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



**symbol<sup>®</sup>**

# Single Slot Serial / Charging Cradle

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<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. 4,593,186; 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; 5,047,617; 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; 5,324,924; 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; 5,848,064; 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; 6,002,916; 6,021,947; 6,029,894; 6,031,830; 6,036,098; 6,047,892; 6,050,491; 6,053,413; 6,056,200; 6,065,678; 6,067,297; 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; 6,209,789; 6,216,951; 6,220,514; 6,243,447; 6,244,513; 6,247,647; 6,308,061; 6,250,551; 6,295,031; 6,308,061; 6,308,892; 6,321,990; 6,328,213; 6,330,244; 6,336,587; 6,340,114; 6,340,115; 6,340,119; 6,348,773; 6,380,949; 6,394,355; 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, NI-068564 (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. 06/02

## 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:

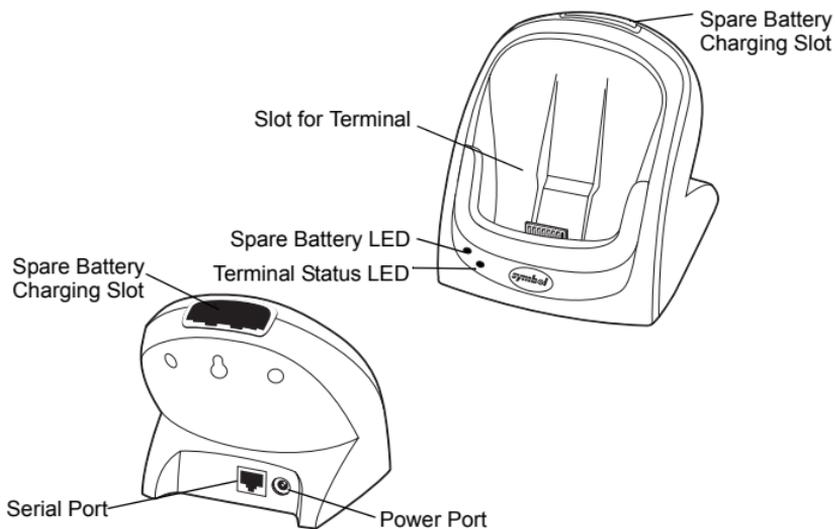
- [Parts on page 2](#)
- [Connecting to Power on page 3](#)
- [Inserting the Terminal on page 3](#)
- [Connecting to a Host PC or a Serial Device on page 4](#)
- [Synchronizing Data With a Host PC on page 6](#)
- [Terminal Battery Charging on page 8](#)
- [Spare Battery Charging on page 9](#)
- [Troubleshooting on page 10](#)
- [Regulatory Information on page 11](#)
- [Service Information on backcover.](#)

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

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## Parts



## LED Indicators

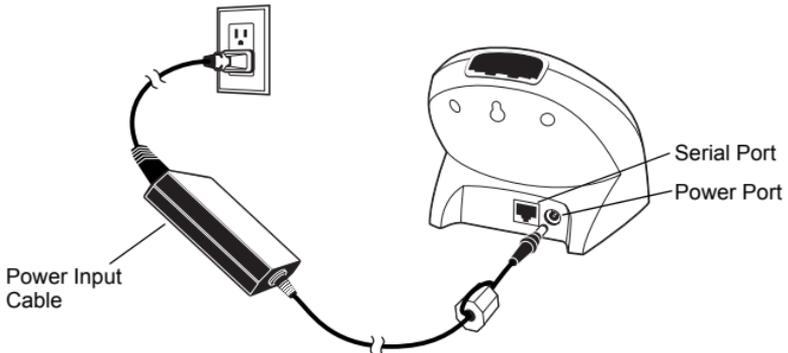
LED	Indicator	Meaning
Terminal Status	Solid Red	Terminal battery is charging. This occurs whether the terminal is on or off.
	Solid Green	The terminal battery is fully charged.
	No Light	No power or there is no terminal inserted in cradle.
Spare Battery	Solid Red	Spare battery is charging.
	Solid Green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

## Connecting to Power

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

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

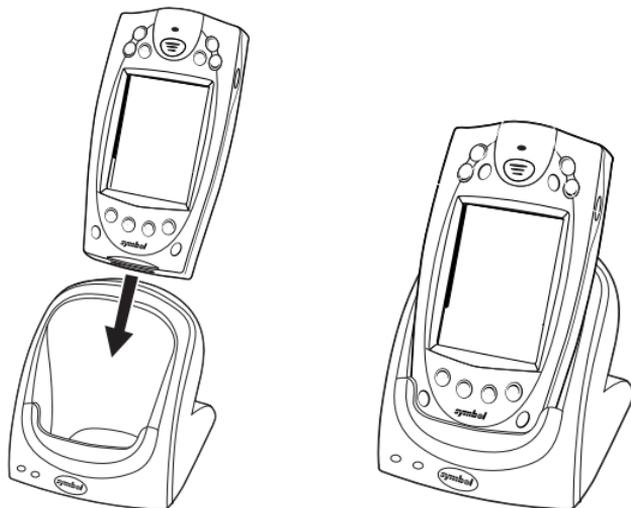
## Inserting the Terminal

Insert the terminal as shown below. When inserted correctly:

- the bottom of the terminal fits smoothly into the cradle.

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- 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*

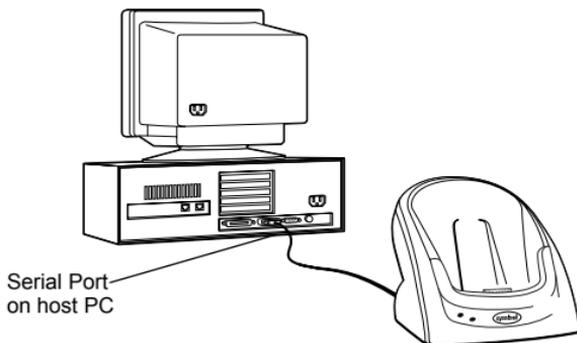
To enable synchronization, make sure Windows CE Services/ ActiveSync Software have been installed and configured on both the terminal and the Host PC. For software installation instructions, see the *Product Reference Guide* for your terminal.

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.

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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

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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**

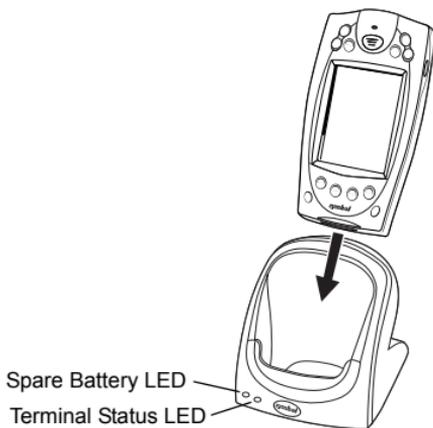
To synchronize data between the terminal and a host PC:

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.

## Terminal Battery Charging

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

1. Ensure the cradle is powered.
2. Insert the terminal in the cradle.



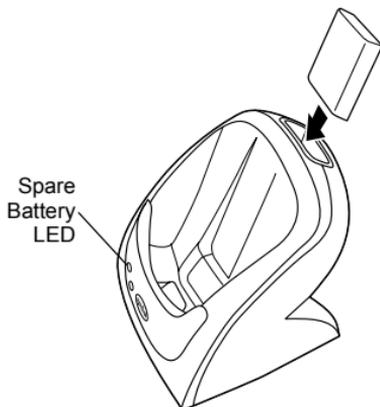
3. The Terminal Status LED turns red to indicate charging, then green when the battery is fully charged.

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.

## Spare Battery Charging

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.



## 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.

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Symptom	Possible Cause	Action
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

All Symbol devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Any changes or modifications to Symbol Technologies equipment, not expressly approved by Symbol Technologies, could void the user's authority to operate the equipment.

## 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.

## Power Supply

**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.

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

## 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 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.

## Marking and European Economic Area (EEA)



### **Statement of Compliance**

*Symbol Technologies, Inc., hereby declares that this device is in compliance with all the applicable Directives, 89/336/EEC, 73/23/EEC. A Declaration of Conformity may be obtained from <http://www2.symbol.com/doc/>*

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

## Warranty

(A) **Warranty Symbol Technologies** (hereafter "Seller") hardware Products are warranted against defects in workmanship and materials for a period of three (3) months from the date of shipment, unless otherwise provided by Seller in writing, provided the Product remains unmodified and is operated under normal and proper conditions. Warranty provisions and durations on software, integrated installed systems, Product modified or designed to meet specific customer specifications ("Custom Products"), remanufactured products, and reconditioned or upgraded products, shall be as provided in the applicable Product specification in effect at the time of purchase or in the accompanying software license.

(B) **Spare Parts** Spare parts (i.e. parts, components, or subassemblies sold by Seller for use in the service and maintenance of Products) are warranted against defects in workmanship and materials for a period of thirty (30) days from the date of shipment. Spare parts may be new or originate from returned units under the conditions set forth in subsection D below.

(C) **Repair of Symbol-branded hardware** For repairs on Symbol-branded hardware Products under this Agreement, including repairs covered by warranty, the repair services provided are warranted against defects in workmanship and materials on the repaired component of the Product for a period of thirty (30) days from the shipment date of the repaired Product, or until the end of the original warranty period, whichever is longer.

(D) **Product Service** Products may be serviced or manufactured with parts, components, or subassemblies that originate from returned products and that have been tested as meeting applicable specifications for equivalent new material and Products. The sole obligation of Seller for defective hardware Products is limited to repair or replacement (at Seller's option) on a "return to service depot" basis with prior Seller authorization. Customer is responsible for shipment to the Seller and assumes all costs and risks associated with this transportation; return shipment to the Customer will be at Seller's expense. Customer shall be responsible for return shipment charges for product returned where Seller determines there is no defect ("No Defect Found"), or for product returned that Seller determines is not eligible for warranty repair. No charge will be made to Buyer for replacement parts for warranty repairs. Seller is not responsible for any damage to or loss of any software programs, data or removable data storage media, or the restoration or reinstallation of any software programs or data other than the software, if any, installed by Seller during manufacture of the Product.

(E) **Original Warranty Period** Except for the warranty applying solely to the repaired component arising from a repair service as provided in Section C above, the aforementioned provisions do not extend the original warranty period of any Product that had either been repaired or replaced by Seller.

(F) **Warranty Provisions** The above warranty provisions shall not apply to any Product (i) which has been repaired, tampered with, altered or modified, except by Seller's authorized service personnel; (ii) in which the defects or damage to the Product result from normal wear and tear, misuse, negligence, improper storage, water or other liquids, battery leakage, use of parts or accessories not approved or supplied by Symbol, or failure to perform operator handling and scheduled maintenance instructions supplied by Seller; (iii) which has been subjected to unusual physical or electrical stress, abuse, or accident, or forces or exposure beyond normal use within the specified operational and environmental parameters set forth in the applicable Product specification; nor shall the above warranty provisions apply to any expendable or consumable items, such as batteries, supplied with the Product.

EXCEPT FOR THE WARRANTY OF TITLE AND THE EXPRESS WARRANTIES STATED ABOVE, SELLER DISCLAIMS ALL WARRANTIES ON PRODUCTS FURNISHED HEREUNDER INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD. SOME STATES OR COUNTRIES DO NOT ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS. IN SUCH STATES OR COUNTRIES, FOR SUCH PRODUCTS, SOME EXCLUSIONS OR LIMITATIONS OF THIS LIMITED WARRANTY MAY NOT APPLY.

The stated express warranties are in lieu of all obligations or liabilities on the part of Seller for damages, including but not limited to, special, indirect or consequential damages arising out of or in connection with the use or performance of the Product or service. Seller's liability for damages to Buyer or others resulting from the use of any Product or service furnished hereunder shall in no way exceed the purchase price of said Product or the fair market value of said service, except in instances of injury to persons or property.

## 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 <sup>1</sup>	1-800-653-5350 1-631-738-2400	Canada	905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific	+65-6796-9600
Australia	1-800-672-906	Austria/Österreich	1-505-5794-0
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	+47 2232 4375
South Africa	11-8095311	Spain/España	91 324 40 00 Inside Spain
Sweden/Sverige	84452900		+34 91 324 40 00 Outside Spain
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		

<sup>1</sup>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>.



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