

Rugged Handheld Computer

- PA820 -



User's Manual

401131G Version 1.0

Preface

About This Manual

This manual explains how to install, operate and maintain the PA820 Rugged Handheld Computer.

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Regulatory Compliance Statements

FCC Warning 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 with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure requirements, avoid direct contact to the transmitting antenna during transmitting.
 3. 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.

–

FCC Label Statement

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.

RF Radiation Exposure Statement

For body contact during operation, this phone has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the handset a minimum of 0 cm from the body.

Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

Canadian Compliance Statement

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

Cet appareil numérique de la classe B respecte les exigences du Règlement sur le matériel brouilleur du Canada.

European Conformity Statement

Declaration of Conformity with regards to the R&TTE 1999/5/EC and EMC 89/336/ EEC directives.

RoHS Statement

This device conforms to RoHS (Reduction Of Hazardous Substances)



European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

TaiwanNCC Warning Statement

交通部電信總局低功率電波輻射性電機管理辦法 (930322)

根據交通部低功率管理辦法規定：

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Laser Information

The unitech PA820 series is certified in the U.S. to conform to the requirements of DHHS/CDRH 21CFR Subchapter J and to the requirements of IEC 825-1.

Class II and Class 2 products are not considered to be hazardous. The PA820 series contains internally a Visible Laser Diode (VLD) whose emissions do not exceed the maximum limits as set forth in the above regulations. The scanner is designed so that there is no human access to harmful laser light during normal operation, user maintenance or prescribed service operations.

The laser safety warning label required by the DHHS/IEC for the PA820 series' optional laser scanner module is located on the memory compartment cover, on the back of the unit.

CAUTION! Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light.
Use of optical instruments with the scanner, including binoculars, microscopes, and magnifying glasses, with will increase eye damage.
This does not include eyeglasses worn by the user.

Battery Notices

The PA820 is equipped with a Lithium-Ion battery pack and a Ni-Mh backup battery. Both batteries will discharge after an extended period of no use.

When both batteries are discharged, recharge the unit for 12 hours in order to fully charge the main battery and backup battery. Recharge the PA820 battery by doing the following:

1. Plug the USB charging cable into the PA820 and plug the 5V/3A AC-DC adapter into the power jack of the USB charging cable.
2. Place the PA820 into the docking station and plug the 5V/3A AC-DC adapter into the power jack of the docking station.

If the main battery is removed, the backup battery ensures the data on SDRAM is safe for up to 2 hours. To prevent data loss, do not leave the PA820 uncharged with the main battery removed for an extended period. See the Charging the Battery unit on for more details.

NOTE: To guarantee optimal performance, it is advised that rechargeable batteries be replaced every year, or when 500 charge/discharge cycles are achieved. It is normal that the battery balloons or expands beyond one year or the maximum of 500 cycles. Although it does not cause harm, it cannot be used again and must be disposed of according to the location's safe battery disposal procedures.

If the performance decrease is greater than 20% in a Lithium-Ion battery, the battery is at the end of its life cycle. Do not continue to use, and ensure the battery is disposed of properly.

The length of time that a battery lasts depends on the battery type and how the device is used. Conserve the battery life by doing the following:

- Avoid frequent full discharges because this places additional strain on the battery. Several partial discharges with frequent recharges are better than a full discharge. Recharging a partially charged lithium-Ion battery does not cause harm because there is no memory.
- Keep the lithium-Ion battery cool. Avoid a hot car. For prolonged storage, keep the battery at a 40% charge level.

- Do not leave the lithium-Ion battery discharged and unused for an extended period because the battery will wear out and the longevity of the battery will be at least half of the one with frequent recharges.

Battery charge notice

It is important to consider the environment temperature when the Lithium-Ion battery pack is charged. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0°C to 40°C. Charging batteries outside of the specified range could damage the batteries and shorten their charging life cycle.

CAUTION! Do not charge batteries at a temperature lower than 0°C. This will increase the internal resistance to cause heat and make the batteries unstable and unsafe. Please use a battery temperature detecting device for a charger to ensure a safe charging temperature range.

Storage and safety notice

Although charged Lithium-Ion batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens they will require recharging prior to use. Lithium-Ion batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at higher temperatures. It is recommended to store batteries at room temperature.

Warranty

The following items covered under the unitech Limited Warranty are free from defects during normal use:

- PA820 – 1-year limited warranty.
- Lithium-Ion battery – 6-month limited warranty.

Warranty becomes void if equipment is modified, improperly installed or used, damaged by accident or neglect, or if any parts are improperly installed or replaced by the user.

Use only the adapter supplied. Using the wrong adapter may damage the unit and will void the warranty.

Table of Contents

Preface	i
About This Manual	i
<i>Regulatory Compliance Statements</i>	<i>ii</i>
<i>FCC Warning Statement.....</i>	<i>ii</i>
<i>FCC Label Statement</i>	<i>iii</i>
<i>RF Radiation Exposure Statement.....</i>	<i>iii</i>
<i>Canadian Compliance Statement</i>	<i>iii</i>
<i>European Conformity Statement.....</i>	<i>iii</i>
<i>RoHS Statement.....</i>	<i>iii</i>
<i>TaiwanNCC Warning Statement</i>	<i>iv</i>
Laser Information	iv
Battery Notices.....	v
Battery charge notice.....	vi
Storage and safety notice	vi
Warranty.....	vii
Chapter 1.....	1
Getting Started	1
Introducing the PA820	1
Specifications	3
PA820 Product Introduction & Accessory Kit.....	3
Tour of the PA820.....	4
PA820 Front and Right View	4
PA820 Rear and Left View	5
Turning ON the PA820 for the First Time.....	6
Installing the Battery.....	6
Charging the Battery	8
Keypads and Function Buttons	10
Using Function keys	11
Using Alpha keys.....	12
Chapter 2.....	13
Using the Hardware	13
Using the MicroSD Memory Card.....	13
Inserting a Memory Card	13
Removing the Memory Card.....	13
Using the SIM Card.....	14
Inserting the SIM card.....	14
Using the Barcode Laser Scanner	15
Chapter 3.....	17
Getting Connected	17

<i>Establishing Device-PC Connection.....</i>	<i>17</i>
<i> Installing Microsoft ActiveSync.....</i>	<i>17</i>
<i> Connecting the Device to Your Computer.....</i>	<i>18</i>
<i>WiFi Connection.....</i>	<i>19</i>
<i> Using the Summit Utilities.....</i>	<i>19</i>
<i>u-CenterMobile for Quick GPS Connection.....</i>	<i>23</i>
<i> To Open u-CenterMobile.....</i>	<i>23</i>
<i> To Download Data</i>	<i>24</i>
Chapter 4.....	27
Barcode Scanner Programs.....	27
Scanner Setting.....	27
Scan2Key.....	28
Barcode Symbolologies.....	28
Chapter 5.....	30
Performing a Hardware Reset	30
Performing a Hardware Reset.....	30
Performing a Warm Boot	30
Performing a Cold Boot	32
Performing a Clean Boot	33
Appendix.....	34
Worldwide Support.....	34

Chapter 1

Getting Started

Introducing the PA820

Thank you for purchasing the PA820 Rugged Handheld Computer.

The unitech PA820 is a rugged handheld computer designed to empower your mobile workforce in today's aggressive business environment. As productivity and efficiency define the benchmark for success, the PA820 provides field-based workers with a host of data collection tools and a comprehensive wireless communication platform, all in a compact, durable and ergonomic form factor.

unitech, a global provider of automatic identification and data capture technologies, is pleased to announce availability of the PA820 rugged industrial PDA. This PDA is super-durable and powerful, it includes with multiple connectivity and a wide range of functionality. Featuring waterproof capability and MIL-STD-810G certification, unitech PA820 is ready to survive in any kinds of environments.

Versatile Capabilities

The PA820 has a capacitive LCD with 480 x 640 pixel resolution and measures 3.5 inches diagonally. The LCD has an adjustable backlight which is designed to reduce reflections that allows users can easily stay focus on the screen even in all lighting conditions. It comes with a fast and powerful 1 GHz TI processor. Running with Windows Embedded Handheld 6.5 operating system, PA820 combines with industry-leading 1D laser scan engine and user-friendly alphanumeric keyboard, it allows users can speed up data entry and capture barcodes easily in real-time that improves staff productivity and reduces operating costs.

Cutting-edge wireless technology

On the wireless side, the PA820 comes with integrated 802.11 a/b/g/n WiFi as well as Bluetooth 2.1 + EDR. It was programmed with great multiple wireless to support 3.75G radio technology with quad-band UMTS/HSPA+ (850/900/1900/2100MHz) and dual-band GSM (850/1900 MHz) that delivers high flexibility for field services workers to get connected anywhere. Supplemented with a 5 megapixel camera and comprehensive GPS logging functionality are further proof that PA820 is a cutting-edge device for a variety of applications.

Toughness and Reliability

The PA820 is built to enable high performance and reliability in the challenging environments. PA820 is rugged enough to drop from the 1.8 meters onto concrete. In addition, it has IP66 certification, completely sealing durable housing against dust and moisture to withstand high pressure water jets. Not only that, but this device meets sturdy MIL-STD-810G military standard, boasting shock resistance, anti-vibration and together with a wide operating temperature range of -20°C to 60°C.



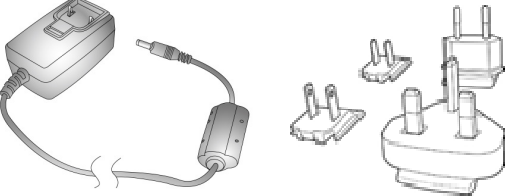
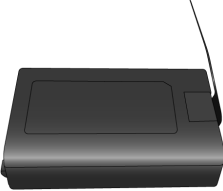

Aside from all of its benefits, PA820 is compact enough to hold in one hand. With great ergonomic design, it creates unmatched data collection performance and high reliability to any applications such as military, logistics, field service and harsh environment.

Specifications

Features	
Windows Embedded Handheld 6.5 operating system	
Ultra-Rugged Construction: IP66 rated, 1.8M drop and MIL-STD-810G certified	
Compact design: only 452g	
Large 3.5 -inch color TFT multi-touch sunlight-readable display	
Built in 1D scanner and 5 Megapixel camera	
Latest Bluetooth v2.1, GPS, and WiFi 802.11 a/b/g/n	
Wide Temperature Range: Operating: -20 °C~ +60 °C/ Storage: -30 °C~ +70 °C	
System Features	
CPU	TI AM3715 1GHz
Memory	512MB Mobile DDR RAM 512MB NAND Flash
OS	Windows Embedded Handheld 6.5 Professional and Classic
Languages support	English, Simp. Chinese, Traditional Chinese, Japanese, Spanish, German, French
Display	
Capacitive touch pannel	
3.5" Color 480 x 640 sunlight readable LCD	
Camera / Photos / Video	
5.0 megapixel autofocus camera with Flash support SW MPEG decoder / encode	
Symbolologies	
1D Barcode Engine UPC-A/E, EAN-8/13, Codabar, Code 39, Code 39 full ASCII, Code 93, Code 32, Interleaved & Std. 2 of 5, EAN 128, Code 11, Delta, MSI/Plessey, Code 128, Toshiba	
Audio	
1W Speaker	
3.5mm headset jack	
Receiver	
Keypad	
20 Numeric and functionable keys, 2 Scanner keys, 1 Power key	
Regulatory Approvals	
CE, FCC, BSMI, VCCI, CCC, RoHS compliance	
Expansion Slot	
microSD	microSD slot with SDHC Support (up to 32GB)
Communication	
USB	USB 2.0 Client and Host
WLAN	IEEE 802.11 a/b/g/n
Bluetooth	Bluetooth 2.1 + EDR

WWAN	3.75G Radio UMTS / HSPA+ USA: Dual Band UMTS/HSPA+ (850, 1900 MHz), Dual-Band GSM (850/1900 MHz) EU: Dual Band UMTS/HSPA+ (900/2100 MHz),
Power Source	
Main Battery	8.14 Watt-Hour 3.7V @2200 mAh 14.8 Watt- Hour 3.7V @4000 mAh
Backup Battery	Li-Coin battery Supports 2 hours backup
Enclosure	
Weight	452g with Battery
Dimension	163.8x87.4x36.7 (mm)
Environmental	
Operating temperature	-4°F to 140°F (-20°C to 60°C)
Storage temperature	-22°F to 158°F (-30°C to 70°C)
Charging Temperature	32°F to 104°F (0°C to 40°C)
Relative Humidity	5% ~ 95% (non-condensing)
Drop Specification	1.8 meter MIL-STD 810G, Method 516.6, Procedure IV
Sealing	IP66
Vibration and Shock test	MIL-STD-810G, Method 514.6, Procedure I MIL-STD-810G, Method 514.6, Procedure II, Category 5
Software	
Microsoft Visual Studio 2005/2008	
Mobile SIP (VoIP)	
Auto Installer	
Notification	
LEDs, Vibrator	
Mobile Device Management Software and Service	
MoboLink®	
Device Management; Application Management; Event Triggers	
Accessories	
Single Slot USB Client/Host/Ethernet Cradle	
Handstrap	
2200 and 4000 mAh standard Battery	
USB Communication with holder Cable	
Power adaptor with universal plugs	

PA820 Product Introduction & Accessory Kit

	
PA820 Terminal	Manual CD
	
Power Adaptor Plugs	Battery
	
Hand Strap	

Tour of the PA820

The following sections describe the main components and features of the PA820.

PA820 Front and Right View



1	LED indicators	5	Power button
2	LCD touch screen	6	Keypad
3	Microphone	7	Universal connector
4	Receiver	8	Scanner trigger button

PA820 Rear and Left View



1	Barcode scanner window	5	Battery compartment tab
2	5M/AF camera	6	Battery compartment
3	LED flash light	7	Earphone jack
4	Speaker	8	Scanner trigger button

Turning ON the PA820 for the First Time

After you have initially charged your device for about 16 hours, the device is ready to be used. You can now start up your device. You can then calibrate the display, learn some basic stylus usage, and set up the system time zone, date and time.

Power-On Button

Turn ON your device by pressing the power button on the top-right corner.

Installing the Battery

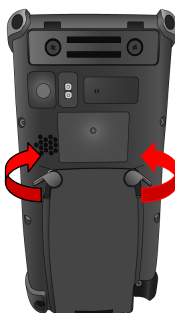
WARNING! There is a risk of fire and burns if the battery pack is handled improperly. DO NOT disassemble, crush, puncture, short external contacts, or dispose the battery pack in fire or water. DO NOT attempt to open or service the battery pack. Dispose of used batteries according to local recycling guidelines in your area.

A backup battery cell is embedded into your device to prevent data loss when the main battery pack is removed or completely discharged. This backup battery will keep the data and system setting for up to 2 hours if the main battery is removed.

NOTE: To enable the backup battery cell to provide backup power supply, charge your device with the main battery pack for at least 16 hours.

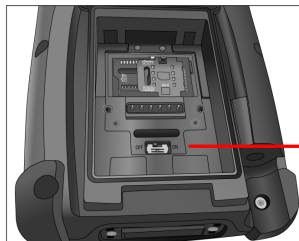
NOTE: To power on the device properly, make sure to replace the battery compartment cover after installing the battery.

1. Open the battery compartment cover by sliding the tabs on both sides in the direction of the arrows shown and lift the cover up.



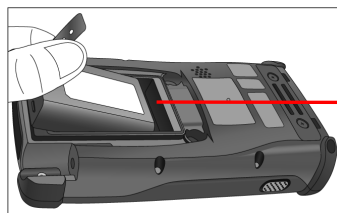
*Battery Compartment
Tab*

2. Push up the backup battery switch to the “ON position by using a stylus to turn on the backup battery.



Backup Battery Switch

3. Slide and position the battery pack, making sure the battery contacts are aligned with the contacts in the compartment.



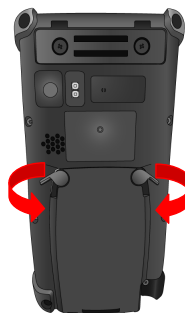
Battery Compartment Contacts

4. Use your thumb to snap the battery in place.



Plastic Tab

5. Replace the battery compartment cover by pushing down on the tabs and sliding them back into place as shown.



NOTE: Make sure the battery compartment cover is securely closed, or you may be unable to turn ON the terminal.

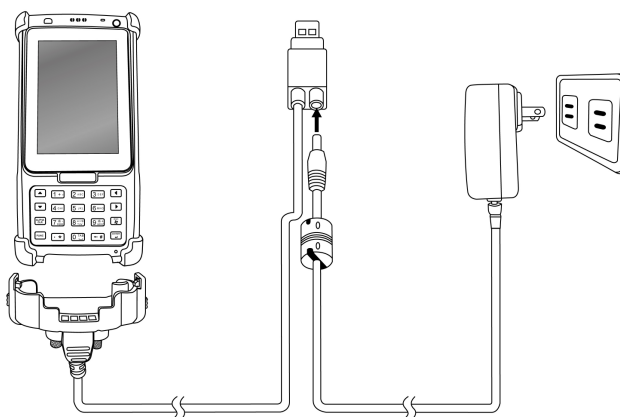
Charging the Battery

Before using the terminal for the first time, you need to charge it for about 16 hours. After that, you can charge the terminal for 4 hours to recharge the battery to full capacity. Charge the terminal using the USB charging cable or the docking station.

CAUTION: Turn ON the backup battery switch before charging the battery. Data you entered may not be properly stored until the built-in backup battery has been adequately charged.

CAUTION! Operating the terminal for the first time without the AC adapter, and without fully charging the backup battery may result in loss of data stored in RAM memory. When the main battery is removed, the backup battery retains RAM data in memory for 2 hours. Please fully charge the backup battery to avoid data loss in RAM memory.

1. Press and hold the release button on both sides of the USB charging cable and connect it to the PA820 (1).
2. Plug the AC adapter cable into the power jack of the USB charging cable (2). Plug the AC adapter cord into an electrical outlet (3).



Checking the LED status



Terminal LED indicators from left to right:

-- GPRS Communication

-- Scan

-- Power

	LED	Status	Description
Terminal	GPRS	Flashing Yellow	GPRS module is enabled.
	Scan	Solid Green	Successful reading
	Power	Solid Orange	Being charged
		Solid Green	Fully charged

Checking the Battery Status

If the battery level becomes low in the course of normal use, a status icon appears on the device screen indicating low or very low battery status. In both cases, perform an ActiveSync operation to back up your data, and then recharge your device as soon as possible.

CAUTION! Once the device is shut down, you should recharge the device within 48 hours. Otherwise you will lose all data including files stored in the RAM memory.

Keypads and Function Buttons




Numeric Keypad















Key	Description	Key	Description
	Enter key		Backspace key
	Tab key		Function key
	Alpha key, toggle between numeric and alphabetic entry modes		Windows/Escape key
~	Alphanumeric keys		Left cursor key
	Right cursor key		Up cursor key
	Down cursor key		

When the PA820 turns on, the numeric mode is on by default. When you toggle to alpha mode, the CAPS mode is off by default. Use the Alpha key to toggle to CAPS.











Using Function keys

If you press  key, it will appear a blue symbol "F" in the status bar at the top of the screen. Then you can refer to the following table to execute the desired functions or inputs.

Numeric Keypad Combination

Key	Description	Key	Description
 + 	Decrease screen backlight brightness	 + 	Screen backlight toggling
 + 	Keypad backlight toggling	 + 	input symbol *
 + 	Increase screen backlight brightness	 + 	input symbol #
 + 	TAB key		

Using Alpha keys

Key	Alpha Off	Alpha On	
		CAPS Off	CAPS On
0 	0	Space, @, \$, ", 0	Space, @, \$, ", 0
1 	1	+, -, \, %, 1	+, -, \, %, 1
2 	2	a, b, c, 2	A, B, C, 2
3 	3	d, e, f, 3	D, E, F, 3
4 	4	g, h, i, 4	G, H, I, 4
5 	5	j, k, l, 5	J, K, L, 5
6 	6	m, n, o, 6	M, N, O, 6
7 	7	p, q, r, 7	P, Q, R, 7
8 	8	t, u, v, 8	T, U, V, 8
9 	9	w, x, y, z, 9	W, X, Y, Z, 9

Chapter 2

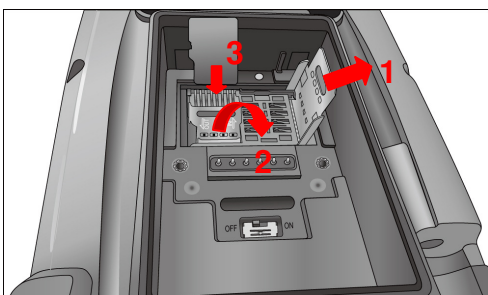
Using the Hardware

Using the MicroSD Memory Card

The PA820 has an expansion slot compatible with a range of MicroSD memory cards, which are primarily used to back up or transfer files and data.

Inserting a Memory Card

1. Open battery compartment cover and remove the main battery.
2. To release the SIM card cover, slide it to the right and then open it with thumb. To release the MicroSD card cover, slide it downwards and then open it with thumb.



3. Insert the MicroSD card into the cover with the notched corner as shown, and the contact side of the MicroSD card faces down.
4. Close the MicroSD card cover over the slot, and then slide the cover upwards to lock the MicroSD card. Close the SIM card cover over the slot, and then slide the cover to the left to lock the SIM card.
5. Re-install the main battery and battery compartment cover.

Removing the Memory Card

1. Open battery compartment cover and remove battery.
2. To release the SIM card cover, slide it to the right and then open it with thumb. To release the MicroSD card cover, slide it downwards and then open it with thumb.
3. Remove the MicroSD card from the slot.

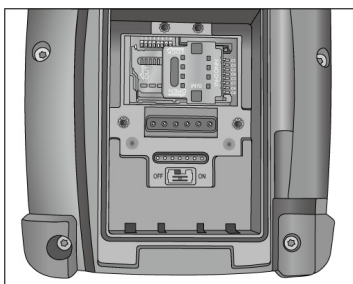
Using the SIM Card

The PA820 has a slot for a GPRS SIM card inside the battery compartment.

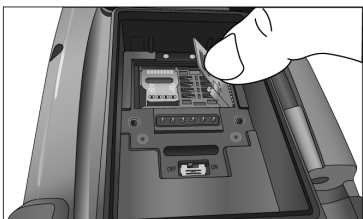
CAUTION! Before installing the SIM card, please backup your data to prevent data loss because of a low backup battery.

Inserting the SIM card

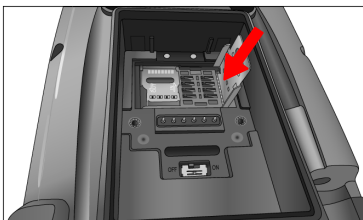
1. Remove the battery compartment cover and the main battery.



2. To release the SIM card cover, slide it to the right and then open it with thumb.



4. Insert the SIM card into the cover with the notched corner up, and the contact side of the SIM card faces down.



5. Close the cover over the slot, and then slide the cover to the left to lock the SIM card.
6. Re-install the main battery and battery compartment cover.

Using the Barcode Laser Scanner

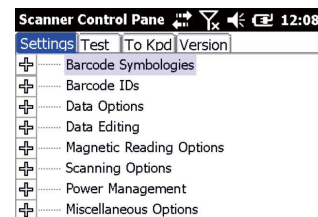
The PA820 has an integrated laser scanner, which reads all major 1D barcode labels with excellent performance.

NOTE: The reading software must be enabled in order to operate the scanner. This can be a user-loaded application or a pre-loaded utility such as Scanner Settings or Scan2Key.

To launch the Scanner Control Panel, follow these instructions:

1. Tap Start → Settings → System
2. Tap the Scanner icon. The Scanner Control Panel appears.

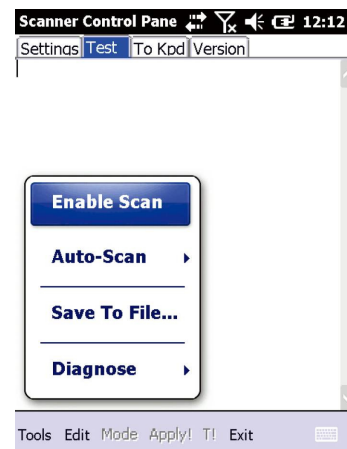
NOTE: Or press Func key and “7” simultaneously to bring up the Scanner Control Panel screen.



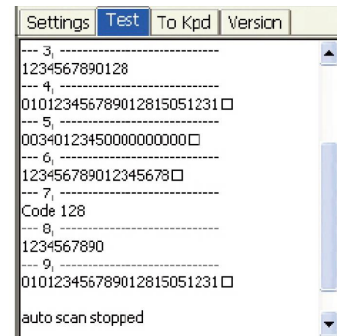
In the Scanner Control Panel screen, you can configure barcode scanner parameters such as enabling or disabling barcode symbologies, setting data transmission options, configuring magnetic and proximity reading options, and setting power management options. See the section of Barcode Symbologies.

To test the barcode laser scanner, follow these instructions.

1. Tap the Test tab to activate the demo program.
2. Tap Tools → Enable Scan.
Or tap Tools → Auto-Scan → Start Auto-Scan.
Define the scan interval. Tap Start.



3. Aim the laser scanner at the selected barcode, and press either one of the scanner trigger buttons on the device.
If you enable Auto-Scan, you don't have to press any button. Aim the laser scanner at the selected barcode while the laser emits light at regular intervals. The scanned barcode data appears on the screen.
4. Tap Tools → Auto-Scan → Stop Auto-Scan.



Chapter 3

Getting Connected

The PA820 enables users to link to a host computer using an RS-232 cable, or Bluetooth, WiFi, or GPRS connection for data communication. This chapter provides an overview of the PA820 communication options.

Establishing Device-PC Connection

Installing Microsoft ActiveSync

In order to exchange data between your computer and the PA820, Microsoft Active-Sync must be installed on your computer. Use the USB/RS232 charging cable that comes with your device or the docking station to connect the device to your computer.

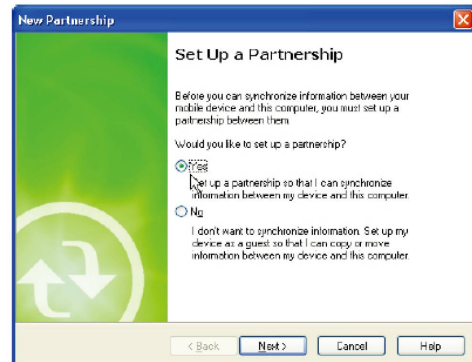
NOTE: If you have a previous version of the Microsoft ActiveSync installed in your computer, uninstall it first before installing the latest version of Microsoft ActiveSync.

To install Microsoft ActiveSync on your computer:

1. Close any open programs, including those that run at startup, and disable any virus-scanning software.
2. Download the ActiveSync software from the Microsoft ActiveSync Download page at <http://www.microsoft.com/downloads/details.aspx?FamilyID=7269173a-28bf-4cac-a682-58d3233efb4c&DisplayLang=en>.
3. Browse to the location of the downloaded file, and double-click it. The installation wizard begins.
4. Follow the instructions on the screen to install Microsoft ActiveSync.

Connecting the Device to Your Computer

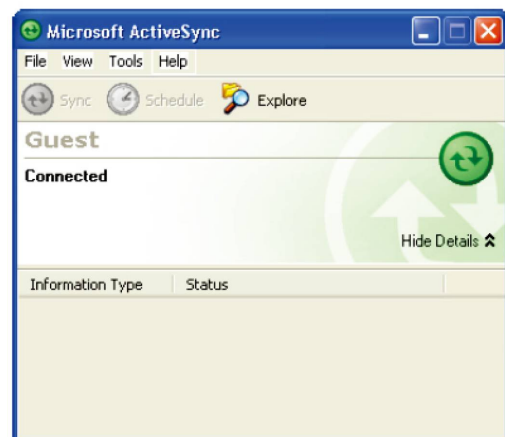
1. After ActiveSync has been installed, connect the PA820 to your PC as described in Connecting the terminal to a host (PC/Notebook).
2. Turn the PA820 on.
3. ActiveSync starts automatically and configures the USB port to work with the PA820. The New Partnership setup wizard automatically starts.



NOTE: If ActiveSync doesn't start automatically, click Start → Programs → Microsoft ActiveSync.

NOTE: If a message appears indicating that it is unable to detect a connection, click the Cancel button and manually configure the communication settings.

4. Follow the on-screen instructions.
5. When the configuration process is complete, the Active-Sync window appears.



6. Synchronization will be initialized and will take place if you've chosen to synchronize periodically or upon connection.

NOTE: Your computer can create a partnership with multiple PA820s. Also, a PA820 can create a partnership with up to two computers.

WiFi Connection

A wireless network can be added either when the network is detected or by manually entering network settings. Before following these instructions, make sure if authentication information is needed.

Using the Summit Utilities

You can use the Summit Client Utility tool to setup or change the WiFi settings.

Admin Login

1. Tap Start → Summit folder → scu.
The Summit Client Utility window appears.



2. You are led to the main page.

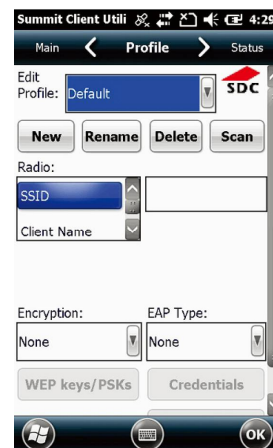


3. Tap Profile to scan available APs

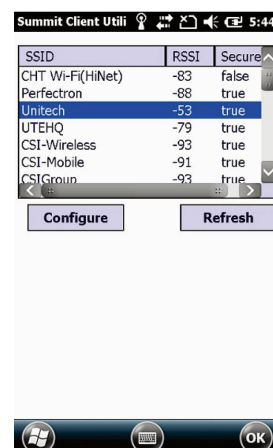


Scan Available AP

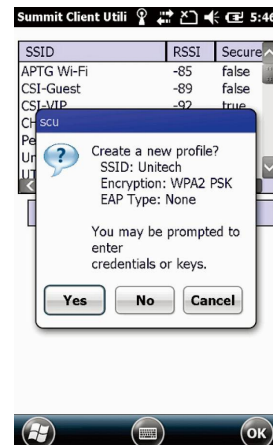
1. Under Profile tab, tap Scan for available AP.



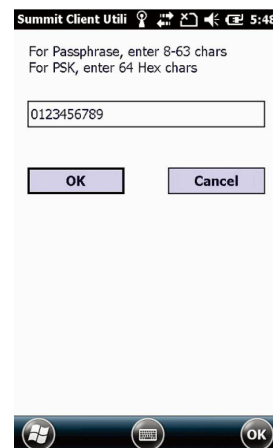
2. You may select a desired AP to create a new profile. Tap Configure.



3. Tap Yes to create the new profile.



4. Enter the WEP key or network key. Tap OK.

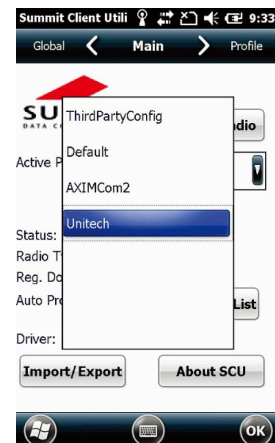


Commit and Activate

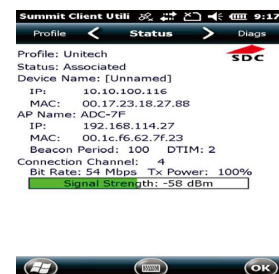
1. Tap Commit to activate the setting.



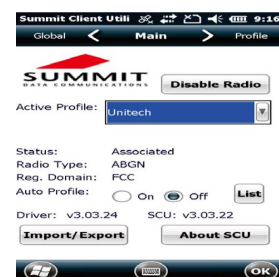
2. Under the Main tab, select the profile you want to activate from the drop-down menu of the Active Profile.



3. Under the Status tab, you can see the IP address, signal strength and quality.



4. Tap OK to exit the Summit Client Utility.
5. If you want to disconnect the AP, tap Disable Radio.



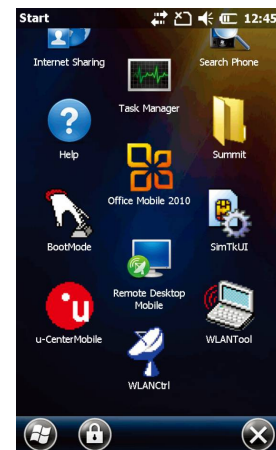
u-CenterMobile for Quick GPS Connection

Before you start to use your device for GPS navigation, use the u-CenterMobile program first to download ephemeris data (current satellite position and timing information) onto your device. This data is needed to accelerate GPS positioning.

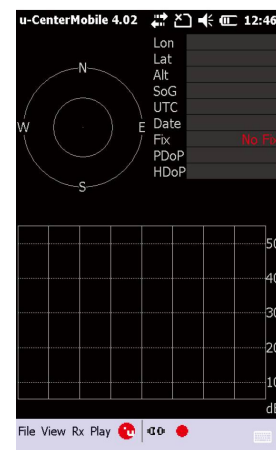
u-CenterMobile allows you to download ephemeris data from a specified Web server or satellite; you may use the Internet connection on your device, which can be via ActiveSync, WIFI, or GPRS to download from the server. This download significantly speeds up GPS positioning.

To Open u-CenterMobile

1. Tap Start → u-CenterMobile.



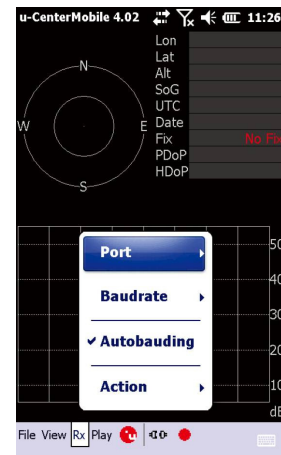
2. The u-CenterMobile program appears.



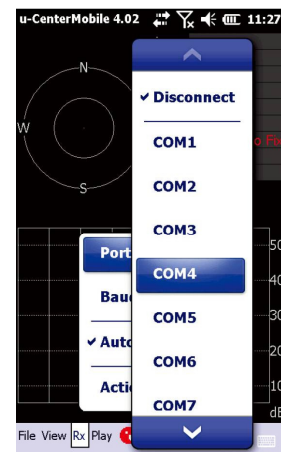
To Download Data

Please follow the following steps to download the ephemeris data.

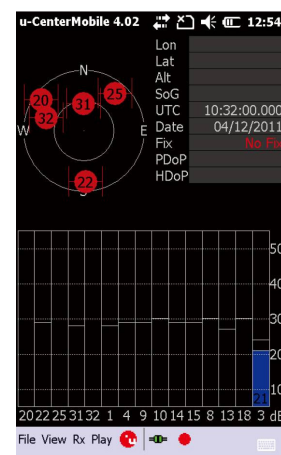
1. Tap Rx → Autobauding.



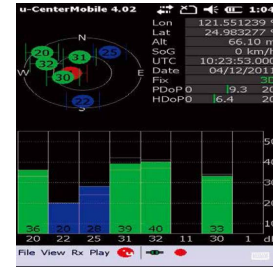
2. Tap Rx → Port.



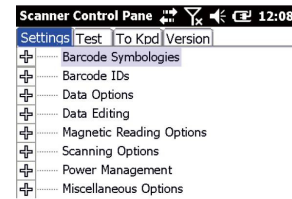
3. Select COM4.



4. The tool starts to download the ephemeris data (current satellite position and timing information).



5. When the download is finished, you will see the data shown in the upper right corner.



Chapter 4

Barcode Scanner Programs

The PA820 provides an option for the barcode scanner, allowing you to scan and decode various types of 1D barcodes.

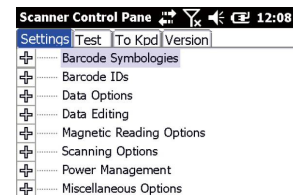
Scanner Setting

When it is necessary for the user to change the default barcode symbology for a different application, the Scanner Control Panel provides the ability to change default symbology, place delimiter characters behind scanned data, and save the settings.

Tap Start → Settings → System → Scanner.

The Scanner Control Panel appears.

NOTE: Press Func key and “7”.



Scan2Key

The Scan2Key application routes input from a scanner port to a keypad buffer, making all input from the scanner emulate input from the keypad. Using the Scan2Key, scanned data will be directed from the scanner port to any waiting (active/focused) text editor such as MS Mobile Word or a text box in an application.

Barcode Symbolologies

Barcode Symbolog	Enable / Disable	Char Check / Digit verification	Transmit Check Char/digit	Others
Australian Post	YES			Send bar width data
British Post	YES			
Canadian Post	YES			
Codabar	YES	YES	YES	Transmit start & stop char, *data length
Code 11	YES	YES		*data length
Code 128/EAN 128	YES			*data length
Code 39	YES	YES	YES	For ASCII, Transmit start & stop char, Append mode, *data length
Code 93	YES			*data length
Dutch (KIX) Post	YES			
EAN 13	YES		YES	2 digit addenda, 5 digit addenda, Addenda required, Include addenda separator
EAN 8	YES		YES	2 digit addenda, 5 digit addenda, Addenda required, Include addenda separator
IATA 2 of 5	YES			*data length
Interleaved 2 of 5	YES	YES		*data length
ISBT	YES			
Japanese Post	YES			
Korean Post	YES			*data length

Matrix 2 of 5	YES			*data length
MSI	YES		YES	*data length
Planet	YES		YES	
Postnet	YES		YES	
RSS (Databar)	YES			*data length
UPC A	YES		YES	2 digit addenda, 5 digit addenda, Addenda required, Include addenda separator, Send number system
UPC E	YES		YES	2 digit addenda, 5 digit addenda, Addenda required, Include addenda separator, Send number system, Expanded UPC-E
UPC E1	YES		YES	2 digit addenda, 5 digit addenda, Addenda required, Include addenda separator, Send number system, Expanded UPC-E

NOTE: *Value Adjustable Scanner Control Panel Version 5.14

Chapter 5

Performing a Hardware Reset

Performing a Hardware Reset

You may have to perform a reset if the device freezes (i.e., the device no longer responds to the buttons or tapping on the screen).

A soft reset allows your device to get a fresh start, similar to rebooting a computer.

This will restart your device and adjust memory allocation. All records and entries are retained after a soft reset. Unsaved data in open programs may be lost.

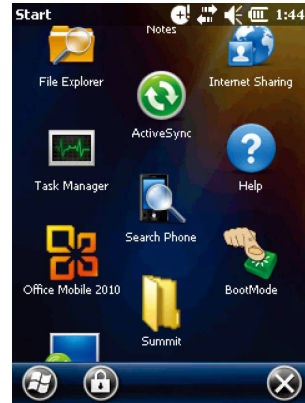
Performing a Warm Boot

Method 1: From Hardware

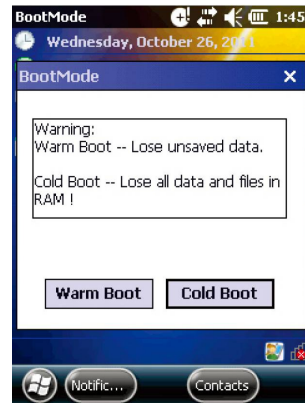
1. Long press the power button until the Power Menu appears.
2. Tap Reset to perform Warm boot.

Method 2: From Windows Embedded

1. Tap Start → BootMode.
The BootMode Screen appears.



2. Tap Warm Boot.
The system is reset and you will lose unsaved data.



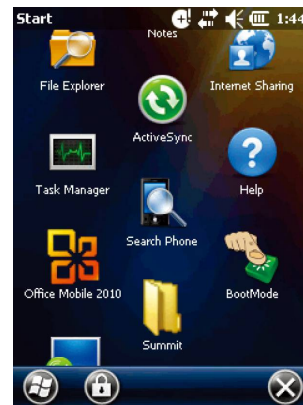
Performing a Cold Boot

A cold boot will erase all data and all programs you have added, and will restore the device to the default factory settings.

Never perform a cold boot unless a warm boot does not correct your problem. When you perform your next ActiveSync operation, you can restore any data that you previously synchronized to your computer or you can restore data that you backed up to a storage card.

Method 1: From Windows Embedded

1. Tap Start → BootMode.
The BootMode Screen appears.



2. Tap Cold Boot.
The system is reset and you will lose all data including all files in the RAM memory.

NOTE: When you perform hard reset, the data and time settings will not be retained. Formats, preferences and other settings are restored to their default factory settings.



Performing a Clean Boot

Performing clean boot will set the terminal to the factory default settings.

To perform a Clean Boot, long press the power button until the Power Menu appears. Tap Reset and the terminal will perform warm boot. After the Startup display appears, press and hold left trigger button and then press backspace key. You will see a warning message '**Delete all data. Press Enter to start, any key to leave**' appears at bottom of the screen. Press Enter key to start Clean boot; press any other key to exit and the system will resume booting process.

Appendix

Worldwide Support

unitech's professional support team is available to quickly answer questions or technical-related issues. Should an equipment problem occur, please contact the nearest unitech regional service representative. For complete contact information please visit the Web sites listed below:

Region	Web Site
Global Operation Center	http://www.ute.com
unitech Taiwan	http://tw.ute.com
unitech Asia Pacific & Middle East	http://apac.ute.com http://india.ute.com
Greater China Division	http://cn.ute.com
unitech Japan	http://jp.ute.com
unitech North America	http://us.ute.com ; http://can.ute.com
unitech Latin America	http://latin.ute.com
unitech Europe	http://eu.ute.com