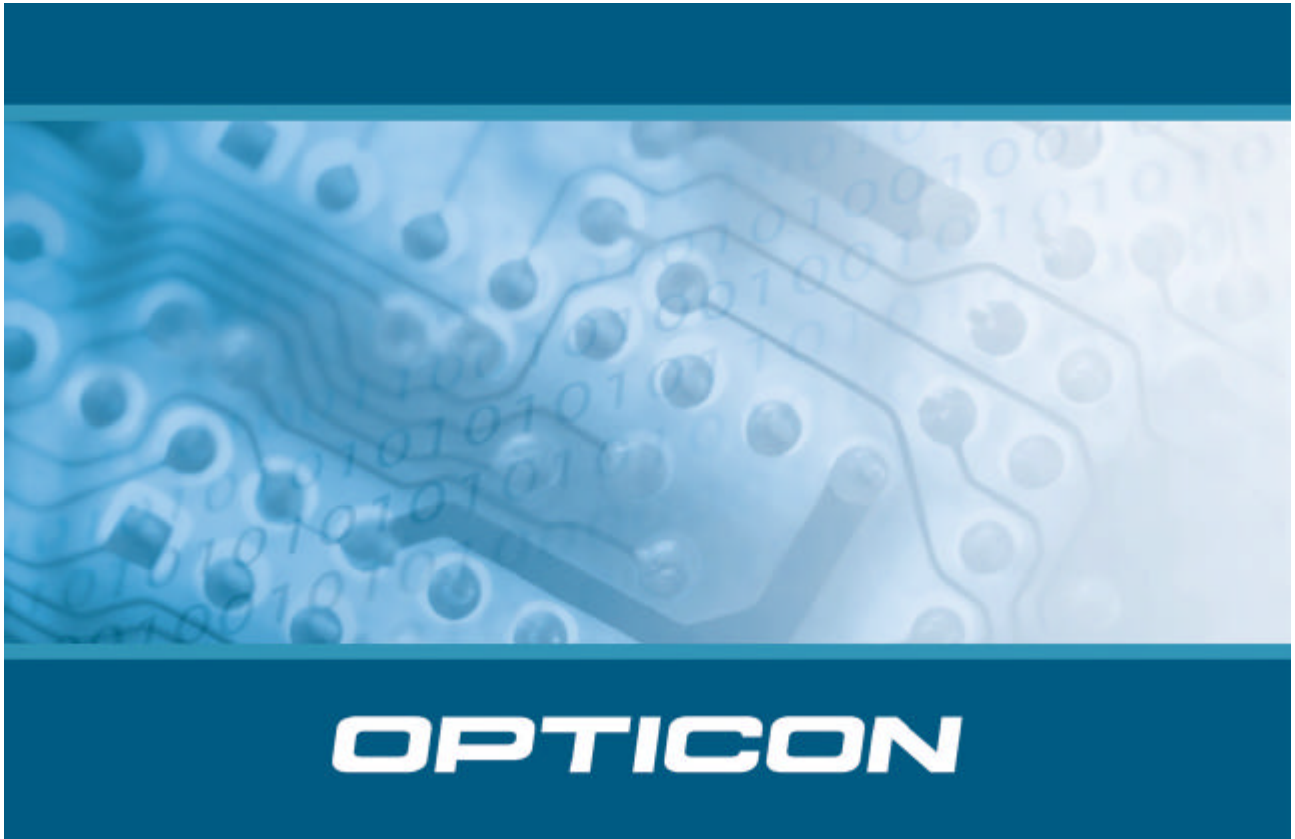


# USER'S MANUAL



**Ruggedized Portable Data Terminal.**

|                                                     |
|-----------------------------------------------------|
| Document : PHL-7100, PHL-7200 User's manual         |
| Distributed: Opticon Sensors Europe B.V., Hoofddorp |

CAUTION: This information is subject to change without prior notice.

**Copyright 2006, Opticon Sensors Europe B.V. All rights reserved.**

This manual may not, in whole or in part, be copied, photocopied, reproduced, translated or converted to any electronic or machine readable form without prior written consent of Opticon Sensors Europe.

**Limited warranty and disclaimers**

UNDER ALL CIRCUMSTANCES THIS MANUAL SHOULD BE READ ATTENTIVELY, BEFORE INSTALLING AND OR USING THE PRODUCT.

**Serial number**

A serial number appears on all Opticon products. This official registration number is strictly related to the device purchased. Make sure that the serial number appearing on your Opticon device has not been removed. Removing the serial number might affect the warranty conditions and liability disadvantageously, so please be strict at maintaining the label with serial number on the Opticon product.

**Warranty / Warranty period / Liability**

Unless otherwise agreed in a contract, all Opticon products are warranted for the period of two years after purchase, covering defects in material and workmanship. Opticon will repair or, at its opinion, replace products that prove to be defective in material or workmanship under proper use during the warranty period. Opticon will not be liable in cases where modifications are made by the customer. In such case the standard repair charge will be applicable. The standard charge for repair will also be applicable in cases where no defect is found at all. These rules also apply for products that are still under warranty. Under no circumstance will Opticon Sensors Europe, be liable for any direct, indirect, consequential or incidental damages arising out of use or inability to use both the hardware and software, even if Opticon has been informed about the possibility of such damages.

**Packaging**

The packing materials are not harmful for the environment. We recommend that you save all packing material, as it should be used whenever you need to transport your scanner (eg. for service). Damage caused by improper repacking is not covered by the warranty.

**Trademark**

Trademarks used are property of their respective owners.

---

Opticon Sensors Europe B.V.

email support department: **support@opticon.com**

Internet: [www.opticon.com](http://www.opticon.com)

---

## Table of Contents

---

|                                                          |      |
|----------------------------------------------------------|------|
| Table of Contents .....                                  | 1-3  |
| Chapter 1. Introduction .....                            | 1-1  |
| 1.1 About this Manual .....                              | 1-1  |
| 1.2 User and Product Safety .....                        | 1-2  |
| 1.3 Battery Safety .....                                 | 1-3  |
| 1.4 FCC Statement .....                                  | 1-4  |
| 1.5 Recycling & disposal instructions. ....              | 1-5  |
| 1.6 Regulatory information. ....                         | 1-5  |
| 1.7 Product Labeling .....                               | 1-6  |
| 1.8 System Specifications .....                          | 1-10 |
| 1.9 Environment and durability. ....                     | 1-13 |
| 1.10 Warranty and after service .....                    | 1-13 |
| Chapter 2. Getting started .....                         | 2-14 |
| 2.1 Check the package .....                              | 2-14 |
| 2.1.1 PHL-7100 .....                                     | 2-14 |
| 2.1.2 PHL-7200 .....                                     | 2-15 |
| 2.2 General View of the PDT .....                        | 2-16 |
| 2.2.1 PHL-7100 front view .....                          | 2-16 |
| 2.2.2 PHL-7100 rear view .....                           | 2-16 |
| 2.2.3 PHL-7200 front view .....                          | 2-18 |
| 2.2.4 PHL-7200 rear view .....                           | 2-18 |
| 2.3 Charging the Battery Pack .....                      | 2-20 |
| 2.3.1 Installing the battery pack .....                  | 2-20 |
| 2.3.2 Charging the battery pack with Power Adapter ..... | 2-22 |
| 2.3.3 Charging the battery pack with IRU-7000 .....      | 2-23 |
| 2.4 Handling the PDT .....                               | 2-25 |
| 2.4.1 Starting the PDT .....                             | 2-25 |
| 2.4.2 Power on / off .....                               | 2-25 |
| 2.4.3 Calibration of the touch Screen .....              | 2-26 |
| 2.4.4 Adjusting the brightness .....                     | 2-26 |
| 2.4.5 To mute the sound .....                            | 2-27 |
| 2.4.6 Using the stylus .....                             | 2-27 |
| 2.4.7 Using the PHL-7100 keypad .....                    | 2-27 |
| 2.4.8 Using the PHL-7200 keypad .....                    | 2-37 |
| 2.5 Navigating the Display .....                         | 2-48 |

|                                                 |            |
|-------------------------------------------------|------------|
| 2.5.1 Setting Time and Date.....                | 2-48       |
| 2.5.2 Entering the Data .....                   | 2-48       |
| 2.5.3 The Command Bar .....                     | 2-49       |
| 2.5.4 The Task Bar .....                        | 2-49       |
| 2.5.5 The Soft Keypad.....                      | 2-50       |
| 2.5.6 Setting Up Wireless LAN RF .....          | 2-50       |
| 2.5.7 Reading bar codes, 1D laser version. .... | 2-52       |
| 2.5.8 Reading bar codes, 2D CMOS version. ....  | 2-53       |
| 2.5.9 Help.....                                 | 2-54       |
| 2.6 Power management .....                      | 2-55       |
| 2.6.1 Suspend Mode .....                        | 2-55       |
| 2.6.2 Resuming .....                            | 2-56       |
| 2.7 Resetting the PDT .....                     | 2-56       |
| 2.7.1 Warm Reset .....                          | 2-56       |
| 2.7.2 Cold Reset .....                          | 2-56       |
| <b>Chapter 3. PDT settings .....</b>            | <b>3-1</b> |
| 3.1 Introduction.....                           | 3-1        |
| 3.2 Control Panel.....                          | 3-1        |
| 3.2.1 BarCode Settings .....                    | 3-2        |
| 3.2.2 Bluetooth Device Properties.....          | 3-18       |
| 3.2.3 Certificates .....                        | 3-21       |
| 3.2.4 Control Center.....                       | 3-23       |
| 3.2.5 Date/Time.....                            | 3-28       |
| 3.2.6 Dialing Properties.....                   | 3-28       |
| 3.2.7 Display Properties .....                  | 3-30       |
| 3.2.8 Input Panel.....                          | 3-32       |
| 3.2.9 Internet Options.....                     | 3-33       |
| 3.2.10 Keyboard.....                            | 3-35       |
| 3.2.11 Network and Dial-up Connections .....    | 3-36       |
| 3.2.12 Owner .....                              | 3-41       |
| 3.2.13 Password .....                           | 3-42       |
| 3.2.14 PC Connection .....                      | 3-43       |
| 3.2.15 Power .....                              | 3-44       |
| 3.2.16 Regional Settings .....                  | 3-46       |
| 3.2.17 Remove Programs .....                    | 3-47       |
| 3.2.18 Storage Manager.....                     | 3-47       |
| 3.2.19 Stylus .....                             | 3-48       |
| 3.2.20 System .....                             | 3-50       |
| 3.2.21 Volume & Sounds Properties .....         | 3-52       |

|                                                           |            |
|-----------------------------------------------------------|------------|
| 3.3 Taskbar and Start Menu.....                           | 3-53       |
| <b>Chapter 4. Communication .....</b>                     | <b>4-1</b> |
| 4.1 Installing & Setting Up Microsoft ActiveSync .....    | 4-1        |
| 4.1.1 Installing Microsoft ActiveSync on the Host PC..... | 4-1        |
| 4.1.2 Connecting PDT to Host PC.....                      | 4-1        |
| 4.2 Using ActiveSync.....                                 | 4-1        |
| 4.2.1 Setting up a Partnership.....                       | 4-1        |
| 4.2.2 ActiveSync File Synchronization .....               | 4-3        |
| 4.3 Networking .....                                      | 4-3        |
| <b>Chapter 5. Software Applications.....</b>              | <b>5-1</b> |
| 5.1 Introduction.....                                     | 5-1        |
| 5.2 Software Applications .....                           | 5-1        |
| 5.2.1 Calculator .....                                    | 5-1        |
| 5.2.2 Inbox .....                                         | 5-2        |
| 5.2.3 Internet Explorer.....                              | 5-11       |
| 5.2.4 Media Player .....                                  | 5-14       |
| 5.2.5 Messenger .....                                     | 5-14       |
| 5.2.6 Microsoft WordPad.....                              | 5-15       |
| 5.2.7 Remote Connection .....                             | 5-21       |
| 5.2.8 Windows Explorer .....                              | 5-22       |
| 5.3 DiskOnChip .....                                      | 5-24       |
| 5.3.1 Saving to Flash .....                               | 5-24       |
| 5.3.2 DiskOnChip Location .....                           | 5-24       |
| 5.3.3 DiskOnChip Size .....                               | 5-25       |

## Chapter 1. Introduction

---

Congratulations on purchasing the Opticon PHL-7000 series Portable Data Terminal (PDT), a Microsoft Windows®CE .Net rugged PDT. Its special combination of features makes it perfect for using in a wide range of applications. These features as:

- λ Intel® XScale™ PXA255 400MHz 32 bits RISC processor
- λ Windows® CE .NET 4.2 Operating System
- λ 128 MB SDRAM & 64 MB FlashROM
- λ User accessible SD/CF slot
- λ 240 x 320, 3.5" Color TFT display with touch panel
- λ Numeric keypad or alphanumeric keypad with LED backlight
- λ 802.11b Wireless LAN support (optional)
- λ Bluetooth support (optional)
- λ Integrated 1D or 2D bar code reader

### 1.1 About this Manual

The following chapters contained in this manual are:

Chapter 1: Introduction, General information about the PDT.

Chapter 2: Getting started, Describe the basic use of the PDT.

Chapter 3: Setting, Provide basic instructions for customizing the PDT.

Chapter 4: Communication, Describe how to use all kinds of communication of the PDT.

Chapter 5: Software Application, Describe the installed applications on the PDT.

For configuration of the bar code reader, refer to the Opticon Universal Menu Book. The Universal Menubook can be downloaded from [www.opticon.com](http://www.opticon.com)

## 1.2 User and Product Safety

- Do not stare into the laser or LED beam directly or shine it into eyes.
- Never use strong pressure onto the screen or subject it to severe impact, as the LCD panel could become cracked and possibility cause personal injury. If the LCD panel is broken, never touch the liquid inside because the liquid irritates the skin.
- Although the PDT has passed the test of IP54 standard for water and dust resistance, avoid prolonged exposure to rain or other concentrated moisture. Such conditions exceeds the IP54 standard, and could result in water or other contaminants entering into the PDT.
- Use only the original approved AC Adapter with the PDT. Use of an unapproved AC Adapter could result in electrical problems, or even cause a fire or electrical shock to the user.
- Do not disassemble the PDT. Servicing should be done by Opticon only. If the PDT or accessories gets damaged due to wrong handling or unauthorized repair, warranty is void. In case the warranty seals are broken, warranty is void too.
- Make regularly back-ups of all important data.
- Under no circumstance will Opticon be liable for any direct, indirect, consequential or incidental damages arising out of the use or inability to use both the hardware and software and/or any data loss, even if Opticon has been informed about the possibility of such damages.

### 1.3 Battery Safety

Lithium-ion battery packs might get hot, explode, ignite and/or cause serious injury if exploded by abusive using. Please follow the safety warnings listed as below:

- Do not throw the battery pack in fire. Do not expose the battery to high temperatures.
- Do not connect the positive battery pack with negative battery pack to each other with any metal object (like wire).
- Do not carry or store battery pack together with metal objects.
- Do not pierce the battery pack with nails or drills, strike the battery pack with a hammer, step on the battery pack or otherwise expose it to strong impacts, shocks or excessive force.
- Do not solder onto the battery pack.
- Do not expose battery pack to liquid or allow the battery contacts to get wet.
- Do not disassemble or modify the battery pack. The battery pack contains safety and protection measures, which, if damaged, may cause the battery pack to generate heat, explode or ignite.
- Do not discharge the batteries outside the PHL-7000 series PDT. Do not use the battery in another device then the PDT or IRU-7000 series cradles. Otherwise, the battery pack can be damaged, or its life expectancy reduced. If the device causes any abnormal current to flow, it may cause the battery pack to become hot, explode or ignite and cause serious injury.
- In the event the battery pack leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.

## 1.4 FCC Statement

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

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

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

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

### IMPORTANT NOTE:

#### FCC Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter, except the built-in Bluetooth device which has been certified with this product.

## LED AND LASER SAFETY INFORMATION

- Class 1 LED/Laser Product
- Do not stare at the LED/Laser or shine into eyes
- Do not allow young children to use the product without adult supervision
- Do not replace/repair the LED/Laser, these are not user replaceable
- Do not shine the LED/Laser on a shiny reflective surface

## 1.5 Recycling & disposal instructions.



Do not throw this product in the home waste bin. For proper end-of-life treatment consult the Environmental care section of [www.opticon.com](http://www.opticon.com)

## 1.6 Regulatory information.



For CE, FCC, RoHS and other Document of Conformities, consult the Regulatory section of [www.opticon.com](http://www.opticon.com)

## 1.7 Product Labeling

The PHL-7100 series PDT has several labels as showed in Figure 1-1 and 1-2.



Figure 1-1 PHL-7100 Labeling (Front and side views)

| Label nr. | Description               |
|-----------|---------------------------|
| 1         | LCD panel protection film |
| 2         | Opticon logo              |
| 5         | Warranty seal PDT         |

Table 1-1 Front labeling

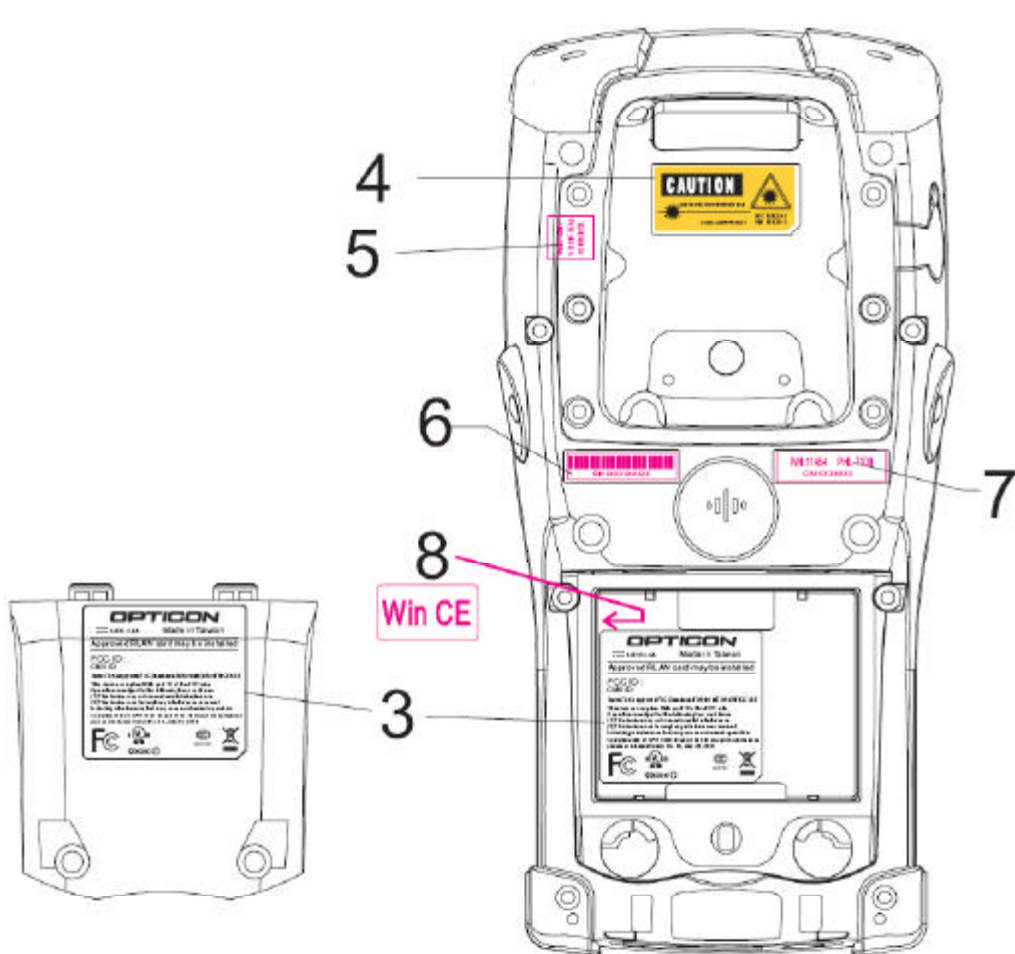


Figure 1-2 PHL-7100 Labeling (Rear view)

| Label nr. | Description                       |
|-----------|-----------------------------------|
| 3         | System and regulatory label       |
| 4         | LED/Laser radiation warning label |
| 5         | Warranty label bar code reader    |
| 6         | Serial number                     |
| 7         | Article number and model number   |
| 8         | Windows CE .NET label             |

Table 1-2 Rear labeling

The PHL-7200 series PDT has several labels as showed in Figure 1-3 and 1-4.

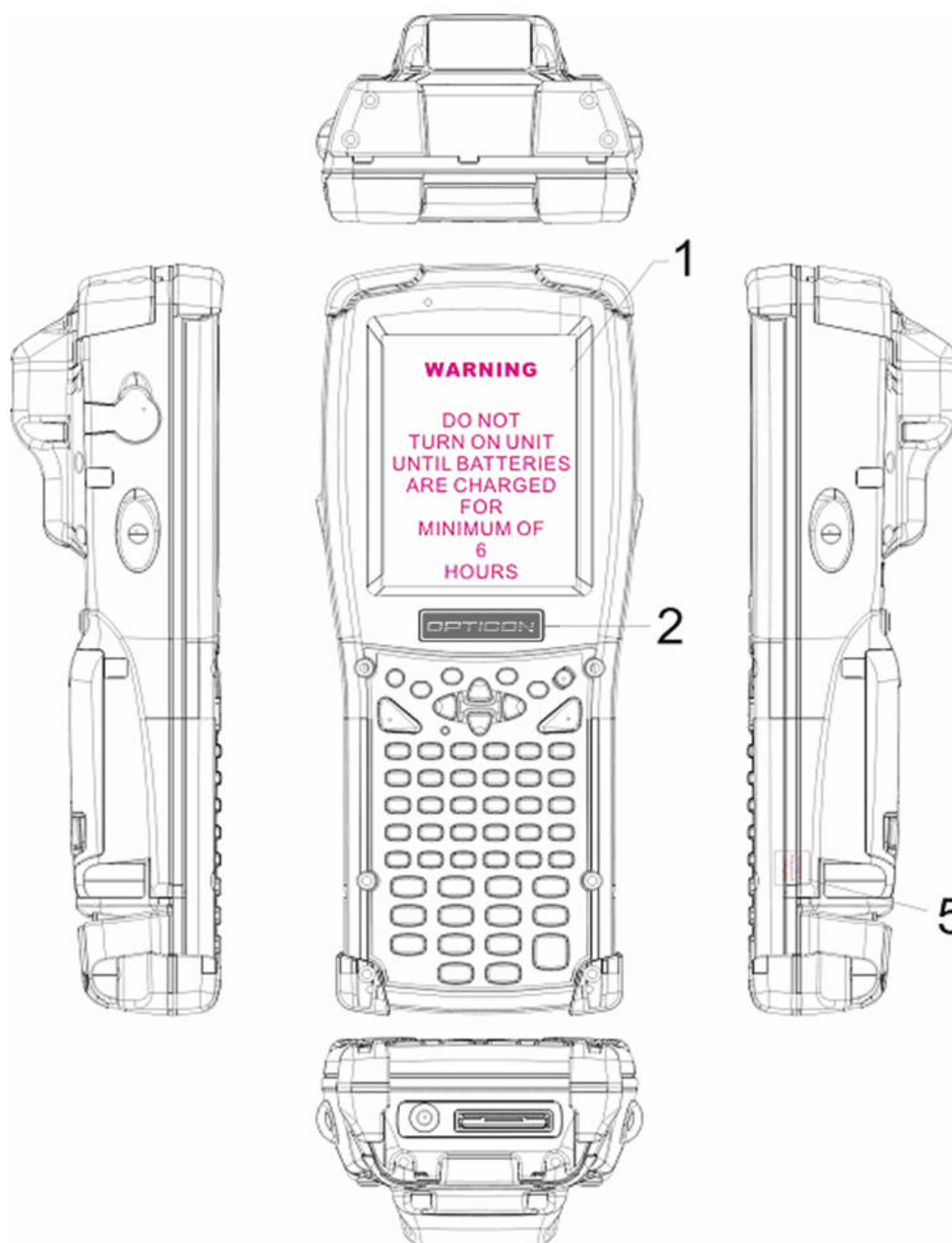


Figure 1-3 PHL-7200 Labeling (Front and side views)

| Label nr. | Description               |
|-----------|---------------------------|
| 1         | LCD panel protection film |
| 2         | Opticon logo              |
| 5         | Warranty seal PDT         |

Table 1-3 Front labeling

Figure 1-4 **PHL-7200 Labeling (Rear view)**

| <b>Label nr.</b> | <b>Description</b>                |
|------------------|-----------------------------------|
| 3                | System and regulatory label       |
| 4                | LED/Laser radiation warning label |
| 5                | Warranty label bar code reader    |
| 6                | Serial number                     |
| 7                | Article number and model number   |
| 8                | Windows CE .NET label             |

Table 1-4 **Rear labeling**

## 1.8 System Specifications

The PHL-7000 series detailed specifications as follows. Unless otherwise noted, all the specifications are subject to change without prior notification.

| <b>PHL-7100, PHL-7200</b> |                                                                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Processor                 | - 400MHz Intel PXA255 32 bits RISC CPU                                                                                                  |
| Memory                    | - 64 MB Flash ROM<br>- 128 MB SDRAM                                                                                                     |
| Display                   | - 240 x 320 3.5" TFT 256K Color LCD with LED backlight                                                                                  |
| Audio                     | - One mono speaker<br>- 2.5mm Stereo earphone jack with microphone input                                                                |
| Radio Support             | - <b>Wireless LAN:</b> 802.11b (optional)<br>- <b>Bluetooth:</b> Ver 1.2, class II (optional)                                           |
| Communication Ports       | - <b>USB:</b> Support USB v1.1 both host and client. (PDT and Cradle)<br>- <b>Serial:</b> RS232 via optional cable or Cradle.           |
| Scan Engine               | - <b>Default:</b> 1D laser bar code reader<br>- <b>Optional:</b> 2D CMOS SXGA (1280*1024) bar code reader                               |
| Expansion Slot            | - One SD Card slot<br>(SD memory only, no SDIO support)<br>- One Compact Flash type-II slot<br>(Availability depends of PHL-7000 model) |
| LED                       | - One triple-color LED for charging indication and alarm notification<br>- One dual-color LED for bar code reader indicator             |

| <b>PHL-7100, PHL-7200</b> |          |                                                                                                                                                                                                                                                                                                                                                |
|---------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power System              |          | <ul style="list-style-type: none"> <li>- Standard Li-Ion battery pack, 3.7V, 3000mAh</li> <li>- Advanced smart battery</li> <li>- Built-in battery charger</li> <li>- 2.4V/15mAh rechargeable backup battery</li> <li>- Battery cover sensor switch</li> <li>- Power adapter:<br/>100~240VAC, 50/60Hz input ;<br/>5VDC, 2.6A output</li> </ul> |
| Keypad                    | PHL-7100 | <ul style="list-style-type: none"> <li>- Power button</li> <li>- 4-way navigation button</li> <li>- 4 application keys</li> <li>- 3 bar code reader trigger keys</li> <li>- Software reset input button</li> <li>- 1 Pistol grip trigger button</li> <li>- 16 alpha-numeric keyboard</li> </ul>                                                |
|                           | PHL-7200 | <ul style="list-style-type: none"> <li>- Power button</li> <li>- 4-way navigation button</li> <li>- 4 application keys</li> <li>- 4 bar code reader trigger keys</li> <li>- Software reset input button</li> <li>- 1 Pistol grip trigger button</li> <li>- 44 alpha-numeric keyboard</li> </ul>                                                |
| Dimensions and Weight     | PHL-7100 | <ul style="list-style-type: none"> <li>- Dimensions:<br/>L : 192.5mm<br/>W: 91.3mm / 78mm<br/>H: 60.6mm / 42.2mm</li> <li>- Weight:<br/>560g with standard battery pack<br/>500g without battery pack</li> </ul>                                                                                                                               |
|                           | PHL-7200 | <ul style="list-style-type: none"> <li>- Dimensions:<br/>L : 200 mm<br/>W: 91.3mm / 78mm<br/>H: 60.6mm / 42.2mm</li> <li>- Weight:<br/>660g with standard battery pack<br/>600g without battery pack</li> </ul>                                                                                                                                |

| <b>PHL-7100, PHL-7200</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Color</b>                                        | - Black                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Optional<br/>Peripherals and<br/>Accessories</b> | <ul style="list-style-type: none"> <li>- RS232 serial cable for PDT</li> <li>- USB host cable for PDT</li> <li>- High-capacity Li-Ion battery pack (3.7V, 4000mAh)</li> <li>- Compact Flash RFID card cover</li> <li>- IRU-7000 single slot cradle + battery charger</li> <li>- IRU-7004 4-slot battery charger</li> <li>- Power adapter for IRU-7000 and IRU-7004<br/>100~240VAC, 50/60Hz input ;<br/>5VDC, 6.5A output</li> <li>- Car adapter</li> <li>- Holster</li> <li>- Display Protect film</li> </ul> |
| <b>Software</b>                                     | - Microsoft Windows CE.NET 4.2 Professional                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Table 1-5 **System Specification**

## 1.9 Environment and durability.

|                               |                                   |
|-------------------------------|-----------------------------------|
| <b>Operating Temperature</b>  | 14°F ~ 122°F( -10°C ~ 50°C)       |
| <b>Storage Temperature</b>    | -4°F ~ 158°F (-20°C ~ 70°C)       |
| <b>Humidity</b>               | 5% ~ 80% (non-condensing)         |
| <b>Drop</b>                   | 5ft (1.5m) Drop on concrete       |
| <b>Water &amp; Dust proof</b> | IP54 certified and IP64 compliant |
| <b>Vibration</b>              | MIL STD 810F                      |

Table 1-6 Environmental and durability

## 1.10 Warranty and after service

Should this PDT require service, please contact your local reseller. In case of technical questions, send an email to **support@opticon.com** and provide information about the product name, the serial number (see chapter 1.7 "Product labeling" and/or chapter 3.2.3.1 "Information") and provide a detailed problem description.

## Chapter 2. Getting started

### 2.1 Check the package

Open the package and check if no parts are missing or damaged:

#### 2.1.1 PHL-7100



Figure 2-1 **Package contents**

1. PHL-7100 PDT
2. Stylus
3. USB client cable for PDT
4. Earphone/ microphone set
5. Standard AC adapter 5VDC/2.6A
6. AC power cord
7. Standard battery pack (3.7V, 3000 mAh)
8. CF support guide
9. Quick Guide (not shown in the picture)

## 2.1.2 PHL-7200



Figure 2-2 **Package contents**

1. PHL-7200 PDT
2. Stylus
3. USB client cable for PDT
4. Earphone/ microphone set
5. Standard AC adapter 5VDC/2.6A
6. AC power cord
7. Standard battery pack (3.7V, 3000 mAh)
8. CF support guide
9. Quick Guide (not shown in the picture)

## 2.2 General View of the PDT

### 2.2.1 PHL-7100 front view



Figure 2-3 PHL-7100 front view

### 2.2.2 PHL-7100 rear view



Figure 2-4 PHL-7100 rear view

|    |                                             |                                                                                                          |                       |
|----|---------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------|
| 1  | Bar code reader LED indicator               | "Red" color                                                                                              | Bar code reader on    |
|    |                                             | "Green" color                                                                                            | Successful reading    |
| 2  | Charge LED indicator                        | "Red" color                                                                                              | Charging battery      |
|    |                                             | "Green" color                                                                                            | Battery fully charged |
| 3  | LCM / touch panel                           | User input on touch panel by stylus                                                                      |                       |
| 4  | Left scan key<br>Right scan key<br>Scan key | Start scanning bar codes by pressing any of these three scan keys                                        |                       |
| 5  | Power key                                   | Put the PDT into suspend mode<br>Awake the PDT from suspend mode                                         |                       |
| 6  | F1 ~ F4 key                                 | Application keys, hot keys of application program defined by end user.                                   |                       |
| 7  | Navigation key                              | Navigation keys for left, right, up and down directions                                                  |                       |
| 8  | Alpha-Numeric keys                          | Numeric keys, change to alpha keys                                                                       |                       |
| 9  | Alpha key                                   | Toggle alpha-mode for alpha-numeric keys                                                                 |                       |
| 10 | Fn key                                      | This key is used in combination with other keys to type special characters and perform system functions. |                       |
| 11 | Enter key                                   | This key confirms data entry                                                                             |                       |
| 12 | Earphone Jack Connector                     | Connector input for earphone set                                                                         |                       |
| 13 | USB / RS232 Synchronization port            | A connector to support USB host, client and RS232.                                                       |                       |
| 14 | Scan window                                 | Bar code reader window                                                                                   |                       |
| 15 | Stylus                                      | Use the stylus for selecting items and entering information.                                             |                       |
| 16 | Battery Cover                               | Protect battery pack and remain IP54 rating                                                              |                       |
| 17 | Battery cover latch                         | To keep battery cover locked                                                                             |                       |
| 18 | Hand Strap                                  | This strap can be sealed tighter or looser                                                               |                       |
| 19 | Speaker                                     | 1.5W speaker for audio output                                                                            |                       |
| 20 | DC Power Jack                               | A connector to input power supply to PDT.                                                                |                       |
| 21 | End Cap                                     | Protect CF slot and SD slot from dust and water                                                          |                       |

Table 2-1 Description of PHL-7100 General View

### 2.2.3 PHL-7200 front view



Figure 2-5 PHL-7200 front view

### 2.2.4 PHL-7200 rear view



Figure 2-6 PHL-7200 rear view

|    |                                                                                          |                                                                                                          |                       |
|----|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------|
| 1  | Bar code reader LED indicator                                                            | "Red" color                                                                                              | Bar code reader on    |
|    |                                                                                          | "Green" color                                                                                            | Successful reading    |
| 2  | Charge LED indicator                                                                     | "Red" color                                                                                              | Charging battery      |
|    |                                                                                          | "Green" color                                                                                            | Battery fully charged |
| 3  | LCM / touch panel                                                                        | User input on touch panel by stylus                                                                      |                       |
| 4  | Left side scan key<br>Right side scan key<br>Left upper scan key<br>Right upper scan key | Start scanning bar codes by pressing any of these four scan keys                                         |                       |
| 5  | Power key                                                                                | Put the PDT into suspend mode<br>Awake the PDT from suspend mode                                         |                       |
| 6  | F1 ~ F4 key                                                                              | Application keys, hot keys of application program defined by end user.                                   |                       |
| 7  | Navigation key                                                                           | Navigation keys for left, right, up and down directions                                                  |                       |
| 8  | Numeric keys                                                                             | Numeric keys                                                                                             |                       |
| 9  | Alpha key                                                                                | Alpha keys                                                                                               |                       |
| 10 | Fn key                                                                                   | This key is used in combination with other keys to type special characters and perform system functions. |                       |
| 11 | Enter key                                                                                | This key confirms data entry                                                                             |                       |
| 12 | Earphone Jack Connector                                                                  | Connector input for earphone set                                                                         |                       |
| 13 | USB / RS232 Synchronization port                                                         | A connector to support USB host, client and RS232.                                                       |                       |
| 14 | Scan window                                                                              | Bar code reader window                                                                                   |                       |
| 15 | Stylus                                                                                   | Use the stylus for selecting items and entering information.                                             |                       |
| 16 | Battery Cover                                                                            | Protect battery pack and remain IP54 rating                                                              |                       |
| 17 | Battery cover latch                                                                      | To keep battery cover locked                                                                             |                       |
| 18 | Hand Strap                                                                               | This strap can be sealed tighter or looser                                                               |                       |
| 19 | Speaker                                                                                  | 1.5W speaker for audio output                                                                            |                       |
| 20 | DC Power Jack                                                                            | A connector to input power supply to PDT.                                                                |                       |
| 21 | End Cap                                                                                  | Protect CF slot and SD slot from dust and water                                                          |                       |

Table 2-2 Description of PHL-7200 General View

## 2.3 Charging the Battery Pack

Before using the PDT, install and charge the battery by executing the steps described in this paragraph.

### 2.3.1 Installing the battery pack

1. On the PDT attached with a hand-strap, detach the hand-strap.



Figure 2-7 Release the Hand strap from PDT

2. Turn both battery cover latches downwards and lift the battery cover away from the PDT.



Figure 2-8 Detach the battery cover from PDT

3. Insert the battery pack into the battery compartment with the label facing upwards, and ensuring the battery snaps into it's place.



Figure 2-9 **Insert the battery pack**

4. Install the battery cover by inserting the top first, and then press the bottom in firmly. Turn both the battery cover latches upwards to secure the cover to the PDT.

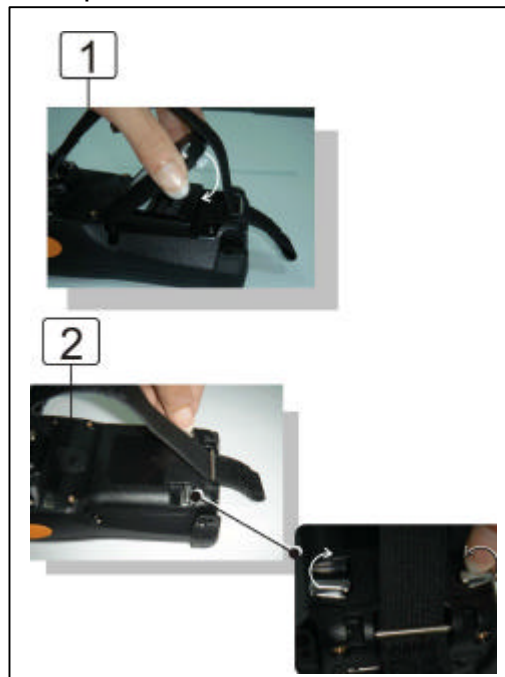


Figure 2-10 **Replace the battery cover**

### 2.3.2 Charging the battery pack with Power Adapter

1. Connect the power cord to the power adapter.
2. Plug in the connector of the power adapter to the PDT.
3. Connect the power cord to a power source.



Figure 2-11 Charging with power adapter (PHL-7100 shown)

4. Charging time : to charge the battery pack for the first time, it needs approximately 6 hours. Subsequent charging time is approximately 4 hours.
  - When charging the battery pack, the charge LED indicator on the PDT turns on **Red**.
  - After the battery pack is fully charged, the charge LED indicator turns to **Green**.

### 2.3.3 Charging the battery pack with IRU-7000

**CAUTION:** IRU-7000 power adapter (5VDC/6.5A) is different from PDT power adapter (5VDC/2.6A). Please use the IRU-7000 Cradle power adapter only.

a) Leave the battery pack inside the PDT :

1. Connect the power cord to the power adapter
2. Plug in the connector of the power adapter to the IRU-7000
3. Connect the power cord to a power source
4. Insert the PHL-7100 into the IRU-7000. In case of PHL-7200 insert the support bracket in IRU-7000 first, thereafter insert PHL-7200 in IRU-7000.



Figure 2-12 Charging with IRU-7000 cradle

- When charging the battery pack, the charge LED indicator on the PDT turns on **Red**.
- After the battery pack is fully charged, this LED indicator turns to **Green**.

b) Place the spare battery pack into the IRU-7000's spare battery charging slot :

1. Connect the power cord to the power adapter
  2. Plug in the connector of the power adapter to the IRU-7000
  3. Connect the power cord to a power source
  4. Insert the battery pack into the IRU-7000 spare battery slot
- When charging the battery pack in the IRU-7000 spare battery slot, the IRU-7000 charging LED indicator turns on **Red**.
  - After the battery pack is fully charged, this LED indicator turns to **Green**.

**CAUTION:** Do not remove the battery pack too long from PDT after you have already full-charged the battery pack and backup battery pack and start to use the PDT. Otherwise the data stored inside SDRAM memory will be lost. Please also keep in mind power the PDT off if you want to change the main Battery pack.

## 2.4 Handling the PDT

### 2.4.1 Starting the PDT

Press the power key to turn ON/OFF the PDT. If the PDT does not power on, perform a cold boot, see chapter 2-7 Resetting.

**CAUTION:** When a battery is fully inserted in PDT for the first time, the PDT powers on and boots automatically.



Figure 2-13 Starting the PDT

When the PDT is powered on for the first time, it initializes its system. A splash screen (figure 2-10) appears for a short period of time followed by the WinCE.NET 4.2 window.

### 2.4.2 Power on / off

#### To turn ON the PDT

Press the power key briefly (🔌). If the PDT does not power on, perform a cold reset, see chapter 2.7.

While the PDT initializes its file system, the splash screen displays for about 30 seconds followed by the calibration screen. Every time you perform a cold reset, these screens will appear.

#### To turn OFF the PDT

Press the power key again. This action does not actually turn off the PDT, it only turns the PDT into suspend mode. All running applications remain as you left them, until you press the power key again to resume operation of the PDT.

### 2.4.3 Calibration of the touch Screen

On the initial boot-up of the PDT, the stylus calibration screen opens. Use the stylus to press and hold briefly on the center of each target as it moves around the screen.

If necessary, adjust the backlight on the PDT to make the screen readable (see chapter 2.4.4 Adjusting the brightness).

When you experience that the touch screen function is poor or the operation does not match the exact location it should be, please recalibrate the screen by using the stylus to tap the **Start > Settings > Control Panel > Stylus**, to open the “**Calibration**” to recalibrate again.

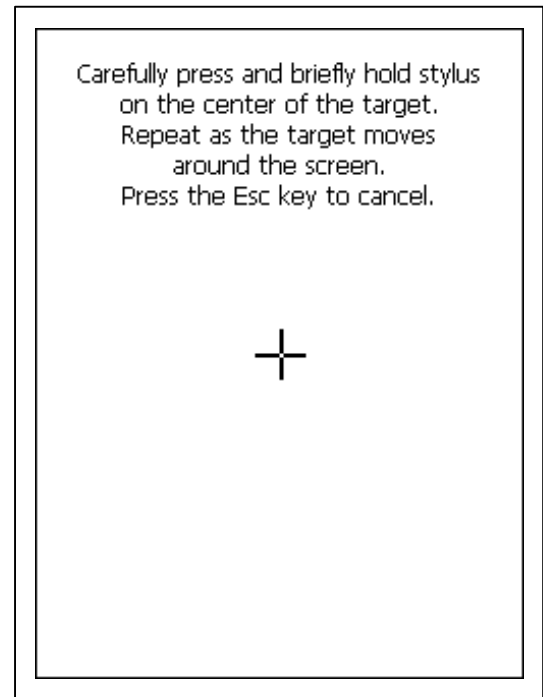


Figure 2-14 Calibration

### 2.4.4 Adjusting the brightness

The factory default for the brightness is in middle level. You can adjust the brightness to meet your environment and comfort as:

1) Increase brightness: Press the  key and then press on the right key of Navigation key .

2) Decrease brightness: Press the  key and then press on the left key of Navigation key .

3) The display will dim automatically, if you do not perform any operation for a specific period of time. This will help to save the battery power. You can set up the specific period of time to see chapter 2.7 as reference.

## 2.4.5 To mute the sound

To mute the sound, press the **Fn** key first, and then press the **ESC** key to turn off and on of the sound.

## 2.4.6 Using the stylus

The stylus is located next to hand-strap on the rear of the PDT as illustrated in figure 2-3 PDT rear view. The stylus function is similar as the mouse on a PC. Use the stylus to:

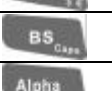
- 1) Navigate the display, select menu item and open optional applications.
- 2) Tap the characters on soft keyboard panel.
- 3) Hold the stylus on the screen and drag across the screen to select multiple items.

**CAUTION:** Never use a pen, pencil or any other sharp object on the display to avoid damage of the touch screen.

## 2.4.7 Using the PHL-7100 keypad



Figure 2-15 PDT Keypad

| Key                                                                                 | Main Function                       | Fn + Main Function | Alpha + Main Function |
|-------------------------------------------------------------------------------------|-------------------------------------|--------------------|-----------------------|
|    | User configurable<br>Default : None |                    |                       |
|    | Main bar code scan key              |                    |                       |
|    | Power On/Off                        |                    |                       |
|    | Internet Explorer                   |                    |                       |
|    | Microsoft WordPad                   |                    |                       |
|    | Inbox                               |                    |                       |
|   | File Explorer                       |                    |                       |
|  | Right                               | Backlight Increase |                       |
|  | Left                                | Backlight Decrease |                       |
|  | Down                                | Page Down          |                       |
|  | Up                                  | Page Up            |                       |
|  | ESC                                 | Audio Mute         | \$ €                  |
|  | Backspace                           | TAB                | Caps                  |
|  | Change to letters                   |                    |                       |
|  | Function change                     |                    |                       |
|  | 1                                   | @                  | : \                   |
|  | 2                                   | '                  | A B C                 |
|  | 3                                   | +                  | D E F                 |
|  | 4                                   | Paste              | G H I                 |
|  | 5                                   | Del                | J K L                 |
|  | 6                                   | -                  | M N O                 |
|  | 7                                   | Copy               | P Q R S               |
|  | 8                                   | &                  | T U V                 |
|  | 9                                   | *                  | W X Y Z               |

| Key                                                                               | Main Function | Fn + Main Function | Alpha + Main Function |
|-----------------------------------------------------------------------------------|---------------|--------------------|-----------------------|
|  | 0             | Space              | [   ]                 |
|  | . (Point)     | Start Menu         | , ;                   |
|  | Enter         | /                  | = %                   |

Table 2-3 Keypad list

| Reset Key                                                                         | Functionality | Definition                                          |
|-----------------------------------------------------------------------------------|---------------|-----------------------------------------------------|
|  | Warm Reset    | Press “F1” and “F4” button simultaneously.          |
|  | Cold Reset    | Press “Power”, “F1” and “F4” button simultaneously. |

Table 2-3 Special reset key combinations

| Key                                                                                 | Main Function                       | Definition                                                                                                  |
|-------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------|
|   | User configurable<br>Default : None | Configure its function by customer demand.                                                                  |
|  | Main BarCode Scan Key               | Activates the scan function of PDT.                                                                         |
|  | Power On/Off                        | Puts the terminal into and wakes the terminal from suspend mode.                                            |
|  | Internet Explorer                   | Application key 1, <b>User can define F1 function from setting.</b>                                         |
|  | Microsoft WordPad                   | Application key 2, <b>User can define F2 function from setting.</b>                                         |
|  | Inbox                               | Application key 3, <b>User can define F3 function from setting.</b>                                         |
|  | File Explorer                       | Application key 4, <b>User can define F4 function from setting.</b>                                         |
|  | Right                               | Move the cursor one character to the right. The cursor will move continuously if button remains is pressed. |
|  | Left                                | Move the cursor one character to the left. The cursor will move continuously if button remains pressed.     |

| Key                                                                                 | Main Function            | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Down</b>              | Move the cursor down one row or line<br>The cursor will move continuously if button remains pressed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|    | <b>Up</b>                | Move the cursor up one row or line<br>The cursor will move continuously if button remains pressed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|    | <b>ESC</b>               | This key performs a cancel action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|    | <b>Backspace</b>         | <b>“Backspace”</b> key, it moves the cursor back one space each time the key is pressed. It deletes the previous character each time it is pressed if you are typing text. The cursor will move continuously if button remains pressed.                                                                                                                                                                                                                                                                                                                                                                                                          |
|  | <b>Change to letters</b> | <p>1. The  key enables you to toggle between the <b>numeric</b> and <b>alpha</b> modes. Numeric mode is when you type numbers with number keys. Alpha mode is when you type letters with the number keys.</p> <p>2. When you press  key, the “Alpha” icon appears at the task bar to indicate alpha mode is enabled. The keypad stays in the alpha mode until you press  key again.</p> |
|  | <b>Function change</b>   | The  key is used in combination with other keys to type special characters and perform system functions.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|  | <b>1</b>                 | Number key “1”                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|  | <b>2</b>                 | Number key “2”                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|  | <b>3</b>                 | Number key “3”                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|  | <b>4</b>                 | Number key “4”                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Key | Main Function | Definition                   |
|-----|---------------|------------------------------|
|     | 5             | Number key "5"               |
|     | 6             | Number key "6"               |
|     | 7             | Number key "7"               |
|     | 8             | Number key "8"               |
|     | 9             | Number key "9"               |
|     | 0             | Number key "0"               |
|     | .             | Dot key                      |
|     | Enter         | This key confirms data entry |

Table 2-4 Definition of main Function

#### 2.4.7.1 Special Function by "Fn" + main Function

The "Fn" key is used in combination with other keys to type special characters and perform system functions.

| Key Sequence | Fn + Main Function        | Definition                                                                                                                                                                 |
|--------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | <b>Backlight Increase</b> | <p>Increase the LED backlight brightness of display screen(make lighter)</p> <p>You must press  key, then press  key to increase backlight brightness each time.</p>       |
|              | <b>Backlight Decrease</b> | <p>1. Decrease the LED backlight brightness of display screen (make darker)</p> <p>2. You must press  key, then press  key to decrease backlight brightness each time.</p> |
|              | <b>Page Down</b>          | <p>1. Move the cursor down one page. The cursor will move continuously if button remains pressed.</p>                                                                      |

| Key Sequence                                                                                                                                                            | Fn + Main Function | Definition                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                         |                    | <p>2. You must press  key, then press  key to cursor down one page each time.</p>                                                                                                                  |
|       | Page Up            | <p>1. Move the cursor up one page. The cursor will move continuously if button remains pressed.</p> <p>2. You must press  key, then press  key to cursor up one page each time.</p>                |
|   | Audio Mute         | <p>1. Toggle the audio mute/on</p> <p>2. You must press  key, then press  key to enable audio mute or turn on audio function each time.</p>                                                    |
|   | TAB (Tabulation)   | <p>1. The "TAB" function is to move the cursor to the next tab stop or the next control (on a form)</p> <p>2. To do this function by pressing  key first, and then pressing  key each time.</p> |
|   | @ (at)             | <p>Enter an { @ , at } by pressing  key, then pressing  key.</p>                                                                                                                              |
|   | ,                  | <p>Enter a { , } by pressing  key, then</p>                                                                                                                                                                                                                                       |

| Key Sequence                                                                                                                                                            | Fn + Main Function | Definition                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                         |                    | pressing  key.                                                                                                                                                                                                                                     |
|       | + (Plus Sign)      | Enter a plus sign by pressing <br>key, then pressing  key                                                                                                      |
|       | Paste              | 1. It is to do "Paste" function.<br>2. To do this function by pressing  key first, and then pressing  key each time.                                              |
|   | Del (Delete)       | 1. The "Delete" function delete the next character forward each time.<br>2. To do "Delete" function by pressing  key first, and then pressing  key each time. |
|   | - (Minus Sign)     | Enter a minus sign by pressing <br>key, then pressing  key.                                                                                                |
|   | Copy               | 1. Copy action.<br>2. You must press  key, then<br>press  key to do "Copy" action<br>each time.                                                              |
|   | & (AND)            | Enter an AND sign by pressing <br>key, then pressing  key.                                                                                                 |
|   | * (Asterisk)       | Enter an asterisk sign by pressing                                                                                                                                                                                                                                                                                                  |

| Key Sequence                                                                        | Fn + Main Function | Definition                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     |                    |  key first, and then pressing<br> key.                                                                                                               |
|    | Space              | 1. The "Space" function is to input a space at the cursor.<br>2. To do this function by pressing<br> key first, and then pressing<br> key each time. |
|  | Start Menu         | 1. It displays the Start menu.<br>2. To do this function by pressing<br> key first, and then pressing<br> key each time.                         |
|  | / (Backslash)      | Enter a backslash by pressing <br>key first, and then pressing  key.                                                                         |

Table 2-5 Special Function key define

### 2.4.7.2 Alpha keys by “Alpha” + main Function

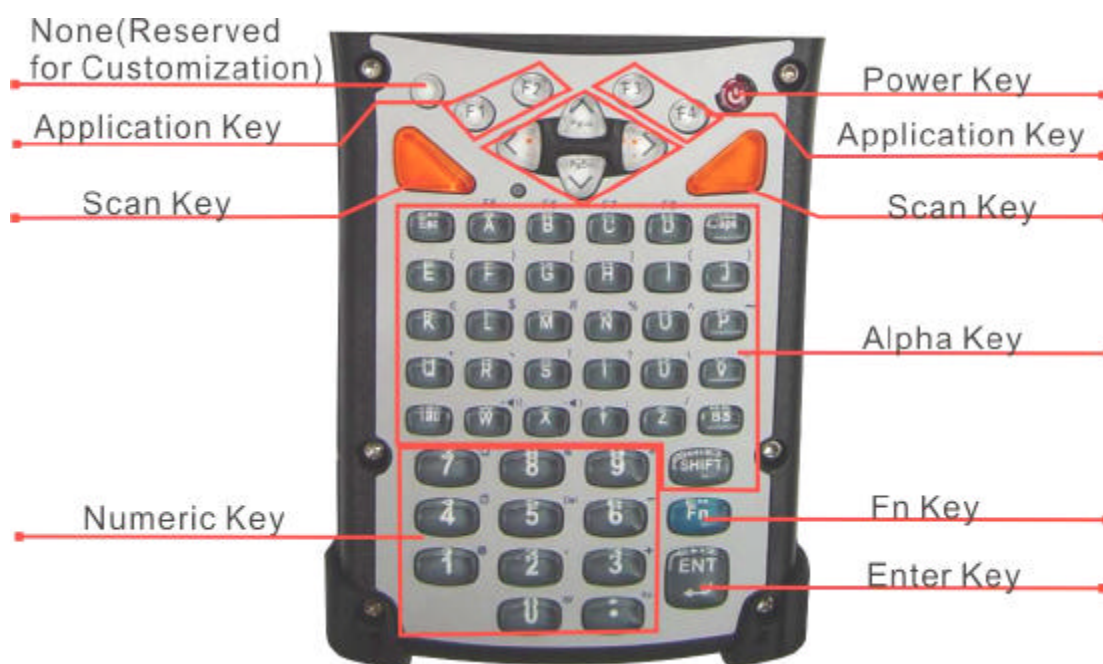
1. The  key enables you to toggle between the numeric and alpha modes. Numeric mode is when you type numbers with number keys. Alpha mode is when you type letters with the number keys.
2. When you press  key, the “Alpha” icon appears at the task bar to indicate Alpha mode is enabled. It means Alpha mode is disabled if the “Alpha” icon is not present at Task bar. The keypad stays in the alpha mode until you press  key again. For an example to type “cap1” word, press     < wait 0.5 seconds >    .
3. If you want to type a lowercase “c”, press     (The  key three times, the  key is needed if it's the first alpha character keying in). If a letter that is on the same key as the last letter entered, wait two seconds after you pressed the last key, then you can enter the correct series of keystrokes to create the next letter.
4. While you are in the Alpha mode and you press  key to set the Caps mode, the Caps mode remains until you press  key again.
5. The “A” icon appears at the task bar during Caps mode.

| To enter | Press the Keys                                                                                                                                                                                                                                                                                                                                  | To enter | Press the Keys                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| \$       |                                                                                                                                                                           | €        |                                                                                                                                                                                |
| Caps     |                                                                                                                                                                           |          |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| :        |                                                                                                                                                                           | \        |                                                                                                                                                                                |
| a        |                                                                                                                                                                           | A        |                                                                                                                                                                                |
| b        |                                                                                        | B        |                                                                                           |
| c        |     | C        |      |
| d        |                                                                                                                                                                           | D        |                                                                                                                                                                                |
| e        |                                                                                        | E        |                                                                                           |
| f        |     | F        |      |

| To enter | Press the Keys | To enter | Press the Keys   |
|----------|----------------|----------|------------------|
| g        | Alpha 4        | G        | Alpha BS 4       |
| h        | Alpha 4 4      | H        | Alpha BS 4 4     |
| i        | Alpha 4 4 4    | I        | Alpha BS 4 4 4   |
| j        | Alpha 5        | J        | Alpha BS 5       |
| k        | Alpha 5 5      | K        | Alpha BS 5 5     |
| l        | Alpha 5 5 5    | L        | Alpha BS 5 5 5   |
| m        | Alpha 6        | M        | Alpha BS 6       |
| n        | Alpha 6 6      | N        | Alpha BS 6 6     |
| o        | Alpha 6 6 6    | O        | Alpha 6 6 6      |
| p        | Alpha 7        | P        | Alpha BS 7       |
| q        | Alpha 7 7      | Q        | Alpha BS 7 7     |
| r        | Alpha 7 7 7    | R        | Alpha BS 7 7 7   |
| s        | Alpha 7 7 7 7  | S        | Alpha BS 7 7 7 7 |
| t        | Alpha 8        | T        | Alpha BS 8       |
| u        | Alpha 8 8      | U        | Alpha BS 8 8     |
| v        | Alpha 8 8 8    | V        | Alpha BS 8 8 8   |
| w        | Alpha 9        | W        | Alpha BS 9       |
| x        | Alpha 9 9      | X        | Alpha BS 9 9     |
| y        | Alpha 9 9 9    | Y        | Alpha BS 9 9 9   |
| z        | Alpha 9 9 9 9  | Z        | Alpha BS 9 9 9 9 |
| [        | Alpha 0        | ]        | Alpha 0          |
| ,        | Alpha .        | ;        | Alpha .          |
| =        | Alpha ←        | %        | Alpha ←          |

Table 2-6 Alpha + Numeric keys define

## 2.4.8 Using the PHL-7200 keypad



| Key | Main Function                | Fn + Main Function            |
|-----|------------------------------|-------------------------------|
|     | <b>None</b>                  |                               |
|     | <b>Main Barcode Scan Key</b> |                               |
|     | <b>Power On/Off</b>          |                               |
|     | <b>Internet Explorer</b>     |                               |
|     | <b>Microsoft WordPad</b>     |                               |
|     | <b>Inbox</b>                 |                               |
|     | <b>File Explorer</b>         |                               |
|     | <b>Right</b>                 | <b>Increase of Brightness</b> |
|     | <b>Left</b>                  | <b>Decrease of Brightness</b> |

| Key                                                                                 | Main Function | Fn + Main Function                                                                    |
|-------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------|
|    | Down          | Page Down                                                                             |
|    | Up            | Page Up                                                                               |
|    | Esc           |                                                                                       |
|    | Caps          |                                                                                       |
|    | Tab           |                                                                                       |
|    | Backspace     |                                                                                       |
|    | A             | F5                                                                                    |
|    | B             | F6                                                                                    |
|    | C             | F7                                                                                    |
|    | D             | F8                                                                                    |
|    | E             | (                                                                                     |
|  | F             | )                                                                                     |
|  | G             | [                                                                                     |
|  | H             | ]                                                                                     |
|  | I             | {                                                                                     |
|  | J             | }                                                                                     |
|  | K             | €                                                                                     |
|  | L             | \$                                                                                    |
|  | M             | #                                                                                     |
|  | N             | %                                                                                     |
|  | O             | ^                                                                                     |
|  | P             | ~                                                                                     |
|  | Q             | ,                                                                                     |
|  | R             | `                                                                                     |
|  | S             | !                                                                                     |
|  | T             | ?                                                                                     |
|  | U             | \                                                                                     |
|  | V             | =                                                                                     |
|  | W             | +  |
|  | X             | -  |
|  | Y             | ;                                                                                     |
|  | Z             | /                                                                                     |
|  | 1             | @                                                                                     |

| Key                                                                               | Main Function   | Fn + Main Function |
|-----------------------------------------------------------------------------------|-----------------|--------------------|
|  | 2               | '                  |
|  | 3               | +                  |
|  | 4               | Paste              |
|  | 5               | Del                |
|  | 6               | -                  |
|  | 7               | Copy               |
|  | 8               | &                  |
|  | 9               | *                  |
|  | 0               | Start Menu         |
|  | .               | Space              |
|  | SHIFT           |                    |
|  | Function change |                    |
|  | Enter           |                    |

Table 2-6 Keypad list

| Assembler Key                                                                       | Functionality | Definition                                          |
|-------------------------------------------------------------------------------------|---------------|-----------------------------------------------------|
|  | Warm Reset    | Press “F1” and “F4” button simultaneously.          |
|  | Cold Reset    | Press “Power”, “F1” and “F4” button simultaneously. |

Table 2-3 Special reset key combinations

| Key                                                                                 | Main Function         | Definition                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | None                  | Configure its function by customer demand.                                                                                                                                                                         |
|  | Main Barcode Scan Key | The   key activates the scan function of PDT |
|  | Power On/Off          | The  key puts the terminal into and wakes the terminal from suspend mode                                                        |
|  | Internet Explorer     | Application key 1, <b>User can define F1 function from setting.</b>                                                                                                                                                |

| Key                                                                                 | Main Function     | Definition                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Microsoft WordPad | Application key 2, <b>User can define F2 function from setting.</b>                                                                                                                                                                               |
|    | Inbox             | Application key 3, <b>User can define F3 function from setting.</b>                                                                                                                                                                               |
|    | File Explorer     | Application key 4, <b>User can define F4 function from setting.</b>                                                                                                                                                                               |
|    | Right             | Move the cursor one character to the right. The cursor will move continuously if button is pressed continuously.                                                                                                                                  |
|    | Left              | Move the cursor one character to the left. The cursor will move continuously if button is pressed continuously.                                                                                                                                   |
|   | Down              | Move the cursor down one row or line<br>The cursor will move continuously if button is pressed continuously.                                                                                                                                      |
|  | Up                | Move the cursor up one row or line<br>The cursor will move continuously if button is pressed continuously.                                                                                                                                        |
|  | Esc               | This key performs a cancel action                                                                                                                                                                                                                 |
|  | Caps              | Conversion of the capital & lower case of the alpha key.                                                                                                                                                                                          |
|  | Tab               | The "TAB" function is to move the cursor to the next tab stop or the next control (on a form)                                                                                                                                                     |
|  | Backspace         | " <b>Backspace</b> " key, it moves the cursor back one space each time the key is pressed. It deletes the previous character each time it is pressed if you are typing text. The cursor will move continuously if button is pressed continuously. |
|  | A ~ Z             | Use the alpha keys for alphabetic characters.                                                                                                                                                                                                     |
|  | 1 ~ 0             | Numeric value keys.                                                                                                                                                                                                                               |
|  | .                 | Point key                                                                                                                                                                                                                                         |