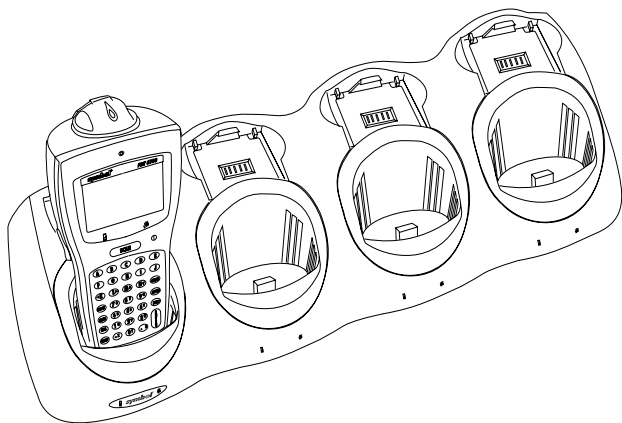
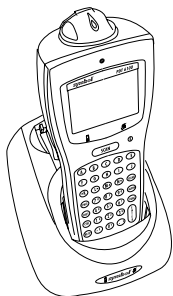


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symbol[®]



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Symbol is a registered trademark of Symbol Technologies, Inc. Other product names mentioned in this manual may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

Symbol Technologies, Inc.
One Symbol Plaza
Holtsville, N.Y. 11742-1300
<http://www.symbol.com>

Patents

This product is covered by one or more of the following U.S. and foreign Patents:

U.S. Patent No.4,360,798; 4,369,361; 4,387,297; 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; 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.

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. 11/99

Introduction

This guide presents information on the installation and charging of the CRD 6100-1030 single-slot cradle and the CRD 6100-4030 four-slot cradle. The cradles communicate through an RS-232 interface to a host computer. The cradles also include spare battery slots for charging additional batteries.

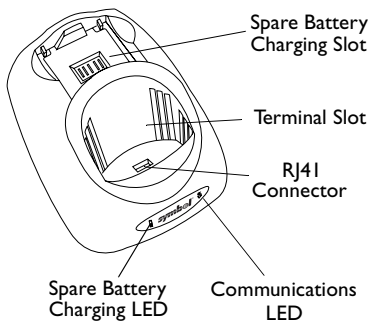
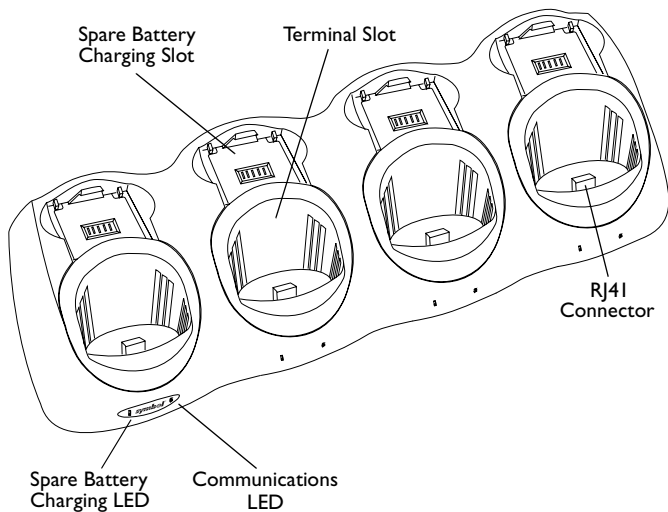
Equipment Required for Setup

Verify that you have the following cradle parts, cables, and other kits/accessories before attempting to connect the cradle:

- ✓ Single-slot or four-slot cradle with spare battery charging slot(s)
- ✓ RS-232 null modem cable, DB-25 male to DB-25 female or DB-25 male to DB-9 female
- ✓ AC power supply for single-slot cradle (p/n 50-14000-086) or four-slot cradle (p/n 50-14001-004)
- ✓ Appropriate line cord.

Save the shipping container for storing or shipping the cradle. Inspect all equipment for damage. If anything is damaged or missing, call your authorized customer support representative immediately.

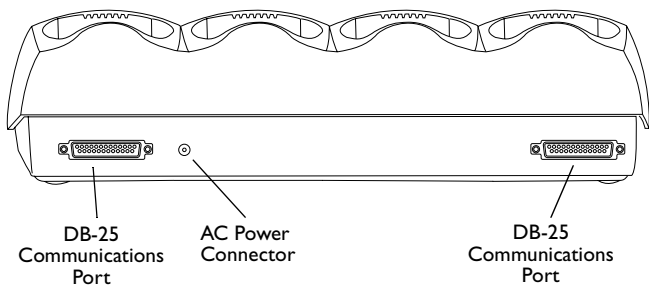
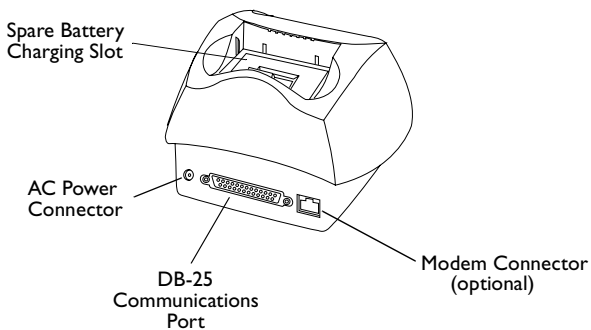
Parts of the Cradle



Front View

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

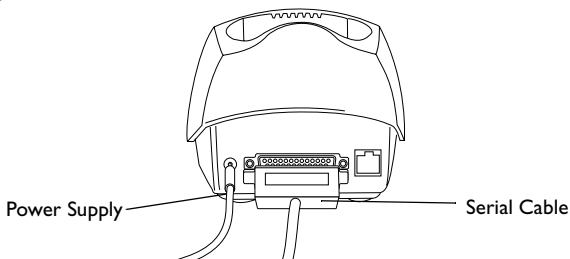
Parts of the Cradle



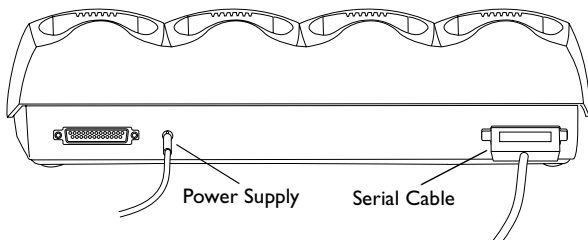
Back View

Connecting the Cables

To connect the CRD 6100's communications cables and power supply:



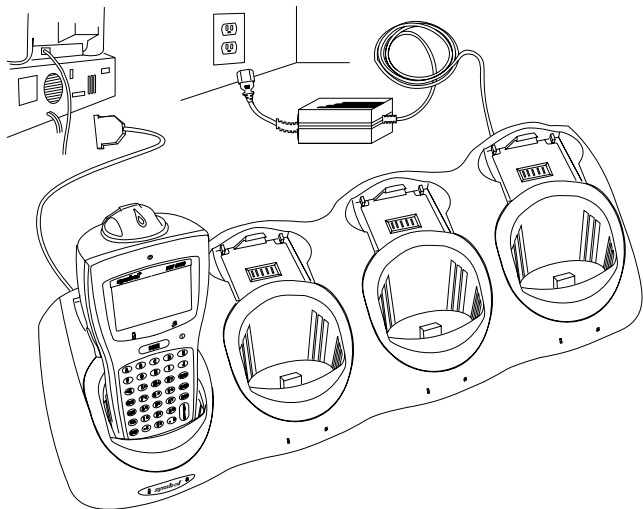
1. Plug the RS-232 serial cable in the communications port located on the back of the cradle (on the four-slot cradle, the connector is on the right side when facing the back of the cradle).



2. Connect the serial cable's other end to the host PC's communications port.
3. Connect the power jack of the power cord to the cradle's AC power port.
4. Connect the line cord to the power supply.

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

5. Plug the line cord in a standard electrical outlet.



6. On the single-slot cradle, the green communication indicator will light for about 5 seconds and then go out.
7. On the four-slot cradle, the green communication indicator will light for about 5 seconds, flash for about 5 seconds and then go out.

Connecting the Internal Modem

Some cradles use an optional internal modem that communicates at rates of up to 14,400 bps (with v.32 bis data compression). It can be connected directly to a telephone line through the RJ-11 port shown in the illustration.

Note: The four-slot cradle does *not* have an internal modem.

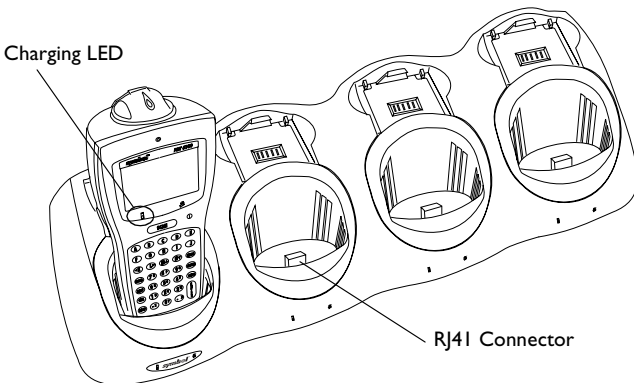
There are specific firmware settings which are used to configure the modem's hardware and software for proper operation and regulatory compliance. The terminal's application can control these

settings and enable you to view and amend the settings for country/region, pulse/tone dialing, or repeat dial timing. Incorrectly defining these settings can lead to illegal use of the modem and can create unreliable operation. The application developer should consult the Series 3000 Application Programmer's Reference Manual for correct settings.

For serial communications, follow the steps provided for the serial cradle.

Inserting the Terminal in the Cradle

1. Seat the PDT 6100 in the cradle slot. The PDT 6100's serial port fits on the RJ 41 connector in the bottom of the cradle slot.
2. The PDT 6100's Charging LED flashes yellow if it is seated properly and the cradle is connected to power.



Removing the PDT 6100 from the Cradle

To remove the terminal from the cradle, grip the terminal above the scan triggers and lift.

Charging the Battery

Note: Charge the PDT 6100's battery fully before using the PDT 6100. Charge the battery at a temperature between 0°C to 40°C (32°F to 104°F). Room temperature (23°C or 73.4°F) is ideal.

The 1500 mAh NiMH battery automatically begins recharging when the PDT 6100 is placed in the cradle.

1. Place the PDT 6100 in the cradle.

The PDT 6100's Charging LED flashes yellow when the terminal is first placed in the cradle. The LED lights solid yellow when charging a discharged battery, and turns solid green when the battery is fully charged.

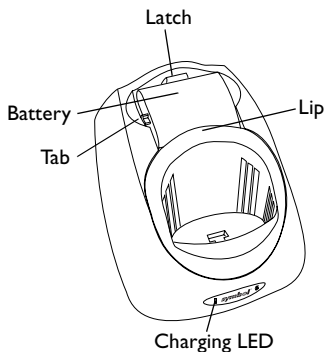
2. Leave the PDT 6100 in the cradle up to 2.5 hours to recharge a fully discharged battery.

Recharging a Spare Battery Pack

To recharge a spare battery pack in the cradle:

1. Insert the battery pack sideways, contacts down, into the spare battery slot, with the tab facing either the right or left side of the cradle.
2. Angle one side of the battery under the lip on the cradle's well.

3. Press down on the other side of the battery until the latch catches.



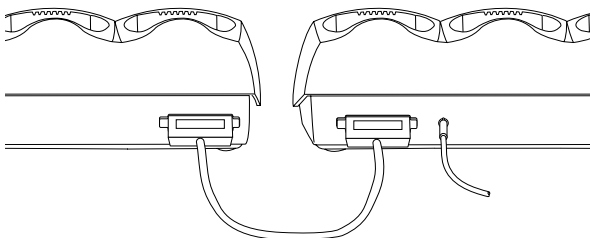
The cradle's Charging LED flashes yellow when the battery is first inserted. The LED lights solid yellow to indicate the spare battery is charging, and switches to solid green when the battery is charged. The spare battery recharges in 2.5 hours.

4. Remove the spare battery and place it in the PDT 6100, or leave it in the cradle for temporary storage.
- To remove the battery, grip on either side of the battery and lift it out of the charging slot.

Connecting to Other Cradles

Up to 16 four-slot cradles can be connected in series using an RS-232 inter-cradle cable (p/n 50413). For interconnecting cradles where a longer inter-cradle cable is required, use cable p/n 51349-00-00. Single-slot cradles may not be connected together.

Each cradle must have its own power supply; any other method of power hookup is unsafe.



1. Plug one end of the inter-cradle cable into the communications port located on the back of the cradle.
2. Plug the other end of the inter-cradle cable into the communications port located next to the power connector on the back of the second cradle.
3. Connect the power supply to the second cradle as described in the “Connecting the Cables” on page 4.
4. Repeat the above steps for each additional four-slot cradle.

Sending Data to a Host Computer or Printer

1. Place the PDT 6100 in a CRD 6100 connected to a host computer or printer.
2. Press the appropriate key on the PDT 6100 as described in your application user guide.
3. The cradle’s Communications LED flashes green when communication is in progress.

Troubleshooting

Symptom	Probable Cause	Action
Cradle's LEDs don't light	Cradle not connected to power.	Connect the cradle to a power supply. Refer to <i>Connecting the Cables</i> on page 4.
No communication between the PDT 6100 and cradle	PDT 6100 not seated properly.	Ensure PDT 6100 is pressed down in the cradle slot.
Rechargeable NiMH battery does not charge	PDT 6100 was removed from cradle before battery was fully charged.	Replace PDT 6100 in cradle and begin charging. The NiMH battery requires 2 to 2.5 hours to recharge fully.
	Battery failed.	Replace battery.
	Charging battery at temperature other than 0°C to 40°C.	Ensure that the room temperature is between 0°C and 40°C for charging the battery.
Spare battery does not charge	Battery removed before fully charged.	Replace battery in spare battery slot and begin charging. The NiMH battery requires 2 to 2.5 hours to fully charge in the spare battery slot.
	Battery failed.	Replace battery.
	Battery not seated properly.	Verify that battery is correctly inserted in spare battery slot.
No communication between the host and the cradle	Cables not connected correctly.	Verify that the cables are connected properly. Refer to <i>Connecting the Cables</i> on page 4.

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

Symptom	Probable Cause	Action
No data transmitted to host or printer, or data transmitted was incomplete	PDT 6100 was removed from the cradle before transmission was complete.	Replace PDT 6100 in cradle and retransmit.

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.

Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Industry Canada Standard ICES-003. Cet appareil numérique de la classe B est conform 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 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.

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

- 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

TELECOM APPROVAL WARNINGS AND NOTICES

USA

When supplied with an internal IM8 modem option, this equipment complies with Part 68 of the FCC rules. A label is located externally on the equipment that contains, among other information, the FCC certification number and Ringer Equivalence Number (REN=0.6) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack (RJ11C) that is FCC Part 68 compliant. A FCC compliant telephone cord and modular plug must be used.

Should you experience trouble with this telephone equipment, please contact your facility's Technical or Systems Support first who will contact your nearest Symbol Customer Service Centre. If necessary, the Symbol Support Centre may be contacted at the following:

Symbol Support Center
One Symbol Plaza
Holtsville, NY 11705-1300
1-800-653-5350

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for information.)

Your telephone company may discontinue your service if your equipment causes harm to the telephone network. They will notify you as soon as possible and if practical, in advance of disconnection. During notification, you will be informed of your right to file a complaint to the FCC if you believe it is necessary.

Occasionally, your telephone company may make changes to its facilities, equipment, operations, or procedures that could affect the operation of your equipment. If so, you will be given advance notice of the change to give you an opportunity to maintain uninterrupted service.

Canada

The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.



Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.'

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Australia

The Australian Ringer Equivalence Number (REN) of this device is 0.5. The REN value is a guide to the maximum number of telecommunications devices that can be connected together, in parallel, to one telephone line. The maximum permitted REN value is 3.0 and hence the sum REN value of all connected devices must not exceed 3.0.

Europe

The equipment has been approved for pan-European single terminal connection to the Public Switched Telephone Network (PSTN). However, due to differences between the individual PSTN's provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problems, you should contact your equipment supplier in the first instance.

Symbol Technologies declare under our sole responsibility that the IM8 Modem is designed to interwork with the following Public Switched Telephone Networks:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel (pending approval), Italy, Liechtenstein, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland (see Note below), United Kingdom.

Note for Switzerland – Problems may be encountered due to Advice of Charge (AoC) tone bursts used for metering/ billing purposes. To avoid difficulties a cable or adapter containing an AoC 12kHz filter is necessary. In case of difficulty, please contact your equipment supplier for advice.

Parallel Equipment loading in Europe

The Loading Factor (LF) is low at 18 Loading Units (LU) and should allow for the operation of several parallel connected equipment on the telephone line, should the application permit. The total loading of an installation can be obtained by adding the LU values of connected equipment. This can then be compared with the LF value that the telephone network can support as given by the operator of the telephone network. The total equipment LF should be less than the network LF to avoid risking a degradation in the equipment performance. (eg. 5 items similar to the IM8 modem specification of 18 LU will operate on a network terminating point that can support 90 LU.)

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.

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

Service Information

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

If you have a problem with running your terminal 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	
		+44 118 945 7360	

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.

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



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Revision A — March 2000