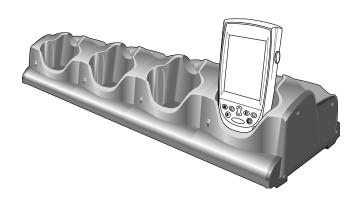
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# symbol\*

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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. 4,593,186; 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; 6,002,918; 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 a CRD8800-4000S Four-Slot Serial Cradle with Symbol® PPT 8800 with Windows® Embedded CE .NET terminals and/or PPT 8800 with Windows® Mobile 2003 Software for Pocket PCs terminals. The cradle:

- provides power for operating the terminal
- provides serial port data communication between the terminal (up to four terminals) and a host computer or other external device (e.g., a printer)
- synchronizes information between the terminal and a host computer (with customized or third party software, it can also be used to synchronize your terminal with corporate databases)
- simultaneously re-charges up to four terminal batteries
- allows up to 3 additional cradles to be inter-connected, providing additional slots for host communications and charging.

### **About This Guide**

Specific topics in this guide include:

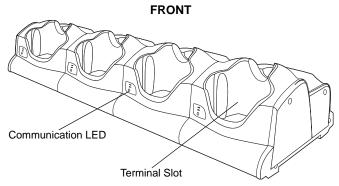
- Requirements on page 2
- Parts on page 3
- Power Connection on page 4
- Terminal Battery Charging on page 6
- Inter-Connecting Cradles on page 6
- Communication LED Indicator on page 8
- Troubleshooting on page 9
- Regulatory Information on page 11
- Service Information on backcover.

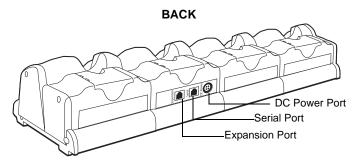
For detailed information on any PPT 8800 Series terminal, refer to the *Quick Reference Guide* or *Product Reference Guide* for the terminal.

# Requirements

- for power connection
  - Power supply, p/n 50-14000-109
  - AC cord, appropriate for your country.
- for serial connection
  - a serial device cable, p/n 170047-000.
- · for inter-connecting cradles
  - 1-3 additional CRD8800-4000S cradles
  - an RJ-45/10 to RJ-45/10 inter-cradle cable, p/n 70349-001
  - individual power supplies for each cradle
- for communication
  - a PPT 8800 Series terminal
  - Microsoft ActiveSync
  - eConnect
  - setup of cradle, host computer and terminal (refer to the PPT 8800 Series Product Reference Guide for detailed instructions).

# **Parts**



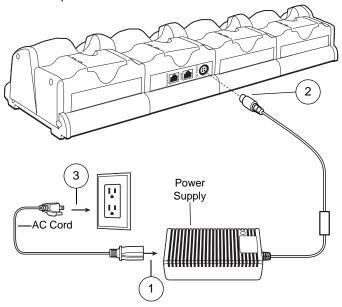


There are three connection ports on the rear of the CRD 8800-4000S:

Ports	Function		
DC Power	Used for connection to a power supply.		
Serial	Used for serial connection to a host computer.		
Expansion	Used for connection to a four-slot serial cradle.		

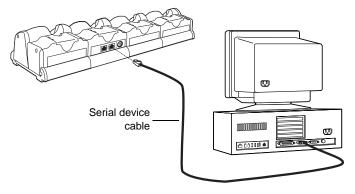
# **Power Connection**

To connect power to the cradle:



# **Serial Device or Host Computer Connection**

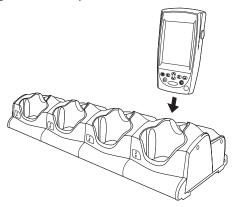
To use the cradle to provide serial communications between a terminal and a serial device (or host computer), connect one end of the serial device cable into the serial port on your cradle, and the other end into the serial port on your serial device (or host computer), as shown below:



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

# **Terminal Battery Charging**

- Ensure the cradle is connected to a power source. See *Power Connection* on page 4.
- 2. Insert the terminal into the cradle. The terminal starts to charge automatically.



Note: To ensure the quickest charging time, turn the terminal off while charging.

If the terminal is off when being charged, the standard battery usually fully charges in 2 1/2 hours and the optional larger capacity battery usually fully charges in five hours. If the terminal is on when being charged, the charge time can be substantially longer depending on the terminal activity.

# **Inter-Connecting Cradles**

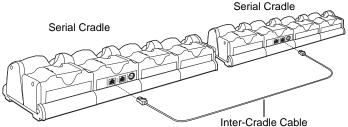
Up to three Four-Slot Serial Cradles (CRD8800-4000S) may be inter-connected (daisy-chained) with the CRD8800-4000S cradle using an RJ-45/10 to RJ-45/10 inter-cradle cable (p/n 70349-001). This cable is required for each cradle to be connected.

#### WARNING

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

#### To inter-connect cradles:

- 1. Connect the power supply to the additional CRD8800-4000S cradle as described in the *Power Connection* on page 4.
- 2. Plug one end of the inter-cradle cable into the EXPANSION port on the back of the first cradle.



- 3. Plug the other end of the inter-cradle cable into the Serial port on the back of the second serial cradle.
- Repeat these steps to connect additional CRD8800-4000S cradles.

Note: Inter-connecting cradles only works with the CRD8800-4000S and not with the CRD8800-1000S or CRD8800B-1000S Single-Slot Serial Cradles.

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# **Communication LED Indicator**

LED Status	Indication		
Off	Terminal not in cradle; terminal not placed correctly; cradle is not powered.		
Solid Red	Terminal is present, but communication has not started.		
Flashing Green	Terminal is in the cradle, and communicating with the host computer.		
Flashing Red	Error, communication did not start.		
Solid Green	Terminal is present in the slot and communication is complete.		

# **Troubleshooting**

Symptom	Cause	Suggested Action	
Terminal battery is not charging.	Terminal was removed from the cradle too soon.	Replace the terminal in the cradle. The standard battery usually fully charges in approximately 2 1/2 hours and the optional larger capacity battery usually charges in approximately five hours.	
	Battery is faulty.	Replace the battery.	
	Terminal is not inserted correctly into the cradle.	Remove the terminal and re-insert it correctly. If the battery still does not charge, contact Customer Sup- port.	
	Cradle is not receiving power.	Ensure the power supply cable is securely connected on both ends.	
Communication Status LED does not light up.	Terminal has been inserted incorrectly into the cradle.	Remove, wait a minute, and then reinsert the terminal, ensuring it properly connects to the cradle.	
	Cradle is not receiving power.	Ensure the power supply cables are connected properly.	
Terminal not com- municating through the serial cable.	The serial cable is not fully connected.	Ensure the serial cable is connected securely to both the cradle and to the host computer.	
	The terminal is not fully seated in the cradle.	Remove and re-insert the termina into the cradle, making sure it is firmly seated.	
	Communications software is not installed or configured properly.	Perform setup as described in the PPT 8800 Series Product Reference Guide.	
During communica- tions, no data was transmitted, or trans- mitted data was in- complete.	Terminal removed from cradle during communications.	Replace terminal in cradle and retransmit.	
	Terminal has no active connection	A icon will be visible in the status bar if a connection is currently active.	

Symptom	Cause	Suggested Action
Attempt by the terminal to ActiveSync failed.	Terminal removed from the cradle while the LED was blinking green.	Wait one minute and reinsert the terminal in the cradle. This allows the cradle to attempt another synchronization.
	ActiveSync on the host computer has not yet closed the previous ActiveSync session.	Wait one minute and reinsert the terminal in the cradle. This allows the cradle to attempt another synchronization.
	Communications software improperly configured.	Perform setup as described in the PPT8800 Product Reference Guide.
	Terminal ActiveSync disabled or not configured to accept network connection.	On the terminal, uncheck Start - ActiveSync - Tools - Options - PC - Enable synchronization when cradled using:.
	Host ActiveSync dis- abled or not config- ured to accept network connection.	On the host computer, check File - Connection Settings - Allow serial cable or infrared connection to this COM port.
	A partnership was not established with the host computer.	Establish a partnership with the host computer. Refer to the <i>PPT 8000 Series Product Reference Guide</i> for detailed instructions.
	Synchronization did occur, however the session is config- ured to close imme- diately after synchronization is complete.	Verify the setting of the When man- ually synchronizing disconnect when complete checkbox by tap- ping Start - ActiveSync - Tools - Op- tions - Schedule tab.

# **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.

## Power Supply

Note: Use only a Symbol-approved power supply 50-14000-109, output rated 8 VDC and minimum 5 A. The power supply is certified to EN60950

with SELV outputs.

Hinweis: Benutzen Sie nur eine Symbol Technologies genehmigt Stromversor-

gung 50-14000-109 in den Ausgabe: 8 VDC und minimum 5 A. 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 - FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### 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.

# **CE Marking and European Union Compliance**



Products intended for sale with the European Union are marked with the CE Mark which indicates compliance to applicable Directives and European Normes (EN).

### 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/

### 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) Marranty 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.

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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/Deutchland		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 +1-954-255-2610 Outside US			
Europe/Mid-East Distributor Operations	Contact local distributor or call +44 118 945 7360			

<sup>&</sup>lt;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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