typically when a computer's HDD fills up, its access time begins to increase and your system will seem to slow down. When this occurs, upgrading to a larger drive often will equate to better performance.

Your Sahara Slate PC comes pre-configured with a HDD that is easy to upgrade. Before installing a new hard drive, however, be sure to back up all of the files on your existing drive.

Refer to the following instructions and illustrations for information on how to upgrade your computer's HDD. Be sure to follow the procedures in the preceding section, *Before you Begin ANY Upgrade Procedure*.

1. Turn off your computer, turn it over and place it face down on a solid, flat surface. Be careful not to place it on something rough that could damage the display screen.

2. With the battery removed, look inside the battery compartment and you will see a black plastic strip sitting next to a metal tab held in place by a single screw. Remove the screw from the metal tab and place it somewhere safe.

3. Take hold of the plastic HDD release strip and gently pull the HDD out of its compartment as shown in the illustration.
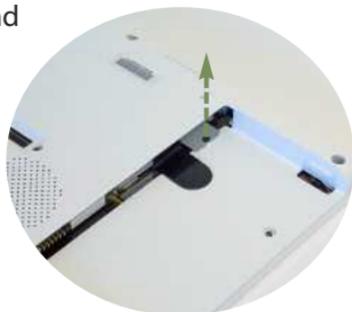
4. Unscrew the existing drive from its cage and replace it with the new HDD. Once you have secured the new drive into the cage with the screws, slide it back into the HDD compartment.

5. Replace the screw into the metal tab that holds the drive cage in place.

6. After the HDD is securely inserted, you can insert the battery back into the battery compartment.
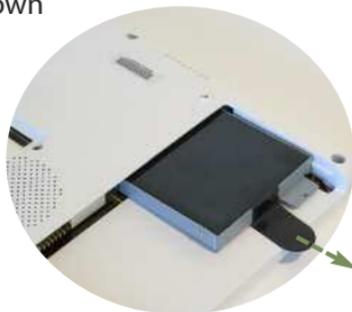
Replacing the Wireless Networking Card (Advanced)

Currently there are three standard wireless networking protocols, 802.11a/802.11b/ 802.11g, that are widely used and offer various capabilities and ranges. Right on the horizon is a third, 802.11n, which promises higher throughput and a longer operational range.

The Sahara Slate PC was built with this new, impending standard in mind, and features a user upgradeable wireless networking adapter. ***It should be mentioned, however, that while replacing the wireless card isn't difficult, it is a more delicate and involved procedure than upgrading the RAM or HDD.*** If you are uncomfortable performing this upgrade yourself, please contact your dealer to arrange for it to be upgraded at their facility.

Refer to the following instructions and illustrations for information on how to upgrade your computer's wireless networking adapter. Be sure to follow the procedures in the preceding section, ***Before you Begin ANY Upgrade Procedure***.

1. Turn off your computer, turn it over and place it face down on a solid, flat surface. Be careful not to place it on something rough that could damage the display screen.

2. Locate the wireless networking adapter's compartment near the right side of the back panel of the system, just above the stylus pen holder. Loosen the two screws that secure the wireless compartment cover.

3. Lift the cover from the edge where the screw holes are located to remove it and set it aside. Inside is the wireless networking adapter, 56K voice/data/fax modem and Bluetooth® adapter. The wireless
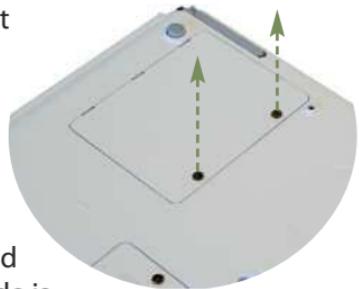
adapter is located at the bottom of the slot and is seated inside a small slot connector.

4. The wireless card is held in place by two small screws. First, carefully remove the yellow tape covering the screws and antenna leads. Then remove the screws and set them aside in a safe place. Once the screws are removed, the card will pop up slightly.

5. Carefully, slide the card out of the slot. Be sure to unscrew the antenna leads from the card before fully removing the card from the interior of the compartment.

6. Take the new wireless networking card you obtained from your dealer and carefully align it into the connector slot. Attach the antenna leads to the card before inserting it fully into the compartment.

7. Once the leads are connected, press downward on the card to push it into position and replace the screws to hold the card in place.

8. Replace the tape over the screws and antenna leads and replace the cover and tighten the screws that hold the cover in place.

Chapter **05**

Troubleshooting

This chapter describes some techniques for locating information and solving problems that you may encounter while using your Sahara Slate PC. If you find, after reading this section, you are unable to solve a problem you are having, please check out more online resources at **www.tabletkiosk.com** or contact the Authorized Dealer where you purchased your Tablet PC (see the section below, ***Contacting Your Dealer*** for a list of the information you'll need to supply them).

General Hardware Problems / Possible Causes and Solutions

A few common hardware problems and suggested solutions are presented in the tables below:

Audio Problems/Solutions

Problem	Possible Cause	Solution
No sound can be heard.	Either the volume is muted or turned down.	Use the Microsoft Windows volume control icon at the lower right hand corner of the display to adjust the volume and disable muting.
No sound can be heard through external speakers or headphones.	Connected to the wrong jack.	Make sure to change the connector to the proper jack.
	Speakers aren't powered on.	Check to make sure the speakers are plugged in and turned on.

Battery Problems/Solutions

Problem	Possible Cause	Solution
Beeping sound.	The computer's battery is low and Hibernation Mode is disabled.	Connect the computer to an external power source immediately.
The battery pack is warm after charging.	This is a normal condition.	No action is required.
The battery LED indicator does not light whether the battery is charging or not.	No power is connected to the computer.	Check the power source.
	The battery is fully charged.	Refer to the battery icon located at the lower right hand corner of your screen if you are operating on battery power.
	Battery pack was exposed to a high temperature.	Let the battery pack reach room temperature before attempting to charge again.
	The battery pack is nearing the end of its life.	Replace the battery pack. Use only batteries recommended for use with your specific model.
Battery charge gauge is not accurately displaying the charge remaining	Battery pack requires calibration.	Calibrate the battery pack.

Internet Problems/Solutions

Problem	Possible Cause	Solution
The computer is unable to connect to the Internet.	Account for Internet service provider (ISP) is not properly configured.	Ask for your ISP assistance.
	No valid network connection detected.	Check the status bar to make sure you are connected to a valid network. If not, rerun your OS's network set-up wizard.
	If connecting wirelessly, wireless card is turned off.	Look at wireless power toggle on the top of the Tablet to make sure it is switched on.

Networking Problems/Solutions

Problem	Possible Cause	Solution
The system does not connect to the network	The settings are not correctly set.	Contact your network administrator.
	If connecting wirelessly, wireless card is turned off.	Look at wireless power toggle on the top of the Tablet to make sure it is switched on.

Power Problems/Solutions

Problem	Possible Cause	Solution
The computer is connected to an external power source but does not turn on even though the battery pack is connected.	The battery pack may be defective.	Replace the battery pack.
The Power/Standby light is off and the system turns off when it is left unattended.	The system initiated Hibernation mode	Slide the Power toggle switch to the right and hold for a second to resume.
The system will not turn on after it turns off when left unattended.	The system initiated Hibernation because it is in a critical low-battery condition.	Connect the computer to an external power source.

Screen Display Problems/Solutions

Problem	Possible Cause	Solution
The screen is blank.	Standby or Hibernate has initiated.	Slide the Power toggle switch to the right and hold for a second to resume.
	External monitor display is selected	Check the external display and use the VGA utility to change back the primary display to the Tablet's internal screen.
The mouse pointer won't follow the stylus pen properly.	Calibration is off.	Rerun the calibration routine in the TouchSet application.
The screen won't rotate when the screen rotation button is pressed.	VGA driver is not set for rotation support.	Use the Intel VGA Utilities to enable the screen rotation option.
	VGA drivers are corrupted.	This can happen over time. Check the website to make sure you have the newest available drivers, then uninstall the current drivers and install the new drivers.

USB Problems/Solutions

Problem	Possible Cause	Solution
An external device does not work when connected to one of the USB ports.	The external device is not receiving power.	Ensure that the external device is plugged into an electrical outlet.
	The external device is defective.	Try connecting the external device to another computer to determine if it operates properly.
	Windows isn't recognizing the device properly.	Disconnect the device, power it off, reconnect the device and then turn it on.
		Disconnect the device, power it off, power it back on and then plug it back in to the computer.

Upgrade Problems/Solutions

Problem	Possible Cause	Solution
After upgrading the computer's RAM, the system does not boot up properly	The RAM module is not seated properly.	Following the instructions in the section entitled Upgrading Your Memory, try removing and reseating the RAM module.
	The RAM module is defective.	If reseating the module from the above step does not solve the problem, the RAM module could be defective. Contact your dealer for assistance.
After upgrading the computer's RAM the system begins crashing, seemingly at random intervals.	The RAM module is not seated properly.	Following the instructions in the section entitled Upgrading Your Memory, try removing and reseating the RAM module.
	The RAM module is defective.	If reseating the module from the above step does not solve the problem, the RAM module could be defective. First remove the RAM module and begin using your computer to make sure that nothing else is causing the crashes. If your system seems to be running Contact your dealer for assistance.
After replacing the HDD the system cannot boot into your Operating System.	Drive isn't formatted.	Restart the system with an external CD/DVD drive attached and have the System Restore Disc that came with your computer inserted in the drive.
	Drive isn't connected properly.	Following the instructions in the section entitled Upgrading the Hard Disk Drive (HDD), try reseating the HDD in the bay.

NOTE : If your Table-PC doesn't have the wireless card.
When you wanted to addition wireless card , you must choose the certificated wireless card (Type: INTEL PRO/Wireless 3945ABG).

Contacting Your Dealer

If you still have a problem after reading the preceding section, the next step is to contact your dealer where you purchased your Sahara Slate PC.

Your dealer can determine if the problem will require that the computer be taken to a service center for repair. Before you call your dealer, however, please have the following information available:

1. Which model do you have?

2. What is the serial number?

3. How is your computer configured? What peripheral devices you are using.

4. What messages, if any, are on the screen?

5. What software were you running at the time of the problem?

6. What have you done already to try to solve the problem? If you have overlooked a step, your dealer may be able to solve the problem over the phone.

This page intentionally left blank.

Appendix **A**

Specifications

Processor

i412T:

❖ Intel® Celeron® M ULV 423

❖ 1.06 GHz, 32KB/32KB L1 cache, 1 MB L2 cache, 533 MHz Front Side Bus (FSB)

❖ Intel Enhanced SpeedStep® Technology

i440D and i440T:

❖ Intel® Core™ Duo LV L2500

❖ 2 CPU Cores @ 1.83 GHz

❖ 32KB/32KB L1 cache, 2 MB shared L2 cache, 667 MHz FSB

❖ Intel® Virtualization Technology

❖ Enhanced Intel SpeedStep® Technology

Chipsets

❖ Intel® 945 GM Express North Bridge with 533 MHz and 667 MHz FSB Support

❖ Intel® ICH7-M South Bridge with 10 GB/s full duplex DMI, PCI Express 1.0a

❖ ACPI 1.0b and 2.0 Compliant, supports C0-C4, S0, S3-S5 power states, Intel® SpeedStep® Technology

Memory

- ❖ 2x SODIMM DDR2 (Unbuffered, 64-bits/channel) slots with initial configurations of 512 MB - 2.0 GB
- ❖ Upgradeable to 4.0 GB with 2.0 GB SODIMMs (modules available Q2 2007)
- ❖ Supports Single Channel, Dual Channel Symmetric, or Dual Channel Asymmetric DDR2 Configurations
- ❖ Supports Reduced Power DDR2 (RPDDR2)
- ❖ Intel® Rapid Memory Power Management

Battery

- ❖ Rechargeable 6-Cell Lithium Ion Smart Battery Pack (3800 mAh @ 11.1 V, 42W/hr)
- ❖ Over Charge Protection, Over Discharge Protection, Over Current and Output Short Protection, Over Thermal Protection

Hard Drive

- ❖ 2.5" 9.5 mm, Ultra DMA SATA 150gb
- ❖ Configurations from 60 GB to 160 GB @ 5,400 rpm
- ❖ Configurations from 60 GB to 100 GB @ 7,200 rpm

Video

- ❖ Intel® GMA 950 PCI Express, 250 MHz Core Render Clock at 1.05V core
- ❖ DirectX 9.1 Compatible, Intel® Dual Frequency Graphics Technology, Intel® Dynamic Video Memory Technology 3.0
- ❖ Intel® Smart 2D Display Technology, High Performance MPEG-2 Decoding, VLD/iDCT Hardware Acceleration
- ❖ Screen rotates 0°, 90° ,The degree180 or 270 is disabled.
- ❖ 1024 x 768 Landscape, 768 x 1024 Portrait

❖ Dual Display Support

❖ External Display up to QXGA (2048 x 1536) with CRT Hot Plug support

Display

❖ 12.1" TFT XGA LCD Wide Angle Display

i412T and i440T:

Passive Resistive Touch Screen

i440D:

❖ Dual Mode Active Digitizer and Touch Screen, Hot Mode Switchable

❖ Outdoor Viewable Screen (Optional)

Audio

❖ Intel® High Definition Audio Interface (ICH7-M)

❖ Independent Bus Master Logic for eight (8) general purpose streams: 4 in / 4 out

❖ ALC262-VC2-GR HD Codec

❖ AC '97 Compatible

❖ Multichannel 32-bit / 44.1KHz/48KHz/96KHz/192KHz sampling rate output (DAC)

❖ Multichannel 32-bit / 44.1KHz/48KHz/96KHz sampling rate input (ADC)

❖ Built-in Stereo Speakers and Dual Digital Microphone Array for added fidelity and accuracy

❖ 3.5 mm Headphone & Microphone Plug 'n Play Jacks

Wireless

❖ Intel® Pro 3945 Dual-Band/Tri-Mode 802.11 a/b/g Networking with Power ON/OFF Switch

- ❖ 64-bit and 128-bit WEP Encryption, Hardware AES (128-bit, 192-bit, 256-bit key sizes)
- ❖ Supports IEEE 802.11 Power Save Protocol (PSP)
- ❖ Bluetooth® 2.0+EDR built-in USB module with Power ON/OFF Switch

Finger Print Reader

- ❖ Patented TruePrint Technology for best Ability to Acquire (ATA)
- ❖ High Definition 128x8 TruePrint Technology based pixels
- ❖ 6.5mm x .40mm 500 pixel per inch array
- ❖ USB 2.0 High Speed interface with Suspend and Remote Wake-up
- ❖ Full Support for C3 Selective Suspend Mode
- ❖ Built-in Low Power Finger Detection with Remote Wake-up capability

TPM Security

- ❖ Single-Chip Trusted Platform Module (TPM)
- ❖ Embedded TPM 2.1 Firmware
- ❖ TPM Administration Tool provides Owners/Users Management and Key Archive Policies
- ❖ Trusted Group Computing (TCG) v1.1B / v1.2 configurable mode of operations

Expansion Slot

- ❖ PCMCIA 2.1 Compliant, Supports one (1) Type II 32-bit PC Card Bus Architecture

I/O Ports

- ❖ 1x RJ-11 56Kbps v.90 Fax/Modem
- ❖ 1x RJ-45 10/100/1000 Mbps Full Duplex (2.5 Gbps single-lane channel) Ethernet
- ❖ 2x USB 2.0
- ❖ 1x IEEE 1394a, 6-pin
- ❖ 1x eSATA
- ❖ 1x DC-In
- ❖ 1x 3.5mm Audio Out, 1x 3.5mm Audio In
- ❖ 1x VGA port, HD15
- ❖ 1x Cradle Connector

Weight

- ❖ 1.49 kg (3.3 lbs.) with Battery Pack Installed

Measurements

- ❖ 11.81 in x 9.45 in x .98 in (300 mm x 240 mm x 25 mm)

Color

- ❖ White or Black

LED Indicators

- ❖ Power (ON: blue, Standby: blinking)
- ❖ Battery (Charging: amber, Low: amber blinking, Fully charged with DC connected: blue)
- ❖ Hard Drive (Activity: blue blinking)
- ❖ Wireless Networking (Active: blue)
- ❖ Bluetooth (Active: blue)

Function Buttons (L)

    ❖ SAS (Ctrl+Alt+Del)

    ❖ Screen Rotation

    ❖ Volume Up

    ❖ Volume Down

Function Buttons (R)

    ❖ Digitzer/Touch Screen Mode Switch (i440D only) and User Programmable

    ❖ User Programmable

    ❖ User Programmable

    ❖ User Programmable

Control Switches

    ❖ Power Switch

    ❖ Wireless On/Off

    ❖ Bluetooth On/Off

Finger Print Reader

    ❖ Lead-Free 40 Ball Grid Array (BGA) Package

    ❖ Ultra-Hard Wearing Surface Coating is scratch and impact resistant

    ❖ Rated for over 10 million rubs without degradation

    ❖ 0℃ to +70℃ Operating Temperature Range

    ❖ IEC 61000-4-2 Level 4 ESD Immunity (+/- 15KV)

AC Adapter

❖ 100~240V, AC 47~63 Hz, 20V DC output, 3.25A, 65W adapter

❖ SCP: Short Circuit Protection plus Auto-Recovery Function

❖ OVP: Over-Voltage Protection, Latch Mode, up to 27.0Vdc maximum

❖ OCP: Over-Current Protection, Auto-Recovery, up to 5.5A maximum

❖ OTP: Over-Temperature Protection to prevent catastrophic failure from overheating.

Operating Environment

❖ Temperature: 5°C ~ 35°C   (41°F ~ 95°F)

❖ Humidity: 20% ~ 80% (no condensation)

This page intentionally left blank.

Sahara
S L A T E   P C ®

tabletkiosk™
Taking the PC where it's never gone before.

386 Beech Avenue, Suite 6, Torrance, CA 90501
310 782 1201 tel   310 782 1205 fax
www.tabletkiosk.com