CipherLab
Reference Manual

Mobile Computer

CP30

Version 1.00

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CIPHERLAB CO., LTD.
Website: http://www.cipherlab.com

IMPORTANT NOTICES

FOR USA

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

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

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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 exposure warning

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.
The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

RF exposure information (SAR)

This Mobile Computer meets the government's requirements for exposure to radio waves.
This Mobile Computer is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.
The exposure standard for wireless Mobile Computers employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg.
Tests for SAR are conducted using standard operating positions accepted by the FCC with the Mobile Computer transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of

the Mobile Computer while operating can be well below the maximum value. This is because the Mobile Computer is designed to operate at multiple power levels so as to use only the poser required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.
The highest SAR value for US model Mobile Computers as reported to the FCC when tested for use at the body, as described in this user guide, is 0.965 W/kg. The highest SAR value for US model Mobile Computers as reported to the FCC when tested for use at the head, as described in this user guide, is 0.216 W/kg.

FOR CANADA

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

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.

Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Classe B prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

FOR PRODUCT WITH LASER

CAUTION

This laser component emits FDA / IEC Class 2 laser light at the exit port. Do not stare into beam.

SAFETY PRECAUTIONS

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

- The use of any batteries or charging devices, which are not originally sold or manufactured by CipherLab, will void your warranty and may cause damage to human body or the product itself.
- DO NOT disassemble, incinerate or short circuit the battery.
- DO NOT expose the scanner or the battery to any flammable sources.
- For green-environment issue, it's important that batteries should be recycled in a proper way.
- Under no circumstances, internal components are self-serviceable.
- The charging and communication cradle uses an AC power adaptor. A socket outlet shall be installed near the equipment and shall be easily accessible. Make sure there is stable power supply for the mobile computer or its peripherals to operate properly.

CARE & MAINTENANCE

- This mobile computer is intended for industrial use. The mobile computer is rated IP 65, however, it may do damage to the mobile computer when being exposed to extreme temperatures or soaked wet.
- When the body of the mobile computer gets dirty, use a clean and wet cloth to wipe off the dust. DO NOT use/mix any bleach or cleaner. Always keep the LCD dry.
- For a liquid crystal display (LCD) or touch screen, use a clean, non-abrasive, lint-free cloth to wipe dust off the screen. DO NOT use any pointed or sharp object to move against the surface.
- If you want to put away the mobile computer for a period of time, download the collected data to a host computer, and then take out the battery pack. Store the mobile computer and battery pack separately.
- When the mobile computer resumes its work, the main and backup batteries will take a certain time to become fully charged.
- If you shall find the mobile computer malfunctioning, write down the specific scenario and consult your local sales representative.
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CONTENTS

IMPORTANT NOTICES.....- 3 -

For USA

For Canada

For Product with Laser

Safety Precautions

Care & Maintenance

INTRODUCTION 1

Features

Inside the Package

QUICK START 5

Overview

Installing Battery & Memory Card
Inserting SIM Card
Using Memory Card
Connecting Headset

Charging & Communications

Using Wireless Networks
Using Cable

USING THE CP30 MOBILE COMPUTER 13

1.1 Battery

1.1.1 Check Battery Icons
1.1.2 Power Management

1.2 Memory

1.2.1 Caution of Data Loss
1.2.2 Check Storage Space

1.3 Keypad

1.3.1 Keypad Settings.
1.3.2 Alpha Key.
1.3.3 Shift Key.
1.3.4 Function Key.
1.3.5 Programmable Keys.

1.4 Touch Screen.

1.4.1 Adjust the LCD Backlight.
1.4.2 Screen Settings.

1.5 Notifications.

1.5.1 Status LED.
1.5.2 Audio.
1.5.3 Vibrator

1.6 Data Capture

1.6.1 Barcode Reader

1.6.2 Digital Camera

LEARNING WINDOWS MOBILE BASICS 27

2.1 Getting Started
2.1.1 Home Screen
2.1.2 Title Bar
2.1.3 Title Bar Pull-down List
2.1.4 Start Menu
2.1.5 Device Lock
2.2 Input Methods
2.3 Managing Programs
2.3.1 Add a Program to Start Menu
2.3.2 Create a new Folder
2.3.3 Switch Among Programs
2.3.4 End a Program
2.3.5 Find a File
2.4 Using ActiveSync
2.4.1 Synchronization with Your Computer
2.4.2 Add/Remove Programs
2.4.3 Explore Device
2.4.4 Backup/Restore
2.5 Suspend & Reset
2.5.1 Suspend Mode
2.5.2 Software Reset (Warm Boot)
2.5.3 Hardware Reset (Cold Boot)

CONFIGURING CP30 MOBILE COMPUTER 45

3.1 Settings
3.1.1 Connections
3.1.2 Personal
3.1.3 System
3.2 Device Name & Configuration
3.2.1 Change Device Name
3.2.2 Understand Device Configuration

USING 802.11 RADIO 57

4.1 Wi-Fi Power
4.1.1 Power On via Wireless Manager
4.1.2 WLAN Connection
4.3 Wi-Fi Configuration
4.3.1 Wi-Fi Utility Settings
4.3.2 RSSI Level

USING BLUETOOTH 65

5.1 Bluetooth Power
5.1.1 Power On via Wireless Manager
5.1.2 Changing Bluetooth Settings
5.2 Search Devices
5.3 Pair Devices
5.3.1 pair
5.3.2 Unpair

5.4 Serial Port Service
5.5 Object Push via Beam
5.5.1 Send a File
5.5.2 Receive a File
5.6 Active Sync via Bluetooth
USING THE PHONE 81
6.1 Phone Power
6.1.1 Wireless Manager
6.1.2 SIM Card Missing
6.2 Phone Settings
6.2.1 Phone Keypad
6.2.2 Adjust Volume
6.2.3 Phone Settings
6.3 Making Phone Calls
6.3.1 Dial a Number
6.3.2 Make a Call
6.3.3 Answer a Call
6.4 Configuring GPRS Network
SPECIFICATIONS 99

INTRODUCTION

The CP30 Mobile Computer, running Windows Mobile 6.5 in palm size, is our new product line of PDA-style Mobile Computer. Light-weight, streamlined and ergonomic, it adds even more powerful and handy tools to delivering the flexibility in customization.

Specifically designed to work as an industrial PDA, the CP30 Mobile Computer provides rich options of data collection, voice and data communications, long-lasting working hours, and so on. Its large color transflective TFT display guarantees ease in reading in all lighting conditions. Integrated with Bluetooth and 802.11b/g technologies, you may choose to add the GSM/GPRS module to gain greater speeds and optimal mobility. In particular, an integrated GPS receiver is made available for use with third-party location-based applications.

This manual serves to guide you through how to install, configure, and operate the mobile computer. The Care & Maintenance section is specifically prepared for those who are in charge of taking care of the mobile computer.

We recommend you to keep one copy of the manual at hand for quick reference or maintenance purposes. To avoid any improper disposal or operation, please read the manual thoroughly before use.

Thank you for choosing CipherLab products!

FEATURES

- Ergonomic design and built tough to survive drop test and sealed against moisture/dust to industrial standard IP 42
- Microsoft Windows Mobile 6.5 operating system with a powerful Qualcomm MSM7225 528 MHz processor
- 512 MB flash memory to store OS and software programs
- 256 MB RAM to store and run programs, as well as store program data
- One microSD expansion slot for memory card, and SDHC is supported
- Two reader options — 1D laser scanner or 2D imager
- Ambidextrous side triggers
- Total wireless solution — connectivity includes Bluetooth, 802.11b/g and GSM/EDGE/GPRS
- A 3.2" color transflective TFT display delivers excellent visibility in all lighting conditions
- Programmable feedback includes buzzer, speaker and vibrator
- Built-in power tools include Reader Configuration Utility, Backup Utility, etc.

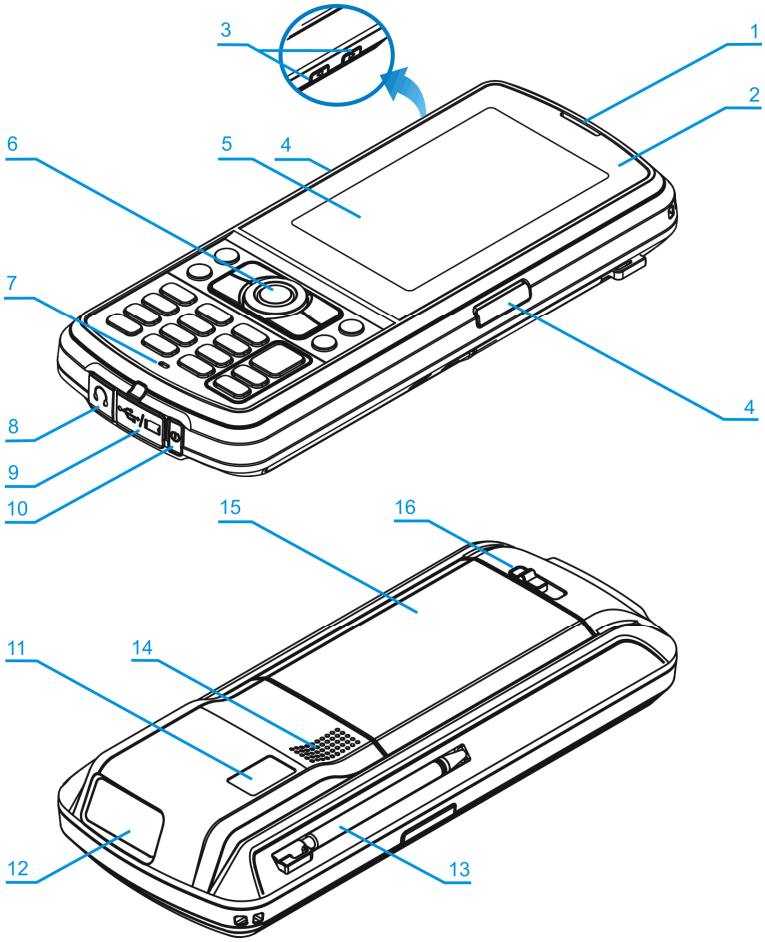
INSIDE THE PACKAGE

The following items are included in the package. Save the box and packaging material for future use in case you need to store or ship the mobile computer.

- CP30 Mobile Computer
- Rechargeable Li-ion battery pack
- Stylus
- Standard USB cable
- USB Power Adaptor
- LCD Protective Film
- Product CD
- Quick Start Guide

QUICK START

OVERVIEW



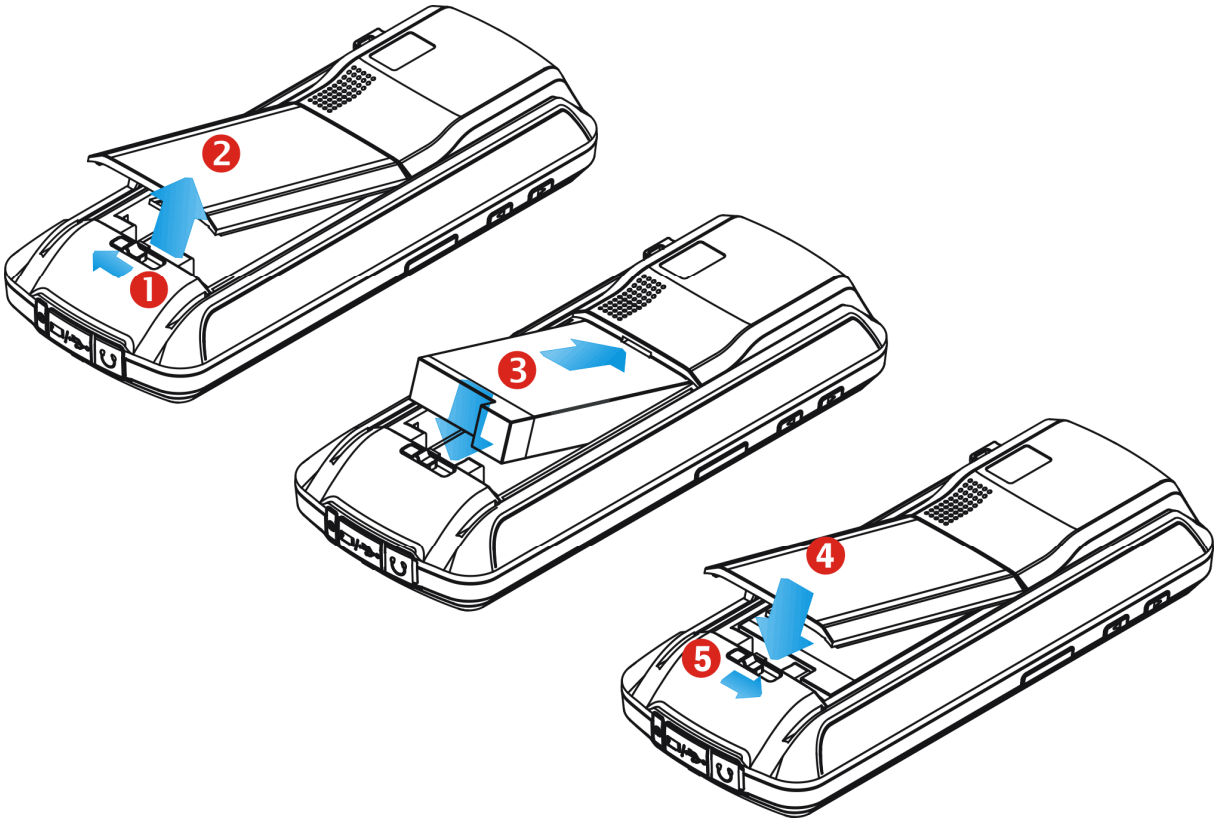
No.	Description	No.	Description
1	Receiver	2	Status LEDs for Battery Charging / Good Read (left) and Messaging (right)
3	Volume Buttons	4	Side Triggers, user-definable
5	Touch Screen	6	Scan Key, user-definable
7	Microphone	8	Headset Jack
9	I/O Connector & Memory Card Slot	10	Power Key
11	Digital Camera	12	Scanning Window
13	Stylus (to be tethered)	14	Speaker
15	Battery Compartment	16	Battery Cover Latch

INSTALLING BATTERY & MEMORY CARD

For shipping and storage purposes, the mobile computer and the main battery are saved in separate packages.

Note: Any improper handling may reduce the battery life.

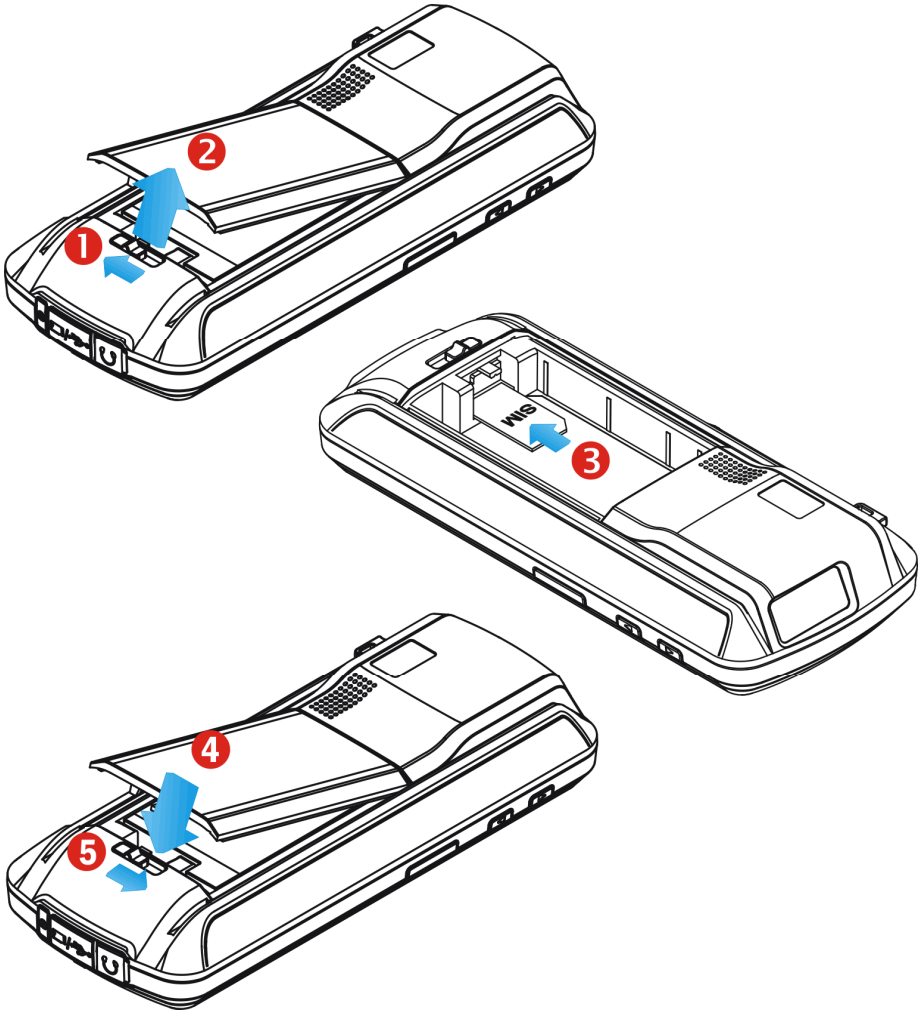
1. Slide the battery cover latch to unlock the battery cover.
2. Remove the battery cover.
3. Insert the battery pack into the battery compartment at a proper angle (30°~45°) so that the metal contacts of the battery are met with the protruding contacts inside the compartment. Make sure that the battery is snugly fit into the compartment.
4. Replace the battery cover.
5. Slide the battery cover latch to lock the battery cover firmly.



Warning: For initial use, insert a charged battery. Hold down the reset button for more than 5 seconds. It will automatically reboot. Otherwise, press the Power key.

INSERTING SIM CARD

1. Slide the battery cover latch to unlock the battery cover.
2. Remove the battery cover as well as the battery.
3. Insert the SIM card to the SIM card slot, following the card orientation as shown.
4. Replace the battery and battery cover.
5. Slide the battery cover latch to lock the battery cover firmly.



USING MEMORY CARD

The SD card slot is at the bottom of the mobile computer, which allows microSD card.

Inserting Card

1. Flip up the rubber cover.
2. Insert the memory card to the SD card slot.
3. Replace the rubber cover.

Removing Card

1. Flip up the rubber cover.
2. Press the memory card. It will be rejected automatically for removal.
3. Replace the rubber cover.

CONNECTING HEADSET

The headset jack is at the bottom of the mobile computer. You can use the headset for audio playback or communication via the phone application, Messenger, etc.

1. Flip up the rubber cover.
2. Connect the headset to the headset jack.
3. Replace the rubber cover.

Note: Bluetooth headset is supported, bringing you the freedom of cordless mobility.

CHARGING & COMMUNICATIONS

The main and backup batteries may not be charged to full for shipment. When you first receive the package, you will need to charge the main battery to full before using the mobile computer.

Because the internal backup battery is constantly charged from the main battery, the initial charging requires inserting the battery pack to the mobile computer and then connecting the mobile computer for direct charging. This will have both the main and backup batteries charged at the same time.

Charging Temperature

- It is recommended to charge the battery at room temperature (18°C to 25°C) for optimal performance.
- Battery charging stops when the temperature drops below 0°C or exceeds 40°C.

Operation on Battery Power

- When 802.11b/g, GSM/GPRS, and BT are all enabled on battery power, the main battery charge will drop down substantially.
- In order to prevent a cold boot after the battery is drained out, we suggest that you keep a fresh battery for replacement or connect the mobile computer to an external power.

USING WIRELESS NETWORKS

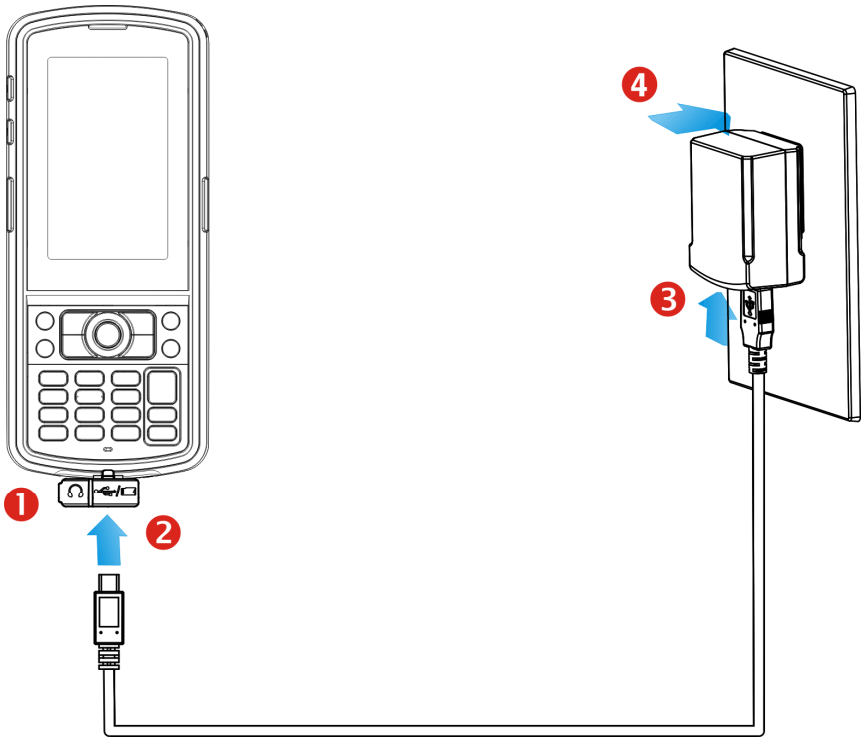
The mobile computer supports state-of-the-art wireless technologies, Bluetooth and 802.11b/g, so that it is able to send/receive data in real time in an efficient way. You may choose to have the GSM/GPRS module embedded for a total wireless solution for data and voice communications. Refer to the associated utilities.

USING CABLE

1. Flip up the rubber cover.
2. Connect the Micro USB end of the USB cable to the I/O connector.
3. For fast charging, connect the other end of the USB cable to the USB power adaptor.
4. Insert the USB power adaptor to a suitable power outlet.

   The left LED lights red while charging. It will turn green when charging is done.

Note: You may connect the USB cable to PC for data communications and charging.



CP30 LED Indicator	Status	Description
Charging	Red, solid	Charging the mobile computer
	Green, solid	Charging done

Chapter 1

USING THE CP30 MOBILE COMPUTER

This chapter explains the features and usage of the mobile computer.

1.1 BATTERY

- Main Battery

  The mobile computer is powered by a rechargeable 3.7 V/2200 mAh Li-ion battery pack, and it takes approx. 4.5 hours to charge it to full from the power adaptor or approx. 6 hours from the USB cable (at 500 mA). However, the charging time may vary by working condition.

- Backup Battery

  The backup battery on the main board takes charge when the main battery is removed or drained out. It can supply power to the real-time clock (RTC) for at least 5 minutes and help retain data in RAM and maintain the system running in suspend mode without the main battery. However, you have to replace the main battery as soon as possible.

Warning: The battery cover must be in position. If not, the mobile computer cannot turn on by pressing [Power] or wake up by pressing [Scan], and the red LED indicator will flash twice to alert.
For a new battery, make sure it is fully charged before use. Always prepare a spare battery pack, especially when you are on the road.

1.1.1 CHECK BATTERY ICONS

The battery pack is the only power source for the mobile computer to work. It also charges the backup battery on the main board so that the data stored in RAM can be retained properly. Therefore, when the main battery charge goes low, you need to replace the battery pack with a charged one or charge it as soon as possible. Most of all, you should backup important data on a regular basis.

By looking at the battery icon, you can tell battery charge remaining in the main battery – the more the white bars, the more power in the main battery. Tap the top of the screen to invoke the title bar pull-down list, and then tap the battery icon to quickly access the Power Settings. Refer to 2.1.3 Title Bar Pull-down List.

Alternatively, you may go to **Start | Settings**, and tap **Power**.

Battery Icon	Description
	External power source is connected and main battery is charging.
	Main battery level 100% ~ 76%
	Main battery level 76% ~ 51%
	Main battery level 51% ~ 26%
	Main battery level 26% ~ 6% Main battery charge become low (10%) and needs charging
	Main battery charge become very low (5%) and needs charging immediately.

Warning: (1) Once the battery charge drops below 10%, the low battery notification will be displayed on the screen. It will keep supplying power to the real-time clock (RTC) for at least 168 hours after low battery shutdown.
(2) Data loss may occur with RAM during low battery condition. Always save data before running out of power or keep a fresh battery for replacement.

1.1.2 POWER MANAGEMENT

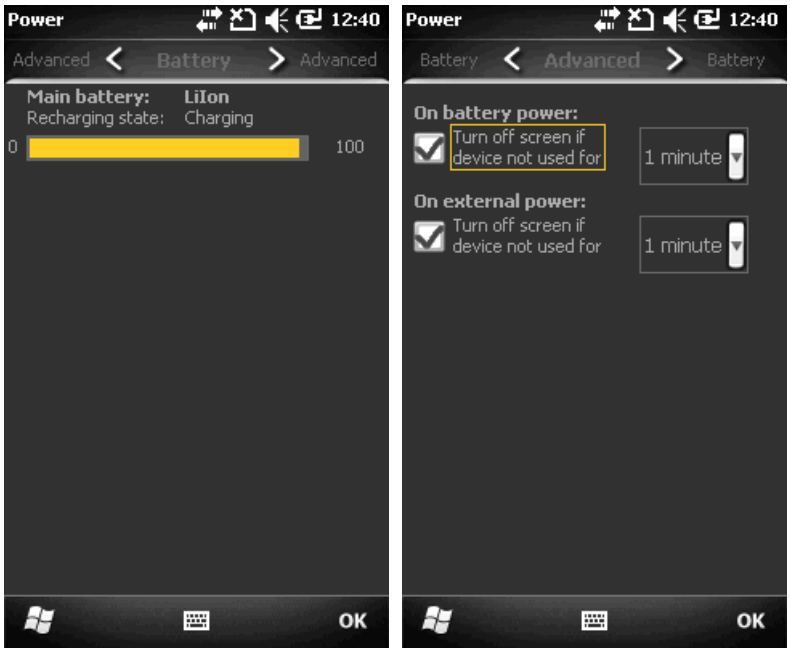
For any portable device, power management is a critical issue especially when you are on the road. Below are some tips to help you save battery power.

Warning: Using backlight, wireless connectivity, and peripherals while on battery power will substantially reduce battery power.

- Bring a second battery pack on the road.
- Stop wireless connectivity, Bluetooth, 802.11b/g or GSM/GPRS that is not in use.
- Go to **Start | Settings | System**, and tap **Backlight**. Refer to 1.4.1 Adjust the LCD Backlight.
- Go to **Start | Settings**, and tap **Power**.

  In the Battery tab, you can always monitor the charging status.

  In the Advanced tab, you may specify automatic turn-off times for the mobile computer to conserve power. When it is turned off, the system is in Suspend mode, which is ready for use but not in use.



1.2 MEMORY

- Flash Memory (ROM)

  256 MB flash memory for storing OS (Windows Mobile 6.5) and custom application programs. Yet a portion of the memory is referred to as Flash Disk (folder), which can store data and programs that you wish to retain even after hardware reset.

- Random-access Memory (RAM)

  128 MB RAM for storing and running programs, as well as storing program data. Its contents will be retained by the backup battery.

- Expansion Slot

  The mobile computer is equipped with one microSD card slot, which is user accessible. High capacity memory card (microSDHC) is supported.

1.2.1 CAUTION OF DATA LOSS

When the main battery is removed or drained, the backup battery on the main board is to retain the contents of RAM and maintain the OS in suspend mode, on condition that the backup battery has sufficient power.

If you want to put away the mobile computer for a couple of days, you should be aware that data loss occurs when both the main and backup batteries discharge completely. Therefore, it is necessary to backup data and files before putting away the mobile computer!

1.2.2 CHECK STORAGE SPACE

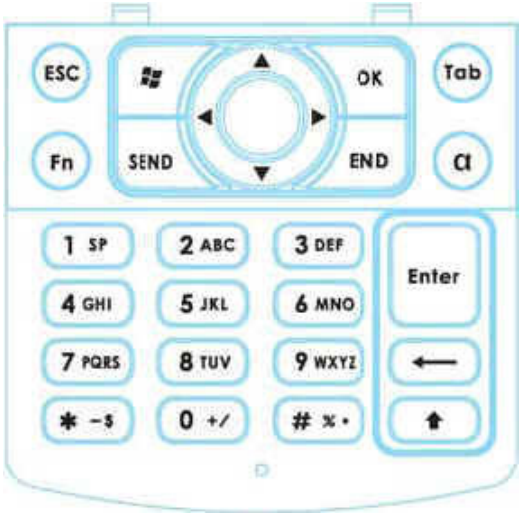
Go to **Start | Settings | System**, and tap **Memory**. It displays the current capacity and usage of the onboard RAM.

- Storage memory refers to the memory allocated for file and data storage.
- Program memory refers to the memory allocated for running programs.

Also, it provides information on the Flash Disk folder or storage card. The Flash Disk folder is part of the onboard 256 MB flash memory. Because the flash memory is non-volatile, data or programs stored in this folder will not be erased after hardware reset.

1.3 KEYPAD

The Alphanumeric keypad includes alphanumeric, navigation, function keys, and so on. This keypad is set to numeric mode by default.

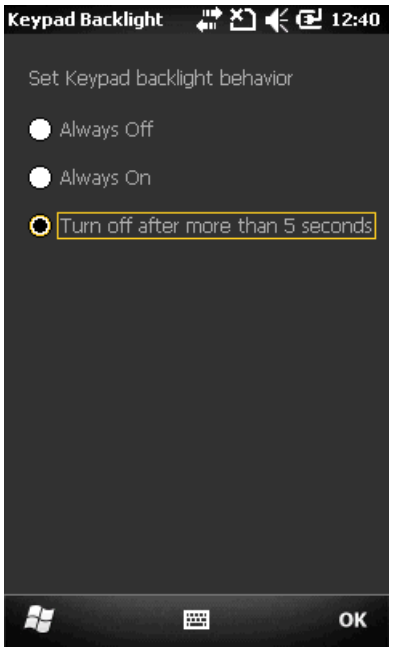


1.3.1 KEYPAD SETTINGS

Go to **Start | Settings | System**, and tap **Keypad** to configure related settings.

The LED backlight of keypad is turned off by default. It is suggested to turn on the keypad backlight while working in a dark area; however, using backlight while on battery power will substantially reduce battery power.

The keypad backlight is set to be automatically turned on for 5 seconds when any key is pressed. You may have it always turned off or turned on instead.



1.3.2 ALPHA KEY

This alphanumeric keypad is set to numeric mode by default. The Alpha key serves as a toggle among numeric, alpha (lower-case alphabetic) input modes.

Note: It is not necessary to hold down the [Alpha] key.

The alpha icon will appear on the status bar in a sequence as shown below.

Status Icon	Alpha Key	Input Mode
1	---	Numbers
a	Press [α] one time	Lower-case alphabetic

Note: (1) Use the [Shift] key to enter ALPHA (upper-case alphabetic) mode (A or A). (2) If you are using the software keypad via SIP, tap CAP (Caps Lock) to toggle between upper case and lower case alphabetic modes.

1.3.3 SHIFT KEY

Status Icon	Shift Key	Input Mode
1	Press [⇧] one time	The Shift key modifies the next key pressed. Depending on the input mode, (1) In numeric mode (1), it will modify the next key pressed and is user-definable. (2) In alpha (lower-case alphabetic) mode (a), it will produce a single upper-case letter. For example, input letters "ABC", it will produce "Abc".
A		
1	Press [⇧] two times (enter Shift Lock Mode)	If you are in Shift Lock Mode, all keys send their shifted values when pressed alone. Depending on the input mode, (1) In numeric mode (1), it will modify the next key pressed and is user-definable. (2) In alpha (lower-case alphabetic) mode (a), it will produce all upper-case letters (= Caps Lock). For example, input letters "ABC", it will produce "ABC".
A		

Note: It is not necessary to hold down the [Shift] key.

1.3.4 FUNCTION KEY

The function key [Fn] serves as a modifier key, and the functionality of each key combination is application-dependent.

1) To enable this modifier key, press [Fn] on the keypad. Its icon Fn will appear on the status bar.
2) Now press another key to get the value of key combination (say, press [1] to get the value of F1).
3) To get the value of another key combination modified by the function key, repeat the step 2.
4) To abort the key modification, press [Fn] again, and the icon will go off.

Note: It is not necessary to hold down the [Fn] key.

Below is a list of the factory setting for a variety of key combinations.

Key Combination	Action
[Fn], [Up]	Move text up one screenful (Page Up)
[Fn], [Down]	Move text down one screenful (Page Down)
[Fn], [Left]	Move to the beginning of screen or document (Home)
[Fn], [Right]	Move to the end of screen or document (End)

Note: Press the function key first, and then press the second key for a specific function.

1.3.5 PROGRAMMABLE KEYS

The following keys are user-definable. They can be re-defined as another key or to serve as a shortcut key for launching a specific program.

- [Scan]
- Two side triggers on each side of the touch screen
- [✱] (Asterisk)
- [#] (Hash)

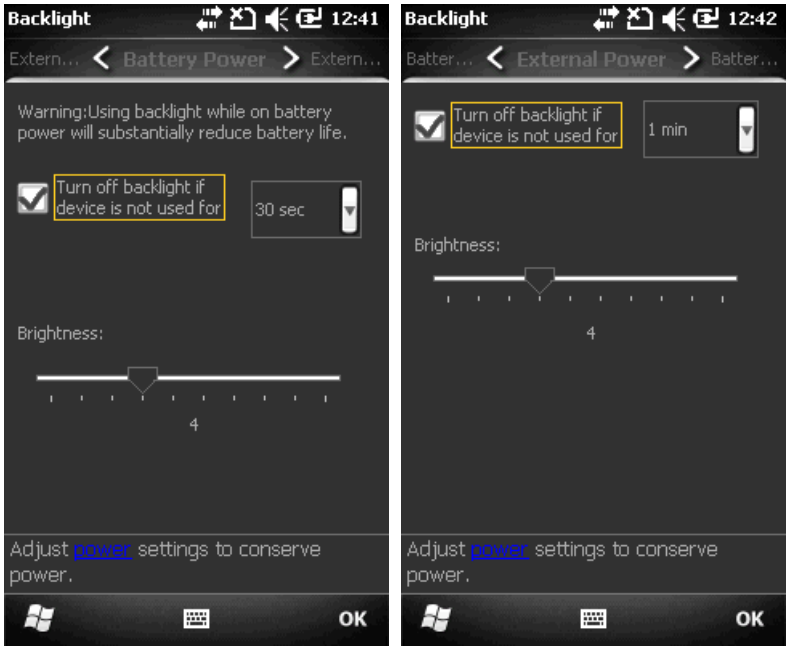
1.4 TOUCH SCREEN

The mobile computer comes with a 3.2" TFT graphic LCD, 240 by 400 pixels resolution (WQVGA). The LED backlight of screen, which helps ease reading under dim environments, can be controlled manually and automatically.

Warning: Using backlight while on battery power will substantially reduce battery power. It is suggested to dim the backlight while working in a well-lit area or automatically turn off the mobile computer when not in use.

1.4.1 ADJUST THE LCD BACKLIGHT

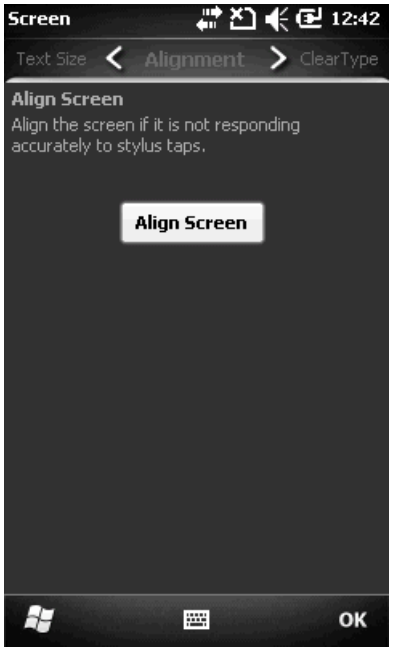
Go to **Start | Settings | System**, and tap **Backlight** to configure related settings.



1.4.2 SCREEN SETTINGS

This LCD is also a touch screen that can be calibrated through screen alignment.

Go to **Start | Settings | System**, and tap **Screen** to configure related settings. You may re-calibrate the touch screen, smooth the font edges or adjust the text size displayed on the screen if necessary.



Warning: DO NOT use any pointed or sharp objects to move against the surface of the screen.

1.5 NOTIFICATIONS

1.5.1 STATUS LED

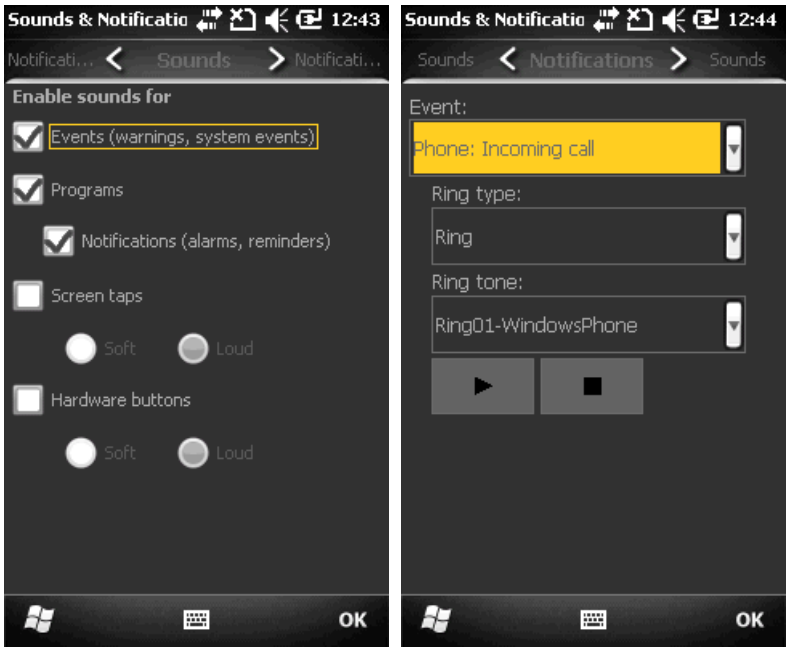
The two LED indicators on top are used to provide information on the charging status, scanner "Good Read" while collecting data, and messages.

LED Indicators		Status	Description
Top left	Charging	Red, solid	Charging the mobile computer
		Green, solid	Charging done
	Scanner	Green, on-off	Good Read
Top right	Messaging	Amber, flashing	Messages received, e.g. missed call, voicemail, new SMS/MMS message or e-mail

1.5.2 AUDIO

The speaker is used to play sounds for events in Windows and programs, or play audio files such as .WAV files. In addition, it can be programmed for status feedback. In noisy environments, you may consider connecting a headset instead. A headset jack is provided, which is a 3.5 mm DIA stereo earphone jack. Bluetooth headset is also supported.

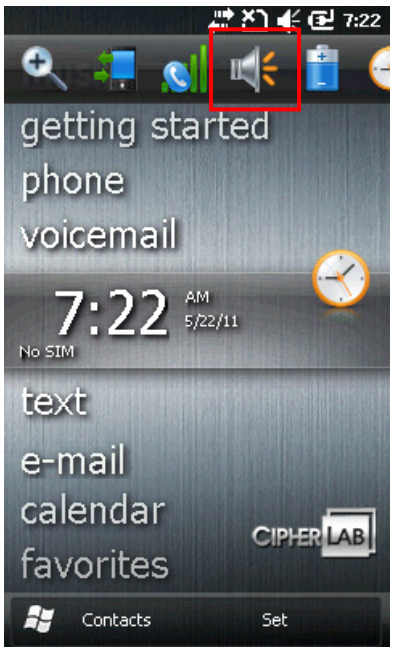
Go to **Start | Settings**, and tap **Sounds & Notifications** to configure related settings.

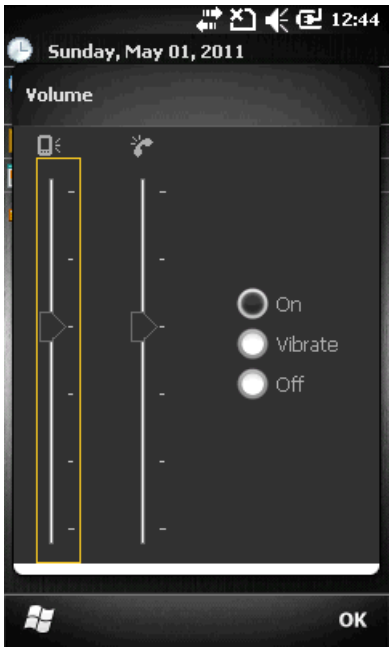


1.5.3 VIBRATOR

The mobile computer is integrated with a vibrator, which is software programmable for feedback. This can be helpful when working in noisy environments.

Tap the top of the screen to invoke the title bar pull-down list, and then tap the volume setting icon to change the system volume or phone ring. You may mute it or have it vibrate instead.





Note: You may use the Volume Up/Down buttons to switch to the vibrator control.

1.6 DATA CAPTURE

1.6.1 BARCODE READER

A wide variety of scan engines is available for delivering flexibility to meet different requirements. Depending on the scan engine integrated, the mobile computer is capable of scanning barcodes of a number of symbologies that are enabled by default while running the ReaderConfig.exe utility. If you need to scan barcodes that are encoded in a different symbology, enable the symbology first.

1.6.2 DIGITAL CAMERA

An integrated 3.2 mega-pixel CMOS camera in the mobile computer is specifically designed for collecting image data. We provide an image capture utility that is specifically designed to turn on the camera and capture image.

Chapter 2

LEARNING WINDOWS MOBILE BASICS

This chapter mainly describes the basic skills to work with the CP30 Mobile Computer. The add-on utilities for applications regarding data collection, processing, and transmission, are introduced in the following chapters.

The mobile computer is specifically designed for real-time data collection in the Windows Mobile 6.5 environment. It won't take long for any Windows user to get familiarized with it. Keep these basic skills in mind and explore this Windows Mobile device at ease.

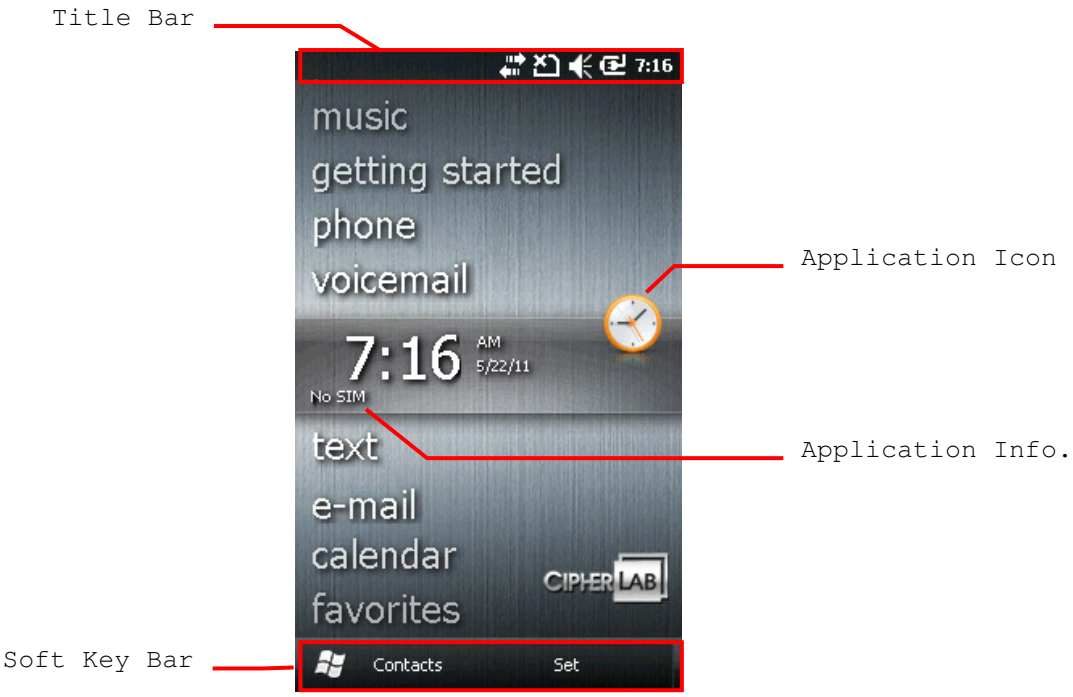
- Tap an item to select it.
- Tap and hold an item to see a menu that enables tasks, such as cut, copy, rename, delete, etc.
- Tap and drag to select multiple items.
- Tap [✕] at the bottom of the screen to close an active window, a dialog box, or a running application.
- Tap [**OK**] at the bottom of the screen to save the current settings and exit the application (or minimize the window in some applications).
- Tap [⬅] at the bottom of the screen to return the previous menu.

2.1 GETTING STARTED

2.1.1 HOME SCREEN

When the mobile computer is fully charged, press the Power key for three seconds to turn on the mobile computer and wait for the **Home Screen** to come up.

Tap and hold the **Home Screen** up and down to highlight a desired application. The additional information or items will appear sideways, and right soft key will be available at the bottom of the screen as well.



If you are using the mobile computer for the first time, there are a couple of things to do after the **Home Screen** comes up. The Getting Started wizard that will walk you through e-mail setup, changing the background image, setting up Bluetooth headset connection, etc.

- Go to **Start | Settings**, and tap **Home** to change theme, background, and items shown on the **Home Screen**, etc.
- Go to **Start | Settings**, and tap **Clock & Alarms** to select time zone, change local time, set alarms, etc.

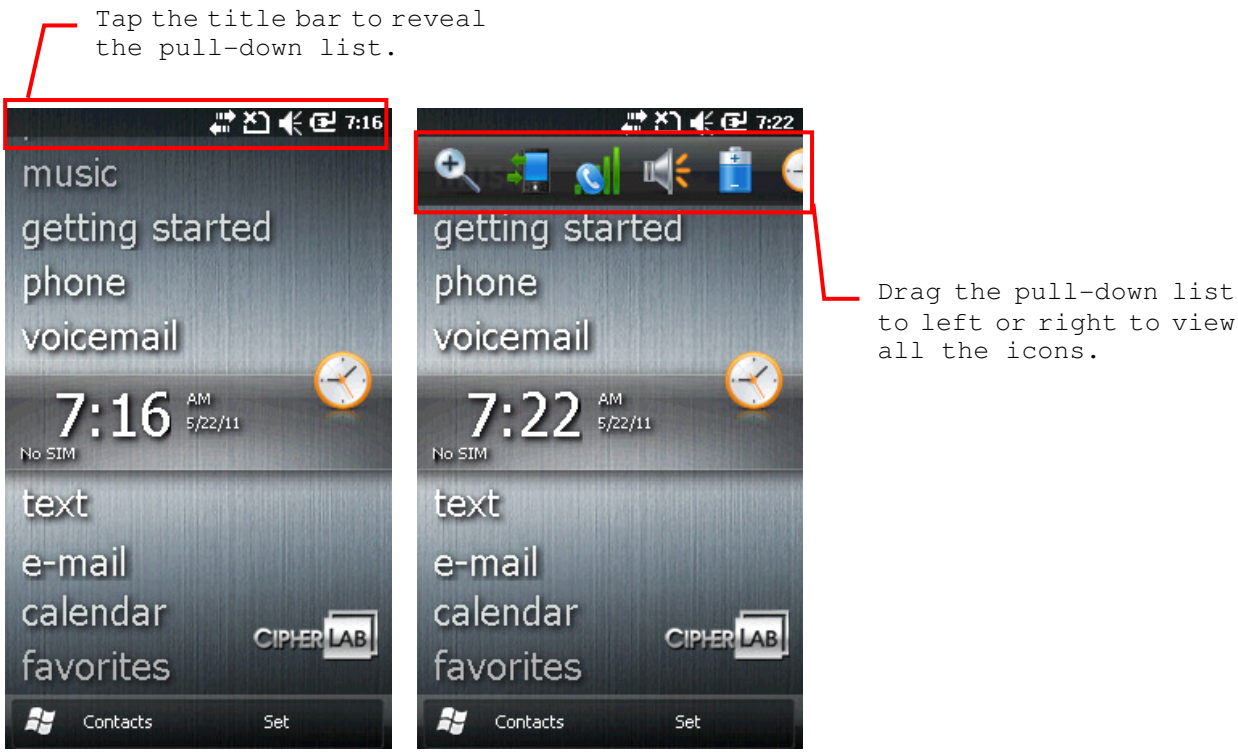
2.1.2 TITLE BAR

The icons at the top of the screen are explained below.

Icon	Description
	External power source is connected.
	Battery power remaining: The more the white bars, the more power in the main battery.
	Current input mode of keypad.
	Shift is enabled in numeric mode.
	Shift is enabled in alpha mode.
	Volume status: On, off, or vibrate.
	Insert SIM card: The SIM card is missing. You can still make emergency calls if your service provider supports it.
	Incoming call
	Missed call
	Antenna signal status: Phone power off.
	Antenna signal status: Phone power on; the more bars, the stronger the signal.
	Connection is active.
	Wi-Fi Network is detected.
	Wi-Fi Network is connected.
	Reminder for an alarm or appointment is active.
	Receiving Bluetooth beams.
	Bluetooth stereo headset is in use.
	More notification icons can be displayed.
	E-mail/text message is received.
	Roaming

2.1.3 TITLE BAR PULL-DOWN LIST

The title bar pull-down list is hidden at the top of the screen to show the following:



Icon	Description
	Tap it to zoom in or zoom out of current view.
	Tap it to check the connections status. You may configure the settings through **Wireless Manager**.
	Tap it to check the phone status. You may configure the settings through **Wireless Manager**.
	Tap it to show detected networks for Wireless local area networking (WLAN) connection, which is not available until Wi-Fi power is turned on through **Wireless Manager**. Alternatively, you may tap **Notification** on the left soft key bar.
	Tap it to change the system volume or phone ring. You may mute it or have it vibrate instead.
	Tap it to monitor the charging status and change the power scheme.
	Tap it to change the clock and alarms settings.
	Tap it to help leave customer feedback to Microsoft for improving Windows Mobile software.

Icon	Description
	Tap it to view the reminder for an alarm or appointment.
	Tap it to receive incoming Bluetooth beams.
	Bluetooth A2DP profile is in use. Tap it to access the Bluetooth devices list.
	Tap it to overlook a missed call.
	Tap it to check a new e-mail.
	Tap it to check a new voicemail.
	Tap it to send an SMS text message.
	Speakerphone is on.
	Tap it to access the Bluetooth configuration.
	Tap it to configure ActiveSync connection settings.
	Roaming is on.

2.1.4 START MENU

Tap to open the **Start Menu**. You can tap to access application programs, find useful utilities developed by CipherLab, or configure system settings.

2.1.5 DEVICE LOCK

By default, the device is unlocked. You may lock the mobile computer to prevent unintended operation. When locked, it will not respond to screen touch or keypad input until it is unlocked again. However, on the Lock screen you can still monitor the device status from notifications on the title bar, or adjust the phone volume by pressing the volume buttons at the left side of the mobile computer.

Lock CP30

Go to **Start Menu**, and tap the lock icon on the soft key bar to protect your mobile computer.

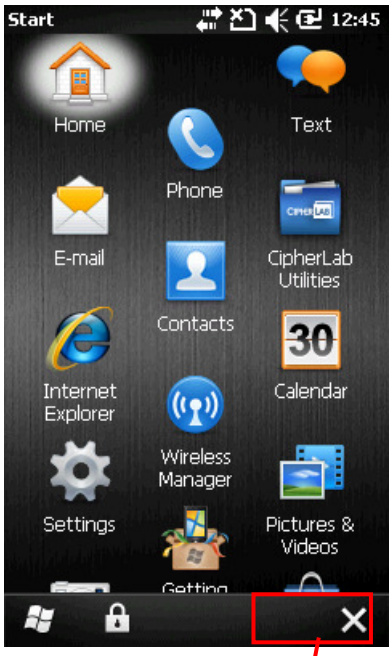
Password Lock

You may further apply password protection to block unauthorized access. Go to **Start | Settings**, and tap **Lock**.

- Simple PIN: Set up a password (4-digit at least)
- Strong alphanumeric: Set up a strong password (7-character at least)

Unlock CP30

Drag the lock slider to left or right of the Lock screen.



Tap to lock device.

It's locked now!

2.2 INPUT METHODS

The keyboard icon at the bottom middle of the screen is for Software Input Panel (SIP). Tap the icon to show or hide the software keyboard.

Data entry can be performed by the following methods.

Physical Keypad

Type with the hardware keypad.

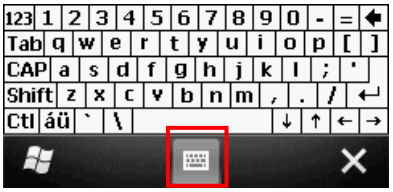
Data Capture

Scan barcode in applications, e.g. Notes, CipherLab's FORGE Application Generator, etc.

Software Keypad

Type or write using SIP (Soft Input Panel):

Tap the SIP button on middle soft key bar to show or hide the input panel.



2.3 MANAGING PROGRAMS

Tap the **Start** button to view the **Start Menu**. To quick launch a program, tap it. To add a new program or subfolder to the **Start Menu**, you can either use **File Explorer** or **ActiveSync**.

- File Explorer: to move the program by [Copy] and [Paste Shortcut].
- ActiveSync on the desktop computer: to create a shortcut to the program, and place the shortcut in the Programs folder.

Warning: To avoid making any changes to the program configurations by accident, we recommend you to use [Copy] and [Paste Shortcut] rather than [Cut] and [Paste].

2.3.1 ADD A PROGRAM TO START MENU

1. Tap **Start | File Explorer**.
2. Navigate through file folders to find the program you desire.
3. Tap and hold the program to select [Copy] from the pop-up menu.
4. Navigate to the Programs folder – My Device**Windows\Start Menu\Programs**.
5. Tap and hold anywhere blank on the screen to select [Paste Shortcut] from the pop-up menu. The new program will be added to the Programs folder.
6. Go to **Start Menu** and the new program will appear now.

2.3.2 CREATE A NEW FOLDER

1. Tap **Start | File Explorer**.
2. Navigate through file folders to find where to create a new folder.
3. Tap **Menu | New Folder** and a subfolder will be created.

2.3.3 SWITCH AMONG PROGRAMS

1. Tap **Start | Task Manager**.
2. Select which running program to use.
3. Tap **Menu | Switch To** on the right soft key bar and the program will be displayed.

2.3.4 END A PROGRAM

In general, the system manages memory automatically, and there is no need to exit a program in order to open another or to conserve memory. However, random access memory (RAM) may be used up when running too many programs. As a result, it will slow down the operation or cause program errors. In that case, you should stop one or more running programs to free memory. In order to use memory in a more efficient way, you are recommended to exit a program when it is not desired any longer.

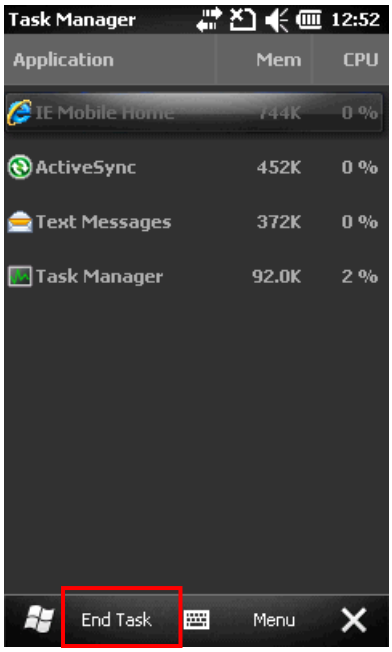
Warning: Always remember to save data or settings before you exit a program.

Tap [✕] to close an active window, a dialog box, or a running application. If the button is not displayed on the soft key bar, press [ESC] on the physical keypad.

Tap [**OK**] to save the current settings and exit the application (or minimize the window in some applications). If the button is not displayed on the soft key bar, press [OK] on the physical keypad.

Note: Some programs, such as the Reader Configuration Utility (ReaderConfig.exe), may create an associated icon on the taskbar. You may tap the icon and select [Exit] from the pop-up menu.

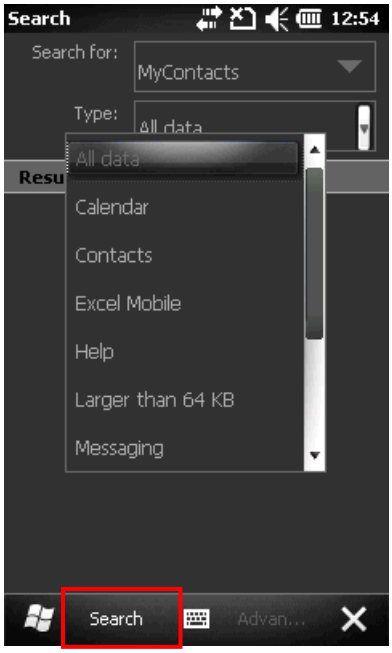
1. Tap **Start | Task Manager**.
2. Select which running program to stop.
3. Tap **End Task** on the left soft key bar and the program will be closed.



2.3.5 FIND A FILE

1. Tap **Start | Search Phone**.
2. In the "Search for" box, enter the file name, word, or other information you want to search for. If you have looked for this item before, tap the drop-down menu and select it.

   In the "Type" box, select a data type to help narrow your search. If the data type of your file is other than listed, you may try [Larger than 64 KB]. However, if such file is less than 64 KB, it will not be searchable.



3. Tap **Search**.
4. In the Results list, tap the item you want to open.

2.4 USING ACTIVESYNC

ActiveSync is used to synchronize information between the mobile computer and your desktop computer, to install programs on the mobile computer, and to backup and restore the mobile computer.

The Microsoft ActiveSync program has to be installed on your desktop computer first.

- To download the up-to-date version of the program, you may need to go to Microsoft's official web site for Windows Mobile devices as shown below.

  http://www.microsoft.com/windowsmobile/activesync/activesync45.mspx

- After downloading and installation, run the program. For detailed information on the program, you may click the Help menu, and then select the Microsoft ActiveSync Help.

2.4.1 SYNCHRONIZATION WITH YOUR COMPUTER

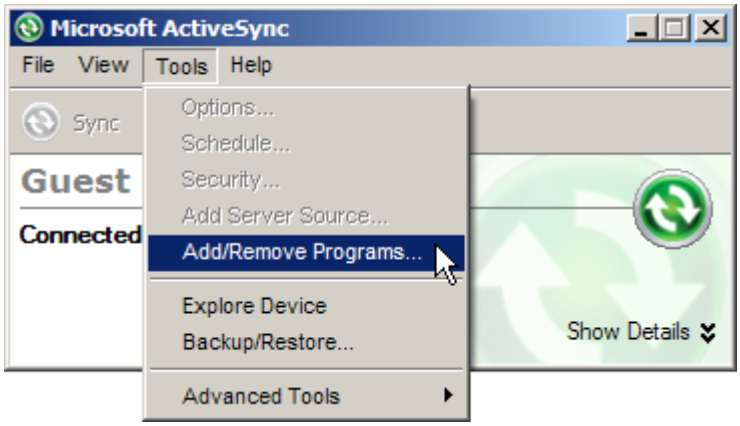
1. Follow these instructions for initial ActiveSync operation:
   - Connect the USB cable from the mobile computer to your computer.
   - Turn on the mobile computer.
2. Your computer will automatically detect the USB device.
3. Select which partnership to set up. If you want to synchronize data between the mobile computer and your personal computer, select Standard Partnership; otherwise, select Guest Partnership
4. Wait a few seconds for the mobile computer to get connected (and synchronized if a Standard Partnership is selected).

Note: For ActiveSync via Bluetooth, refer to Using Bluetooth.

2.4.2 ADD/REMOVE PROGRAMS

Click [Add/Remove Programs] from the Tools Menu so that you can proceed to install a program that is designed to be used on a mobile device running Windows Mobile. If a user program is no longer desired, you may remove it from the system.

Click [Add/Remove Programs] from the Tools Menu so that you can un-install a program that is designed to be used on a mobile device running Windows Mobile.



Alternative to Install New Programs (Copy & Paste)

You may install a new program manually.

1. When connected, open the Microsoft ActiveSync window on your desktop computer.
2. Click the Explorer button from the toolbar.
3. Navigate to the target folder, e.g. the Programs folder (\Windows\Start Menu\Programs), depending on where you wish to access the program.
4. Navigate through file folders on your computer to find the new program (.CAB, .EXE, etc.)
5. Right-click the program and select [copy] from the pop-up menu.
6. Back to the target folder in step 3. Right-click anywhere blank and select [Paste] from the pop-up menu.
7. On the mobile computer, go to **Start Menu** and the new program will appear.

Alternative to Remove Programs

You may un-install a new program manually.

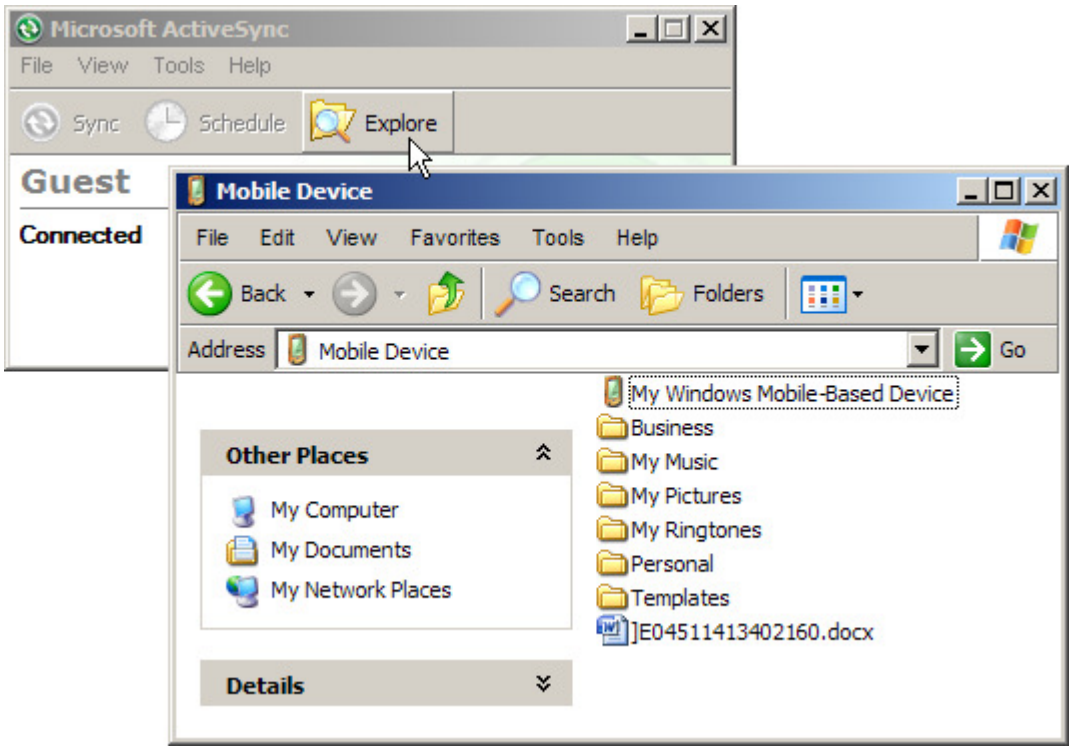
1. Go to **Start | Settings | System** and select **Remove Programs**.
2. Tap the name of the program that you want to delete.
3. Tap [Remove].
4. Tap [Yes] to un-install the program.

Note: If the program does not appear in the list of installed programs, you may use File Explorer to locate it. Tap and hold the program to select [Delete] from the pop-up menu.

2.4.3 EXPLORE DEVICE

Add a Program to Start Menu

1. When connected, open the Microsoft ActiveSync window on your desktop computer.
2. Click the Explorer button from the toolbar.



3. Navigate through file folders to find the program you desire.
4. Right-click the program and select [Create Shortcut] from the pop-up menu.
5. Right-click the shortcut and select [Cut] from the pop-up menu.
6. Navigate to the Programs folder –**\Windows\Start Menu\Programs**.
7. Right-click anywhere blank on the window and select [Paste] from the pop-up menu. The new program will be added to the Programs folder.
8. On the mobile computer, go to **Start Menu** and the new program will appear now.

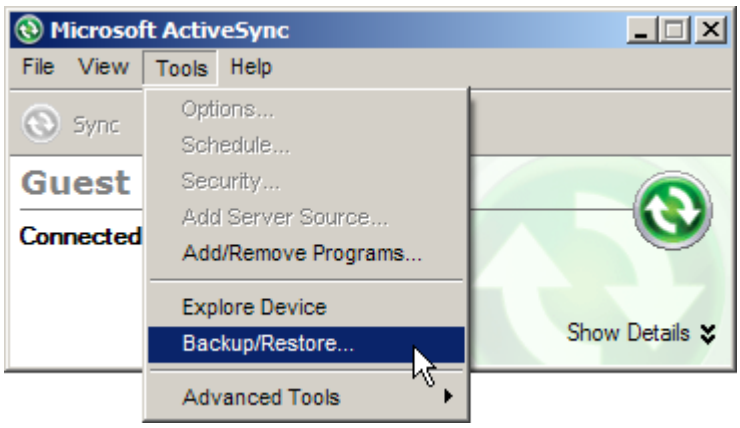
Note: [Create Shortcut], [Cut], and [Paste]: The same result can be performed by [Copy] and [Paste Shortcut].

Create a New Folder

1. When connected, open the Microsoft ActiveSync window on your desktop computer.
2. Click the Explorer button from the toolbar.
3. Navigate to the target folder where you wish to create a new folder.
4. Right-click anywhere blank on the window and select [New Folder] from the pop-up menu. A subfolder will be created.

2.4.4 BACKUP/RESTORE

To best protect your work, you should regularly back up information on your mobile computer. You can perform a backup by during the ActiveSync operation. The backup file is stored on your desktop computer.



2.5 SUSPEND & RESET

Like your PDA, Pocket PC and most handheld devices, the CP30 Mobile Computer functions when it is turned on. This is because the Windows Mobile operating system eliminates the booting process and runs continuously.

You may reset the mobile computer when it stops responding to input. Program files stored in RAM will be erased after a reset. But you can restore data that is previously synchronized with your computer by performing an ActiveSync operation, or backed up by using CipherLab Backup Utility.

After performing a reset, the recalibration and setup process is required to ensure touch screen accuracy and set up user settings for initial use. Follow the on-screen instruction to complete the process. You must manually adjust system date and time, as well as the time zone.

2.5.1 SUSPEND MODE

When the mobile computer enters suspend mode, the system is ready for use but not in use. This is referred to as Suspend mode or Standby mode. It means the system is in power-saving status and waiting for user interference.

Enter Suspend (= Standby)

Press the Power key for about 0.2 seconds to enter Suspend mode or Standby mode.

Resume from Suspend

Press the Power key for about 0.2 seconds to awake the mobile computer. Alternatively, you may press the Scan key.

Warning: To save battery power, it is suggested that the mobile computer is set to be automatically turned off when not in use. Refer to 1.1.2 Power Management for more information about saving power.

2.5.2 SOFTWARE RESET (WARM BOOT)

Software reset, also known as a warm boot, will restart the mobile computer and keep all the saved files.

Software Reset (= Warm Boot)

1. Turn off the mobile computer by pressing the Power key for 3 seconds.

   The Shut Down dialog is displayed asking "Are you sure you want to shut down? All unsaved data will be lost". Tap [Yes] to perform a warm boot.

2. Turn on the mobile computer by pressing the Power key for 3 seconds.

Warning: Data loss may occur when files are not properly closed before software reset.

2.5.3 HARDWARE RESET (COLD BOOT)

Hardware reset, also known as a cold boot, will restart the mobile computer and initialize RAM. Perform a hardware reset if software reset cannot be properly operated.

Hardware Reset (= Cold Boot)

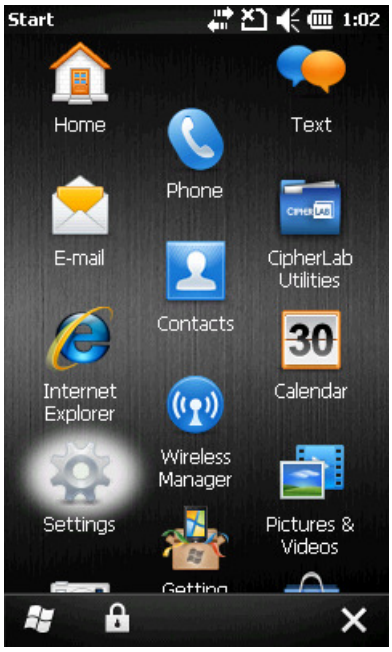
1. Remove the battery cover and the main battery.
2. Replace the main battery and the battery cover.
3. Turn on the mobile computer by pressing the Power key for 3 seconds.

Warning: Data loss may occur when files are not properly closed before hardware reset.

Chapter 3
CONFIGURING CP30 MOBILE COMPUTER

In this chapter, a brief on the system settings is provided for your reference.

Tap to open the **Start Menu**, and tap **Settings** to configure related settings.



3.1 SETTINGS

Bluetooth

Refer to Using Bluetooth.

Clock & Alarms

- Time tab: Change the date, time and time zone settings. By default, the time zone settings will be automatically synchronized and updated by notification.
- Alarms tab: You may set up at most three alarms to wake you up or as a reminder.

Home

Refer to 2.1.1 Home Screen.

- Appearance tab: Customize the theme and background of the Home Screen.
- Items tab: Select items that will appear on the Home Screen, and configure Home Screen timeout.

Lock

Tap it to apply password protection to limit access to the mobile computer, and any screen or keypad input will be blocked.

Refer to 2.1.5 Device Lock.

Power

- Battery tab: You may view the current charge of main battery.
- Advanced tab: You may configure to turn off the device when it is idle for a

specific period of time, either on battery or external power.

Sounds & Notifications

Refer to 1.5.2 Audio.

- Sounds tab: Configure sounds for specific actions, events, programs, etc.
- Notifications tab: Select to play sounds as notifications for some events.

Connections

Refer to 3.1.1 Connections.

Personal

Refer to 3.1.2 Personal.

System

Refer to 3.1.3 System.

Microsoft My Phone

Tap it to synchronize contacts, calendars, tasks, and so on with a Microsoft My Phone account. You will be asked to sign in using your Windows Live ID.

3.1.1 CONNECTIONS

Go to **Start | Settings | Connections**.

Beam

Tap it to receive incoming Bluetooth beams.

Connections

Refer to 6.4 Configuring GPRS Network.

Domain Enroll

Tap it to connect to a SCMDM server with an enrollment ID and password, allowing company deployment on multiple mobile computers.

USB to PC

Tap it to change the USB connection type. By default, it will automatically establish the connection and start the ActiveSync operation when the mobile computer is connected to PC. When your PC connects to a local area network or the Internet, the USB connection may be disconnected for priority concern. In this case, try to disable advanced network functionality to troubleshoot ActiveSync connection problems.

WAPI Manager

Tap it to turn off Windows Zero Configuration (WZC) in order to allow the use of Wireless Authentication Privacy Infrastructure (WAPI) on the mobile computer.

Wi-Fi

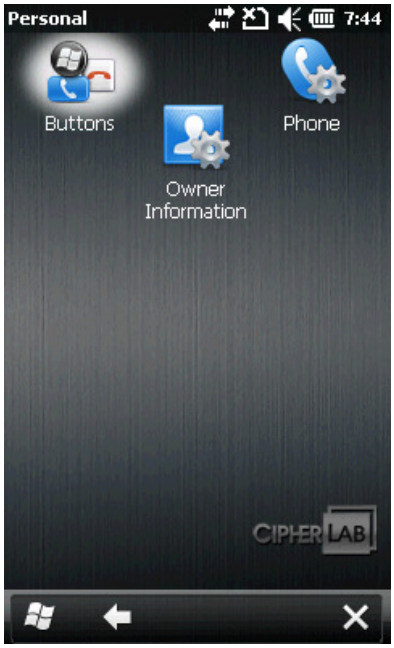
Refer to Using 802.11 Radio.

Wireless Manager

Refer to 5.1.1 Power On via Wireless Manager (Bluetooth) and 6.1.1 Wireless Manager (Phone).

3.1.2 PERSONAL

Go to **Start | Settings | Personal**.



Owner Information

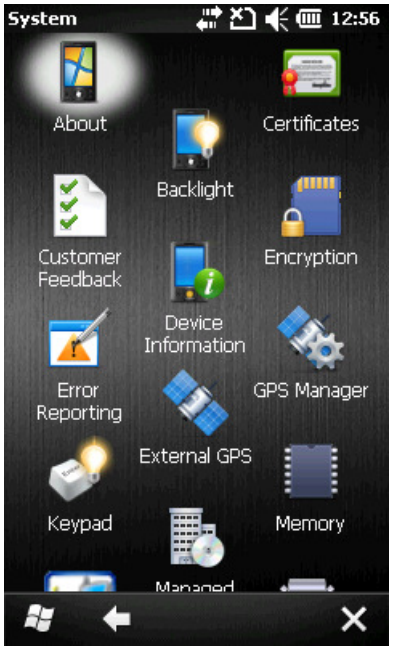
- Identification tab: Enter your contact information.
- Notes tab: Enter your notes.

Phone

Refer to 6.2 Phone Settings.

3.1.3 SYSTEM

Go to **Start | Settings | System**.



About

- Version tab: It displays information of OS software, processor, etc.
- Device ID tab: You may enter a name and description for identifying the mobile computer.
- Copyrights tab: It displays important statements on copyrights.

Backlight

- Battery Power tab: You may configure when to turn on/off the backlight the brightness of the LCD backlight when on battery power.
- External Power tab: You may configure when to turn on/off the backlight the brightness of the LCD backlight when on external power (the mobile computer connected for direct charging).

Certificates

You may view or modify digital certificates that some applications use to establish trust for secure connections.

Customer Feedback

You may send customer feedback to Microsoft for improving Windows Mobile software.

Device Information

It displays important device information in system, software and hardware.

Encryption

You may encrypt files stored in the SD card. The encrypted files are read only on the mobile computer.

Error Reporting

You may determine whether to enable error reporting to help Microsoft improve Windows Mobile software. By default, it will automatically collect errors and report to Microsoft.

External GPS

- Programs tab: You may specify a program port for multiple GPS-enabled programs to access GPS data.
- Hardware tab: For GPS program port to work, you must specify correct hardware port. If using the GPS receiver integrated on the mobile computer, select COM 7 and 57600 for baud rate.
- Access tab: By default, Windows Mobile manages access to your GPS receiver and allows multiple programs to obtain GPS data simultaneously. If you clear the check box, some programs may not be able to obtain GPS data.

GPS Manager

- AGPS tab: You may select to enable AGPS function to improve GPS performance.
- Ephemeris tab: You may configure how to download ephemeris data, or tap [Download] to update ephemeris at any time. The data is valid for seven days according to the system date and time. The date of last download will be displayed at the lower left of the screen.

Keypad

You may change the keypad backlight behavior. By default, the keypad backlight will be automatically turned on for five seconds when any key is pressed.

Managed Programs

You may manage programs that are installed in RAM.

Memory

- Main tab: You may view the current capacity and usage of the onboard RAM.
- Storage Card tab: You may view the memory occupation of the Flash Disk folder or any storage card.

Regional Settings

- Region tab: You may customize the appearance and formatting to your geographic region.

- Number tab: You may further customize the number formats.
- Currency tab: You may further customize the currency formats.
- Time tab: You may further customize the time format.
- Date tab: You may further customize the date format.

Remove Programs

You may remove programs that are stored in RAM.

Screen

- Alignment tab: You may align the screen for calibration.
- Clear Type tab: You may apply Clear Type fonts.
- Text Size tab: You may use the slider to adjust the text size.

Task Manager

You may have a list of all applications which are currently running on the mobile computer. Tap and hold the application to switch to it or end it if it occupies too much memory or CPU resource.

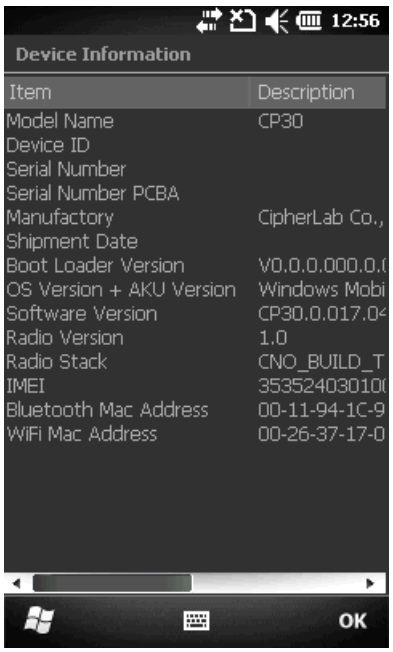
3.2 DEVICE NAME & CONFIGURATION

3.2.1 CHANGE DEVICE NAME

Go to **Start | Settings | System**, and tap **About** to change the device name on the Device ID tab if necessary.

3.2.2 UNDERSTAND DEVICE CONFIGURATION

Go to **Start | Settings | System**, and tap **Device Information** to view the device information. The device configuration of CP30 Mobile Computer is displayed in 7 digits: xxxxxxx



Take the screenshot for example. Its device ID is "2057601"; therefore, the mobile computer has the following features –

- 28-key, WQVGA screen
- A scan engine that employs Laser scan engine
- Integrated communications: Bluetooth, Wi-Fi and GSM/GPRS
- Integrated GPS receiver and camera

Device ID	Modular Component	Types
1st digit	Reader module	0= none 2= Laser (SE955) 3= 2D Imager
2nd digit	Reserved	0
3rd digit	Bluetooth, GSM/GPRS	0= none 1= Bluetooth 4= GSM/GPRS 5= Bluetooth + GSM/GPRS
4th digit	Wi-Fi, GPS	0= none 3= Wi-Fi 4= GPS 7= Wi-Fi + GPS
5th digit	LCD, Camera	2= WQVGA 6= WQVGA + Camera
6th digit	Keypad	0= 28-key
7th digit	PCB main board	---

Chapter 4

USING 802.11 RADIO

The Wi-Fi module integrated on the mobile computer lets you configure and connect to network wirelessly.

4.1 WI-FI POWER

4.1.1 POWER ON VIA WIRELESS MANAGER

1. Go to Start | **Wireless Manager** as shown below.

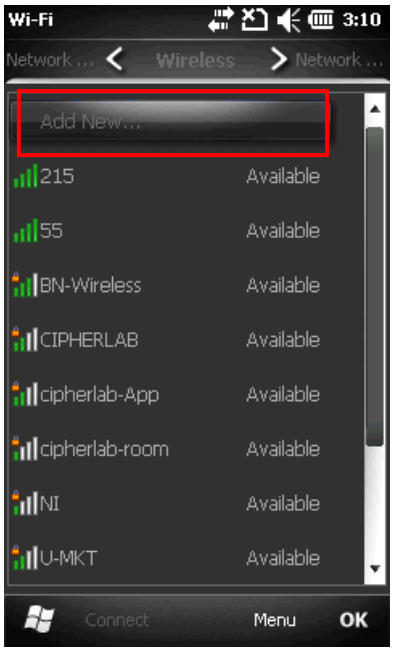
2. Tap [All] or [Wi-Fi] to turn on the power.

3. When the Wi-Fi status is "Available", it means it is turned on and Wi-Fi networks are available.

4.1.2 WLAN CONNECTION

1. Tap **Menu | Wi-Fi Settings** to configure related settings.

2. On the Wireless tab, you may have a list of available Wi-Fi networks. Select one or tap [Add New…] and follow the on-screen instructions to configure related settings, such as the network name, authentication and encryption type, etc.



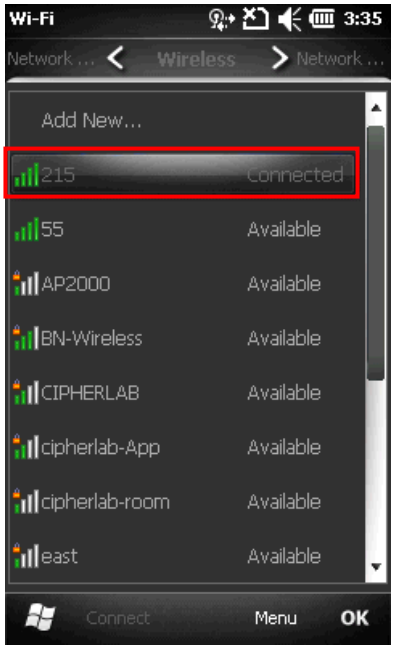
The icon next to the network name provides a visual status for the radio. It is only available when all of the following is true:

Icon	Indication
(no-bar)	The signal strength (RSSI) for the current AP (to which the radio is associated) is -91 dBm or weaker.
(one-bar)	The RSSI for the current AP is -90 dBm or stronger but no more than -82 dBm.
(two-bar)	The RSSI for the current AP is -81 dBm or stronger but no more than -72 dBm.
(three-bar)	The RSSI for the current AP is -71 dBm or stronger but no more than -68 dBm.
(four-bar)	The RSSI for the current AP is -67 dBm or stronger.

A strong signal (four bars) usually means that the wireless network is close or there is no interference. For best performance, connect to the wireless network with the strongest signal. However, if an unsecured network has a stronger signal than a security-enabled one, it's safer for your data if you connect to the security-enabled network (but you must be an authorized user of that network).

To improve the signal strength, you can move your mobile computer closer to the wireless router or access point, or move the router or access point so it’s not close to sources of interference such as brick walls or walls that contain metal support beams.

3. Wait a few seconds for the mobile computer to connect to the preferred network you have configured. Tap [**OK**] to close the current window.



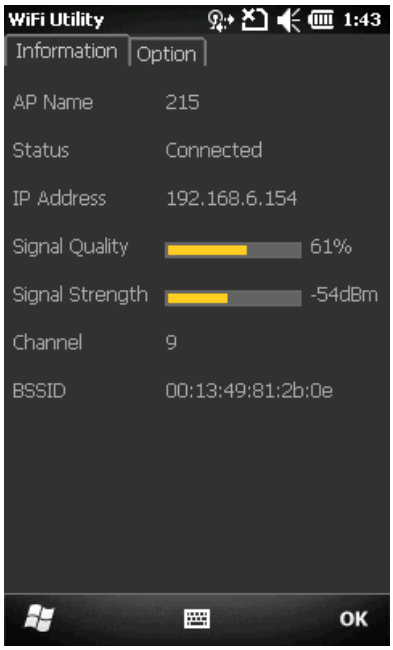
4. Once connected successfully, the associated icon will appear on the title bar and the connected network name will be displayed for Wi-Fi status in **Wireless Manager**.

4.3 WI-FI CONFIGURATION

4.3.1 WI-FI UTILITY SETTINGS

Go to **Start** | **CipherLab Utilities** | **WiFiConfig** to open the **WiFi Utility**.

On the Information tab, view status of the current wireless network connection, information on the access point and the connection established between the two.



AP Name

Name of the connected Network

Status

Potential values are
- Down
- Connected

IP Address

IP address of the mobile computer

Signal Quality, Signal Strength, Channel

Information on the wireless connection between the radio and access point, including graphic indication of signal quality and strength

BSSID

MAC address of the access point

4.3.2 RSSI LEVEL

You may change the roaming and power settings on the Option tab.

Roaming

Whether to trigger the mechanism of roaming

- Enable (default)
- Disable

RSSI Level

RSSI stands for Received Signal Strength Indication. Use an RSSI value to determine when it comes below a certain threshold at which point the mobile computer will seamlessly switch the network connection, for example, while moving in and out of range between different access points.

- <-67 dBm (default) : Normal
- <-71 dBm : Weak signal
- <-81 dBm : Very weak signal

Power Mode

Power saving mode for radio

- Always On (default): Keeps the client adapter powered up continuously so there is little lag in message response time. It consumes the most power but offers the highest throughput.
  It is recommended when AC power is in use.
- Max. Saving: Causes the access point to buffer incoming messages for the client adapter, which wakes up periodically and polls the access point to see if any buffered messages are waiting for it. The client adapter can request each message and then go back to sleep. It conserves the most power but offers the lowest throughput.
  It is recommended when battery power is in use.

- Auto Mode: Switches between the two modes described above, depending on network traffic. This mode switches to Always On mode when retrieving a large number of packets and switches back to Max. Saving mode after the packets have been retrieved.
  It is recommended when power consumption is a concern but you need greater throughput than that allowed by Max. Saving mode.

Chapter 5

USING BLUETOOTH

The CP30 Mobile Computer lets you configure Bluetooth settings and manage Bluetooth services provided on the remote devices.

Bluetooth Profiles Supported

Serial Port Profile	(SPP)	supports Server/Client
Object Push Profile	(OPP)	supports Server/Client
Dial-Up Networking Profile	(DUN)	supports Client only
Personal Area Networking Profile	(PAN)	
Human Interface Device Profile	(HID)	supports keyboard and mouse without cursor
Headset Profile	(HSP)	
Hands-Free Profile	(HFP)	
Generic Access Profile	(GAP)	
Generic Object Exchange Profile	(GEOP)	
Advanced Audio Distribution Profile	(A2DP)	
Audio/Video Remote Control Profile	(AVRCP)	
Phone Book Access Profile	(PPBAP)	

5.1 BLUETOOTH POWER

5.1.1 POWER ON VIA WIRELESS MANAGER

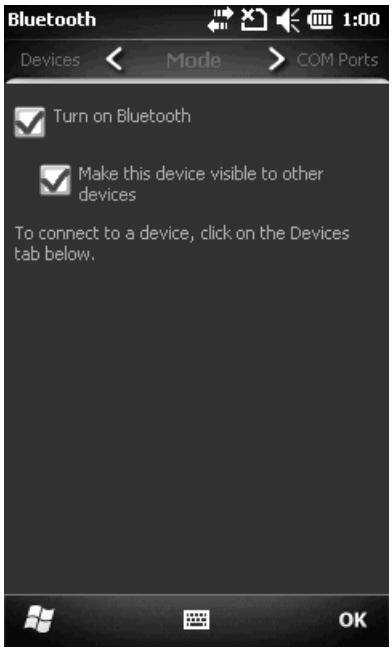
1. Go to Start | **Wireless Manager** as shown below.

2. Tap [All] or [Bluetooth] to turn on the power.

3. When the Bluetooth status is "Visible", it means it is turned on and set discoverable.

5.1.2 CHANGING BLUETOOTH SETTINGS

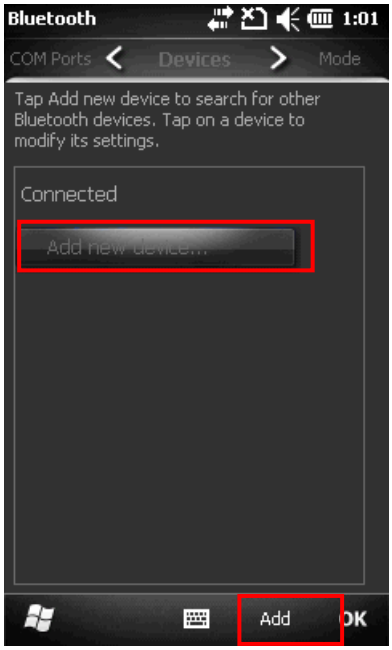
Tap **Menu | Bluetooth Settings** to configure related settings. On the Mode tab, you may select to turn off Bluetooth power or hide the mobile computer from other Bluetooth devices.



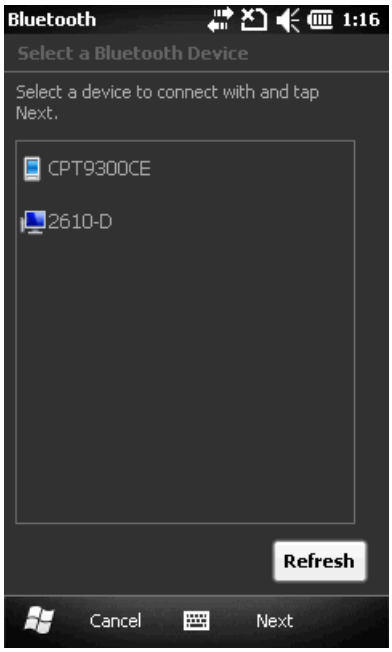
5.2 SEARCH DEVICES

1. Go to **Start | Settings | Bluetooth**.

2. Tap [Add new device…] or **Add** on the soft key bar to search for Bluetooth devices.



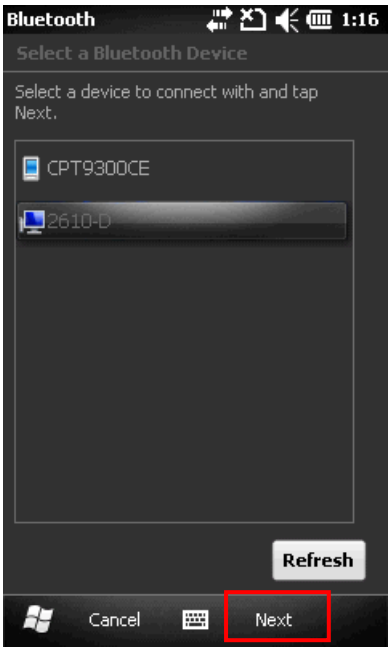
3. Wait for a few seconds, and it will list the discovered devices. If you do not see the devices that you want to connect to, make sure it is set discoverable. Tap **Refresh** to search again.



5.3 PAIR DEVICES

5.3.1 PAIR

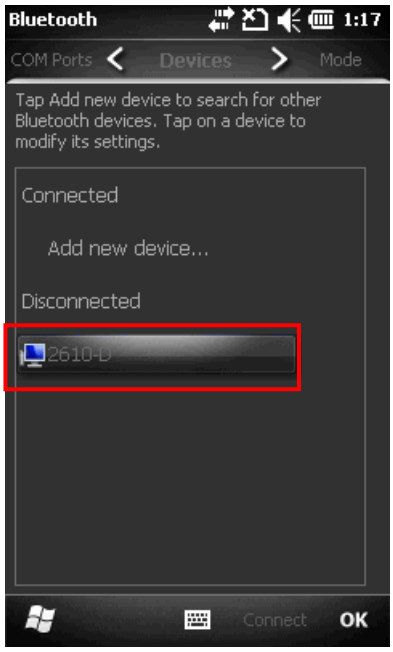
1. Select a desired device and tap **Next**.



2. Enter the password that is specified on the remote device. Tap **Next**.

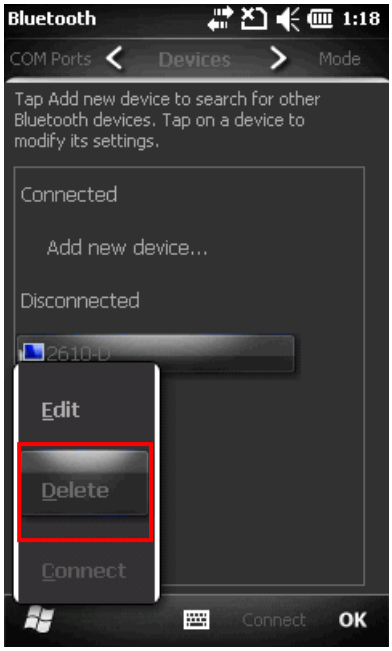
3. Tap **Done**.

4. Once paired successfully, the device will appear in the device list. Tap it to view available Bluetooth services or modify its display name.



5.3.2 UNPAIR

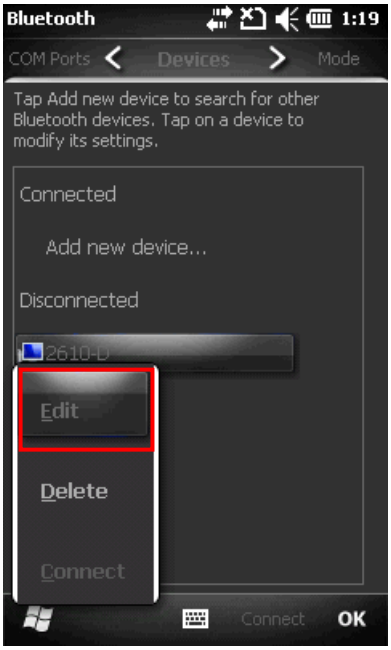
5. On the Devices tab, tap and hold the desired device to select [Delete] from the pop-up menu.



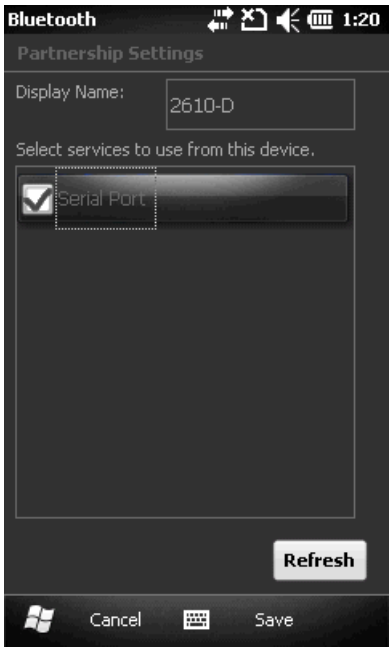
Note: The mobile computer must be unpaired on the remote device as well. For example, remove it from the device list on PC. (Both devices must be unpaired!)

5.4 SERIAL PORT SERVICE

1. On the Devices tab, tap and hold the desired device to select [Edit] from the pop-up menu.

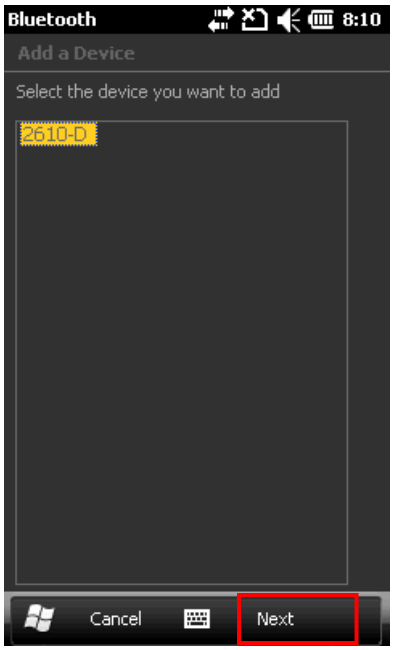


2. Make sure the Serial Port service is enabled for use on the remote Bluetooth device.

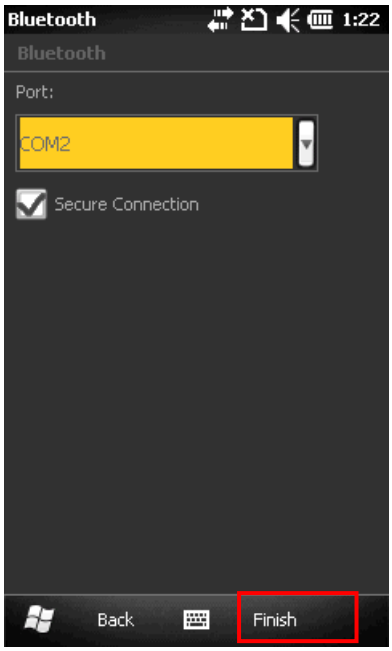


3. On the COM Ports tab, tap [New Outgoing Port].

4. Select the remote device, and then tap **Next**.



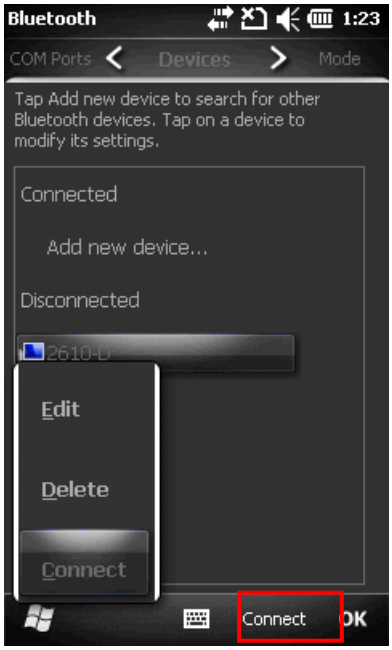
5. Select a COM port, and then tap **Finish**.



6. Tap **OK**.

7. On the mobile computer, tap and hold the computer. Select [Connect].

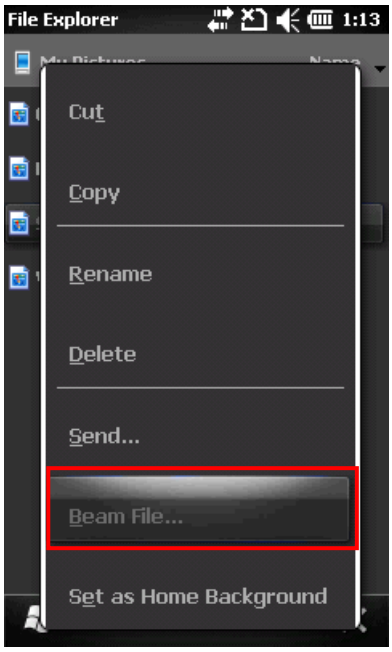
Alternatively, you may tap **Connect** on the soft key bar to access the remote service quickly.



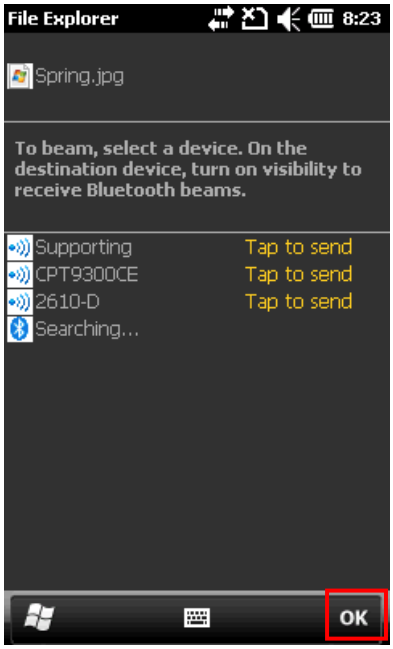
5.5 OBJECT PUSH VIA BEAM

5.5.1 SEND A FILE

1. Tap **Start | File Explorer**.
2. Navigate through file folders to find the file you wish to send to the remote device.
3. Tap and hold the file to select [Beam File] from the pop-up menu.



4. Tap the remote device to send the file via Bluetooth. The mobile computer will start uploading the file. Wait a few seconds for the remote device to receive the file. When it is done, tap **OK** to return.

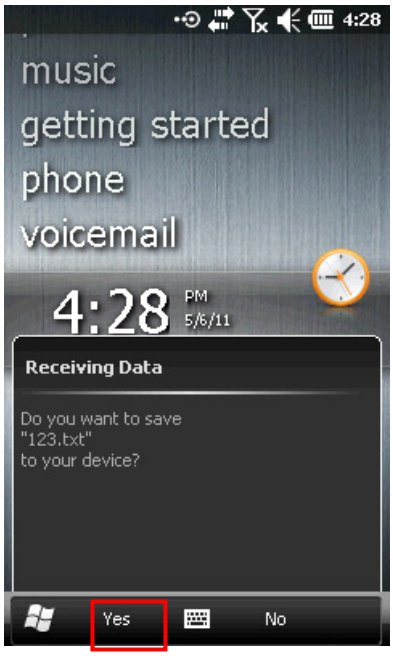


5.5.2 RECEIVE A FILE

1. Tap **Start | Settings | Connections | Beam**, and make sure the Beam Mode is enabled in order to receive all incoming beams.

2. On the remote device, send a desired file to the mobile computer via Bluetooth.

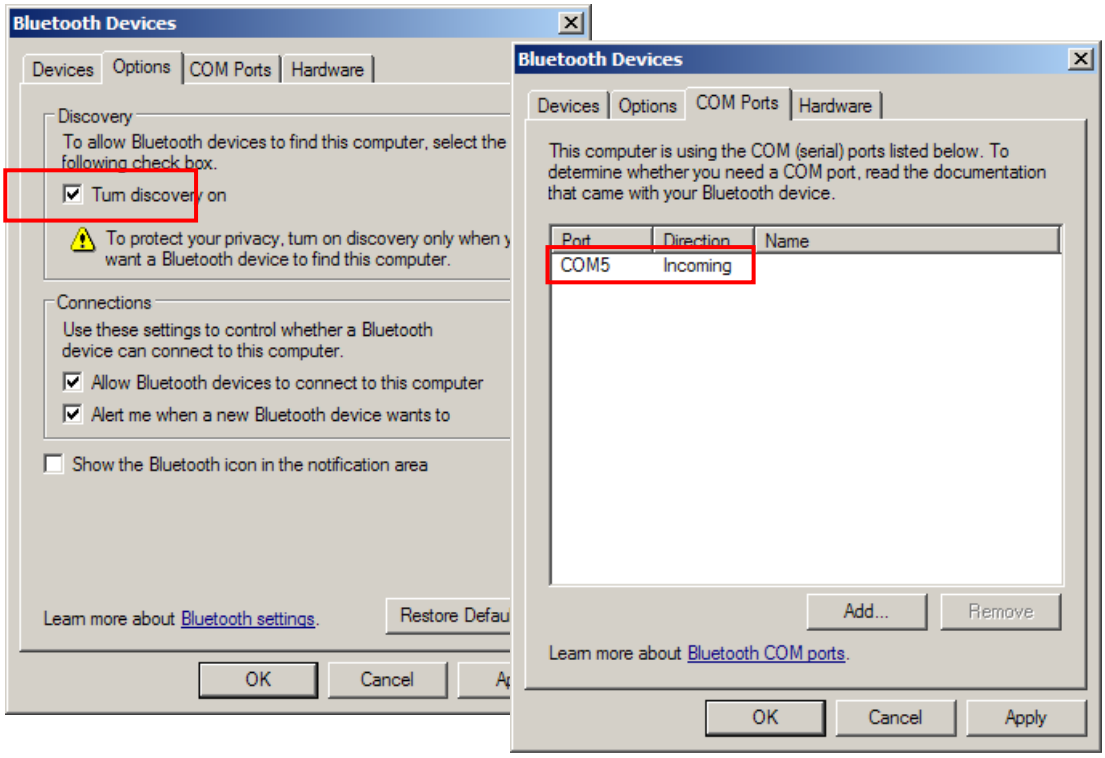
3. When the "Receiving Data" dialog appears on the screen, tap **Yes**. The received data will be saved to \My Device\My Documents.



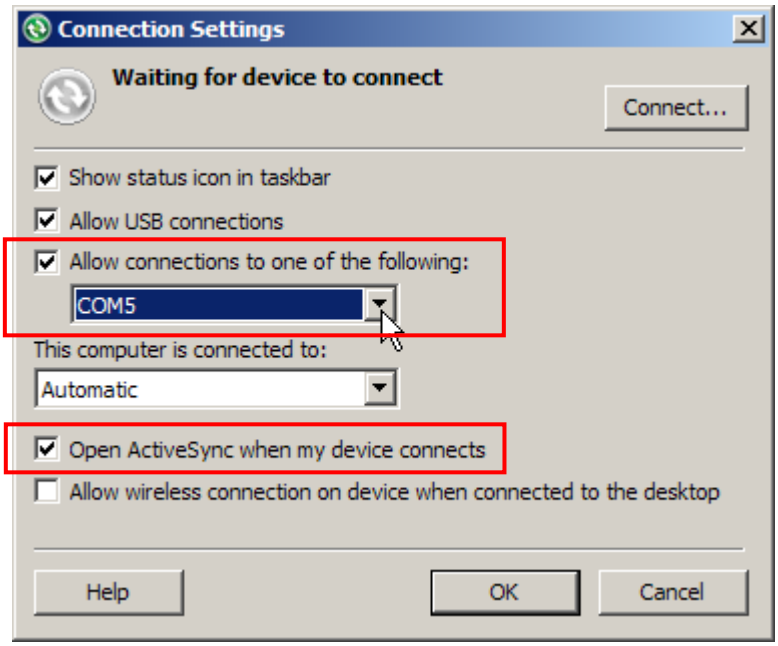
5.6 ACTIVE SYNC VIA BLUETOOTH

You must configure Bluetooth settings correctly on your computer first.

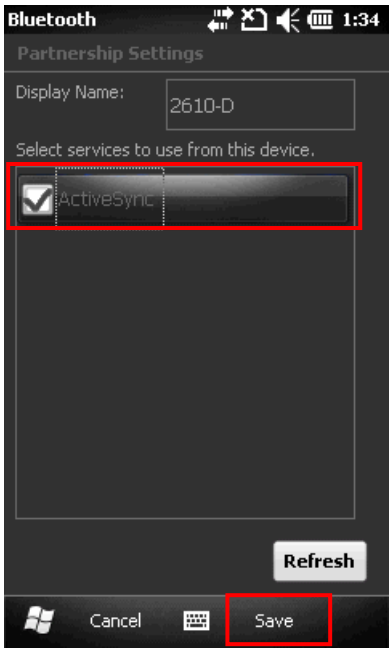
1. Configure Bluetooth settings for your computer, such as "Turn discovery on", adding a COM port (Incoming), etc.



2. Allow connections to the specified COM port in ActiveSync.

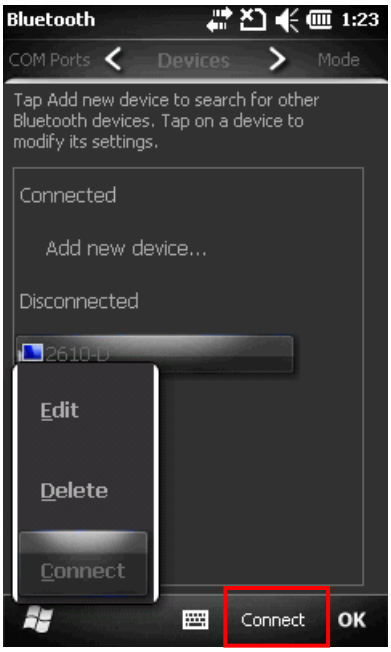


3. Connect the mobile computer to your computer. Make sure the ActiveSync service is enabled for use on the remote computer.



4. On the Bluetooth devices list, tap and hold the remote computer. Select [Connect].

Alternatively, you may tap **Connect** on the right soft key bar to access the remote service quickly.



Chapter 6

USING THE PHONE

The CP30 Mobile Computer allows making phone calls and connecting to network over General Packet Radio Service (GPRS). Insert the SIM card before turning on the power. Refer to Inserting SIM Card.

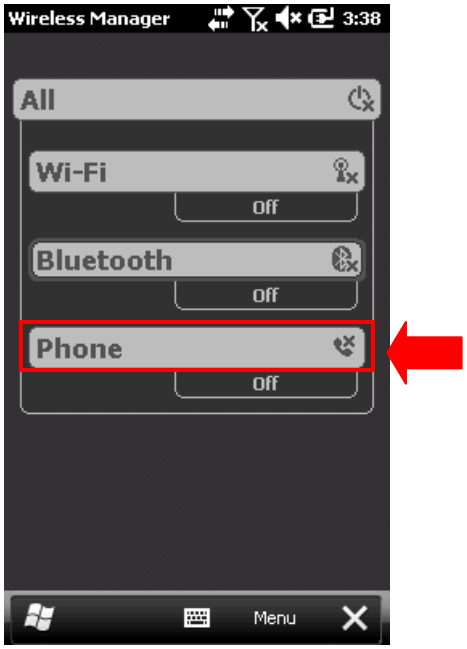
Note: If the SIM card is not in position, you may make emergency calls if the service is supported.

6.1 PHONE POWER

6.1.1 WIRELESS MANAGER

1. Go to Start | **Wireless Manager** as shown below.

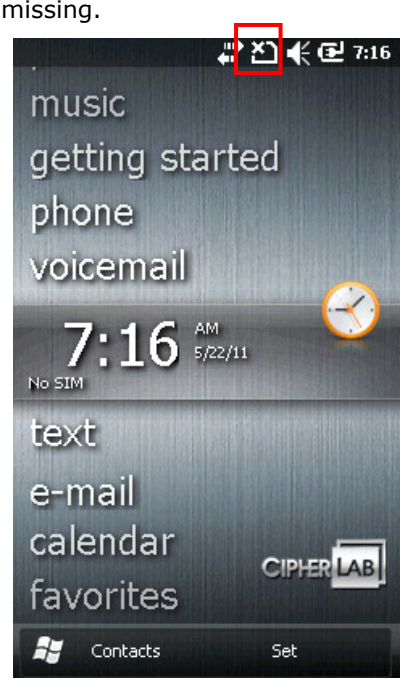
2. Tap [All] or [Phone] to turn on the power.



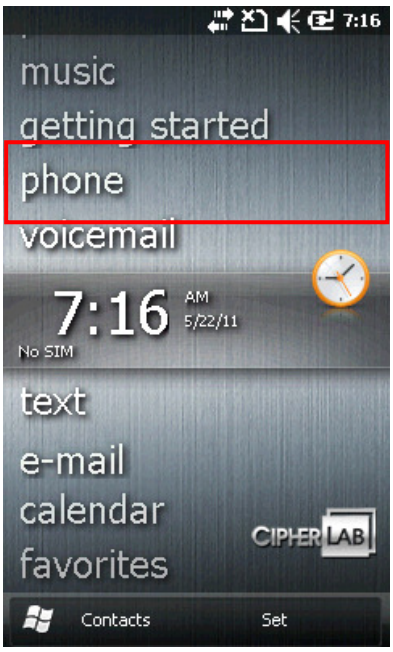
3. Tap **Menu | Phone Settings** to access the phone keypad if necessary.

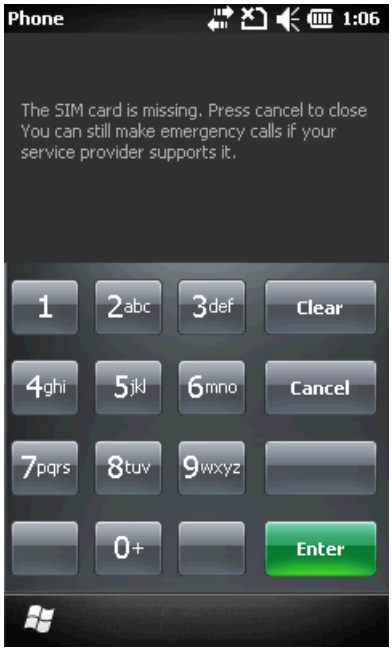
6.1.2 SIM CARD MISSING

1. On the **Home Screen**, the notification icon on the title bar show that the SIM card is missing.



2. Double-tap **Phone** to access the phone keypad. Depending on your service provider, only emergency calls are allowed.



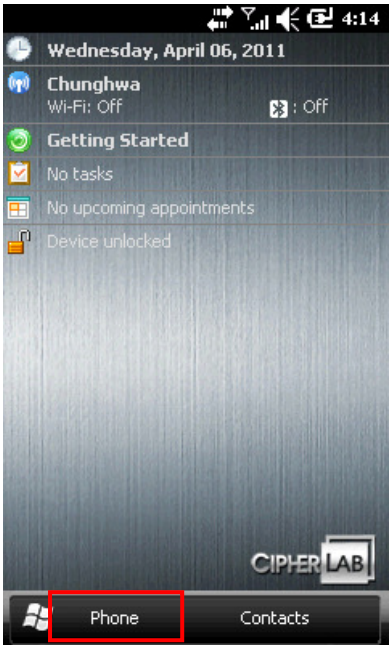


6.2 PHONE SETTINGS

6.2.1 PHONE KEYPAD

When the phone keypad appears, the YELLOW key is turned on automatically. Unless you press the YELLOW key again, only the yellow-coded numbers and symbols on the hardware keypad are enabled.

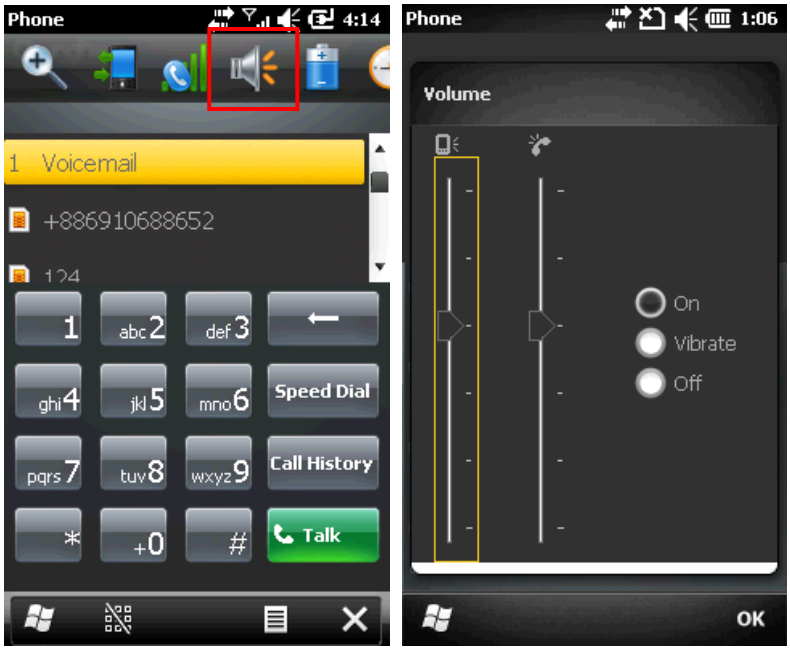
1. Tap **Phone** or press the green [Talk] button on the physical keypad to access the phone keypad.



2. The notification icons show the antenna signal and key status of the physical keypad.

6.2.2 ADJUST VOLUME

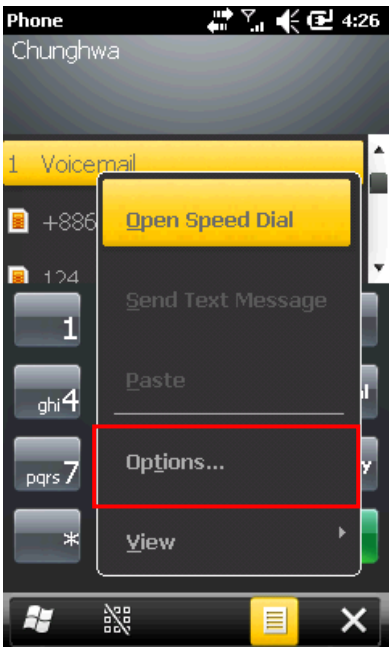
Tap the volume setting icon to change the system volume or phone ring. You may mute it or have it vibrate instead.



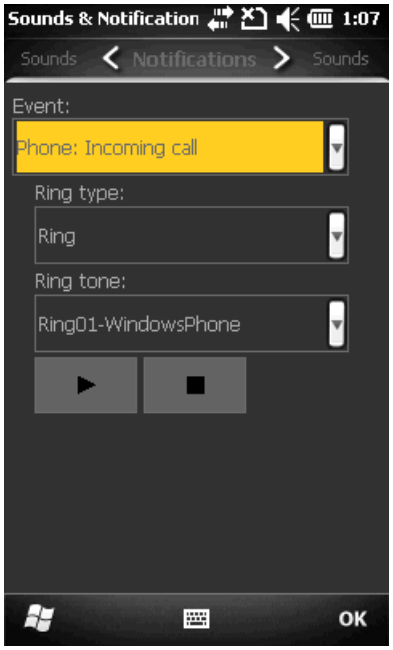
Note: You may press the Volume Up/Down buttons on the left side of the touch screen.

6.2.3 PHONE SETTINGS

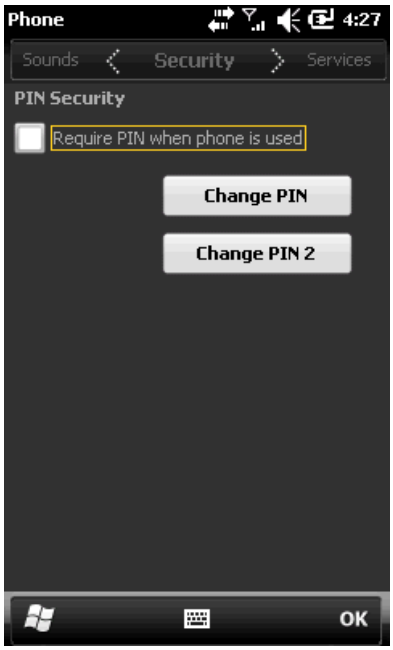
1. Tap **Menu | Options** to configure the phone settings.



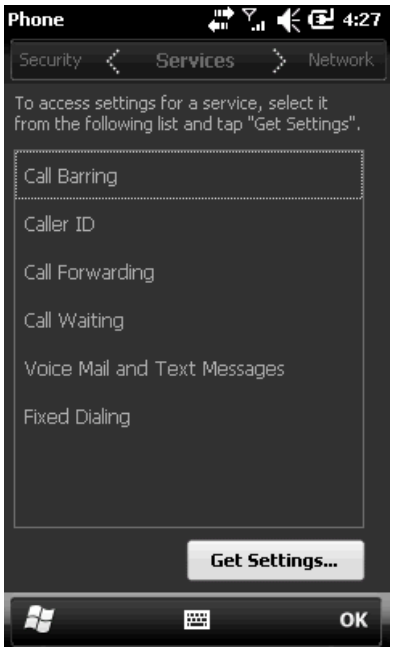
2. Tap the Phone tab to configure related settings.



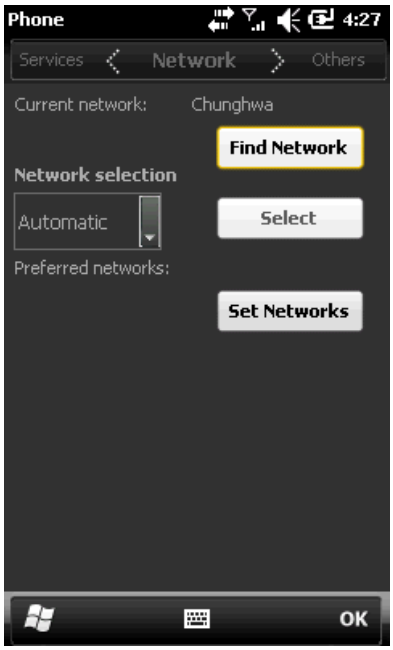
3. Tap the Security tab to configure related settings.



4. Tap the Services tab to configure related settings.



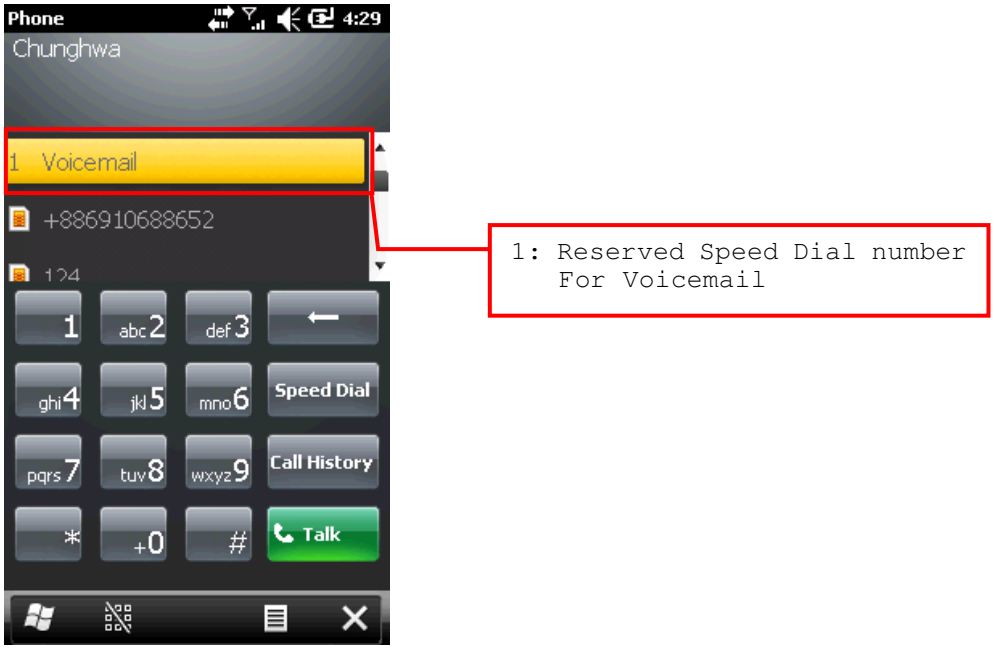
5. Tap the Network tab to configure related settings.



6.3 MAKING PHONE CALLS

You may connect the provided earphones or use a Bluetooth headset. The phone features allow you to –

- Make or receive phone calls
- Manage your phone book
- Assign a Speed Dial number to a contact, 99 numbers are available



6.3.1 DIAL A NUMBER

You can dial a number in one of the following ways:

Dialling

Using the dial pad on the screen or the physical keypad – simply enter the number you want to call.

From Contacts

Browse the phone book to find the contact or number you want to call.

Using Speed Dial

Enter the speed dial number of the desired contact.

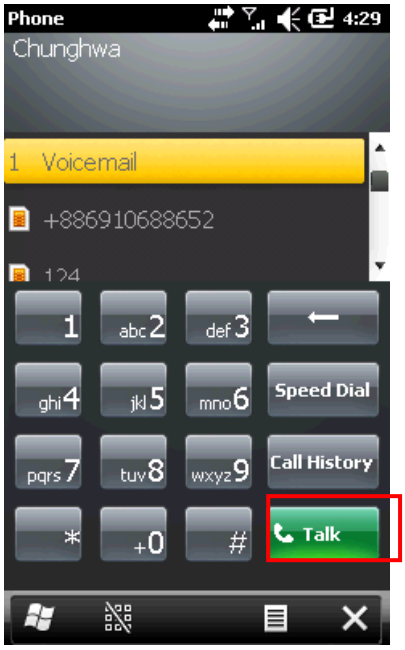
From Call History

Browse call history via the display panel to pick the number you want to call.

6.3.2 MAKE A CALL

Dialling Out

Tap the green [Talk] button on the phone keypad, or press the green telephone key on the physical keypad.



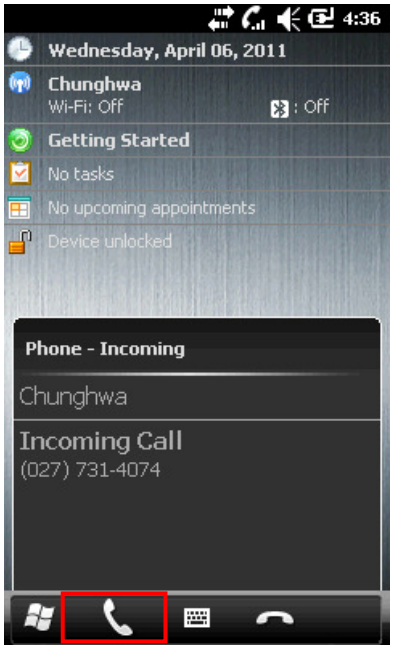
Hanging up

Tap the red [End] button on the phone keypad, or press the red telephone key on the physical keypad.

6.3.3 ANSWER A CALL

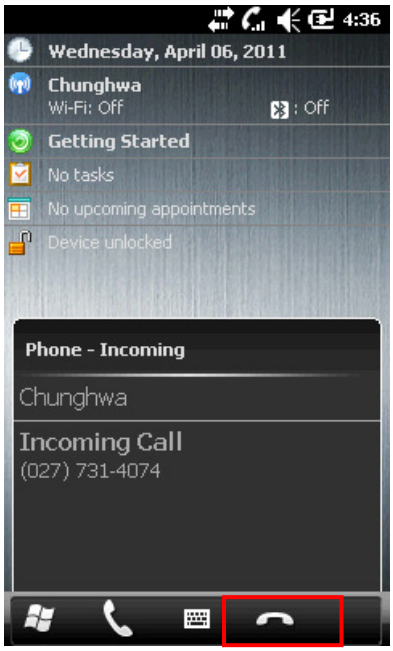
Answering a Call

Tap **Answer** or press the green [SEND] key on the physical keypad.



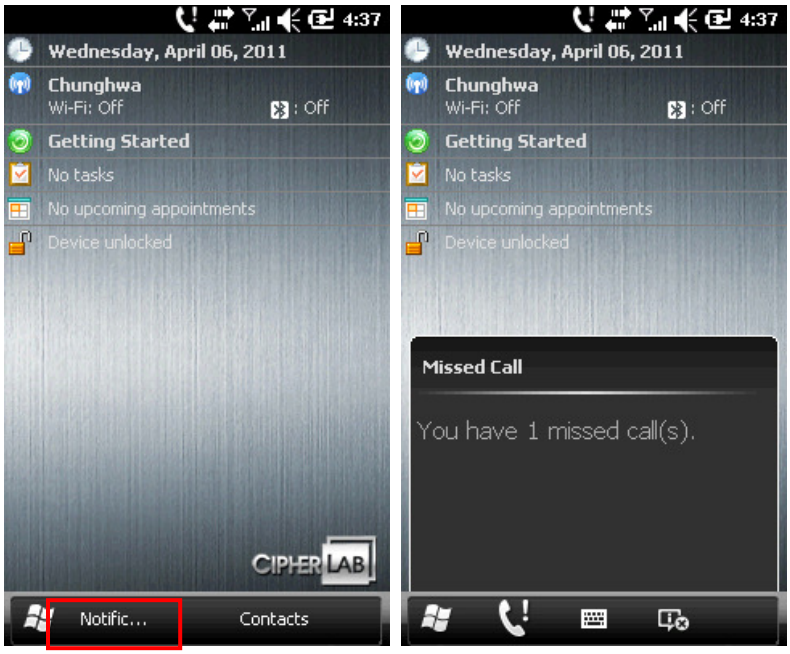
Ignoring a Call

Tap **Ignore** or press the red [END] key on the physical keypad.



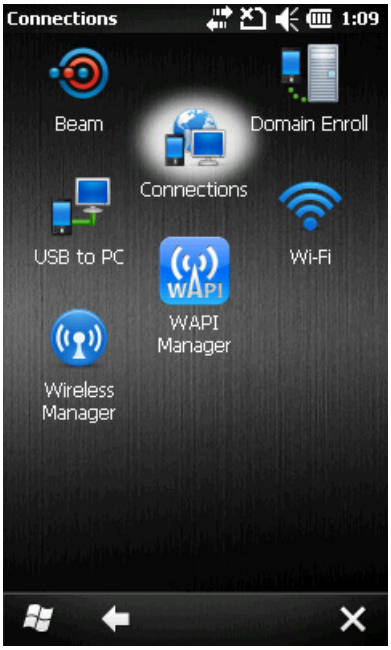
Viewing a Missing Call

When the icon displayed on the title bar, tap **Notification** on the soft key bar to view messages.



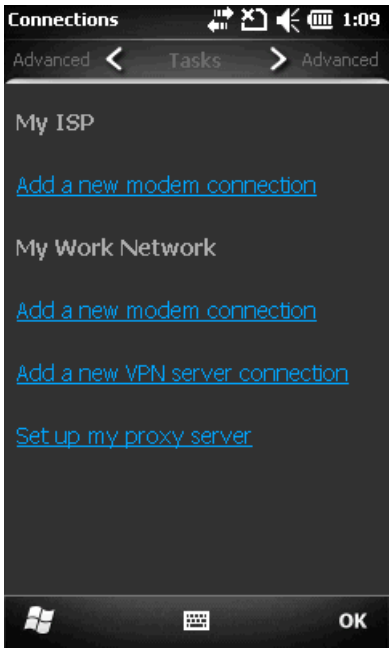
6.4 CONFIGURING GPRS NETWORK

1. Tap **Start | Settings | Connections** and select **Connections**.

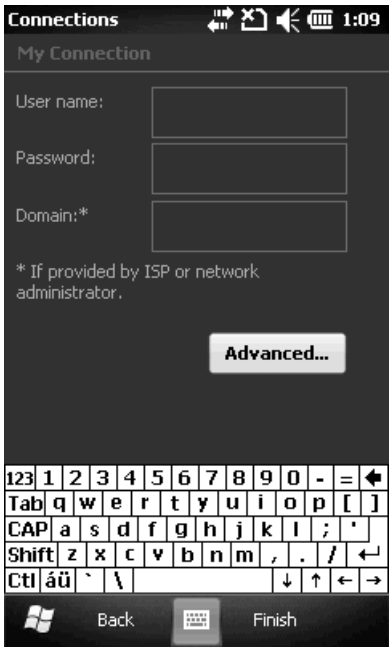


2. Initially, you have to configure the GPRS settings.

   Tap [Add a new modem connection] and follow the on-screen instructions to enter the connection name, dial-up phone number, user number, password, etc.



3. Tap **Finish**.



Note: You must connect to the GPRS modem specified by the mobile phone operator.

CIPHERLAB / CP30

SPECIFICATIONS

PLATFORM, PROCESSOR & MEMORY

Operating System & CPU

Windows Version	Microsoft Windows Mobile 6.5 Professional
CPU	Qualcomm MSM7225 at 528 MHz

Memory

ROM	512 MB NAND flash memory
RAM	256 MB DDR
Expansion Slot	One microSD card slot ▸ SDHC supported

COMMUNICATIONS & DATA CAPTURE

Communications

USB Client	USB Client 2.0 Specification
WPAN	Built-in module for Bluetooth version 2.0 + EDR Class 2 connectivity
WLAN	Built-in module for 802.11b/g networking
WWAN	▸ GSM/ GPRS/ EDGE/ UMTS GSM Bands: 850/900/1800/1900 WCDMA band: 2100 GPRS: GRPS class 12 EGPRS/EDGE: Multi-Slot Class 12 ▸ UMTS: DL/UL, HSDPA 7.2Mbps, HSUPA 2Mbps
GPS	GPS/A-GPS, ephemeris downloadable

Data & Image Capture

Digital Camera	3.2 mega-pixel CMOS type
Barcode Reader	Ordering options include ▸ 1D Laser ▸ 2D Imager

ELECTRICAL CHARACTERISTICS

Batteries

Main Battery Pack	Rechargeable Li-ion battery – 3.7 V, 2200 mAh
Backup Battery	Rechargeable Alkaline button cell battery – 3 V, 1 mAh

Power Adaptor

Power Supply Cord with	Input	AC 100~240 V, 50/60 Hz
Universal Power Adaptor	Output	DC 5 V, 1 A

Working Time (Laser, one scan per 5 seconds)

Wi-Fi Mode with 50% backlight	10 hours (Speaker at normal volume)

PHYSICAL CHARACTERISTICS

Color Touch Screen Display

Display	3.2” TFT-LCD, 65k colors
Resolution	WQVGA (240 × 400 pixels)

Keypad

Layout	Alphanumeric keypad, LED backlight programmable

Notifications

Status LED	One for charging (Red / Green)
	One for scanner Good Read and message (Amber)
Audio	Integrated with one speaker (back), microphone and receiver (front)
	Headset jack – 3.5 mm DIA stereo earphone jack
	▶ Bluetooth headset supported
Vibrator	For phone ring and scanner Good Read

Dimensions & Weight

Dimensions	161.5 mm (L) 68.5 mm (W) 27.1 mm (H)
Weight	Approx. 300 g (including battery, but configuration-dependent)

ENVIRONMENTAL CHARACTERISTICS

Temperature

Operating	-15 °C to 55 °C
Storage	-20 °C to 60 °C

Humidity

Operating	10% to 90%, non-condensing
Storage	5% to 95%, non-condensing

Resistance

Impact Resistance	1.22 m, 5 drops per 6 sides
Tumble Test	300 times at 50 cm
Splash/Dust Resistance	IP 42

PROGRAMMING SUPPORT

Development Environment & Tools

Integrated Development Environment	Visual Studio 2008
	Visual Studio 2005
Software Development Kit	Microsoft SDK
	System API (LIB and DLL) for system configuration
	Reader API (DLL) for reader configuration

Software & Utilities

Cipherlab software package	▸ Reader Configuration Utility
	▸ FORGE Application Generator
	▸ MIRROR Browser for web application
Third-party software	▸ Navigation software
	▸ SOTI MobiControl for remote device control
	▸ SOTI MobiScan
	▸ Naurtech CETerm – Terminal emulator (3270, 5250, VT) and industrial web browser
	▸ LPR API/Sample Code

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