Quick Reference

Introduction
The PDT 1100 is a lightweight, battery-powered, hand-held laser bar code scanning terminal. The terminal is available in memory configurations of 2 MB and 512 K. The terminal has communications capabilities through several venues:

• infrared communications directly to a PC with an Ir port
• through the optional cradle
• by serial cable connected to a host computer.
About This Guide

This Quick Reference Guide describes the basic operation of the PDT 1100, including information on:

- Parts of the PDT 1100 on page 3
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Parts of the PDT 1100

- Hand Strap
- LCD
- Connector cover
- Confirmation LED
- M1
- M2
- M3
- M4
- Battery Cover
- Battery Cover Lock
- Clip (optional)
- Scanner Window
- IR Port
Key Pad

- M1 & M3 keys
- M2 & M4 keys
- Numeric keys
- Enter key
- Function keys
- Cursor keys
- PW (Power) key
- BS (Backspace) key
- C (clear) key
- SF (Shift) key
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Functions of the PDT 1100 Keys
The functions of the keys may be set by application programs. Here is a set of sample functions.

<table>
<thead>
<tr>
<th>Key</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1, M2, M3 or M4</td>
<td>Press any of these keys to activate the scanner (the scan trigger is assigned to these keys by default). Depending upon the definition in Systems Mode or in application programs, they may be used as the Enter key, Shift key, and backlight on/off key. They can also be assigned string data in application programs.</td>
</tr>
<tr>
<td>F5-F8 Cursor Keys</td>
<td>Use to move up or down lines, or to move character by character.</td>
</tr>
<tr>
<td>PW (Power) Key</td>
<td>Powers the unit on and off.</td>
</tr>
<tr>
<td>BS (Backspace) Key</td>
<td>Moves the cursor back one character.</td>
</tr>
<tr>
<td>Numeric Keys</td>
<td>Used for numeric input.</td>
</tr>
<tr>
<td>SF (Shift) Key</td>
<td>Used in combination with numeric keys for special functions.</td>
</tr>
<tr>
<td>C (Clear) Key</td>
<td>Clears the last entered data and returns to the original screen.</td>
</tr>
</tbody>
</table>

Powering On/Off
The PW (Power) button is located in the lower left corner of the keypad, and powers the terminal on and off. If the terminal is being powered on for the first time, or is being powered on after a complete discharge, refer to Initializing the PDT 1100 in the PDT 1100 Product Reference Guide (p/n 70-35864-xx).

Loading an Application
To determine the system requirements and to load an application, refer to System Configuration in the PDT 1100 Product Reference Guide (p/n 70-35864-xx).
Scanning Bar Codes

To scan bar codes:

1. Power the terminal on.
2. Aim the scanner window at the bar code.
3. Press the M1, M2, M3 or M4 key.

The laser is emitted from the scanner window. The LED illuminates green to indicate a successful decode. Depending on the system configuration, the unit may also beep upon a successful reading.

- If the PDT 1100 fails to read, change the angle by tilting the unit up or down slightly, or change the distance of the terminal from the bar code.
- Keep the terminal at a distance from a target bar code so that the bar code comes within approximately 90% of the laser scanning range. The PDT 1100 can read bar codes at a maximum distance of 56 cm (22 in.) from the bar code reading window.
- The bar code reading procedure may differ depending upon the application used. Refer to the PDT 1100 Product Reference Guide (p/n 70-35864-xx).
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Scanner confirmation LED (green when bar code is successfully read).

The trigger switch function is assigned to all the M keys at the factory.

Max. 56 cm. (22 inches)
Hand Strap and Pocket Clip (optional)
Loop the hand strap through the terminal, then put your hand through the strap and hold the PDT 1100. This prevents you from accidentally dropping the terminal.

Attaching the Clip
First fit the left tab of the clip into the matching groove of the PDT 1100 body and then snap the other tab into place. To remove the clip, insert a flat-edged screwdriver at the edge and twist to disengage.

Setting the Backlight
The backlight function is off when the terminal is powered on. Press the M1 key while holding down the SF (shift) key to activate or deactivate the backlight function.

Note: In application programs, you can redefine the key to be used for activating or deactivating the backlight func-
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Adjusting Settings
The LCD brightness can be adjusted between eight contrast levels. The terminal can be set in both beeper and vibration alert modes, and the volume can be adjusted between four levels.

Adjusting the LCD Contrast
1. Press M1, hold it down and press PW to display the LCD Contrast screen.
2. Use F5 or F6 keys to select the LCD contrast line in the display.
3. To decrease the contrast, press F7.
4. To increase the contrast, press F8.
5. Press the Enter key, or wait 5 seconds to accept the new setting.

Using Beeper and Vibration Modes
The PDT 1100 has three ways to inform you that a bar code has been scanned successfully:

- confirmation LED
- beeper mode
- vibration mode

The confirmation LED and beeper are the default methods of announcing successful scans. Beeper and vibration modes can be used simultaneously.

Adjusting the Beeper Volume
The beeper volume can be adjusted to four levels, from OFF to MAX.

1. Press and hold M1. Press and release PW to display the Beeper Volume Screen.
2. Use F5 or F6 keys to select the beeper volume line in the display.
3. To lower the volume, press F7.
4. To raise the volume, press F8.
5. Press the Enter key, or wait 5 seconds to accept the new setting.

Switching the Beeper/Vibration Mode
You can set the terminal to beep, vibrate, or do both upon a successful scan.
1. Press and hold M1. Press and release PW to display the Beeper/Vibration mode screen.
2. Use F5 or F6 keys to select the Switching Beeper Volume line.
3. Press the F7 key twice to select Beeper mode.
4. Press the F8 key twice to select Vibration mode.
5. Press the F8 key once to select both Beeper and Vibration.
6. Press the Enter key, or wait 5 seconds to accept the new setting.

Setting the Date and Time
1. Hold down the SF and 1 keys and press the PW key to display the SYSTEM MENU screen.
2. Select 4:SET SYSTEM and press the ENT key to display the SET SYSTEM screen.
3. Select 3:DATE/TIME and press the ENT key to display the SET DATE/TIME screen.
4. Use numeric keys and enter the year (only the two last digits), month, day, hour (in 24-hour format) and then minutes. Add a 0 (zero) preceding one digit entries.
5. If you make an incorrect entry, press the BS key and enter the correct data.
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6. Press the C key to return to the SET SYSTEM screen.

Using the Keypad

Entering Numeric Data
To enter numeric data, e.g., the quantity of goods, use the ten numeric keys and the Enter key.

If you key in a wrong value, press the C key to clear, or the BS (Backspace) key and enter the correct data.

Selecting Tasks
If the LCD shows the selection (xxx) prefaced by a number (i.e., 1: xxx, 2:xxx), use the numeric keys to select the desired item, then press the Enter key to execute.

If a YES/NO screen (e.g., 1:Yes, 2:No) appears, respond by pressing 1 for yes, 2 for no.

Entering Alphabetic Characters
The PDT 1100 supports the alphabet input function using letters, characters and spaces from the keypad during execution of an application program. Refer to the PDT 1100 Product Reference Guide (p/n 70-35864-xx) for more information.

Communications
There are three options for transmission of data.

- CRD 1100 cradle
- Optical interface
- Serial cable

Using the Cradle (CRD 1100)
The optional CRD 1100 is an infrared communications unit with optional charging function. You may either keep the PDT 1100 and the CRD 1100 separated by 10-80 cm (4-30 inches) with their IR
ports facing each other, or put the PDT 1100 directly in the cradle to communicate through the cable.

**Using the Optical Interface**

The PDT 1100 communicates using a beam of infrared light, so there should be nothing obstructing the line of sight between the terminal and any target stations. In the IrDA communications mode, keep the terminal and target within the effective light emission range, about 10-80 centimeters (4-30 inches). The PDT 1100 can also communicate with other equipment with infrared capability. This is done by aligning the infrared ports. The effective IR range and IR port angle may differ depending upon the target equipment, so refer to all relevant instruction manuals.

**Using the Serial Cable**

The PDT 1100 can also be connected directly to a host computer, a modem, or a printer with the optional RS-232C direct-connect serial cable.

For more information on cable connection and communications, refer to the *PDT 1100 Product Reference Guide* (p/n 70-35864-xx).
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Batteries

Types of Batteries
The PDT 1100 accepts either two standard AAA batteries or a rechargeable NiMH battery pack (optional). The batteries are not loaded into the terminal when it is shipped from the factory.

Note: For best battery performance at low temperatures (at or below 0°C or 32°F) we recommend using the optional rechargeable NiMH battery pack.

Loading the Batteries

**AAA Alkaline Batteries**

1. Turn the PDT 1100 upside down. Slide the cover lock in the direction of the arrow and remove the battery cover.
2. Check the polarity of the two new batteries and insert them so that the end of the battery pull strap is above the batteries. This facilitates easy removal of the batteries.
3. Replace the battery cover, being careful not to pinch the battery pull strap between its cover and the bottom cover. Return the battery cover lock to its original locked position.

**NiMH Battery Pack**

1. Charge the NiMH battery pack in the cradle battery charging slot prior to installing it in the terminal (refer to Using the Cradle to Charge the NiMH Battery Pack on page 15).
2. Turn the PDT 1100 upside down. Slide the cover lock in the direction of the arrow and remove the battery cover.
3. Check the polarity of the battery pack. Load it so that the end of the battery pull strap appears above the battery pack. This facilitates easy removal of the battery pack. Make certain grooves on the battery pack are aligned with the slot.
4. Replace the battery pack cover, being careful not to pinch the battery pull strap between its cover and the bottom cover.
Return the battery cover lock to its original locked position.

Charging the Super Cap
When powering up for the first time, or when the batteries are out of the terminal for five minutes or more, the super cap must be fully charged to provide memory backup. To fully charge the super cap, insert fresh batteries and allow two hours for the batteries to charge the super cap. If this is not done, there may not be sufficient backup power to maintain data. There is no indication on the terminal when the super cap is charging.

Voltage Indication
To check the current voltage:
1. Press the Enter key while holding down the SF key. The current voltage is displayed as a bar in the LCD window.
2. Release the keys to delete the indication.

For more details, refer to the PDT 1100 Product Reference Guide (p/n 70-35864-xx).

Low Battery Indication
If the voltage drops below specific levels while the PDT 1100 is in operation, the unit displays two warning messages. The first warning message is:

Battery Voltage has Lowered.

The unit then beeps three times and resumes normal operation. This message means that the batteries will expire soon. If you do not replace the batteries within a short time, the terminal shows one of the following two messages, beeps five times, and shuts down automatically.

For AAA alkaline batteries:

Replace the Batteries!
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For the NiMH battery pack:
  Charge the battery!
If either message appears, immediately power off the unit if it has not already shut down automatically, and then replace or recharge the batteries. If using AAA batteries, make sure you have new batteries available before removing old batteries. If you replace the batteries within 3 minutes, you will not experience loss of data. After battery replacement, power on the terminal and check the operation.

Storing the Terminal
If the PDT 1100 is to be stored for a long time, to flush the contents of RAM (system parameters and user data) to ROM, press and hold the PW key for three seconds. The following message appears:
  Now Saving Data
  Do not remove batteries
  until process complete.
Upon completion of the backup, the message disappears. After the message disappears, remove the batteries or battery pack.

Using the Cradle to Charge the NiMH Battery Pack
You can recharge the battery pack using the optional CRD 1100 charge function. The NiMH battery pack can also be completely discharged before recharging using the slot in the cradle. Refer to the CRD 1100 Quick Reference Guide (p/n 70-35862-xx).

Using the 4-Slot NiMH Battery Charger
The optional 4-slot battery charger may also be used to charge or discharge the NiMH battery pack. For more information, refer to the PDT 1100 Product Reference Guide (p/n 70-35864-xx) or the CRG 1100 Quick Reference Guide (p/n 70-35863-xx).
Cleaning
Wipe the scanner window periodically with a lens tissue or other material suitable for cleaning optical material, such as eyeglasses.

Caution: Do not pour, spray or spill any liquid on the scanner.

Troubleshooting
If the scanner does not work after you’ve followed the operating instructions as outlined in this guide, check the following:

• the system power.
• scanning is enabled.
• battery is installed correctly.
• cable connections are not loose, if the cable is in use.
• PDT 1100 is programmed to read the type of bar code you are trying to scan.
• symbol is not defaced.

If the scanner is still not operational, refer to the Service Information on back cover.
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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 adhering to 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 equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in 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.

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 Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du 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

- Low Voltage Directive 73/23/EEC.

Applicable Standards

- EN 55024:1998; Information Technology Equipment - Immunity characteristics - Limits and methods of measurement
- IEC 1000-4-2:1995; Electromagnetic compatibility (EMC); Part 4: Testing and measurement techniques; Section 4.2: Electrostatic discharge immunity test
- IEC 1000-4-3:1997; Electromagnetic Compatibility (EMC); Part 4: Testing and measurement techniques; Section 3. Radiated, radio frequency, electromagnetic field immunity test
- IEC 1000-4-4:1995; Electromagnetic compatibility (EMC); Part 4: Testing and measurement techniques; Section 4: Testing electrical fast transient/Burst immunity
- IEC 1000-4-5:1995; Electromagnetic compatibility (EMC), Part 4: Testing and measurement techniques; Section 5: Surge Immunity
- IEC 1000-4-6:1996; Electromagnetic compatibility (EMC), Part 4: Testing and measurement techniques; Section 6: Immunity to conducted disturbances, induced by radio frequency fields
- IEC 1000-4-11:1994; Electromagnetic compatibility (EMC), Part 4: Testing and measurement techniques; Section 11: Voltage Dips, Short Interruptions, and Voltage Variations
- EN 60950 + A1+A2+A3+A4+A11 - Safety of Information Technology Equipment Including Electrical Business Equipment
- EN 60825 - Safety of Devices Containing Lasers.

Laser Devices


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.
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Scanner Labeling

The above label appears on the inside of the terminal.
In accordance with Clause 5, IEC 825 and EN60825, the following information is provided to the user:

**ENGLISH**
- CLASS 1: LASER PRODUCT
- CLASS 2: LASER LIGHT

**HEBREW**
- מחלקה 1: סרסור לייזר
- מחלקה 2: אור לייזר

**DANISH**
- KLASS 1: LASERPRODUKT
- KLASS 2: LASERLYSF

**DUTCH**
- KLASSE 1: LASERPRODUKT
- KLASSE 2: LASERLICHT

**FINNISH**
- LUOKKA 1: LASERTUOTE
- LUOKKA 2: LASERVALO

**FRENCH**
- CLASSE 1: PRODUIT LASER DE CLASSE 1
- CLASSE 2: PRODUIT LASER DE CLASSE 2

**GERMAN**
- KLasse 1: LASERPRODUKT DER KLasse 1
- KLasse 2: LASERSTRAHLN

**ITALIAN**
- CLASSE 1: PRODOTTO AL LASER DI CLASSE 1
- CLASSE 2: PRODOTTO AL LASER DI CLASSE 2

**PORTUGUESE**
- CLASSE 1: PRODUTO LASER DA CLASSE 1
- CLASSE 2: PRODUTO LASER DA CLASSE 2

**ROMANIAN**
- CLASE 1: PRODUS LASER DE CLASĂ 1
- CLASE 2: PRODUS LASER DE CLASĂ 2

**SWEDISH**
- KLASS 1: LASERPRODUKT KLASSE 1
- KLASS 2: LASERSTRALEN
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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 preceding exclusion or limitation may not apply to you.
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\(^1\): 1-800-653-5350
- 1-631-738-2400
- Canada: 905-629-7226
- United Kingdom: 0800 328 2424
- Austria: 1-800-672-906
- Austria/Österreich: 1-505-5794
- Denmark/Danmark: 7020-1718
- Finland/Suomi: 9 5407 580
- France: 01-40-96-52-21
- Germany/Deutschland: 6074-49020
- Italy/Italia: 2-484441
- Mexico/México: 5-520-1835
- Netherlands/Nederland: 315-271700
- Norway/Norge: 66810600
- South Africa: 11-4405668
- Spain/España: +913244000
- Sweden/Sverige: 84452900
- Latin America: 1-800-347-0178 Inside US
- Sales Support: +1-561-483-1275 Outside US
- Europe/Mid-East: Contact local distributor or call
- Distributor Operations: +44 208 945 7360

\(^1\)Customer support is available 24 hours a day, 7 days a week.

For the latest version of this guide go to: http://www.symbol.com/manuals.