

FALCON4220

Ver 1.0 10/20/2003

Key Features

- *Intel Cotulla 400Mhz 32 bits RISC Processor*
- *64/128 MB SDRAM and 64MB Flash ROM*
- *One CF-II and SD expansion slot*
- *Support USB1.1 Client and Host*
- *Bar-Code Engine Build in (Laser/CCD Scanner)*
- *Wireless Communication Ready (802.11b)*
- *Alphanumeric Keyboard Build-in*



Specifications

Processor

- Cotulla 400Mhz 32 bits RISC CPU

Chipset

- Intel Cotulla embedded chipset
- Media-Q MQ1188 Graphic, SD and USB host Controller
- Wolfson WM9705 AC'97 codec with Touch screen controller

Memory

- 64MB (M-System) Flash ROM
- 64/128MB SDRAM

Display

- Support 240 X 320 TFT 256K Color LCD
- 0.0745mmX3 (H) X0.2235mm (V) dot pitch
- Transflective type TFT LCD with back light
- Support 4-wire resistance type touch panel

Audio

- One mono speaker
- 2.5mm DIA stereo earphone jack with Microphone input.

USB Function

- Support USB 1.1 Compliant Function
- Support USB 1.1 Compliant Host in 100mA
- USB interface will support from cradle USB connector or external USB cable

Expansion Module

- Laser Engine / Long Range CCD / 2D Scanner (Opticon VLM4000/4100, Bitatek CCD, Symbol SE900A/SE800)

Infrared Port

- One IrDA 1.2 compliant SIR port support 20cm ~ 30cm distance

Expansion Slot

- One Compact Flash Type-II slot (support 3.3V)
- One SD Card slot (support SDIO)

Power System

- Build in 1800mAh Li-Polymer removable battery (10 operation & 100 standby hours in 64MB DRAM and 64 ROM module)
- 25 mAh rechargeable backup battery (It will hold the system data at least 2 hours without main battery)
- One adapter with 100~240Vac, 50/60Hz

- AC input and 5V/2A DC output
- One DC-IN jack

Button/Key

- Power/Front light on/off button
- 4-way navigation button
- 2 Scanner Enable Keys
- SW Reset input button
- System battery (power) switch
- 16 + 1 alphanumeric keyboard

LED

- One three-color LED for Alarm notification(R) and charger indicator(G/B)
- One two-color LED for scanner indicator

Power Management

- Support for Xscale application modes including: Turbo Mode, Normal Mode, Idle Mode and Sleep Mode
- Peripheral power – On/Off controllable via software

RADIO Module

- 802.11b

Dimensions and Weight

- 78 mm (W) x 168mm(L) x 33mm(H)
- Weight: 350g

Software

- Microsoft WinCE .NET 4.2 (Professional Version)
- IE, Inbox, Async..etc.
- SW update from CF

Environmental Test

- Operating Temperature: -10 ~50
- Storage Temperature: -20 ~60
- IP54 Standard (Cradle is not be included)
- 4 ft (1.2m) drop to concrete

Peripherals and Accessories

- Hand-Strap
- WAN Module
- Docking Station

Color

- Dark-Blue

FALCON4220 Keypad Layout

10/20/2003



-  PANTONE 877C (銀色)
-  PANTONE 123 C
-  PANTONE 164 C
-  PANTONE 3258 C
-  PANTONE 433 C [外殼本體色]



Docking Station

10/20/2003

Key Features

- *PC Communication*
- *Battery Management*
- *USB Host and Client*
- *RS-232*
- *Ethernet Module Ready (optional)*

Specifications

DC Power Jack Input

- DC 5V/2A

2nd Battery Status LED

- No LED: Fully charged
- Amber: Charging
- Flashing: Problem

USB Client Connector

- Connect to PC
- Support USB Client only

USB Host Connector

- Support USB Host
- Support USB device (100mA)

RS232 D-Sub Connector

- Connect to PC
- Support RS232 full function

Ethernet Module (optional)

- Support 10/100 Mb Ethernet communication
- Connect through USB host connector

2nd Battery Charge Slot

- Support 2nd Battery Charge

Size and Weight

- 130mm(L) x 120mm(W) x 20mm(H)
- Weight: TDB

Environmental

- Operating Temperature: 0 ~50
- Storage Temperature: -20 ~60
- 75cm drop to concrete

Peripherals and Accessories

- USB Cable (connect to PC)
- RS-232 Cable
- Ethernet Module

Standard Packing List

10/20/2003

N.O.	Item	Notes
1.	PC320 Terminal	
2.	User's Manual	Intercom provide
3.	Quick Guide	Intercom provide
4.	Warranty Card	Intercom provide
5.	Supplement CD	Intercom provide content and art work
6.	Standard AC Adaptor	
7.	Standard Battery Pack	
8.	AC Power Core	(Option)
9.	Opened CF Cover	
10.	Screen Protect Film x 1	(Option)
11.	Cable (USB or RS232)	(Option)
12.	Ear-Phone Set (STEREO) with Microphone	

Cradle Packing List

10/20/2003

N.O.	Item	Notes
1	PC320 Cradle	
2	Quick Installation Guide	Intercom provide
3	Standard USB Sync Cable	(or RS232 Cable)
4	Ethernet Module	(Option)
5	Multi-Link Join	(Option)

Accessory List

10/20/2003

N.O.	Item	Notes
1.	Stylus Pen (3 in 1)	
2.	USB Sync Cable for PC320	
3.	Standard Battery Pack (1800mAh)	
4.	Ear/Micro-phone	
5.	RS232 Serial Cable for PC320	
6.	Hand Strap with Protect Rubber	
7.	PC320 Cradle	
8.	USB Sync Cable for Cradle	
9.	RS232 Serial Cable for Cradle	9Pin
10.	USB Ethernet Module for Cradle	10 base-T Future
11.	MSR (Magnetic Stripe card Reader)	Bit a Provide
12.	Screen Protect Film (4 in 1)	Future
Priority		
	Status 0	Default
	Status 1	After Status 0
	Status 2	After Status 1
	Status 3	After Status 2
	Future: Thinking about it but do nothing about it.	

Warning

- 1 Never stare directly into the laser beam or shine the laser light into the eyes.
- 2 Never apply strong pressure to the screen or subject it to strong impact so as to avoid cracking the screen or LCD panel glass, which can cause the danger of personal injury. Should the LCD panel glass break, never touch the liquid inside, which can cause skin inflammation.
- 3 Be sure to use only the AC adaptor we provide. Use of other AC adaptor model might create electric problems or the danger of fire and electric shock.
- 4 Even this device has passed the rating IP54 for water and dust proof standard, it is better not to use it under raining / water too long. If the environment condition is over the standard IP54, water may enter the product.
- 5 Do not disassemble or reassemble the device except those who have been trained for that. Should the device be broken due to any wrongly handling, we shall not provide warranty service.
- 6 Be sure to make backup copies of all important data. For instance, using the separately sold Cradle to transfer data to a computer. Note that Bitatek Co., Ltd shall not be held liable to anyone for any damages or loss caused by deletion or corruption of data due to use of this device IT-6000 or due to the batteries going dead.



BARCODE READING

1. Execute barcode application

Note: This device is provided with a built-in utility " Scanner Diagnostics " for barcode reader testing.

2. Aim the scan window at the barcode

Note: Remember to take off the coat which is on the scan window and does influence the reading sensitivity.

3. Press "R" or "L" scan key

Note: If the barcode scan failed, revise the reading angle or distance.

4. Aim the laser beam at the center of the barcode

5. Check the barcode reading result: failed or successful

You can verify the result of barcode reading by beep sounds or the LED indicator.



6. Barcode Scanning Position

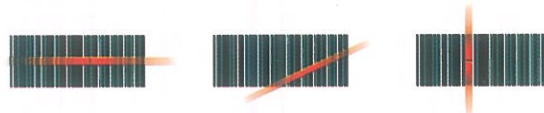
This device can read from 40 to 300 mm distance.

- 1) Position the laser scanner close to the barcode when scanning small barcodes.
And position it at a distance from the barcode when scanning large barcodes.
- 2) The reader can be detected by a red beam.



7. Barcode Scanning Position

- 1) Make sure that the bars enter the laser beam when scanning large barcodes.
- 2) Scanning operations may fail if the laser beam positions as below.

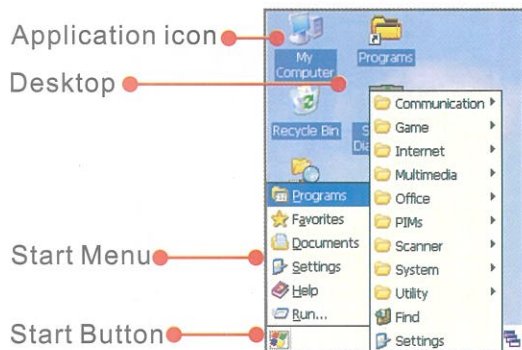


Note: This product scans using laser light. Never look directly into the laser light or shine the laser light into the eyes.

USING THE APPLICATION

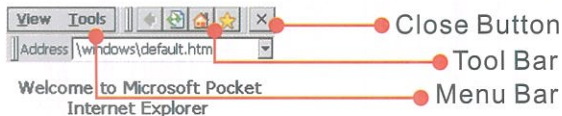
1. Execute the "Application"

- 1) Tap an application icon on the desktop
- 2) "Start"->"Programs"->"Select one of the applications-Press "FN " tab then the assigned application of "FN4"or"FN5"or"FN6"or "Fn7".



2. Close the "Application"

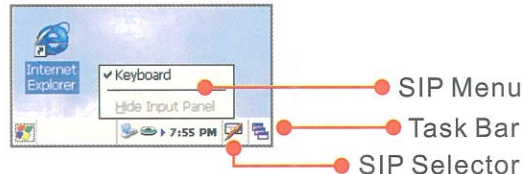
Tap "Close" tab of the application.



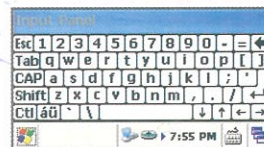
Note: Applications can generally be closed by " File -Exit " or " File -Close " or " X " on the right-upward corner of the screen.

3. Using Software Input Panel

- 1) Select "SIP" icon in the task bar



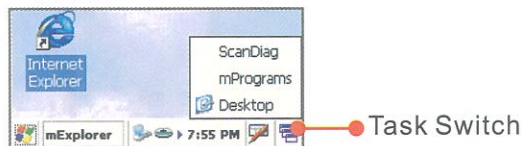
- 2) Select "SIP " under " SIP " menu
- 3) When Software Input Panel appears, input letters with a stylus pen.



4. Task Switch

Win CE can execute more than 2 applications at the same time.

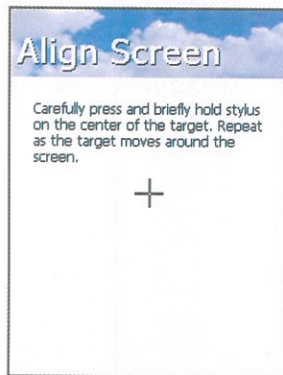
- 1) Press "Task Switch" icon in the task bar.
- 2) Select the task(s) you want in the task menu.
During the execution of applications, when you select the menu "Desktop", then it hides, instead of closing, all the other applications.



CONFIGURATION

1. Screen Alignment:

Whenever the operations being executed do not match with the location you're tapping on the touch screen, please recalibrate the alignment.



- 1) Control Panel Application, press "Start" - "Setting" - "Control Panel" and execute.
- 2) "Stylus" - tap the tab "Calibration"
- 3) Press the stylus against the target (+mark) as indicated on the screen.
The screen shown above appears after you press the stylus against the target at five different locations.
- 4) The window closes automatically while finishing the calibration.
And it will try again automatically while there's something wrong.

Note: The device is provided calibrated.
If there's something abnormal,
you can calibrate touch screen alignment.

2. Brightness Control

IT-6000 is equipped with a sunlight-readable LCD display.
To adjust the brightness, press the key "FN" and the navigation key ">" for a brighter display and, press the key "FN" and the navigation key "<" for a darker one.

3. Volume Control

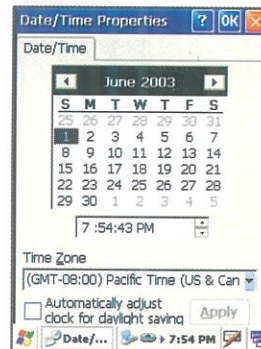
To control the volume of the device:

- 1) louder: press "FN" and "↑"
- 2) lower: press "FN" and "↓"
- 3) Mute: press "FN" and "2"

4. Date / Time Setting

You need to set date / time when you first buy this device or when the device is initialized.

- 1) Control panel application: tap "Start" - "Setting" - "Control Panel" and execute "Date/Time".
- 2) Change as you wish and tap "OK"



OVERVIEW

Scanner Window

Aim at the barcode when scanning.
Note: Do not look directly into the laser light.

Scanner LED Indicator

To indicate the result of a barcode reading operation

Red: Read Error.

Green: Read Successful

LCD Screen

To show texts, operation indicators, etc. Also, operations can be performed and texts can be input using a stylus.

Navigation Keys

Navigable to upward, downward, left or right directions

Home Application Button

To execute applications. Also, this key can be assigned for user-defined applications.

Left Barcode Scan Button

Press to perform a barcode reading operation.

SD Slot

Insert a SD peripheral here.
Generally used for flash memory cards.

Power LED Indicator

To indicate the charge status of the battery pack

Red: Charging. **Green:** Charging complete

Power and Backlight Button

Press to turn the power on or off. When the power is on, keep pressing down over one second to turn on the backlight.

Keypad

Use these keys to input numbers and letters.

USB Host

To connect USB peripherals

Sync Port

To connect USB / Serial cable to transmit synchronized data with a desktop

DC Power Jack

To connect a power adaptor to charge the device



CF Type I/II Slot

To use CF peripherals

Note: two choices of the slot cover:
open-topped or covered one

Screw Hole

To fix CF type peripherals or a pistol grip.

CF Type Slot Cover Lock Switch

Slide the switch to lock or unlock the CF slot cover.

IR Port

This port is used for IR data communication.
Ex. With an IrDA printer

Hand Strap holder

To hold the hand strap

Ear / Microphone Jack

To output / input audio

Right Barcode Scan Button

Press to perform a barcode reading operation.

Stylus Pen

Input from the touch screen.

Note: The other end of the stylus pen can be used
to open the CF slot cover.

Internal Speaker

To output various sound effects

Reset Key

Press to reset the device.

Note: If press "FN" and "RESET" keys, this device will be totally initialized.
All the applications will disappear and all the settings will return
to their initial factory defaults.

Battery Pack Cover

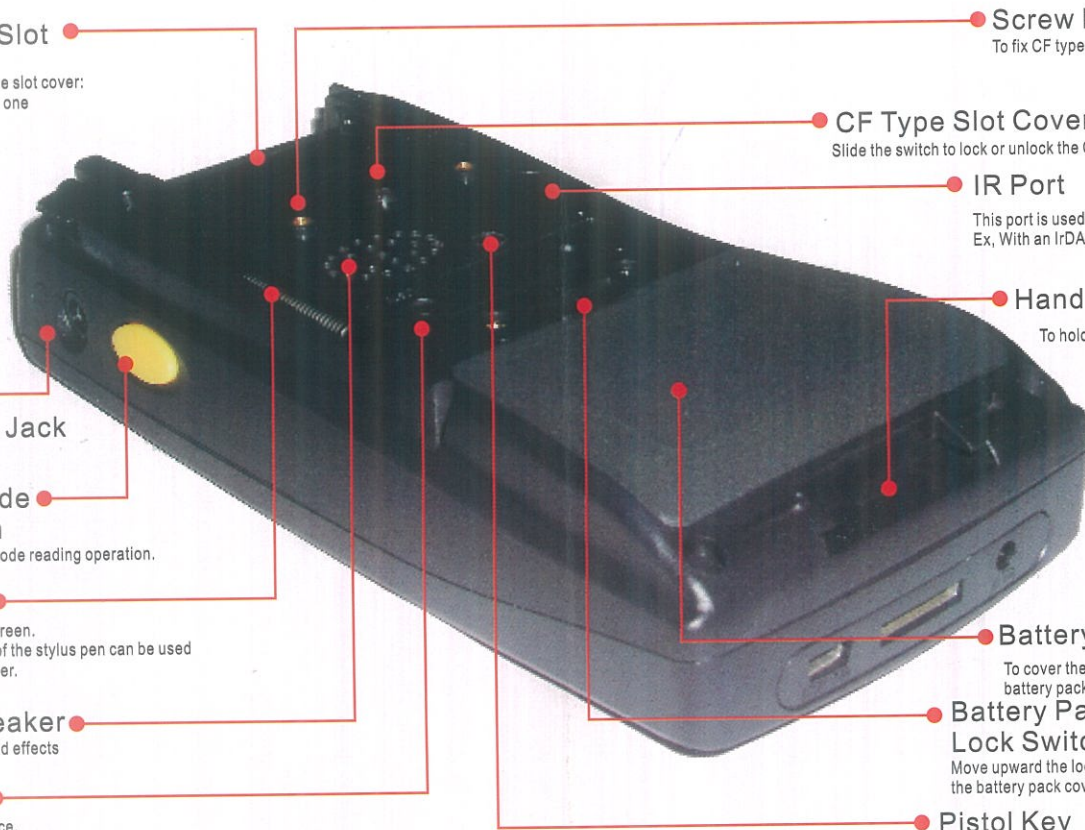
To cover the compartment that holds the
battery pack.

Battery Pack Cover Lock Switch

Move upward the lock switch to slide or release
the battery pack cover.

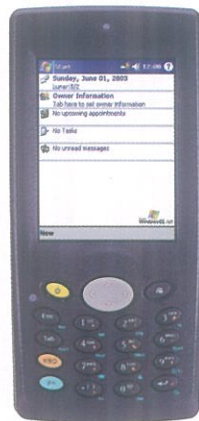
Pistol Key

Press the trigger of the pistol to perform a barcode
reading operation via this pistol key.



BEFORE GETTING STARTED

1. Open the package and check every accessory:



Main Unit



Stylus Pen



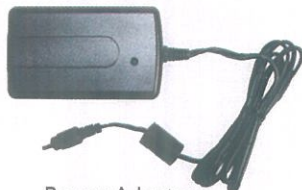
CF Open Cover



Standard Battery Pack



Ear/Microphone Set



Power Adaptor

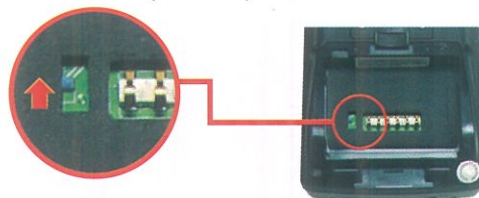


Power Cord



Sync Cable

2. Turn on the backup battery:



Inside the compartment that holds the battery pack, move upward the switch to turn on the backup battery.

Note: If the use time of this device is not long, turn off the switch to save battery.

3. Replace the battery pack cover:

Taking care to ensure it is oriented correctly, load a new battery pack into the device. Pull upward the battery pack lock switch and press directly the cover to close it.



4. Connect Power Adaptor to charge the device:



It takes 4 hours to fully charge the device.

Attention! Do not turn on the unit until batteries are charged for a minimum of 4 hours. When finishing charging, the power LED turns from red to green.

USING PERIPHERALS

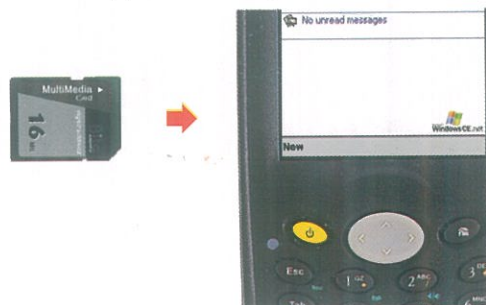
1. Using CF Type Peripherals

- 1) Open the CF slot cover with the stylus pen.
- 2) Insert oriented correctly a CF card.
- 3) Close the CF slot cover.



2. Using SD/MMC type Card

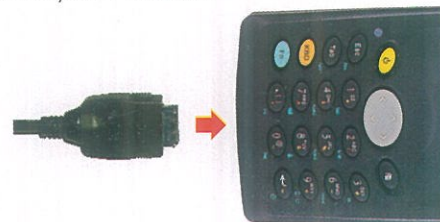
- 1) Open the SD/MMC cover
- 2) Insert oriented correctly a SD/MMC card
- 3) To remove the card, press the card again.



3. USB / Serial Connection

- 1) Generally it's used for synchronized data transmission with a desktop.
- 2) Connect the data sync cable.

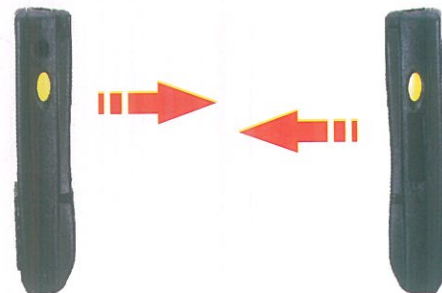
Note: If you use a USB / Serial cable, you need to install Microsoft active sync 3.7 or above.



4. IrDA Connection

- 1) Generally it's used for synchronized data transmission with a desktop or a portable printer.
- 2) Aim both devices' IR port at each other's.

Note: As IrDA is very sensitive to the distance or the angle, approach the two devices' IR ports as close as possible.



FCC Information to User

Information of the responsible party for a DoC product

Company Name: PSC SCANNING INC./PSC Scanning, Inc

Address: 959 Terry Street Eugene, OR 97402 U.S.A.

Contact: MR. JERRY KALINA

Telephone: (541)683-5700

Fax: (541)345-7140

Federal Communications Commission (FCC) Requirements, Part 15

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the 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.

Regulatory information / Disclaimers

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

its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

IMPORTANT NOTE (CO-LOCATION)

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna **must** not be co-located or operating in conjunction with any other antenna or transmitter.

SAR Exposure

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

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

CE Declaration of Conformity

For the following equipment: PDA



Is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC), Low-voltage Directive (73/23/EEC) and the Amendment Directive (93/68/EEC), the procedures given in European Council Directive 99/5/EC and 89/336/EEC.

The equipment was passed. The test was performed according to the following European standards:

- EN 300 328 V.1.4.1 (2003-04)
- EN 301 489-1 V.1.3.1 (2001-09) / EN 301 489-17 V.1.1.1 (2000-09)
- EN 301 893 V.1.2.2 (2003-06)
- EN 50371: 2002
- EN 60950: 2000

