



# IRIS Mobile SmartTerm ST4ex/ST4i

## User Guide



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## Safety Precautions

Congratulations upon your selection of the ST4ex/ST4i. Be sure to read the following Safety Precautions before trying to use it for the first time.

**Note:**

*All mentions of "the unit" in the following precautions refer to the ST4ex/ST4i.*

### Markings and Symbols

The following are the meanings of the markings and symbols used in these Safety Precautions.

**Danger**



This symbol indicates information that, if ignored or applied incorrectly, creates the danger of death or serious personal injury.

**Warning**



This symbol indicates information that, if ignored or applied incorrectly, creates the possibility of death or serious personal injury.

**Caution**



This symbol indicates information that, if ignored or applied incorrectly, creates the possibility of personal injury or property damage.



● A diagonal line indicates something you should not do. The symbol shown here indicates you should not try to take the unit apart.



● A black circle indicates something you should do. The symbol shown here indicates you should unplug the unit from the wall outlet.

## Health Precautions

### **Warning**

-  ● Long continuous use of the unit when you are tired is not good on your health, and should be avoided.

### **Caution**

-  ● Be sure to allow for adequate rest when using the unit for long periods. As a general rule, you should allow for 10 to 15 minutes of rest per hour.

## Precautions During Use

### **Warning**

#### *Abnormal Conditions*

-  ● Discontinue use of the unit if it emits smoke or strange odor as it may create the danger of fire and electrical shock. Immediately turn off the power, unplug the AC adapter from the wall outlet, remove the batteries, and contact your original dealer or authorized IRIS service provider to request for servicing.

#### *Water and Foreign Matter*

-  ● Should any foreign matter (metal, water or other liquid) ever get into the unit immediately turn off the power, unplug the AC adapter from the wall outlet, remove the batteries, and contact your original dealer or an authorized IRIS service provider to request for servicing.

#### *Dropping and Damage*

-  ● Should the unit ever fall or otherwise become damaged, unplug the AC adapter from the power outlet, remove the batteries, and contact your dealer or an authorized IRIS service provider. Continued use creates the danger of fire and electrical shock.

#### *Disassembly*

-  ● Never try to take the unit apart or modify it in any way. Doing so creates the danger of fire and electrical shock. The unit is also protected by tamper-proof feature, doing so will cause the whole program memory to self-destruct.

#### *Magnetic Force*

-  ● If you are fitted with a pacemaker, keep the unit away from your chest area. In particular, do not carry the unit in your breast pocket. Magnetic force generated by the speaker built into the unit could possibly affect the operation of a pacemaker. Should you ever suspect a problem, immediately move away from the unit and contact your physician.

 **Caution****Memory Protection**

- Be sure to keep separate copies of all important data by saving it on a computer hard disk or other medium. Note that all data stored in unit SDRAM's memory is deleted whenever batteries go flat. Memory contents can also become lost or corrupted due to malfunction and repair of the unit.

**Location**

- Do not locate the unit in an area subjected to large amounts of humidity or dust. Doing so can create the danger of fire and electrical shock.
- Keep the unit away from food preparation area, stoves and anywhere else it might be exposed to oil, smoke or steam. Such conditions can create the danger of fire and electrical shock.

**Avoid unstable surfaces**

- Never place the unit on an unstable surface, on a high shelf, or in any other unstable location. Doing so can create the danger of the unit falling and causing personal injury.

**Magnetic Force**

- Keep the unit away from ATM cards, credit cards, and any other magnetic card during transport and storage. Magnetic force generated by its speaker can render magnetic cards unusable.
- Keep the unit away from televisions and other radio wave receivers. Magnetic force generated by its speaker can cause interference with radio wave reception.

**Rechargeable Battery Pack** **Caution**

- Risk of explosion will occur if battery is replaced with an incorrect type. Dispose used batteries according to the instruction.

 **Danger**

- Never try to take apart the battery pack or modify it in any way. The battery pack has built-in safety and protection mechanisms that ensure safe operation. Damaging these mechanisms creates the danger of fire, smoke emission and explosion.



- Never allow the positive (+) and negative (-) terminals of the battery pack to be connected by metal. Never transport or store the battery pack together with a necklace, hairpins or other metal objects. Doing so can short circuit the battery pack, which creates the danger of fire, overheating and explosion.



- Never use or leave the battery pack next to open flame, near a stove, or any other area exposed to temperatures above 50°C/122°F or greater. Doing so creates the danger of fire and explosion.

**⚠ Danger**

- 🚫 ● Never charge the battery pack near a stove, under direct sunlight, in an automobile parked in the sun, or any other area subject to high temperatures. High temperature can cause the battery pack's safety mechanism to operate making it impossible to achieve a full charge. Heat can also cause an abnormal chemical reaction, which creates the danger of fire and explosion.
- 🚫 ● Never pierce the battery pack with nails, hit it with a hammer, step on it, or throw it. Doing so can cause internal shorting, which creates the danger of fire and explosion.
- 🚫 ● Never use a battery pack whose exterior is extremely damaged or deformed. Use of such a battery pack creates the danger of fire, overheating, and explosion.
- 🚫 ● Never use the battery pack with any device other than this product. Doing so will cause abnormal current that damages the battery pack and creates the danger of fire.
- 🚫 ● Never expose the battery pack to direct flame, do not throw it into fire, fresh water, or seawater. Doing so can damage the built in safety and protection mechanisms, and cause battery fluid to ignite, creating the danger of fire and explosion.

**⚠ Warning**

- 🚫 ● If the battery pack does not achieve full charge after the normal charge time, stop charging. Continued charging creates the danger of fire, overheating, and explosion.

**AC Adapter****⚠ Warning**

- 🚫 ● Never use a voltage that is different from that for which the AC adapter is rated. Also, do not plug the unit into a power outlet that is shared by other devices. Doing so creates the danger of fire and electrical shock.
- 🚫 ● Never modify the power cord or excessively bend, twist, or pull it. Doing so creates the danger of fire and electrical shock.
- ❗ ● Do not allow the power cord to become damaged. Do not place heavy objects on the power cord or expose it to heat. A damaged power cord creates the danger of fire and electrical shock.
- 🚫 ● Never touch the AC adapter while your hands are wet. Doing so creates the danger of electrical shock.
- ❗ ● Should the power cord ever become seriously damaged (internal wiring exposed or shorted), contact your original dealer or an authorized IRIS service provider to request for servicing. Continued use of a seriously damaged power cord creates the danger of fire and electrical shock.
- ❗ ● Use only the AC adapter specified for this unit. Use of another type of AC adapter can damage the battery pack and create the danger of fire and personal injury.

**⚠ Caution**

-  Unplug the AC adapter from the wall outlet whenever leaving the unit unattended for long periods.
-  At least once a year, unplug the AC adapter from the power outlet and clean the area around the prongs of the plug. Dust build up around the prongs can create the danger of fire.
-  Be sure to unplug the AC adapter from the wall outlet before attempting to move the unit to another location.
-  Be sure to grasp the AC adapter when unplugging it from a wall outlet. Pulling on the power cord can damage it, and create the danger of fire and electrical shock.
-  Keep the power cord away from stoves and other sources of heat. Heat can melt the insulation of the power cord and create the danger of fire and electrical shock.

**Display Screen Precautions****⚠ Caution**

-  Never apply strong pressure to the LCD screen or subject it to strong impact. Doing so can cause the LCD panel glass to crack or break.
-  Should the LCD panel glass ever crack or break, never touch the liquid inside of the panel. LCD liquid can lead to skin irritation.
-  Should LCD panel liquid ever get into your mouth, gargle with water and contact your physician immediately.
-  Should LCD panel liquid ever get into your eyes or onto your skin, flush the exposed area with clean water for at least 15 minutes, and then contact your physician.

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#### **Appendix A: Troubleshooting**

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## 1: Getting Started

### Welcome

Thank you for purchasing your SmartTerm Windows® Powered PDA (ST4ex/ST4i). With the capabilities of your ST4ex/ST4i, you can keep your most important business, personal information and customize software close at hand.

Microsoft® ActiveSync increases the power of your ST4ex/ST4i by allowing you to synchronize the information on your desktop or laptop computer with your Mobile SmartTerm.

### Where to Find Information

This manual provides an overview of the programs on your Mobile SmartTerm, and explains how to connect your device to a desktop computer, network, or the Internet. For instructions on setting up your ST4ex/ST4i, see the Quick Guide card. For instructions on installing ActiveSync, see Chapter 3.

### Symbols and Conventions

Some or all of the following format conventions may be used in this guide to distinguish elements of text:

- Names of menus, commands and icons are shown in bold type as they appear on the display, for example, **Settings**, **Power**.

### **Important!**

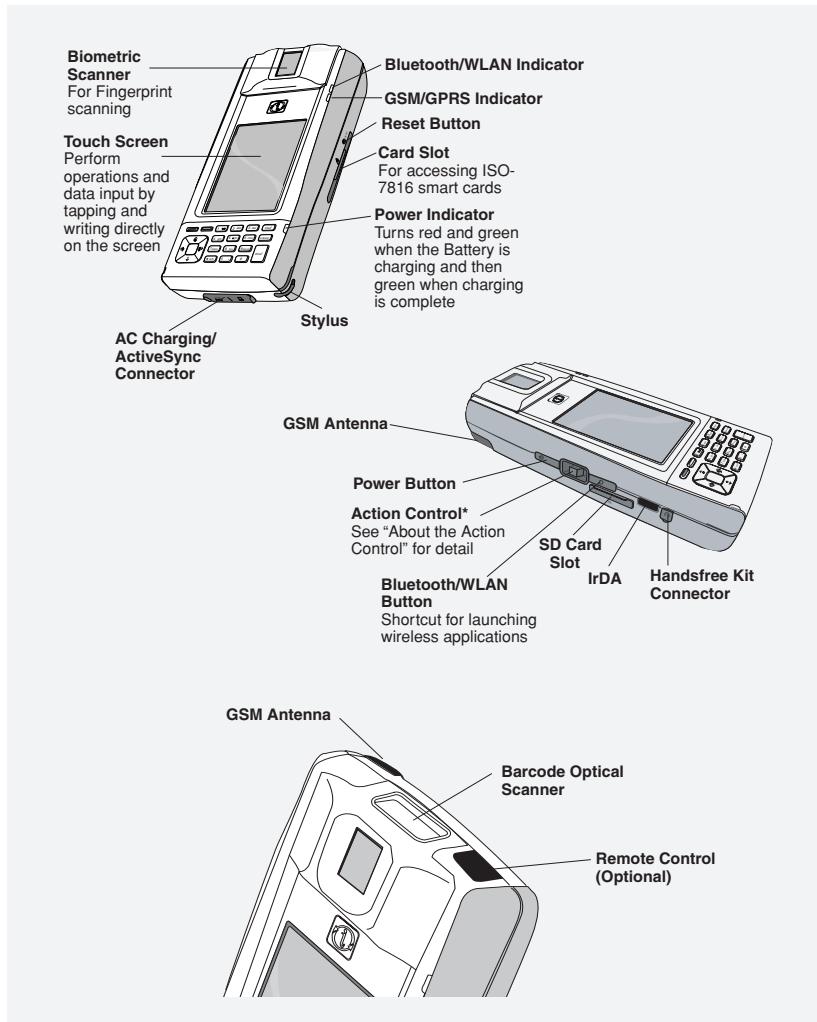
Browsing the Web or synchronizing a large number of mobile favorites can cause your device to run low on storage space. To free storage space, open Internet Explorer and tap **Tools** and then **Options**. On the General tab, tap **Clear Cache** and **Clear History** to delete all Web pages stored on your device, including offline favorite content.

## 2: Basic Skills

Learning to use your Mobile SmartTerm is easy. This chapter describes the basic concepts of using and customizing your Mobile SmartTerm.

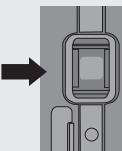
### Controls and Interfaces

#### (i) ST4ex/ST4i



## About the [Action] Control

Operations can be performed by pressing the [Action] control.



Pressing the [Action] control performs an operation similar to the Enter key of a computer keyboard. Pressing up and down will toggle up and down.

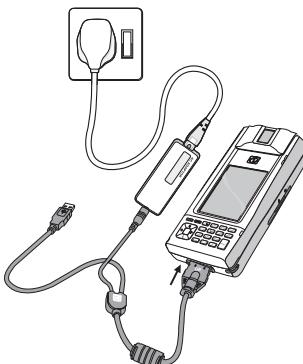
## Charging ST4ex/ST4i

Your ST4ex/ST4i contains two rechargeable Lithium Polymer batteries that are charged when you plug in the AC Adapter. You will not need to replace the batteries. Just leave the ST4ex/ST4i connected to the AC Adapter for one to two hours. To confirm that the battery is fully charged, check the LED status (Power indicator): RED & GREEN for CHARGING and GREEN only for FULLY CHARGED.



*Be sure to use the AC Adapter to charge the Rechargeable Battery Pack(s) if the unit has been left unused for a few days. Your device will not operate properly before charging the batteries. The embedded Backup Battery will be fully charged when the AC Adapter or Rechargeable Battery Pack is present.*

- Connect the AC Adapter to the AC Adapter Terminal and turn on the wall socket switch.
- Charging starts automatically as soon as you attach the AC Adapter. The green power indicator will turn on once it detects AC power.
- The red power indicator will turn on if charging is in progress, and turns off when charging is completed.
- It takes about one to two hours to be fully charged.
- The time required to be fully charged may be longer for the first time.
- Turn off the wall socket switch and remove the AC Adapter after charging is completed.



## **IMPORTANT**

### Power Button Feature

- If unit is ON, a short press will turn OFF the unit.
- If unit is OFF, a short press will turn ON the unit.

### Backlight Toggle Feature

- If unit is ON, a long press will Toggle the LCD Backlight OFF.
- If backlight is ON, a tap on the LCD screen will turn it ON.

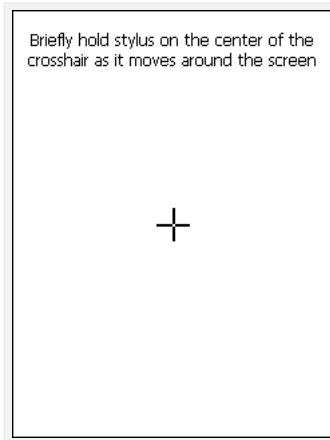
## **IMPORTANT**

### Perform the following steps for Full Reset:

- Press and hold the “4” button [DO NOT release this button].
- Press the “Reset” button and release it instantly.
- When “Erasing Memory” dialog box prompts out, release the number “4” button.
- After a few seconds, the SWLD246C1 (Wireless network) dialog box will prompt out. Follow the screen instructions to complete the whole process.

## **First time use**

Once the charging has completed. Turn on the unit by pressing the power button, it will start up and it will show an IRIS front page. On the first time basis, it is advisable to calibrate the stylus calibration by going to Start > Setting > Control Panel > Stylus.



Follow the cursor and tap on it. After this, Time, Date and Time Zone configuration screen will required to be set as the default time, date and time zone differ from places to places.

## Time, Date and Time Zone configuration / first time used

Go to Start > Setting > Control Panel > Date/Time. "Time, Date and Time Zone configuration" application will be shown as below.



## Touch Screen Operations

The following defines the various operations that you can perform with the stylus.

Tap ..... Touch the screen once with the stylus to select items or options.

Double Tap ..... Tap the item twice to open or execute a program.

Drag ..... Hold the stylus on the screen and drag across the screen to select text and images. Drag in a list to select multiple items.

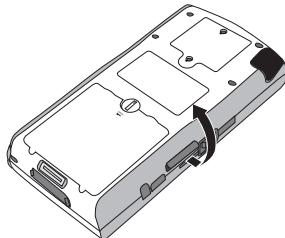
## Guidelines for Using Secure Digital Card

Your ST4ex/ST4i supports SD memory cards.

### **IMPORTANT**

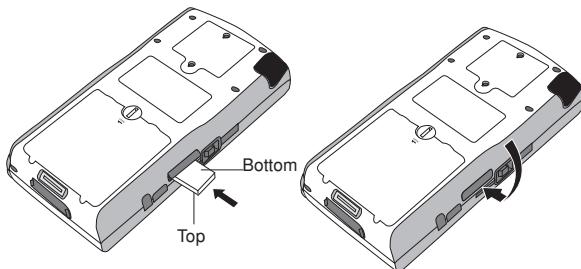
- Pull the cover out of the slot.
- Gently but firmly slide the card into the place as far as it can go, but do not force it. Forcing a card can damage connectors. If you have problems inserting a card, pull it out and make sure it is oriented correctly.
- We strongly recommend that you store all unsaved data which you have input or edited before performing this procedure.
- If you want to leave the card inside the slot, place the cover back into the slot so that the cover will not interfere with your mobility while using it and it will protect the cards from water, dust and heat.

1. Make sure your ST4ex/ST4i is turned off.
2. Slide the cover to the side by pulling it out gently but firmly.



3. If there is already a card in the slot, press on the card and then remove it.
4. Slide the card you want to use into the card slot.

- Make sure the top of the card is facing towards the top of the ST4ex/ST4i unit.  
A card that is not oriented correctly will not slide all the ways into the slot.



- Slide the card into the slot carefully as far as it can go.
- Press the card in gently until you hear it clicks into place.

5. Close the SD cover.

### Using the Stylus

Data input and virtually all other operations are performed using a stylus, which is housed inside the stylus holder at the right corner of the ST4ex/ST4i.

#### **IMPORTANT**

- Avoid misplace or lose the stylus by always storing it in the stylus holder when not in use.
- Avoid breaking the tip of the stylus.
- Use only the stylus that comes with the ST4ex/ST4i, or some other stylus type instrument with a soft, blunt point to perform touch screen operations. Never use a pen, pencil, or other sharp writing implement.

### Guideline for Installing SIM / SAM card

When you subscribe to a cellular network, you are provided with a SIM card loaded with your subscription details (PIN, optional services available and etc).

#### Warning:

- Keep all SIM cards out of the reach of children.
- The SIM card and its contacts can be easily damaged by scratches or bending. Be careful when handling, inserting or removing the card.
- Before installing the SIM card, always make sure that the ST4ex/ST4i is fully charged as the application will not work properly with insufficient amount of power. Hence, charge the unit first before turning on iMobile application (See Application Manual: iMobile)

## To insert the SIM card.

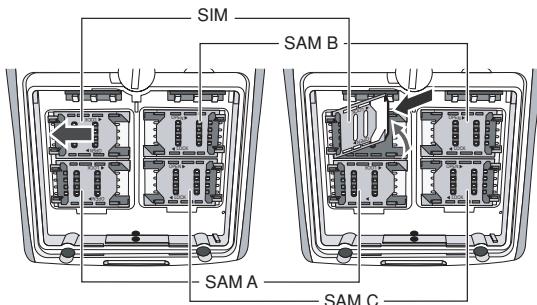
- Firstly turn off all programs and then the unit.
- Removed the lid and battery.
- Slide the slot back and then insert the SIM card as shown below.
- When inserting the SIM card, ensure that the cut corner faces top right and the fold contacts of the card face into the unit.
- Close the SIM card holder and slide back the slot.
- Place the battery back followed by the lid. Make sure to close the knob.

## To insert SAM cards.

- It will be the same as inserting the SIM card, but on the other three slots.
- SAM card is for internal security.

### Note:

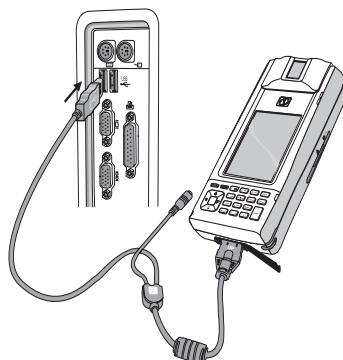
Once the SIM card is inserted, please refer to Application Manual: iMobile for further detail. As for SAM cards, its usage depend on user's preferences.



## USB Installation

### 1. Installation Procedure

Step 1: Plug in Active Sync Cable to the device and USB slot. Windows will prompt “**Found New Hardware**”.



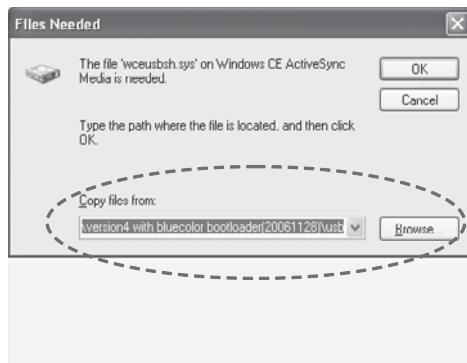
Step 2: Click on “Next” button.



Step 3: Select first option “Search for a suitable driver for my device”.



Step 4: Insert the SmartTerm IV Product CD into the CD-ROM first. Click on Browse button to find the “Wceusbsh.inf” file from the CD-ROM drive.



Step 5: Click on “**Next**” button, to install the driver.



Step 6: It will prompt if installation is completed. Click “**Finish**” to close installation wizard.



## Start Menu

Your ST4ex/ST4i pre-installed with a collection of useful programs. These include Microsoft WordPad and IRIS customized programs. You can select the program you want from the Start button or by tapping on the screen, a list of IRIS customized programs will be shown.



### **⚠️ IMPORTANT**

To ensure the stable system operations, do not have too many programs running at the same time. Otherwise, the unit will be very slow in response.

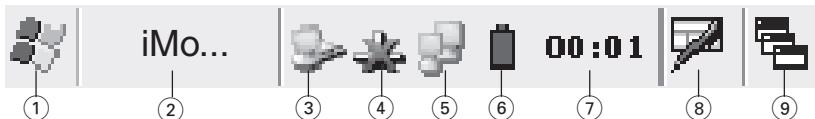
## Taskbar Items

The Control Panel includes the following standard items which allow user to customize system wide properties.

Status Icon	Meaning
	Start Menu, Tap to switch to a program
	Indicate unit connected to PC ActiveSync
	Batteries are charging
	Batteries are fully charged
	Batteries are low
	Quick Launch Menu
	Tap for Keyboard, tap and hold to choose other input method
	GSM/GPRS is not powered ON
	GSM/GPRS is powered ON
	GSM signal strength
	Connect to DialUp Signal
	Internal battery is low
	Internal battery is very low

## Shell taskbar

The taskbar appears on the top of your ST4ex/ST4i screen.



- ① Start button ..... Single tap to display the Start menu.
- ② Active application ..... Display the latest application running.
- ③ Direct Connection ..... Single tap to execute the direct network status dialog.
- ④ Bluetooth Network ..... Double tap to execute Bluetooth network setting.
- ⑤ WI-FI Connection ..... Double tap to execute the WI-FI network setting.
- ⑥ Power icon ..... Single tap to display the power status on your ST4ex/ST4i.
- ⑦ Time ..... Single tap to display the time, date and time zone menu.
- ⑧ Software Input Panel (SIP) .... Single tap to display the Keypad.
- ⑨ Application switching ..... Single tap to display all the active application.

**Note:**

- An internal battery icon appears in the status icon area when battery power is low. See Taskbar Item on page 20 for more information about icons.
- Messages also appear on the screen to warn you when the battery power is low. You can check the current battery level at any time by tapping **Start, Settings, Control Panel, Power** to display Power Properties.

## Customizing your ST4ex/ST4i

You can customize your setting of your ST4ex/ST4i to suit your particular needs. E.g. setting password, so that nobody can use your SmartTerm or change the background display and etc.



Tap on **Start**, **Settings** then **Control Panel**, as shown on the previous page. In the menu, it contains icon showing different settings that can be customized.

### **LCD Brightness Control**

The unit can be powered by either battery or external power. User's may change the brightness of the LCD backlight through the backlight control panel applet according to the power mode.



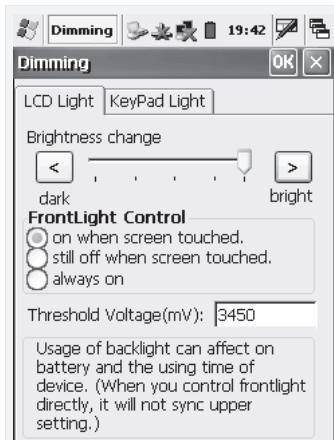
#### **Enable Backlight Power**

Tap and click **Settings** and choose **Control Panel**. On the **Control Panel**, tap **Dimming**. On the screen box, there is a check box to enable Backlight Power. When check box is selected, backlight will turn on when touch screen is tapped or button is pressed. It will turn off after a period of idle time. When check box is deselected, backlight will be off all the time.

#### **Adjusting Display Brightness**

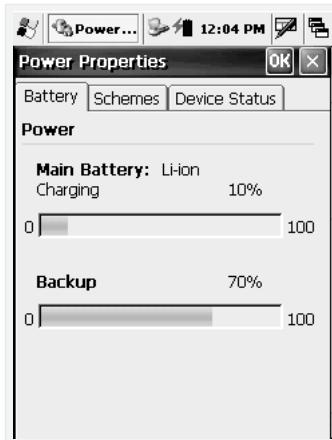
Use the following operations to adjust display brightness to make it easier to read.

Tap and click **Settings** and choose **Control Panel**. On the **Control Panel**, tap **Dimming**. A screen box will appear. Tap the **dark** or **bright** tab to control the brightness of the screen.



## Power

User may check the power status of the main and backup battery by clicking on the power icon. In the power properties menu, user may select the power schemes : user idle/system idle/suspend... by clicking from the schemes menu.



The schemes allow the user to switch to idle mode when it is not used for awhile. This is to save the power consumption. It also shows the device status.

## Software Input Panel (SIP)

On the taskbar of the ST4ex/ST4i, tap and hold on the SIP icon. The software input panel options will launch as shown below. Select the input panel type to use.



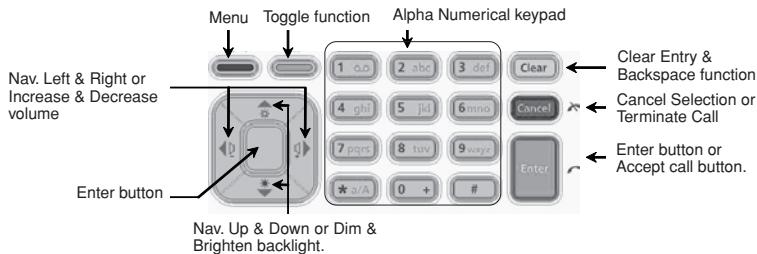
“Keypad” refers to the ST4ex/ST4i keypad. English Handwriter recognizes user handwriting and input the text automatically.



## Keypad

Learning to use your keypad is easy. This section will describe the basic concept of using the keypad in writing a message or executing a task like increasing volume.

### Controls and Interfaces



- **Toggle function**

When pressing, an icon will appear on the taskbar. This will enable the keypad function which is highlighted in blue.

- **Menu button**

When pressed, a menu will appear on the screen. User can select the IRIS customized programs by tapping on the respective screen.

- **Nav. Left & Right or Increase & Decrease Volume**

If toggle function is OFF, the navigation will be for left and right. If toggle function is ON, and by pressing the buttons, it will increase and decrease the volume of the speaker.

- **Nav. Up & Down or Dim & Brighten Backlight**

If toggle function is OFF, the navigation will be up and down. If toggle function is ON, and by pressing the buttons, it will dim or brighten the backlight.

- **Enter button or accept call button**

Pressing it will perform enter function or skip to the next line when writing. If iMobile is running, pressing this button will accept incoming call.

- **Cancel Selection or Terminate Call**

This is to cancel selection or end a call.

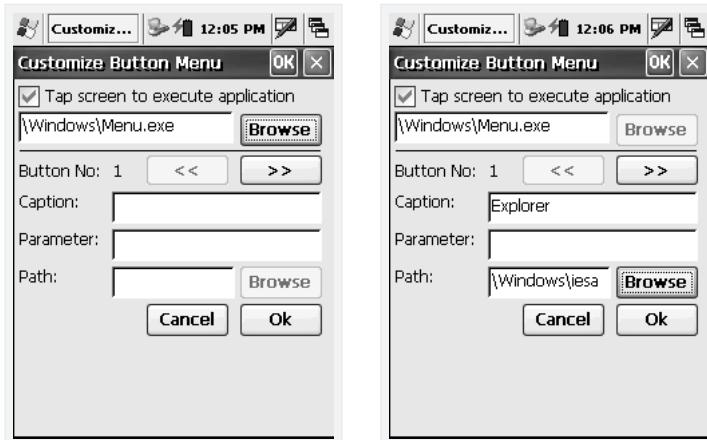
- **Clear**

This button allows user to clear entry or use as backspace function.

- **Alpha numerical keypad**

It will act as numerical keypad when toggle function is OFF. Once ON, you can write any words just by pressing and holding on the button until the character appears.

## Button Menu



You can customize your ST4ex/ST4i to create a shortcut to any program that you wish to access just by a single click. You can set it from the Button Menu's applet in control panel folder as shown on the two figures above. Tick the "Tap Screen to execute application" and type in the Name of the program on the "Caption" then click "Browse" as shown on the figure. Name the path of the program, refer to the figure above. You can set 16 short paths in this menu. Once completed, you are able to see the figure as shown below on the screen after tapping on it.



### Note:

Once the Menu is active, the icon on the window desktop will no longer be accessible when tapping on the screen. The Menu will pop up unless it is disabled. If the Menu is left idle, it will close after 15 seconds.

## **Display**

You can customize your screen display by changing the picture on the Display Properties. Or you may insert new picture just by transferring it from your personal computer. Note that it can only support bmp file and the screen size is 240 x 320. You can tile your desired image on the display property.

## **Registry Backup**

By tapping on the registry backup icon, it will show a page with Registry Backup and Registry Delete features. Registry Backup provides the function for user to backup the registry into the Pocket Store, so when the main battery, backup battery and external AC power are removed, the registry changes that have been done are maintained. If the registry's changes are no longer needed, Registry Delete helps to remove the backup registry's settings from the Pocket Store.

## **Mouse**

On the Mouse Menu, you can check the sensitivity and speed of double clicking.

## **Keyboard**

In the Keyboard Menu, you can set two things: repeat delay and repeat rate.

## **Audio Volume**

When you choose the Volume and Sound properties, on the first page you can set the volume of the speaker and enable sounds for certain warning or applications.

When you click on Sound page, you could set the window events' sound.

## **Stylus Property**

In this stylus property, you can recalibrate the sensitivity of the stylus.

## **Dialing Property**

This is a standard feature for all windows. This is when a modem is being used and you can set the dialing property to connect to the internet server. However, ST4ex/ST4i do not have modem feature.

## **Network and Dial-Up Connection**

When you tap on the network and dial-up connection, a default connection will be created which is "USB ActiveSync" (Please refer to 3: Microsoft ActiveSync for functionality), besides, you can also create "IrDA Connection" or "VPN Connection" (Please refer to the products' manuals for details.)

## **Regional Setting**

On the regional setting, you can set your local, language, number, current time and date accordingly.

## **Owner**

On the owner properties, you could insert your own personnel information and network ID. This depends on user's preferences.

## **PC Connection**

PC connection is to enable the unit to directly communicate with personnel computer or other communication devices. The default is set to USB ActiveSync. However, if there is more than one connection being created on the "Network and Dial-Up Connection", you need to change the connection setting before any of the communication devices can be linked, e.g. IrDA.

## **Storage Property**

In the storage property, you can manage your storage by formatting it, dismounting it or create new partition on it.

## **System Property**

In the system property, it will show you the system information, memory, device name and copyrights. In addition, you can adjust the amount of memory allocated for Storage Memory or Program Memory.

## **Password**

You can set the password to maintain secrecy or protect people from reading your ST4ex/ST4i.

## **Screen Rotation**

This feature allows you to rotate the screen display. It is useful for viewing landscape picture.

## **Taskbar & Secure Shell Setting**

Allow you to set the taskbar location and Secure Shell feature. Secure Shell enables you to control accessibility of Control Panel.

## **Wireless Devices Configuration**

Allow you to turn on/off Wireless LAN and Bluetooth features.

## **Bluetooth Device properties**

Allow you to scan and pair with connecting Bluetooth devices. The ST4ex/ST4i Bluetooth feature must be turn on for it to scan.

## **Input Panel Selection**

Allow you to change current input panel state: Keyboard, Keypad or English Handwriter. Single tap on the SIP at the taskbar will activate the input panel selection.

## **Date & Time Setting**

Allow you to configure the date, time and time zone. It also have the daylight saving features.

## **Internet Options**

Allow you to configure the network connection setting and the default homepage.

## **Remove Programs**

Allow you to remove installed programs systematically.

## **System**

Display system hardware and software properties. Allow memory allocation configuration.

## **PDA Backup**

Allow you to save Windows database and applications.

### 3: Microsoft ActiveSync

Using Microsoft ActiveSync®, you can synchronize the information on your desktop computer with the information on your ST4ex/ST4i. Synchronization compares the data on your ST4ex/ST4i with your desktop computer and updates both computers with the most recent information.

*NOTE : By default, ActiveSync does not automatically synchronize all types of information. Use ActiveSync option to turn synchronization on and off for specific information types.*

#### With ActiveSync, you can also:

- Back up and restore your ST4ex/ST4i data.
- Copy (rather than synchronize) files between your ST4ex/ST4i and desktop computer.
- Control when synchronization occurs by selecting a synchronization mode. For example, you can synchronize continually while the ST4ex/ST4i is connected to your desktop computer (using a cradle or the cable), or only when you choose the synchronize command.

#### Installing ActiveSync

- Insert the SmartTerm IV Product CD into the CD-ROM drive of your desktop computer. Double click to launch the setup file located at CD-ROM drive ActiveSync folder. (E.g:d:\ActiveSync x.x.x\MSASYNC.exe).

After installation is completed, the setup wizard tells you to connect your device to your computer, helps you set up a partnership, and guides you through your first synchronization.

During synchronization, ActiveSync compares the changes you've made to the data on your device and desktop computer and updates both computers with the latest information.

After the first synchronization, take a look at Calendar, Contacts, and Tasks on your device. You will notice the information you have stored in Microsoft Outlook or Microsoft Schedule on your desktop computer has been copied to your device and you did not have to type a word. Disconnect your device from your computer and you are ready to go!

At any time, you can view the synchronization status by double-clicking the ActiveSync icon placed on the taskbar during setup or by selecting Microsoft ActiveSync from the **Start** menu. In the ActiveSync window, click the **Options** button to change what was synchronized and when it was done.

## Troubleshooting

To communicate, the two computers need to recognize each other. If you encounter problems during installation, try the following:

- Make sure the cable is connected firmly for both computers.
- Unplug and reconnect the cable to your device.
- Shut the device off and turn it on again.
- On the **File** menu in ActiveSync, click **Get Connected**.

If you continue to have problems, see ActiveSync Help.

You can learn more about ActiveSync from the following sources:

- ActiveSync Help, for information on synchronizing and exchanging files with a desktop computer.
- Device Help, to learn about communications software on your device.
- The Readme file, located on the CD, for updates and detailed technical information.
- The Windows CE Web site, for getting up-to-date information on your device:  
<http://www.microsoft.com/windowsce/>

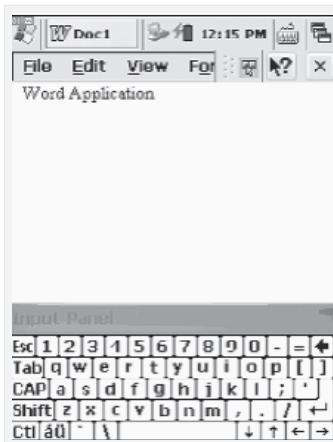
## 4: Companion Programs

### WordPad

#### ● About WordPad

You can create and edit documents and templates in WordPad, using buttons and menu commands that are similar to those used in the desktop version of Microsoft Word. You can work with files in either Normal or Outline view.

WordPad documents are usually saved as .pwd files, but you can also save documents in other file format, such as .rtf or .doc.



#### ● Select text

##### To select

- any amount of text
- a word
- a single paragraph
- an entire document
- a picture

##### Do this

- Drag the stylus or pointer over the text.
- Double-tap or double-click the word.
- Double-tap or double-click within the paragraph.
- Select **Edit > Select All**.
- Tap or click the picture.

## ● Replace text

1. To replace text in one part of a document, select that part.  
Otherwise, the whole document is searched.
2. Select **Edit > Replace**.
3. Enter the text you want to find and the text you want to replace with it.
4. Select the replacement options you want.
5. Select **Find Next**.
6. On the **Find/Replace** toolbar, select the appropriate button.

## ● Move, copy, or delete text

1. Select the text you want to move, copy, or delete.
2. To move or delete text, select the **Cut** button.  
To copy the text, select the **Copy** button.
3. To paste the information, move the insertion point to the desired location, and select the **Paste** button.

### Notes :

- To undo an action, select **Edit > Undo**.
- To restore the action, select **Edit > Redo**.

## ● Set the default font

1. Select **Format > Font**.
2. Select the font you want.
3. Select **Set As Default**.
4. To confirm that your changes will be applied to subsequent documents you create, select **Yes**.

### Note :

To apply the default font and style to selected text, select **Apply Default**.

## ● Select a different font

1. Select the text you want to change.  
To select all text, select **Edit > Select All**.
2. From the **Font** list, select the font you want.
3. From the **Font Size** list, select a size.

### Note :

To see more formatting options, select **Format > Font**.

## ● Change font formatting

1. Select your desired text.
2. Select the **Bold**, **Italic**, or **Underline** button.
3. To change the color, select **Format > Font** and select the color you want from the **Color** list.

### ● Adjust the paragraph alignment

1. Select the paragraph you want to align.
2. Select the **Align Left**, **Center**, or **Align Right** button.

#### Note

To see more formatting options, select **Format > Paragraph**.

### ● Find text

1. To search for text in one part of a document, select that part. Otherwise, the whole document is searched.
2. Select **Edit > Find**.
3. Enter the text you want to find.
4. Select the search options you want.
5. Select **Find Next**.
6. To continue searching, select **Edit > Find Next**.

### ● Indent a paragraph

1. Select the paragraph you want to indent.
2. Select **Format > Paragraph**.
3. Adjust the indentation settings as needed.

### ● Set tabs

1. Select **Format > Tabs**.
2. Change the tab settings as needed.

### ● Wrap text in the window

- Select **View > Wrap to Window**.

### ● Display the document using the full screen

- Select **View > Full Screen**.
- To exit Full Screen view, select **Restore**.
- To move the **Restore** button, drag the bar on the left side.

### ● Zoom in or out

- Select **View > Zoom**, and select the desired percentage.

#### Note

For **Custom**, enter the exact percentage and select **OK**.

### ● Switch between Normal and Outline views

- Select **View > Normal or Outline**.

● **Assign and change outline levels**

1. Select **View > Outline**.
2. Select the appropriate buttons on the toolbar.

● **Printing a Document**

1. Select **File > Print**.
2. Select the printing options you want.

● **Tips**

- **Port** lists the available printer ports.
- If **Network** is selected from the **Port** list, enter the path to the network printer in the **Net Path** box.

● **Setting a Password for a Document**

1. Select **File > Password**.
2. Type and verify the password.
3. You must save the document (**File > Save**) to retain the password.

## 5: Internet Explorer

Internet Explorer makes it easier to get the most from the World Wide Web, whether you are searching for new information or browsing your favorite Web sites.



In the control panel menu, under the internet option, user may customize the appearance of the browser when the program is launched. User may also customize other options relating to connection, security and advanced.



The start page of Internet Explorer.



The View menu user has the option of limiting the taskbar to be shown and font size.

On the Favorite menu, user may store and organize webpages that are used frequently by adding the shortcut in the Favorite list. User may also synchronize the list of favorite link in ST4ex/ST4i with another desktop computer where changes can be made to either one. For more information on synchronization, see Active Sync Help on desktop computer.

Bankcard upgrades cost dumped on users  
- 15/11/2002

Card migration cost still hefty  
- 5/11/2002

Iris readies 64K smartcard for MyKad

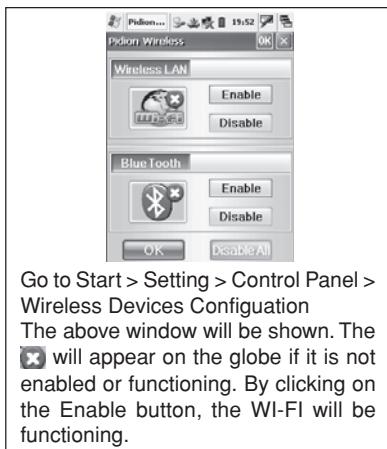
User could also go to a webpage, by typing the internet address - for example, [www.iris.com.my](http://www.iris.com.my) in the address bar and then click the **Go** button. The **Back** and **Forward** buttons will enable user to return to the previous page or view the next page.

The **stop** button will enable user to stop viewing a page when the web page is taking too long to open. When receiving a message that a web page cannot be displayed or to make sure you have the latest version of the page, click the **refresh** button.

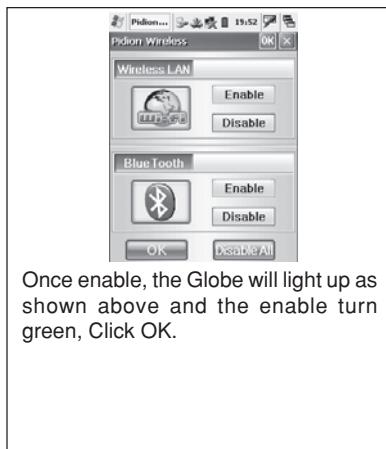
## 6: Getting Connected

### Wireless LAN (Wi-Fi) Usage

ST4ex/ST4i has build in wireless LAN which enable user to access Internet by accessing available wireless provided that provided at café, company or home. To access this feature first turn it ON by following the instructions below.



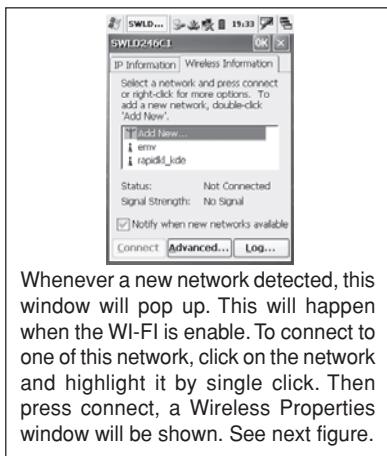
Go to Start > Setting > Control Panel > Wireless Devices Configuration  
The above window will be shown. The  will appear on the globe if it is not enabled or functioning. By clicking on the Enable button, the Wi-Fi will be functioning.



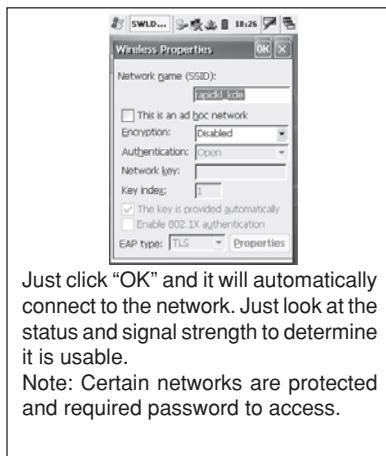
Once enable, the Globe will light up as shown above and the enable turn green, Click OK.

In order to conserve power, it is advisable to disable this function if it is not being used. This will prolong the life span of the ST4ex/ST4i. Just follow the same step and press the disable button to disable the function.

Before accessing the internet, there is another step required.



Whenever a new network detected, this window will pop up. This will happen when the Wi-Fi is enable. To connect to one of this network, click on the network and highlight it by single click. Then press connect, a Wireless Properties window will be shown. See next figure.



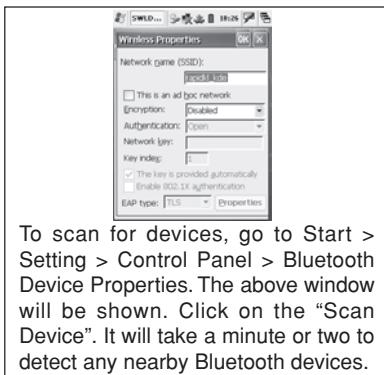
Just click "OK" and it will automatically connect to the network. Just look at the status and signal strength to determine it is usable.

Note: Certain networks are protected and required password to access.

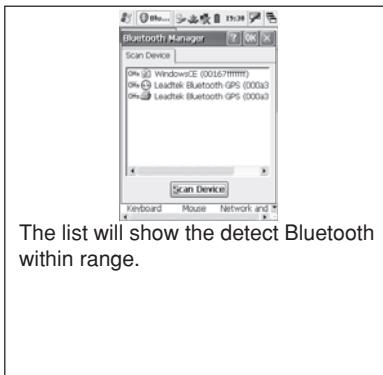
To access internet, please refer to ITEM 5: INTERNET EXPLORER for further detail.

## Bluetooth Usage

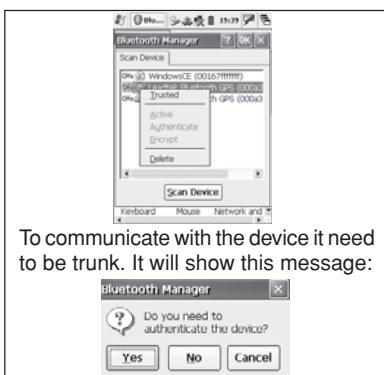
To access Bluetooth function it has the same as WI-FI. Go to Start > Settings > Control Panel > Wireless Devices Configuration by clicking on Enable on the Bluetooth.



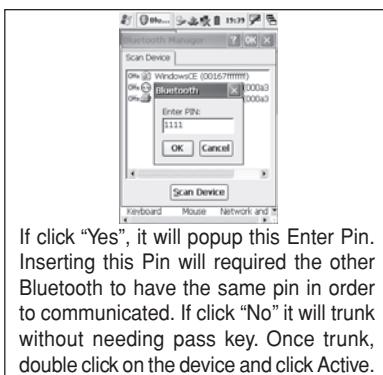
To scan for devices, go to Start > Setting > Control Panel > Bluetooth Device Properties. The above window will be shown. Click on the "Scan Device". It will take a minute or two to detect any nearby Bluetooth devices.



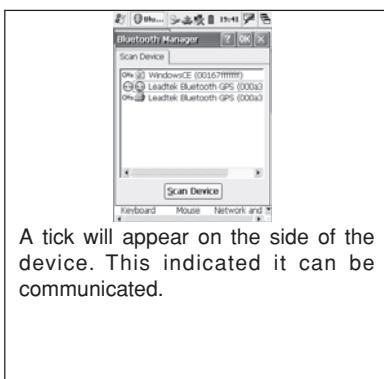
The list will show the detect Bluetooth within range.



To communicate with the device it need to be trunk. It will show this message:



If click "Yes", it will popup this Enter Pin. Inserting this Pin will required the other Bluetooth to have the same pin in order to communicate. If click "No" it will trunk without needing pass key. Once trunk, double click on the device and click Active.



A tick will appear on the side of the device. This indicated it can be communicated.

In order to work with some of the devices, it required certain cab or exe file provided by the manufacturer. If not it will not able to work properly or even communicate.

Note: this feature is too wide scope and before using this, read the user manual of the product for detail before communicating with our devices.

## Infrared Communication

The infrared port of this unit can be used to exchange data with another ST4ex/ST4i, or with another device equipped with infrared communication capabilities. Remember that the two infrared ports must be pointed directly at each other when performing communication. The distance between the two infrared ports must be less than 20 cm. For infrared data communication with another device, the other device must confirm with IrDA 1.2 standards, and it must specifically support infrared data communication with ST4ex/ST4i.

### **IMPORTANT**

- Make sure the units do not move while infrared data communication is in progress.
- Infrared data communication may be impossible under strong sunlight or inverter type fluorescent lighting.
- Infrared data communication problems can be caused by the distance and angle between the two ports, outdoor sunlight, and low battery level.
- Dirt and dust on the infrared port surface can cause communication errors and other problems. Use a soft, dry cloth to wipe off the dirt and dust.

## Appendix A: Troubleshooting

### Reset the ST4ex/ST4i and clear memory

#### To reset the ST4ex/ST4i

If your ST4ex/ST4i responds slowly, stops responding as expected, or “freezes”, try resetting it. A reset causes the ST4ex/ST4i to restart and re-adjust its memory allocation. Any unsaved data in the open windows may be lost.

- Use the stylus to press the **Reset** button.

#### To clear memory

If you forget your ST4ex/ST4i password or want to clear all data in your ST4ex/ST4i and restore the factory settings, you can run memory initialization.

**Warning:** Memory initialization deletes all data and restores the ST4ex/ST4i to its default settings. Programs installed at the factory will remain, while data that you have created and programs that you have installed are erased.

#### Re-initialization

- Turn the ST4ex/ST4i on.
- Press and hold the **number “4”** button, and use the stylus to press the **Reset** button.
- A message will appear on the screen to confirm that you want to do memory initialization. Follow the instruction on the screen.

 Use ActiveSync to keep a backup of your ST4ex/ST4i data so that if you need to clear memory, you can restore the data on your ST4ex/ST4i. For more information, see ActiveSync Help.

### Low Battery Power

When batteries are running low, you will see a low battery icon in the navigation bar. Replace or recharge the batteries as soon as possible. When the main battery is discharged, your data will be preserved using the backup battery. Under normal conditions, a fully charged battery can be used for long hours. Here are a few tips to help you get the most from them.

**Warning:** If the backup battery is low, you run the risk of losing the data in your ST4ex/ST4i.

#### Use external power whenever possible

Use the AC adapter to plug your ST4ex/ST4i into external power whenever possible, especially when:

- Establishing a remote connection (some modems use a lot of power).
- Using the backlight feature of your ST4ex/ST4i display.
- Connecting to a desktop computer.

#### Shorten the auto-suspend time

While on battery power mode, your ST4ex/ST4i will automatically suspend after a predefined idle period. Maximize the battery’s life by shortening the idle time. Tap  and then **Settings**. On the **Control Panel** tab, tap **Power**, and then adjust the **Schemes** setting.

### Turn off the sounds when necessary

The ST4ex/ST4i produces sounds in response to a number of events, such as warnings, appointments, and screen taps or when you press hardware-button. To optimize battery's life, turn off any unnecessary sound. Tap  and then **Settings**. On the **Control Panel** tab, tap **Volume & Sounds** and clear checked boxes on the **Events**, **Application**, **keyClicks** and **Notification** tabs.

### If ST4ex/ST4i is run out of memory

Memory on your ST4ex/ST4i is shared between storage memory and program memory. Storage memory is used to store the information you created and programs you installed. Program memory is used to run programs in your ST4ex/ST4i. The ST4ex/ST4i automatically manages the allocation between storage and program memories. However, in some situations, such as when memory is low, the ST4ex/ST4i may not be able to automatically adjust the allocation. If you receive a message stating that storage or program memory is unavailable, try the following solutions.

#### Storage memory-Secure Digital (SD) Storage Card

- Move data to a Secure Digital (SD) Storage Card.
- Tap  , **Program** and then **Windows Explorer**. A folder named "**Storage Card**" will appear once the SD memory card is inserted.
- This folder will disappear automatically once the card is taken out from the slot.
- Move any file or data into the "**Storage Card**" folder for backup purposes.
- Files or data save in the SD card can be opened in any other SD card reader or computer.
- Files copied from computer can also be opened in the ST4ex/ST4i unit, as long as it does not exceed the memory of the unit.

## Program memory

- Stop programs you are not currently using. In most cases, programs automatically stop to free needed memory. However, in some situations, such as when confirmation dialog boxes are waiting for a user's response, the program may not be able to stop automatically. To check the status of your active programs, press **Task Manager**, a window will pop-up showing the active programs. If the program is not working, press **End Task** to close the program.
- Clear storage memory as described in the preceding section. This will free some storage memory so that it can be allocated to program memory.
- Reset your ST4ex/ST4i, as described in "**Reset the ST4ex/ST4i and clear memory**", earlier in this appendix.

## Screen freezes or responds slowly

Reset your ST4ex/ST4i. See "**Reset the ST4ex/ST4i and clear memory**", earlier in this appendix.

## Screen is blank

If the ST4ex/ST4i does not respond when you press the Power button briefly, press and hold the button for a full second. If this does not work:

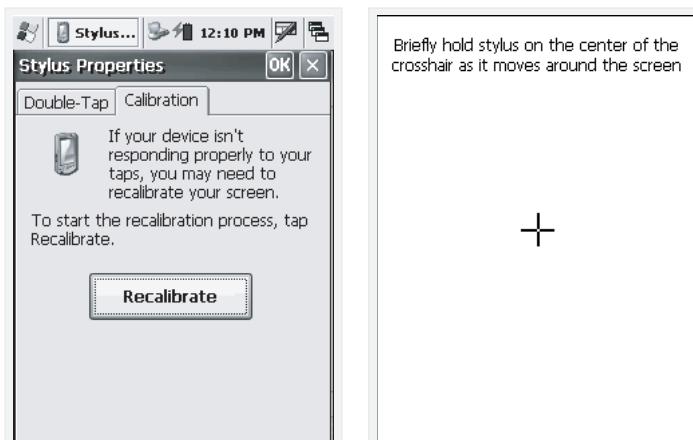
- Make sure your battery cover is locked and all expansion slots are secured.
- Plug the ST4ex/ST4i into AC power.
- Change or recharge the main batteries.

## Screen is dark

Prolonged exposure to direct sunlight may cause your ST4ex/ST4i screen to be temporarily darken. This is normal for LCD screens and it is not permanent.

## Inaccurate response to stylus taps

Adjust the touch screen to respond more accurately to screen taps. Tap  and then **Settings**. On the **Control Panel**, tap **Stylus**. In the **Stylus Properties**, choose **Calibration**. Tap "**Calibrate**" and follow the instructions on the screens as shown below:



## Slow or no response

Reset the ST4ex/ST4i. See “**Reset the ST4ex/ST4i and clear memory**”, earlier in this appendix.

## Infrared (IR) connection problems

If you are unable to use IR to transfer information, try the following:

- Transfer only one file.
- Orient the IR ports so that there is a straight, unobstructed path in between with no more than 20cm apart.
- Make sure nothing is in between the two IR ports.
- Adjust the room lighting. Some types of light interfere with IR connections. Try to relocate or turning off some lights.

## Network connection problems

The following solutions may help if encounter problems when using a CF Ethernet card for network connections.

- Click “**Start**” then “**Setting**”.
- Select Network icon and click it.
- Search from the list for VRETHE1 and choose it.
- Click on the Properties.
- Key in the IP Address, Subnet mask, gateway, DNS &WINS or obtain IP address via DHCP. Choose either one of these depending on the network.
- Click “**OK**” after finished choosing.
- Reset the unit to complete the setting.
- Click on the IE and it will connect to the web.
- If problem persists, send the unit to manufacturer for services.

## Routine Maintenance

This section provides recommended guidelines for taking care of your ST4ex/ST4i. Following these guidelines helps to ensure the longevity of your ST4ex/ST4i and reduces the risk of damage.

### Routine Care

To keep your ST4ex/ST4i in good condition and working properly, follow these guidelines:

- Keep your ST4ex/ST4i away from excessive moisture and extreme temperature. Do not expose your ST4ex/ST4i to liquids or precipitation.
- Do not place anything on top of your ST4ex/ST4i to prevent damage to the screen.
- Store your ST4ex/ST4i in a protective case when not in use.
- Clean your ST4ex/ST4i by wiping the screen and the exterior with a soft, damp cloth moistened only with water.

To reduce the risk of electric shock or damage to the internal components, do not spray liquid directly on the screen or allow excess liquid to drip inside your ST4ex/ST4i. Using soap or other cleaning products on the screen may discolor the finish and damage the screen.



- Avoid exposing your ST4ex/ST4i to direct sunlight or strong ultraviolet light for extended periods of time. Also avoid scratching the surface of the screen and banging it against hard objects.
- Use the ST4ex/ST4i stylus only to prevent scratching the screen.

## Battery Guidelines

Follow local regulations regarding the safe disposal of your ST4ex/ST4i. Your IRIS vendor can advise you on local regulations, and/or the existence of any battery disposal programs in the operation.

The ST4ex/ST4i should not be disposed off along with the general household waste. In order to forward them to recycling or dispose them properly, please use the public collection system or return them to IRIS, the authorized IRIS partners, or their agents.

## Travel Guidelines

For safety and convenience when traveling with your ST4ex/ST4i, follow these guidelines:

- Back up your data before you leave.
- Take a backup copy of your data with you.
- Disconnect all external equipment from your ST4ex/ST4i.
- Take the AC adapter and new batteries with you.
- Hand-carry your ST4ex/ST4i in a protective case. Do not check in with your luggage.
- Beware of potential effects of airport security devices on your ST4ex/ST4i.



There are three types of airport security devices: X-ray machines, magnetic detectors (the device you walk through), and security magnetic wands. You can send your device through airport X-ray machines. However, IRIS recommends that you do not send your ST4ex/ST4i through magnetic detectors or expose it to security magnetic wands.

- Check with the airline if you plan to use your ST4ex/ST4i on the plane. In-flight use of electronic devices is at the discretion of the airline.

## International Travel

Before traveling internationally with your ST4ex/ST4i, be sure to:

- Check local customs regulations on wireless devices.

## Shipping Guidelines

When shipping your ST4ex/ST4i, follow these guidelines:

- Safeguard your data by making a backup copy.
- If shipping the backup copy, be sure that the medium (diskette, tape, or SD card) is not exposed to electrical or magnetic impulses while stored or in transit.
- Turn off your ST4ex/ST4i and disconnect all external devices.
- Pack your ST4ex/ST4i and all external devices (such as the cradle, cords, and cables) in their original packing boxes or in similar packaging with sufficient packing material to protect them.

## Appendix B: Regulatory Notices

### European Union Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive (1999/5/EC). The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive (1999/5/EC):

- EN60950-1:2001 A11:2004  
Safety of Information Technology Equipment
- EN50371:2002-03  
Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10MHz - 300GHz)
- EN300330-1 V1.3.2: (2002-12)  
Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9kHz to 25MHz and inductive loop systems in the frequency range 9kHz to 30MHz; Part 1: Technical characteristics and test methods
- EN300330-2 V1.1.1: (2001-06)  
Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9kHz to 25MHz and inductive loop systems in the frequency range 9kHz to 30MHz; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
- EN301489-1 V1.7.1: (2006-07)  
Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
- EN301489-3 V1.4.1: (2002-08)  
Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9kHz to 40GHz

## **Federal Communication Commission Interference Statement**

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

### **IMPORTANT NOTE:**

#### Radiation Exposure Statement:

This equipment complies with FCC 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 FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Appendix C: Hardware Specifications

Item		Specification
<b>Operating System</b>		WinCE 5.0
<b>Processor</b>		Intel XScale® PXA270 520MHz processor
<b>Memory</b>	<b>SDRAM</b>	128 MByte
	<b>Flash</b>	128 MByte
<b>Display</b>		3.5" (240 x 320) Transflective TFT Color Touch Screen
<b>Keypad</b>		22 function button keypad
<b>Expansion Slot</b>		1 x (Secure Device) SD Card / SDIO Slot
<b>Communication Interface</b>	<b>Bluetooth (Model dependence)</b>	Ver1.2, Class 2 Standard with Tx output 5dBm
	<b>Wireless LAN (Model dependence)</b>	802.11 b/g Standard with Tx output 16dBm
	<b>GSM (Model dependence)</b>	Class 10, Quad band, 850, 900, 1800 & 1900. 1x SIM slot
	<b>USB Host</b>	1 x USB Host 1.1
	<b>USB Client</b>	1 x USB Client 1.1 (ActiveSync)
	<b>IrDA</b>	IrDA 1.2
	<b>Serial COM</b>	1 x Standard UARTs
<b>Biometric Engine (optional)</b>	<b>Sensor</b>	Capacitive Fingerprint Sensor
	<b>Module</b>	SC2-V2 Biometric Engine
	<b>Connection</b>	Serial COM (Simple UARTs)
<b>Barcode Engine (optional)</b>	<b>Sensor</b>	1.3M Pixel CMOS Sensor
	<b>Module</b>	Opticon MDI-1000 ASIC Decoding Engine
	<b>Connection</b>	Serial COM (Standard UARTs)
<b>Smart Card Reader</b>	<b>ID-1 card</b>	1 x landing contact slot with 200k duty cycle
	<b>ID-0 SAM</b>	3 x ID-0 SAM slot
<b>Contactless Card Reader</b>	<b>HID</b>	ISO 15693 – read/write (2kbit and 16kbit iCLASS credentials) ISO14443, Type A-read only (MIFARE® card serial number) ISO 1443B2 read/write (16kbit iCLASS credential)

\* Basic model (ST4i, FCC ID: UY9ST4xx) is without Bluetooth, Wireless LAN &amp; GSM

<b>Battery</b>	<b>Main</b>	Rechargeable 2 x 3.7V Lithium-Polymer 1200mAh
	<b>Backup</b>	Rechargeable 3V Lithium-ion 100mAh
<b>Accessories</b> <i>(Subject to change)</i>	<b>AC Adaptor</b>	9V, 3A AC/DC adaptor with power (2- or 3-pin type upon request).
	<b>Car Adaptor (optional)</b>	9V, 2A Car adaptor
	<b>IO Cable</b>	ActiveSync + DC input Cable
	<b>Stylus</b>	Hybrid Stylus
	<b>Pouch (optional)</b>	PBC Leather Pouch
	<b>External battery charger (optional)</b>	Gang charge for 2 x Li-polymer batteries. Additional USB Hub features

## Physical Specifications

Model	ST4ex/ST4i
Height	188 mm
Width	94 mm
Depth	38.5 mm (Standard model) or 46 mm (Barcode model)
Weight	~ 400 g (inclusive of battery packs)

## Operating Environment

	Condition	Metric
<b>Temperature</b>	Operating	0° to 50° C
	Non-operating (Storage)	-20° to 65° C
<b>Relative Humidity (Non-condensing)</b>	Operating	20 to 85 %
	Non-operating (Storage)	20 to 85 %

## Environmental Resistance

Rugged	IP 64
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