

P D T 7 5 0 0 S e r i e s

# QRG



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U.S. Patent No. 4,460,120; 4,496,831; 4,593,186; 4,603,262; 4,607,156; 4,652,750; 4,673,805; 4,736,095; 4,758,717; 4,816,660; 4,845,350; 4,896,026; 4,897,532; 4,923,281; 4,933,538; 4,992,717; 5,015,833; 5,017,765; 5,021,641; 5,029,183; 5,047,617; 5,103,461; 5,113,445; 5,130,520; 5,140,144; 5,142,550; 5,149,950; 5,157,687; 5,168,148; 5,168,149; 5,180,904; 5,216,232; 5,229,591; 5,230,088; 5,235,167; 5,243,655; 5,247,162; 5,250,791; 5,250,792; 5,260,553; 5,262,627; 5,262,628; 5,266,787; 5,278,398; 5,280,162; 5,280,163; 5,280,164; 5,280,498; 5,304,786; 5,304,788; 5,306,900; 5,321,246; 5,324,924; 5,337,361; 5,367,151; 5,373,148; 5,378,882; 5,396,053; 5,396,055; 5,399,846; 5,408,081; 5,410,139; 5,410,140; 5,412,198; 5,418,812; 5,420,411; 5,436,440; 5,444,231; 5,449,891; 5,449,893; 5,468,949; 5,471,042; 5,478,998; 5,479,000; 5,479,002; 5,479,441; 5,504,322; 5,519,577; 5,528,621; 5,532,469; 5,543,610; 5,545,889; 5,552,592; 5,557,093; 5,578,810; 5,581,070; 5,589,679; 5,589,680; 5,608,202; 5,612,531; 5,619,028; 5,627,359; 5,637,852; 5,664,229; 5,668,803; 5,675,139; 5,693,929; 5,698,835; 5,705,800; 5,714,746; 5,723,851; 5,734,152; 5,734,153; 5,742,043; 5,745,794; 5,754,587; 5,762,516; 5,763,863; 5,767,500; 5,789,728; 5,789,731; 5,808,287; 5,811,785; 5,811,787; 5,815,811; 5,821,519; 5,821,520; 5,823,812; 5,828,050; 5,850,078; 5,861,615; 5,874,720; 5,875,415; 5,900,617; 5,902,989; 5,907,146; 5,912,450; 5,914,478; 5,917,173; 5,920,059; 5,923,025; 5,929,420; 5,945,658; 5,945,659; 5,946,194; 5,959,285; 6,002,918; 6,021,947; 6,047,892; 6,050,491; 6,053,413; 6,056,200; 6,065,678; 6,067,297; 6,068,190; D305,885; D341,584; D344,501; D359,483; D362,453; D363,700; D363,918; D370,478; D383,124; D391,250; D405,077; D406,581; D414,171; D414,172; D419,548; D423,468; D424,035.

Invention No. 55,358; 62,539; 69,060; 69,187 (Taiwan); No. 1,601,796; 1,907,875; 1,955,269 (Japan).

European Patent 367,299; 414,281; 367,300; 367,298; UK 2,072,832; France 81/03938; Italy 1,138,713.

rev. 06/00

## **Introduction**

The PDT 7500 Series portable data terminal puts the processing power of a 486 PC in the user's hand. The terminal uses a rechargeable Lithium-Ion 1400 mAh smart battery, and incorporates pen technology and bar code scanning capability in a key-based terminal.

The PDT 7500 ruggedized hand-held terminal combines:

- PC-standard architecture (32-bit 486 DX2)
- Microsoft® MS-DOS 6.22 or Windows® CE operating system
- Wireless communication capability using Symbol's wireless LAN technology
- An optional integrated Wireless Wide Area Network (WWAN) cellular radio (CDPD and GSM)
- Integrated laser or imager scanning capability (1- and 2-Dimensional)
- 25-key, 36-key, or 49-key keypad
- Touch screen
- IrDA-compliant interface for printing and communications.



## About This Guide

This guide provides information on the operation of the PDT 7500 Series terminal. Specifically, the following topics are discussed:

- *Parts of the PDT 7500* on page 3
- *Installing New or Recharged Batteries* on page 5
- *Operating the PDT 7500* on page 7
- *Using the PDT 7500 36-Key Keypad* on page 10
- *Using the PDT 7500 49-Key Keypad* on page 11
- *Using the PDT 7500 25-Key Keypad* on page 13
- *Using the Integrated Laser Scanner* on page 14
- *Using the Imager* on page 16
- *Host Communications* on page 17
- *Using the Touch Screen* on page 18
- *Troubleshooting* on page 18.

## Accessories

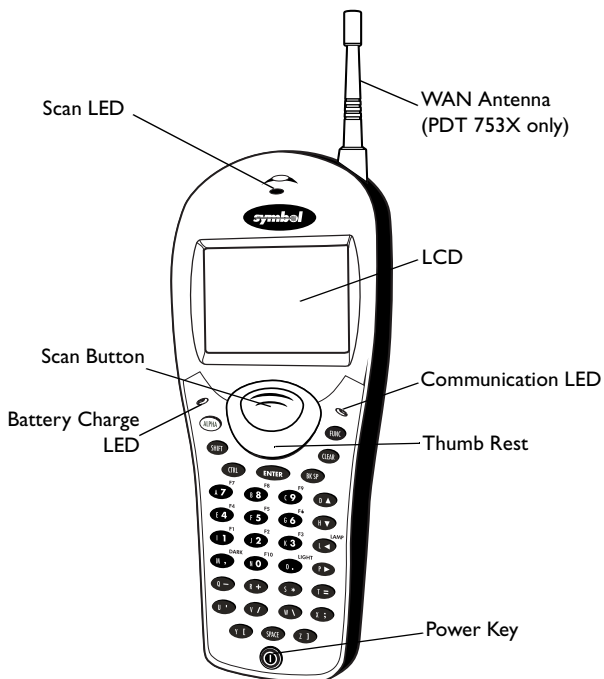
Each PDT 7500 requires one 1400 mAh Li-Ion battery (p/n 21-38602-06). The following optional accessories are available from Symbol Technologies:

- Additional Li-Ion battery
- Stylus for performing pen functions
- Single-slot cradle
- Four-slot cradle
- Vehicle cradle
- IrDA compliant printer
- UBC 2000 charging adapter
- Null modem cable
- Holster.

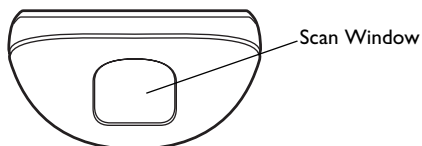
# Q u i c k R e f e r e n c e

## Parts of the PDT 7500

### Front View

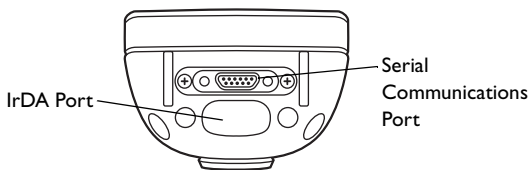


### Top View

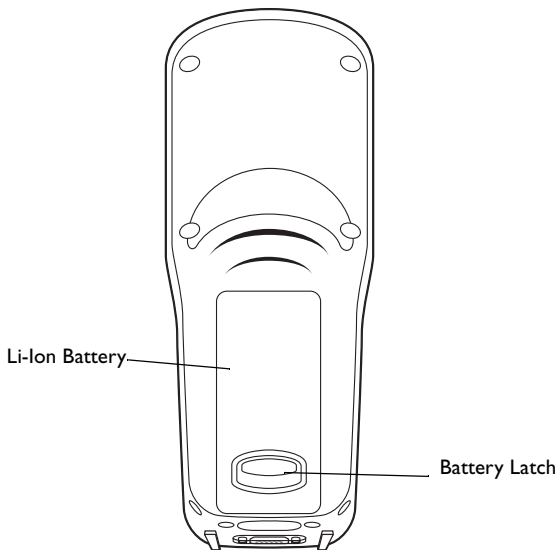


## Parts of the PDT 7500 (continued)

### Bottom View



### Back View



## Installing New or Recharged Batteries

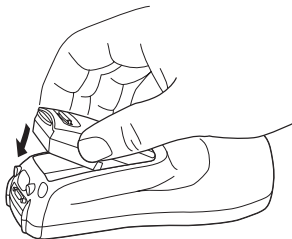
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Caution: To ensure proper terminal operation, use **ONLY** the Symbol Li-Ion battery in the PDT 7500.

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To install a new or recharged Li-Ion battery:

1. Hook the base of the new battery in the top of the battery compartment, then press into place.
2. Slide the battery latch to secure the battery.



If the battery latch is not closed, do not operate the terminal, otherwise data may be lost.

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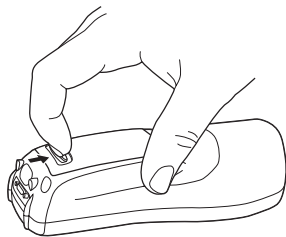
Caution: Do not expose the battery to temperatures in excess of 140°F (60°C). Do not disassemble, incinerate, or short circuit the battery.

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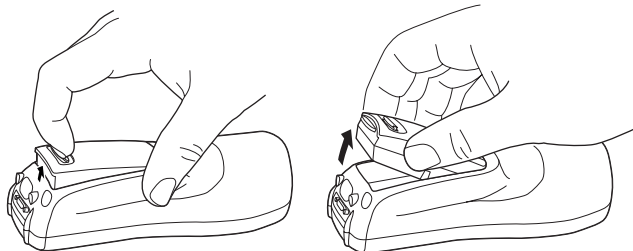
## Removing the Battery from the Terminal

To remove the Li-Ion battery from the terminal:

1. Suspend the terminal's power.
2. Slide the battery release switch towards the top of the terminal until the lock releases.




3. Lift the battery up and out of the battery compartment.



## Charging the Battery in the Terminal

To charge the terminal's battery, place the PDT 7500 in the cradle or connect the synchronization/charging cable.

The terminal's charging LED  turns yellow while charging, then turns green when the battery is fully charged, which takes 2-3 hours. A flashing yellow LED indicates there may be a problem with the battery.

For instructions on setting up the cradle, refer to the *Quick Reference Guide* that shipped with your cradle or to the *PDT 7500 Series Product Reference Guide* (72-39225-xx for DOS terminals, or 72-41235-xx for Windows CE Terminals).

## Charging the Spare Battery

The cradle also has a spare battery charging slot. To charge the spare Li-Ion battery in the CRD 7500 cradle, place the battery into the charging slot in the cradle. Charging begins automatically and the charge LED on the cradle turns yellow. The charge LED turns green upon successful completion of the charge cycle, which takes approximately 4 hours. If the LED does not light, no battery is present. If the LED blinks yellow, the battery is faulty.

You may also charge the battery in the UBC 2000 Battery Charger. See the *Quick Reference Guide* which came with the UBC 2000 for more information.



## LED Indication

For all charging methods, the terminal's battery charging LED indicates the battery charging status as follows:

Battery Charge State	Charge LED Indication
Battery absent/no charge power	Off
Battery charging	Yellow
Battery fully charged	Green
Abnormal battery	Flashing Yellow

## Operating the PDT 7500

### Powering the Terminal On/Off

**Note:** Before the terminal can be powered on, it must be initialized and the battery must be fully charged. Refer to the *PDT 7500 Series Product Reference Guide* for your terminal for information on initializing the terminal.

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**Caution:** Do not operate the terminal from an external power source with a dead battery installed. This may cause a terminal reboot and loss of data when the external power is removed, since the terminal cannot shut down properly and enter its low power state.

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To power on the terminal:

1. Make sure the terminal's battery is fully charged.
2. Press the PWR key.

To suspend the terminal's operation, press the PWR key.

### Turning the Backlight On/Off

To turn the backlight on or off, press the blue FUNC key, then the LAMP key.



## **Controlling the Screen Contrast**

To lighten the screen contrast, press the blue FUNC key, then the LIGHT key. To darken the screen contrast, press the FUNC key, then the DARK Key.

## **Resetting the PDT 7500**

If your PDT 7500 Series terminal stops responding to input from buttons on the screen, you must reset it.

### ***Performing a Warm Boot (DOS and Windows CE Terminals)***

A warm boot restarts the terminal and saves all stored records and entries.

Note: Files that remain open during a warm boot may not be retained.

To perform a warm boot, press and hold down the PWR key for 6 seconds, then release.

### ***Performing a Cold Boot (DOS and Windows CE Terminals)***

A cold boot restarts the terminal. In the Windows CE environment, the registry and objects stored are reset to original settings.

To perform a cold boot, press and hold the PWR key for 15 seconds, then release. On the DOS terminal, this value can be reconfigured in Setup (see the *Product Reference Guide* for more information).

### ***Performing a Hard Reset (Windows CE Terminals Only)***

A hard reset also restarts the PDT 7500 Series terminal, but erases all stored records and entries. Therefore, never perform a hard reset unless a warm/cold boot does not solve your problem.

Note: On the Windows CE terminal, you can restore any data previously synchronized with your computer during the next ActiveSync operation. See the Quick Reference Guide which came with your cradle, or the *PDT 7500 Product Reference Guide for Windows CE* for more information.

## Q u i c k R e f e r e n c e

To perform a hard reset:

1. Remove the battery for 20 minutes or longer.
2. Replace the battery in the terminal.
3. The calibration screen displays.

Note: With a hard reset, formats preferences and other settings are restored to their original factory defaults.

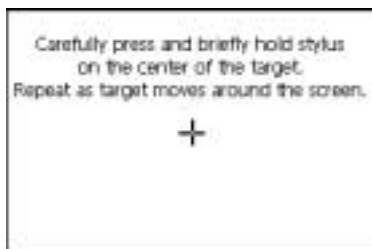
### **Calibrating the Screen (Windows CE Terminals Only)**

The first time you start your PDT 7500 terminal (and whenever the terminal is cold-booted), the calibration screen displays. This section describes how to calibrate your terminal so the cursor on the touch screen aligns with the tip of your stylus.

Note: If your terminal came loaded with another software application, the calibration screen may not display.

To calibrate your PDT 7500 terminal:

1. If necessary, adjust the contrast on the PDT 7500 so the screen is clear and readable. See [“Controlling the Screen Contrast” on page 8](#) for instructions.
2. As the screen instructs, carefully press and briefly hold the stylus on the center of each target. Repeat as the target moves around the screen.

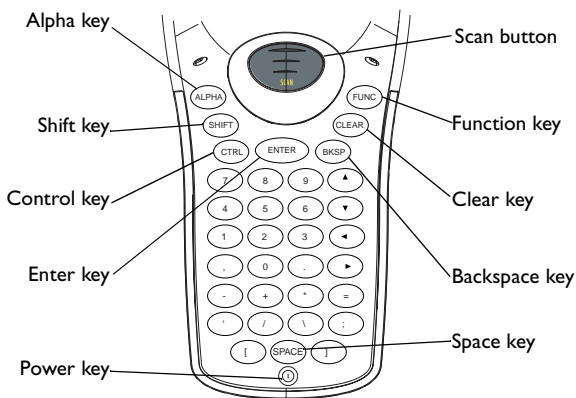


3. Tap the screen when prompted to accept new calibration.



## Using the PDT 7500 36-Key Keypad

The 36-key keypad uses an alphanumeric keypad that produces the 26-character alphabet (A-Z), numbers (0-9), and assorted characters. The keypad is color-coded to indicate which modifier key (**ALPHA**, **CTRL**, **FUNC**, and **SHIFT**) to press to produce a particular character or action.



- The default numeric keypad produces the numbers 0-9.
- Press **ALPHA** and the appropriate key to produce the alpha characters A-Z.
- Press **FUNC** (blue) and the corresponding numeric key to produce the function keys F1-F10.
- Press the cursor keys (◀, ▶, ▲, ▼) to move the cursor left, right, up and down on the screen.
- Press **BKSP** to erase information entered on the display, one character at a time.
- Press **SPACE** to enter a blank space.
- Press **CLEAR** to partially or completely escape from an application level or screen. **CLEAR** also erases all entered data from the screen.

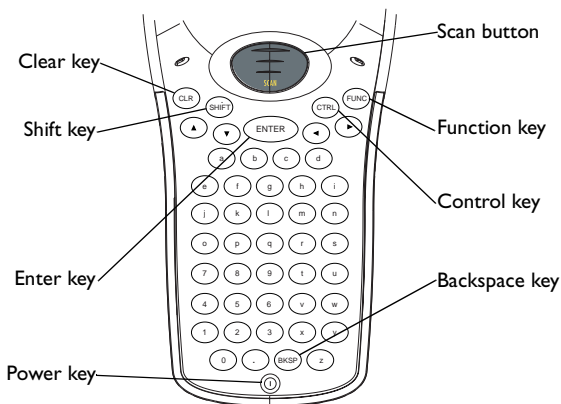
## Q u i c k R e f e r e n c e

- Press **ENTER** after entering data or a command.
- Press **CTRL** to perform the control function. This key is under application control.
- Press **SHIFT** and a key to produce various character keys; refer to the *PDT 7500 Series Product Reference Guide* for your terminal or your application guide for the keypad mapping.

**Note:** Key functions can be changed by an application. Your keypad may not function exactly as described above.

### Using the PDT 7500 49-Key Keypad

The 49-key keypad uses an alphanumeric keypad that produces the 26-character alphabet (A-Z), numbers (0-9), and assorted characters. The keypad is color-coded to indicate which modifier key (**CTRL**, **FUNC**, and **SHIFT**) to press to produce a particular character or action.



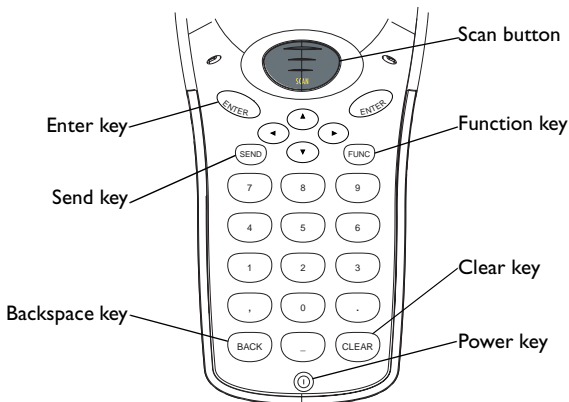
- The default numeric keypad produces the numbers 0-9.
- The default alpha keyboard produces the lower-case alpha characters a-z.
- Press **FUNC** and the corresponding numeric key to produce the function keys F1-F10.

- Press the cursor keys (◀, ▶, ▲, ▼) to move the cursor left, right, up and down on the screen.
- Press **BKSP** to erase information entered on the display, one character at a time.
- Press **SPACE** (in the FUNC state) to enter a blank space.
- Press **CLEAR** to partially or completely escape from an application level or screen. **CLEAR** also erases all entered data from the screen.
- Press **ENTER** after entering data or a command.
- Press **CTRL** to perform the control function. This key is under application control.
- Press **SHIFT** and a key to produce various character keys; refer to the *PDT 7500 Series Product Reference Guide* for your terminal or your application guide for the keypad mapping.

**Note:** Key functions can be changed by an application. Your keypad may not function exactly as described above.

## Using the PDT 7500 25-Key Keypad

The 25-key keypad produces the numbers 0-9, function keys F1-F10 and various action keys.



- The default numeric keypad produces the numbers 0-9.
- Press **FUNC** and the corresponding numeric key to produce the function keys F1-F10.
- Press the cursor keys (◀, ▶, ▲, ▼) to move the cursor left, right, up and down on the screen.
- Press **BACK** to erase information entered on the display, one character at a time.
- Press **CLEAR** to partially or completely escape from an application level or screen. **CLEAR** also erases all entered data from the screen.
- Press **ENTER** after entering data or a command.
- Refer to the *PDT 7500 Series Product Reference Guide* for your terminal or your application guide for the keypad mapping.

**Note:** Key functions can be changed by an application. Your keypad may not function exactly as described above.



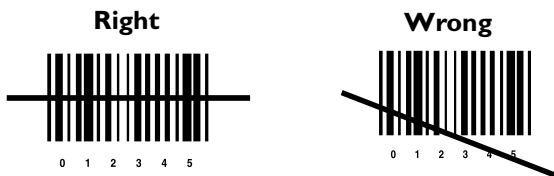
## Using the Integrated Laser Scanner

To use the laser scanner:

1. Verify the system is on. The LED lights yellow if scanning is enabled and the laser is on.
2. Aim the PDT 7500 scan window at the bar code and press the scan button.

Do not hold the PDT 7500 at a right angle to the bar code. You can tilt the 7500 up to 65° forward or backward and achieve a successful decodes.

3. Ensure that the scan beam crosses all bars and spaces on the symbol, as shown below.



Hold the scanner farther away for larger symbols, and closer for symbols with bars that are close together.

4. The LED turns from yellow to green for successful decodes. The PDT 7500 may also beep on successful decode.

## Scanning PDF417 Bar Codes

The PDF417 bar code symbol has multiple rows, but the raster pattern also has multiple scanning rows. Two basic steps are required as you scan:



## Q u i c k R e f e r e n c e

1. Point the scanner at the bar code and press the scan button.



2. As the raster pattern spreads, keep the pattern in the same horizontal plane as the bar code.

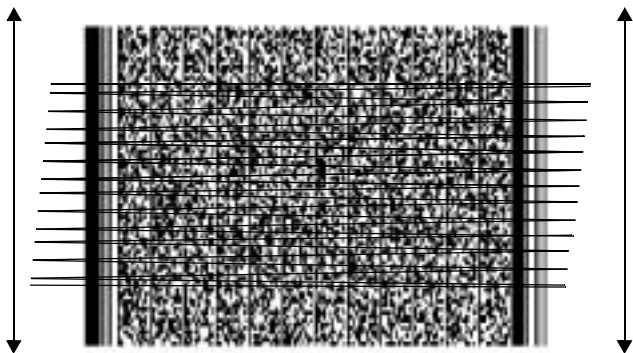


3. The terminal indicates a successful scan by changing the LED from yellow to green, beeping one or more times, and/or displaying the decoded bar code on the screen.

### “Tall” PDF Bar Codes

If the PDF417 symbol is “tall,” the vertical scan pattern may not be high enough to cover it.

In this case, try a slow “up and down” scanning motion. With the raster pattern open, try to move the scanner slowly down toward the bottom of the symbol, keeping the beam horizontal to the rows, and then slowly back upward toward the top.

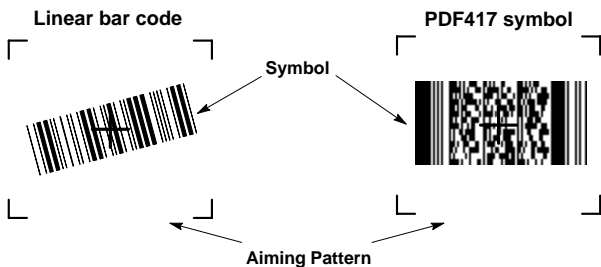


The scan beam does not have to be *perfectly* parallel with the top and bottom of the symbol (up to a  $4^{\circ}$  tilt will work).

### Using the Imager

To scan a symbol:

1. Press the scan button and **center** the symbol in any orientation in the aiming pattern. The entire symbol must be within the brackets.



2. Hold down the scan button until the imager beeps, indicating the bar code is decoded.

## Host Communications

The PDT 7500 Series terminal can communicate with a host PC either directly through its communications port using an RS-232 serial cable or the cradle, or wirelessly via the Spectrum24<sup>®</sup> wireless LANs. For more information on setting up and performing wireless communications with your PDT 7540 Series terminal, refer to the *PDT 7500 Series Product Reference Guide*.

### Using the RS-232 Serial Cable

To connect the RS-232 serial cable for host communication:

1. Connect the RS-232 serial communication cable's connector to the adapter cable's connector.
2. Plug the adapter cable's subminiature connector into the serial communication port on the bottom of the terminal.
3. Plug the other end of the RS-232 serial communication cable into the host PC.
4. Begin host communication as specified by your application.

### Using the Cradle

To communicate through the cradle:

1. Make sure all connections between the cradle and the host computer are secure. See the *Quick Reference Guide* that shipped with your cradle for instructions on setting up the cradle.
2. Power on the host computer, the cradle, and the terminal.
3. Insert the terminal into the cradle.
4. Begin host communications as specified by your application.

### Communicating with Printers

The PDT 7500 communicates with IrDA-compliant peripherals through the IrDA interface in the base of the terminal. To print, point the PDT 7500's IrDA port at the IrDA port on the IrDA-compliant printer a maximum distance of 39 inches (1 meter) and



run the application's print function. Printer communication can also be established through an RS-232 cable connected directly to the printer.

## Using the Touch Screen

Some PDT 7500 terminals are equipped with a Touch Screen, which has software that allows the stylus to function as a mouse. An optional stylus is available from Symbol for use with the terminal. Further use of the stylus function is application-dependent. Refer to application documentation for more information.

## Troubleshooting

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
PDT 7500 does not power on.	Li-Ion battery not charged.	Charge or replace the Li-Ion battery in the PDT 7500.
	System crash.	Hold PWR key for 15 seconds. DOS terminal users may change this value in Setup.
Rechargeable Li-Ion battery did not charge.	Battery failed.	Replace battery.
	PDT 7500 removed from cradle while battery was charging.	Insert PDT 7500 in cradle and begin charging. The Li-Ion battery requires 2-3 hours to recharge fully.
Cannot see characters on display.	PDT 7500 not powered on.	Press the PWR key.
	Contrast not adjusted properly.	Press the blue FUNC key and then the Dark or Light keys to adjust contrast.

## Q u i c k R e f e r e n c e

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Scanner does not power on when the scan button is pressed.	Scanner is not enabled.	See your System Administrator.
Scanner does not decode a bar code.	Bar code is unreadable.	Verify that the bar code is not defective, i.e., smudged or broken.
	Scan window is dirty.	Clean scan window with a lens tissue. Tissues for eyeglasses work well. Do not use tissues coated with lotion.
	Scan code not enabled.	See your System Administrator.
Fail to communicate with IrDA printer.	Distance from printer is more than 1 meter (39 inches).	Bring the terminal closer to the printer and attempt communications again.
	Obstruction interfered with communication.	Check the path to ensure no objects were in the way.
	Application is not enabled to run IrDA printing.	Printer support must be included with the application to run IrDA printing on the terminal. See your System Administrator.



<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
The aiming pattern does not appear when the scan button is pressed.	Bad cable connection.	Check that the cable is connected properly.
	Host power not on.	Be sure the host system power is on (if external power isn't used).
	Laser aiming parameter not enabled.	Ensure the laser aiming parameter is enabled.
The Imager is having trouble reading symbols.	Symbology disabled.	Check that the symbology is enabled.
	Damaged symbol.	Be sure the symbols aren't damaged or coated with frost or water droplets.
	Improperly aligned symbol.	Be sure the symbol is completely within the aiming pattern.
Scanned data is displayed incorrectly or not at all.	Improper communications setup.	Check that the communications parameters (baud, parity, stop bits) are set properly for the host.

## Serial Communication Port Pin-Outs

Pin	Description
1	GND
2	DSR
3	RXD
4	CTS
5	DCD
6	GND
7	PWROUT (+5V)
8	PWRIN(+15V)
9	DTR
10	Ring
11	TXD
12	RTS
13	Reserved
14	GND
15	PWRIN(+15V)

## Ergonomic Recommendations

**Caution:** In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are meeting with your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

## Regulatory Information

### Radio Frequency Interference Requirements

This device has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the Federal Communications Commissions Rules and Regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

However, there is no guarantee that interference will not occur in a particular installation. If the 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:

- Re-orient 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 which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC Part 15. 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:** To comply with FCC and Industry Canada RF exposure requirements, this hand-held device is approved for operation in a user's hand when there is 20 cm or more between the antenna and the user's body.

### Radio Frequency Interference Requirements - Canada

This device complies with RSS 210 of Industry & Science Canada. 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.

This Class B digital apparatus complies with Industry Canada Standard ICES-003.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 d'Industrie Canada.



## CE Marking and European Union Compliance



Products intended for sale within the European Union are marked with the CE Mark which indicates compliance to applicable Directives and European Normes (EN), as follows. Amendments to these Directives or ENs are included:

### **Applicable Directives**

- Electromagnetic Compatibility Directive 89/336/EEC
- Low Voltage Directive 73/23/EEC

### **Applicable Standards**

- EN 55 022 - Limits and Methods of Measurement of Radio Interference Characteristics of Information technology Equipment
- EN 55024:1998; Information technology equipment-Immunity characteristics-Limits and methods of measurement.
- EN 50 082-1:1997 - Electromagnetic Compatibility - Generic Immunity Standard, Part 1: Residential, commercial, Light Industry
- IEC 1000-4-2(1995-01) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 2: Electrostatic discharge immunity test.
- IEC 1000-4-3(1995-03) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 3: Radiated, radio-frequency, electromagnetic field immunity test.
- IEC 1000-4-4(1995-01) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 4: Electrical fast transient/burst immunity test.
- EN 60 950 + Amd 1 + Amd 2 - Safety of Information Technology Equipment Including Electrical Business Equipment
- EN 60 825-1 (EN 60 825) - Safety of Devices Containing Lasers.

## Laser Devices

Symbol products using lasers comply with US 21CFR1040.10, Subchapter J and IEC825/EN 60 825 (or IEC825-1/EN 60 825-1, depending on the date of manufacture). The laser classification is marked on one of the labels on the product.

Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

**Caution:** Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

Class 2 laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.



## RF Devices

Symbol's RF products are designed to be compliant with the rules and regulations in the locations into which they are sold and will be labeled as required. The majority of Symbol's RF devices are type approved and do not require the user to obtain license or authorization before using the equipment. Any changes or modifications to Symbol Technologies equipment not expressly approved by Symbol Technologies could void the user's authority to operate the equipment.

The Spectrum24 equipment is intended for use throughout the European Economic Area, but its authorization for use in France is restricted as follows:

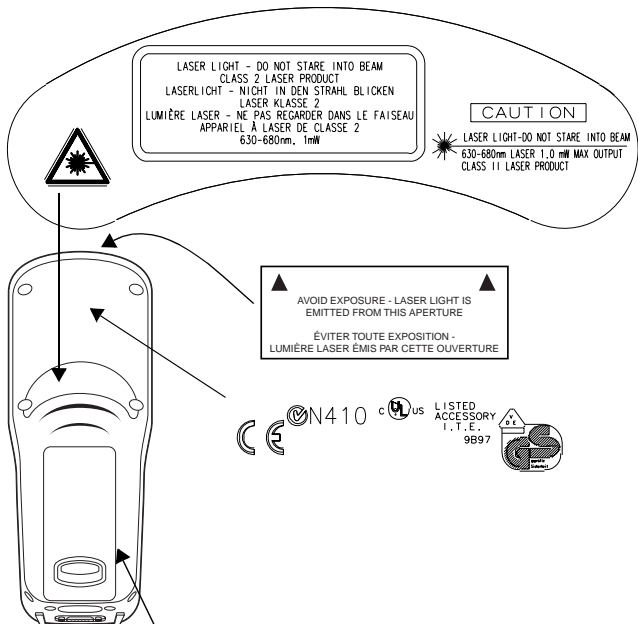
- **PAN European Frequency Range:** 2.400 - 2.4835 GHz, identified by -EU suffix to the model number found on the product label.
- **France - Restrict Frequency Range for use in France:** 2.447 - 2.453 GHz, identified on PDT 7542 by the -FR suffix to the model number found on the product label.
- **Belgium** - Operation in an out of doors environment in Belgium must be restricted to 2460 - 2483.5 MHz band.
- **Italy** - Operation in Italy requires a user license.

## WARNING: FCC RF EXPOSURE GUIDELINES

To satisfy FCC RF exposure compliance requirements for a portable transmitting device, this device should be used in hand-held, hand-operated configurations only. The device and its antenna should generally maintain a separation distance of 20 cm or more from a person's body; except for the hands and wrists because of higher exposure limit for extremities. This device is designed to be used in a person's hands and its operating configurations, generally do not support normal transmissions while it is carried in pockets or holsters next to a person's body.

# Q u i c k R e f e r e n c e

## Scanner Labeling



This label is located inside the battery compartment.

**DANGER** - LASER LIGHT WHEN OPEN. AVOID DIRECT EYE EXPOSURE.  
**ATTENTION** - LUMIÈRE LASER EN CAS D'OUVERTURE. NE PAS REGARDER DANS LE FAISCEAU.  
**VORSICHT** - LASERLICHT, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

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 UNDESIRE OPERATION. THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003. CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

SEE QUICK REFERENCE GUIDE FOR PATENT INFORMATION  
COMPLIES WITH 21CFR1040.10 & 1040.11;  
EN60825-1:1994 + A11:1996 & IEC 825-1:1993



In accordance with Clause 5, IEC 0825 and EN60825, the following information is provided to the user:



<b>ENGLISH</b> CLASS 1 CLASS 2	CLASS 1 LASER PRODUCT LASER LIGHT DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT	<b>HEBREW</b>	מוצר לייזר רמה 1 אור לייזר אין להביט אל תוך הזרם מוצר לייזר רמה 2	רמה 1 רמה 2
<b>DANISH</b> KLASSE 1 KLASSE 2	KLASSE 1 LASERPRODUKT LASERLYF SE IKKE IND I STRÅLEN KLASSE 2 LASERPRODUKT AL LASER DI CLASSE 2	<b>ITALIAN</b> CLASSE 1 CLASSE 2	PRODOTTO AL LASER DI CLASSE 1 LUCE LASER NON FISSARE IL RAGGIOPRODOTTO	
<b>DUTCH</b> KLASSE 1 KLASSE 2	KLASSE-1 LASERPRODUKT LASERLICHT NIET IN STRAAL STAREN KLASSE-2 LASERPRODUKT	<b>NORWEGIAN</b> KLASSE 1 KLASSE 2	LASERPRODUKT, KLASSE 1 LASERLYS IKKE STIRR INN I LYSSTRÅLEN LASERPRODUKT, KLASSE 2	
<b>FINNISH</b> LUOKKA 1 LUOKKA 2	LUOKKA 1 LASERTUOTE LASERVALO ÄLÄ TUJOTA SÄDETTÄ LUOKKA 2 LASERTUOTE	<b>PORTUGUESE</b> CLASSE 1 CLASSE 2	PRODUTO LASER DA CLASSE 1 LUZ DE LASER NÃO FIXAR O RAIJO LUMINOSO PRODUTO LASER DA CLASSE 2	
<b>FRENCH</b> CLASSE 1 CLASSE 2	PRODUIT LASER DE CLASSE 1 LUMIERE LASER NE PAS REGARDER LE RAYON FIXEMENT PRODUIT LASER DE CLASSE 2	<b>SPANISH</b> CLASE 1 CLASE 2	PRODUCTO LASER DE LA CLASE 1 LUZ LASER NO MIRE FIJAMENTE EL HAZ PRODUCTO LASER DE LA CLASE 2	
<b>GERMAN</b> KLASSE 1 KLASSE 2	LASERPRODUKT DER KLASSE 1 LASERSTRAHLEN NICHT DIREKT IN DEN LASERSTRAHL SCHAUEN LASERPRODUKT DER KLASSE 2	<b>SWEDISH</b> KLASS 1 KLASS 2	LASERPRODUKT KLASS 1 LASERLJUS STIRRA INTE MOT STRÅLEN LASERPRODUKT KLASS 2	

# Q u i c k R e f e r e n c e

## DECLARATION OF CONFORMITY

We, Symbol Technologies, Inc.

of One Symbol Plaza, Holtsville, NY 11742-1300, USA

declare under our sole responsibility that the product

Spectrum24, LA3021, Type II Radio Card

Spectrum24, LA302C, Type II Radio Card

Spectrum24, LA302T, Type II Radio Card

to which this declaration relates, is in conformity with the following standards and/or other normative documents.

ETS 300 328 (November 1996)

ETS 300 826 (November 1997)

EN 60950: 1992 Incl Amdt 1-4, 11

We hereby declare that all essential radio test suites have been carried out and that the above named products is in conformity to all the essential requirements of Directive 1999/5/EC.

The conformity assessment procedure referred to in Article 10(5) and detailed in Annex IV of Directive 1999/5/EC has been followed with the involvement of the following Notified Body(ies):

BABT, Claremont House, 34 Molesey Road, Walton-on-Thames, KT12 4RQ

Identification mark: 0168

The equipment will also carry the Class  
2 equipment identifier



The technical documentation relevant to the above equipment can be made available for inspection on application to:

Symbol Technologies EMEA, Symbol Place, Winnersh Triangle, Berkshire, RG 41 5TP, UK

Dornu Narnor

(name)

Director, Regulatory and Technical Sales

(title)

(signature of authorised person)

3, May 2000

(date)

**DECLARATION OF CONFORMITY**We, Symbol Technologies, Inc.of One Symbol Plaza, Holtsville, NY 11742-1300, USA

declare under our sole responsibility that the product

Spectrum24HR, LA4111, Type II Radio CardSpectrum24HR, LA411T, Type II Radio Card

to which this declaration relates, is in conformity with the following standards and/or other normative documents.

ETS 300 328 (November 1996)ETS 300 826 (November 1997)EN 60950: 1992 Incl Amdt 1-4, 11

We hereby declare that all essential radio test suites have been carried out and that the above named products is in conformity to all the essential requirements of Directive 1999/5/EC.

The conformity assessment procedure referred to in Article 10(5) and detailed in Annex IV of Directive 1999/5/EC has been followed with the involvement of the following Notified Body(ies):

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(name)

Director, Regulatory and Technical Sales

(title)

3, May 2000

(signature of authorised person)

(date)

# Q u i c k R e f e r e n c e

**Note:** The following End-User License Agreement applies only to Windows CE versions of the PDT 7500 terminal.

## **END-USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE MICROSOFT EXPORT SOFTWARE DEVELOPMENT KIT FOR WINDOWS CE VERSION 2.11 (Referred to as the “Microsoft Export SDK”)**

**IMPORTANT-READ CAREFULLY:** This Microsoft End-User License Agreement (“EULA”) is a legal agreement between you (either an individual or a single entity) and Microsoft Corporation for the Microsoft software product identified above, which includes computer software and may include associated media, printed materials, and “online” or electronic documentation (“SOFTWARE PRODUCT”). By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, do not install, copy or use the SOFTWARE PRODUCT.

### **SOFTWARE PRODUCT LICENSE**

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

**Introduction:** The SOFTWARE PRODUCT was configured for you by a licensee of Microsoft Windows CE Platform Builder v. 2.11.

For purposes of this EULA, the licensee of Microsoft Windows CE Platform Builder v. 2.11 is referred to as the “Platform Developer”. The SOFTWARE PRODUCT as delivered to you by the Platform Developer contains software and documentation from Microsoft Corporation and may also contain software and documentation from the Platform Developer. The software and documentation from the Platform Developer (“Platform Developer Components”) and the terms under which you can use such software and documentation are set forth below in a separate end-user license agreement provided to you directly from the Platform Developer (the “Platform Developer EULA”). References to SOFTWARE PRODUCT in this EULA are for the Microsoft Export SDK and do not include Platform Developer Components.

The Microsoft Export SDK and the Platform Developer Components may only have been delivered to you in tandem with the Platform Developer's product for Windows CE developed in accordance with the Microsoft Windows CE Platform Builder, version 2.11 (“Product for Windows CE”). If you received the Microsoft Export SDK under any other circumstances, you may not use the Microsoft Export SDK.

1. **GRANT OF LICENSE.** This EULA grants you the following limited, non-exclusive rights:
  - a. **SOFTWARE PRODUCT.** You may install and use the enclosed SOFTWARE PRODUCT on a single computer for the sole purposes of developing and testing your software application for use with the Product for Windows CE with which the SOFTWARE PRODUCT was delivered (“Application for Windows CE”).
  - b. **Sample Code.** You may modify the sample source code located in \Windows CE Tools\WCE211\<SDK>\samples (where “SDK” is the name of the

Platform Developer), (“Sample Code”) to develop, and test your Application for Windows CE. You may also reproduce and distribute the Sample Code in object code form, along with any modifications you make to the Sample Code, provided that you comply with the Distribution Requirements described below. For purposes of this section, “modifications” shall mean enhancements to the functionality of the Sample Code.

- c. Distribution Requirements. You may copy and redistribute the Sample Code and/or any modifications you make (collectively “REDISTRIBUTABLE COMPONENTS”) as described above, provided that (a) you distribute the REDISTRIBUTABLE COMPONENTS only in conjunction with, and as a part of, your Application for Windows CE; (b) your Application for Windows CE adds significant and primary functionality to the REDISTRIBUTABLE COMPONENTS; (c) the REDISTRIBUTABLE COMPONENTS only operate in conjunction with Microsoft Windows CE; (d) you do not permit further redistribution of the REDISTRIBUTABLE COMPONENTS by your end-user customers; (e) you do not use Microsoft’s name, logo, or trademarks to market your Application for Windows CE; (f) you include a valid copyright notice on your Application for Windows CE; and (g) you hereby agree to indemnify, hold harmless, and defend Microsoft from and against any claims or lawsuits, including attorneys’ fees, that arise or result from the use or distribution of your Application for Windows CE. Contact Microsoft for the applicable royalties due and other licensing terms for all other uses and/or distribution of the REDISTRIBUTABLE COMPONENTS.
  - d. Microsoft reserves all rights not expressly granted to you.
2. COPYRIGHT. All title, including but not limited to copyrights, in and to the SOFTWARE PRODUCT and any copies thereof are owned by Microsoft or its suppliers. All title and intellectual property rights in and to the content which may be accessed through use of the SOFTWARE PRODUCT is the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content. All rights not expressly granted are reserved by Microsoft. Therefore, you must treat the SOFTWARE PRODUCT like any other copyrighted material, except that you may either (a) make one copy of the SOFTWARE PRODUCT solely for backup or archival purposes, or (b) install the SOFTWARE PRODUCT on a single computer, provided you keep the original solely for backup or archival purposes. You may not copy the printed materials accompanying the SOFTWARE PRODUCT.
  3. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.
    - a. Limitations on Reverse-Engineering, Decompilation, and Disassembly. You may not reverse-engineer, decompile, or disassemble the SOFTWARE PRODUCT, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation.
    - b. No Support. Microsoft does not provide support for the SOFTWARE PRODUCT. Support, in any, may be available from the Platform Developer.
    - c. Rental. You may not rent, lease or lend the SOFTWARE PRODUCT.



## Q u i c k R e f e r e n c e

- d. Software Transfer. You may not transfer any of your rights under this EULA
  - e. Termination. Without prejudice to any other rights, Microsoft may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.
4. EXPORT RESTRICTIONS. You agree that you will not export or re-export the SOFTWARE PRODUCT, any part thereof, or any process or service that is the direct product of the SOFTWARE PRODUCT (the foregoing collectively referred to as the “Restricted Components”), to any country, person or entity subject to U.S. export restrictions. You specifically agree not to export or re-export any of the Restricted Components (i) to any country to which the U.S. has embargoed or restricted the export of goods or services, which currently include, but are not necessarily limited to Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria, or to any national of any such country, wherever located, who intends to transmit or transport the Restricted Components back to such country; (ii) to any entity who you know or have reason to know will utilize the Restricted Components in the design, development or production of nuclear, chemical or biological weapons; or (iii) to any entity who you know or have reason to know has been prohibited from participating in U.S. export transactions by any federal agency of the U.S. government. You warrant and represent that neither the BXA nor any other U.S. federal agency has suspended, revoked or denied your export privileges.
5. U.S. GOVERNMENT RIGHTS. All SOFTWARE PRODUCT provided to the U.S. Government pursuant to solicitations issued on or after December 1, 1995 is provided with the commercial rights and restrictions described elsewhere herein. All SOFTWARE PRODUCT provided to the U.S. Government pursuant to solicitations issued prior to December 1, 1995 is provided with RESTRICTED RIGHTS as provided for in FAR, 48 CFR 52.227-14 (JUNE 1987) or FAR, 48 CFR 252.227-7013 (OCT 1988), as applicable.

### MISCELLANEOUS

If you acquired this product in the United States, this EULA is governed by the laws of the State of Washington.

If you acquired this product in Canada, this EULA is governed by the laws of the Province of Ontario, Canada. Each of the parties hereto irrevocably attorns to the jurisdiction of the courts of the Province of Ontario and further agrees to commence any litigation that may arise hereunder in the courts located in the Judicial District of York, Province of Ontario.

If this product was acquired outside the United States, local law may apply.

NO WARRANTIES. Microsoft expressly disclaims any warranty for the SOFTWARE PRODUCT. The SOFTWARE PRODUCT and any related documentation is provided “as is” without warranty or condition of any kind, either express or implied, including, without limitation, the implied warranties or conditions of merchantability, fitness for a particular purpose, or non infringement. The entire risk arising out of use or performance of the SOFTWARE PRODUCT remains with you.



NO LIABILITY FOR DAMAGES. In no event shall Microsoft or its suppliers be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use this Microsoft product, even if Microsoft has been advised of the possibility of such damages. Because some states/jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

Si vous avez acquis votre produit Microsoft au CANADA, la garantie limitée suivante vous concerne:

### **GARANTIE LIMITÉE**

EXCLUSION DE GARANTIES. Microsoft renonce entièrement à toute garantie pour le LOGICIEL. Le LOGICIEL et toute autre documentation s'y rapportant sont fournis « comme tels » sans aucune garantie quelle qu'elle soit, expresse ou implicite, y compris, mais ne se limitant pas aux garanties implicites de la qualité marchande, d'adaptation à un usage particulier ou d'absence de violation des droits des tiers. Le risque total découlant de l'utilisation ou de la performance du LOGICIEL est entre vos mains.

ABSENCE DE RESPONSABILITÉ POUR LES DOMMAGES. Microsoft ou ses fournisseurs ne pourront être tenus responsables en aucune circonstance de tout dommage quel qu'il soit (y compris mais non de façon limitative les dommages directs ou indirects causés par la perte de bénéfices commerciaux, l'interruption des affaires, la perte d'information commerciale ou toute autre perte pécuniaire) résultant de l'utilisation ou de l'impossibilité d'utilisation de ce produit, et ce, même si la société Microsoft a été avisée de l'éventualité de tels dommages. Parce que certains états/jurisdictions ne permettent pas l'exclusion ou la limitation de responsabilité relative aux dommages indirects ou consécutifs, la limitation ci-dessus peut ne pas s'appliquer à votre égard.

La présente Convention est régie par les lois de la province d'Ontario, Canada. Chacune des parties à la présente reconnaît irrévocablement la compétence des tribunaux de la province d'Ontario et consent à instituer tout litige qui pourrait découler de la présente auprès des tribunaux situés dans le district judiciaire de York, province d'Ontario.

# Q u i c k R e f e r e n c e

## Warranty

Symbol Technologies, Inc. ("Symbol") manufactures its hardware products in accordance with industry-standard practices. Symbol warrants that for a period of twelve (12) months from date of shipment, products will be free from defects in materials and workmanship.

This warranty is provided to the original owner only and is not transferable to any third party. It shall not apply to any product (i) which has been repaired or altered unless done or approved by Symbol, (ii) which has not been maintained in accordance with any operating or handling instructions supplied by Symbol, (iii) which has been subjected to unusual physical or electrical stress, misuse, abuse, power shortage, negligence or accident or (iv) which has been used other than in accordance with the product operating and handling instructions. Preventive maintenance is the responsibility of customer and is not covered under this warranty.

Wear items and accessories having a Symbol serial number, will carry a 90-day limited warranty. Non-serialized items will carry a 30-day limited warranty.

## Warranty Coverage and Procedure

During the warranty period, Symbol will repair or replace defective products returned to Symbol's manufacturing plant in the US. For warranty service in North America, call the Symbol Support Center at 1-800-653-5350. International customers should contact the local Symbol office or support center. If warranty service is required, Symbol will issue a Return Material Authorization Number. Products must be shipped in the original or comparable packaging, shipping and insurance charges prepaid. Symbol will ship the repaired or replacement product freight and insurance prepaid in North America. Shipments from the US or other locations will be made F.O.B. Symbol's manufacturing plant.

Symbol will use new or refurbished parts at its discretion and will own all parts removed from repaired products. Customer will pay for the replacement product in case it does not return the replaced product to Symbol within 3 days of receipt of the replacement product. The process for return and customer's charges will be in accordance with Symbol's Exchange Policy in effect at the time of the exchange.

Customer accepts full responsibility for its software and data including the appropriate backup thereof.

Repair or replacement of a product during warranty will not extend the original warranty term. Symbol's Customer Service organization offers an array of service plans, such as on-site, depot, or phone support, that can be implemented to meet customer's special operational requirements and are available at a substantial discount during warranty period.

## General

Except for the warranties stated above, Symbol disclaims all warranties, express or implied, on products furnished hereunder, including without limitation implied warranties of merchantability and fitness for a particular purpose. The stated express warranties are in lieu of all obligations or liabilities on part of Symbol for damages, including without limitation, special, indirect, or consequential damages arising out of or in connection with the use or performance of the product.

Seller's liability for damages to buyer or others resulting from the use of any product, shall in no way exceed the purchase price of said product, except in instances of injury to persons or property.

Some states (or jurisdictions) do not allow the exclusion or limitation of incidental or consequential damages, so the proceeding exclusion or limitation may not apply to you.

This product is marked with **CE0168** in accordance with the Class II product requirements specified in the R&TTE Directive, 1999/5/EC.

The equipment is intended for use throughout the European Community, but it's authorization for use in France is restricted as follows:

- PAN European Frequency Range: 2.402 - 2.480 GHz
- Restricted Frequency Range for use in France: 2.448 - 2.480 GHz

## Service Information

Before you use the unit, it must be configured to operate in your facility's network and run your applications.

If you have a problem running your unit or using your equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact the Symbol Support Center:

United States	1-800-653-5350	Canada	905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific	337-6588
Australia	1-800-672-906	Austria	1-505-5794
Denmark	7020-1718	Finland	9 5407 580
France	01-40-96-52-21	Germany	6074-49020
Italy	2-484441	Mexico	5-520-1835
Netherlands	315-271700	Norway	66810600
South Africa	11-4405668	Spain	9-1-320-39-09
Sweden	84452900		
Latin America Sales Support		1-800-347-0178 Inside US	
		+1-561-483-1275 Outside US	
Europe/Mid-East Distributor Operations		Contact local distributor or call	
		+44 208 945 7360	



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