

C R D 2 x 0 0 - 1 0 0 0 S
S i n g l e S l o t
S e r i a l / C h a r g i n g
C r a d l e



Single Slot Serial / Charging Cradle

© 2001 SYMBOL TECHNOLOGIES, INC. All rights reserved.

Symbol reserves the right to make changes to any product to improve reliability, function, or design.

Symbol does not assume any product liability arising out of, or in connection with, the application or use of any product, circuit, or application described herein.

No license is granted, either expressly or by implication, estoppel, or otherwise under any patent right or patent, covering or relating to any combination, system, apparatus, machine, material, method, or process in which Symbol products might be used. An implied license exists only for equipment, circuits, and subsystems contained in Symbol products.

Symbol and the Symbol logo are registered trademarks 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. 4,496,831; 4,593,186; 4,603,262; 4,607,156; 4,652,750; 4,673,805;
4,736,095; 4,758,717; 4,760,248; 4,806,742; 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; 5,047,147;
5,103,461; 5,113,445; 5,130,450; 5,130,520; 5,140,144; 5,142,550; 5,149,950; 5,157,687; 5,168,168;
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; 6,036,098; 6,047,892; 6,050,491;
6,053,413; 6,056,200; 6,065,678; 6,067,297; 6,068,190; 6,082,621; 6,084,528; 6,088,482;
6,092,725; 6,101,483; 6,102,293; 6,104,620; 6,114,712; 6,115,678; 6,119,944; 6,123,265;
6,131,814; 6,138,180; 6,142,379; 6,172,478; 6,176,428; 6,178,426; 6,186,400; 6,188,681;
6,209,788; 6,216,951; 6,220,514; 6,243,447; 6,244,513; 6,247,647; 6,250,551; 6,295,031;
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; D418,500; D419,548;
D423,468; D424,035; D430,158; D430,159; D431,562; D436,104.
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. 10/01

Introduction

This guide describes how to set up and use the single slot serial/charging cradle with Symbol PPT 2700 and PPT 2800 terminals.

The cradle:

- provides power for operating the terminal
- provides serial port data communication between a terminal and a host PC or other external device (e.g., a printer)
- synchronizes information between your terminal and a host PC running Windows® ActiveSync® software
- synchronizes information between your terminal and a host PC or corporate database (requires custom software)
- re-charges the terminal's battery and a spare battery

The cradle requires a 9VDC power supply, and provides 9VDC power to an inserted terminal.

About This Guide

Specific topics in this guide include:

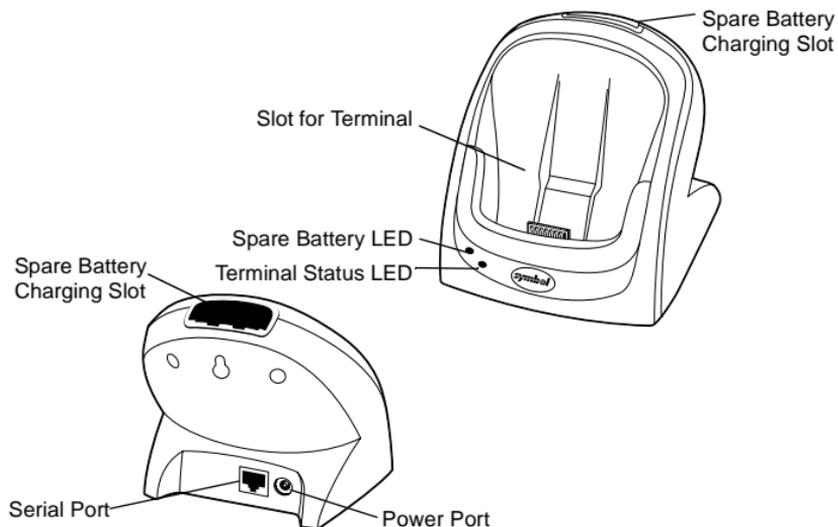
- [Parts of the Cradle on page 2](#)
- [Cradle Set-up on page 3](#)
 - [Connecting to Power on page 3](#)
 - [Inserting the Terminal on page 4](#)
 - [Connecting to a Host PC or a Serial Device on page 4](#)
- [Synchronizing Data With a Host PC on page 6](#)
- [Charging the Terminal Battery on page 7](#)
- [Troubleshooting on page 10](#)

For detailed information on any PPT 2700 or PPT 2800 terminal, refer to the *Quick Reference Guide* or *Product Reference Guide* for that terminal.

For information on ordering other Symbol manuals, contact your Symbol Support Center, as listed on the back of this manual.

Single Slot Serial / Charging Cradle

Parts of the Cradle



LED Indicators

LED	Indicator	Meaning
Terminal Status	Solid Red	Terminal battery is charging. This occurs whether the terminal is on or off.
	Solid Green	The terminal battery is fully charged.
	No Light	No power or there is no terminal inserted in cradle.
Spare Battery	Solid Red	Spare battery is charging.
	Solid Green	Spare battery is fully charged.
	Flashing Red	Spare battery is defective. See Charging Spare Batteries on page 9 .

Cradle Set-up

Connecting to Power

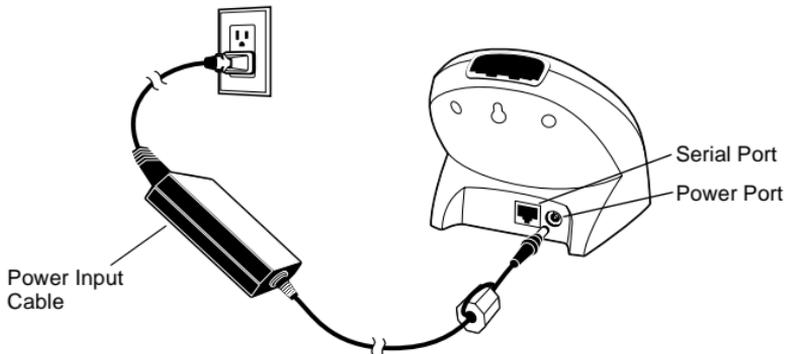
The cradle provides power to a PPT 2700 or PPT 2800 terminal, and re-charges terminal batteries.

Note: Use only a Symbol-approved power supply (p/n 50-14000-107) output rated 9 VDC and minimum 2 Amperes. The power supply is certified to EN60950 with SELV outputs.

Benutzen Sie nur eine SymbolTechnologies genehmigt Stromversorgung in den Ausgabe: 9 Vdc und minimum 2 Amperes. Die Stromversorgung ist bescheinigt nach EN60950 mit SELV Ausgaben.

To connect the cradle to a power source:

1. Connect one end of the power input cable to the power port on the back of the cradle.
2. Connect the other end of the power input cable to a wall outlet, as shown below.



3. To see if the cradle has power, insert and power on a terminal.
 - If the Terminal Status LED turns red, the cradle has power. Note that if the battery is already fully charged the LED turns green.
 - If the Terminal Status LED does not react, the cradle may not be receiving power, or the terminal may not be com-

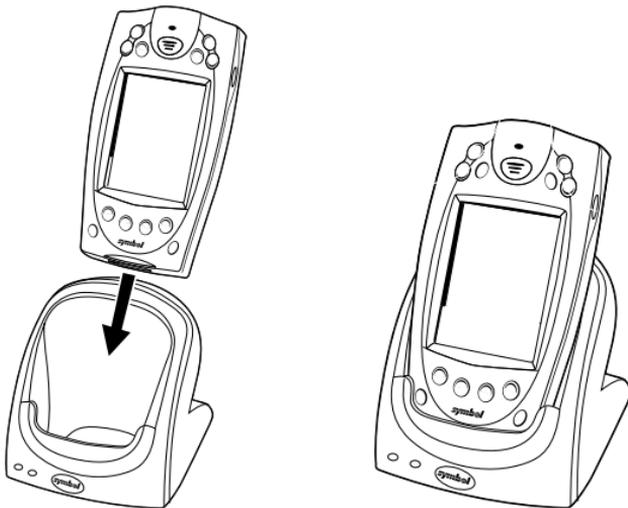
Single Slot Serial / Charging Cradle

communicating with the cradle. For more information, see [Troubleshooting on page 10](#)

Inserting the Terminal

Insert the terminal as shown below. When inserted correctly:

- the bottom of the terminal fits smoothly into the cradle.
- the Terminal Status LED lights up (red, if battery is charging). If the battery is fully charged, the Status LED turns green.



Connecting to a Host PC or a Serial Device

Host PC

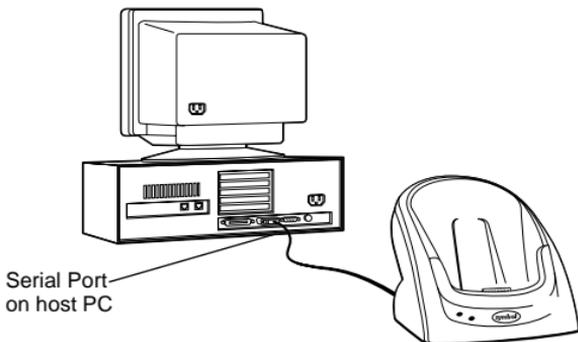
To enable synchronization, make sure Windows CE Services/ ActiveSync Software have been installed and configured on both the terminal and the Host PC. For software installation instructions, see the *Product Reference Guide* for your terminal.

To use the cradle to provide serial communications between a terminal and a host PC:

1. Connect the cradle to a power supply.
2. Connect one end of a serial cable to the cradle Serial Port.

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

3. Connect the other end of the serial cable to the host PC.



Note: The cradle requires a dedicated serial port on the host PC. It cannot share a port with an internal modem or other device.

Serial Devices

To use the cradle to provide serial communications between a terminal and a serial device:

1. Make sure the terminal is set up with the software necessary for communicating with the serial device.
2. Connect the cradle to a power supply.
3. Connect one end of a serial cable to the cradle's Serial Port.
4. Connect the other end of the serial cable to the serial device. For example, to connect the cradle to a printer, run the cable from the cradle serial port to the printer serial port.

Note: Some serial devices may require an adapter to ensure RS-232 signals are routed to the correct pins on the serial device. The CRD2x00-1000S RS-232 connector is designed to connect directly to a PC COM1 port.

Synchronizing Data With a Host PC

This section describes how to use the cradle to synchronize information between a terminal and a host PC. After you synchronize, any changes you have made on your terminal or in your desktop software appear in both places.

Installing Communication Software

Before using the cradle to synchronize information between a terminal and a host PC, you must install and configure communications software appropriate for your terminal. These instructions assume you are using the ActiveSync software. For instructions on installing and configuring this software, see the *Product Reference Guide* for your terminal. If you require more detailed information on the ActiveSync process, refer to the *PPT2700 Product Reference Guide*, p/n 70-37806-xx, *PPT2800 Product Reference Guide*, p/n 72-50931-xx, or *Microsoft® Windows® CE Pocket PC User's Guide*.

Performing an ActiveSync Operation for the First Time

The first time you synchronize information, you must create a partnership using a local, direct connection, rather than a modem. You may also be prompted for user information both on the terminal and on the host PC.

To perform an ActiveSync operation for the first time:

1. On the terminal, enable *Settings - Connections - PC - Automatically synchronize when serial cable is connected using:* and select 57,600 baud rate.
2. After installing the Windows CE Services/ActiveSync Host PC Software, restart your desktop computer. Ensure ActiveSync connection over serial is allowed and the correct host PC COM port is specified.
3. Turn on the terminal and slide it into the cradle. The host ActiveSync should detect the insertion and display the new

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

partnership dialog box. The terminal should similarly indicate a “connected” status.

4. On the desktop computer, enter a unique device name for your terminal and click the **Next** button. Follow the instructions on the screen to set up a partnership that allows synchronization of information between the two computers. Items to be synchronized may be customized.

Important: Every terminal should have a unique name. Never try to synchronize more than one terminal to the same user name.

Synchronizing Data Using ActiveSync

To synchronize data between the terminal and a host PC:

1. Make sure the host PC is running ActiveSync and serial connection is enabled on the COM port you are using.
2. Insert the terminal into the cradle.
3. An ActiveSync progress dialog appears and the synchronization process begins automatically.
4. Wait for the software to display a message indicating that the process is complete. The length of time this takes depends on the amount of information being synchronized.

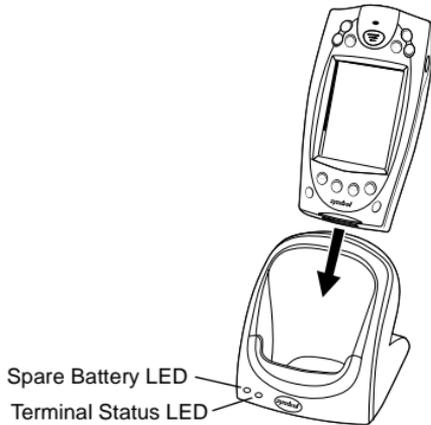
Charging the Terminal Battery

To recharge the terminal’s lithium-ion battery using the cradle:

1. Ensure the cradle is powered.

Single Slot Serial / Charging Cradle

2. Insert the terminal in the cradle.



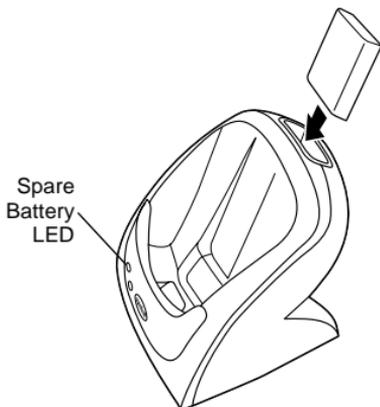
3. The Terminal Status LED turns red to indicate charging, then green when the battery is fully charged.

If the terminal is off when being charged, the terminal's battery will fully charge after approximately 2 1/2 hours. If the terminal is on when being charged, the charge time can be substantially longer depending on the terminal activity.

Charging a Spare Battery

To charge a spare terminal battery:

1. Insert the battery into the spare battery charging slot in the back of the cradle. Position it with the charging contacts facing down and toward the back of the cradle.
2. Gently press down on the battery to ensure proper contact. Do not force the battery into the slot. Forcing it may damage the cradle battery contacts.



When the Spare Battery LED turns red, the spare battery is charging. When the Spare Battery LED turns green, the spare battery is fully charged. The battery usually charges in two hours or less, but may take up to four hours to fully charge.

If the red LED is flashing, the battery is defective. Remove the battery from the spare battery charging slot. Wait 5 seconds and insert the spare battery again in the spare battery slot. If the red LED is flashing again, replace the battery.

S i n g l e S l o t S e r i a l / C h a r g i n g C r a d l e

Troubleshooting

Symptom	Possible Cause	Action
Terminal Status LED does not light up.	Terminal is not inserted correctly into the cradle.	Remove the terminal and re-insert it, making sure it fits snugly onto the connector at the bottom of the cradle.
	Cradle is not receiving power.	Make sure the power input cable is securely connected on both ends.
Battery is not recharging.	Terminal (or spare battery) was removed from the cradle too soon.	Replace the terminal or spare battery in the cradle. It can take up to 2-1/2 hours to recharge a completely depleted spare battery pack.
	Battery is faulty.	Replace the battery.
	Terminal (or spare battery) is not inserted correctly into the cradle.	Remove the terminal and re-insert it with the contacts down and facing the back of the cradle. If the terminal is properly inserted, the Terminal Status LED turns a solid red. When the battery is fully charged, the LED turns green (or off if the cradle is not connected to the host computer via a serial cable). If a spare battery has been inserted properly, the Spare Battery LED turns a solid red. When the battery is fully charged, the LED turns a solid green.
Spare battery red LED flashing.	Defective battery.	If the spare battery red LED is flashing, the battery is defective. Remove the battery from the spare battery charging slot. Wait 5 seconds and insert the spare battery again in the spare battery slot. If the red LED is flashing again, replace the battery.
During data communications, no data was transmitted, or transmitted data was incomplete.	Terminal removed from cradle during communications.	Replace terminal in cradle and retransmit.
	Incorrect cable configuration.	See your system administrator.
	Communications software is not installed or configured properly.	Perform setup as described in this guide, the PRG for your terminal, or the appropriate software manual.

Regulatory Information

Radio Frequency Interference Requirements

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

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

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

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

Applicable Standards

- EN 55022:1998, Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment
- 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

S i n g l e S l o t
S e r i a l / C h a r g i n g
C r a d l e

- 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.

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.

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	Asia/Pacific	337-6588
Australia	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 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		

¹Customer 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>.



70-37807-02
Revision C — November 2001