CRD 8000-4000E
USB-to-Ethernet Cradle

symbol
Quick Reference

Introduction
This guide describes how to set up and use a CRD 8000 four-slot USB-to-Ethernet cradle with Symbol PDT 8000 Series terminals. The cradle:

• provides power for operating the terminal
• provides for data communication between the terminal (up to four terminals) and a host computer, over an Ethernet network
• synchronizes information between the terminal and a host PC (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
• simultaneously re-charges up to four spare batteries.

The cradle requires a 12VDC power supply, and provides 12VDC power to an inserted PDT 8000 terminal.

About This Guide
Specific topics in this guide include:

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For detailed information on any PDT 8000 Series terminal, refer to the PDT 8000 Series Quick Reference Guide, p/n 72-58168-xx or the PDT 8000 Series Product Reference Guide, p/n 72-58169-xx.

Requirements

- for power connection
  - For U.S Customers: CBL-8000-400U
  - For International Customers: Power Supply, p/n 50-14001-004
  - DC Cable, p/n 50-16002-029
  - AC Cord, appropriate for your country

- for ethernet connection
  - a standard 10 Base-T Ethernet cable

- for communication
  - a PDT 8000 Series terminal
  - Microsoft ActiveSync
  - eConnect
  - MobileDox Cradle Manager
  - setup of host computer and terminal (refer to the PDT 8000 Series Product Reference Guide for detailed instructions).
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Parts of the Cradle

<table>
<thead>
<tr>
<th>Ports</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Used for connection to an Ethernet Hub.</td>
</tr>
<tr>
<td>Power</td>
<td>Used for connection to a power supply.</td>
</tr>
</tbody>
</table>

There are two connection ports on the rear of the CRD 8000-4000E:
Power Connection

To connect power to the cradle:

To see if the cradle has power, insert the terminal. The terminal’s charging LED blinks amber to indicate that the battery is charging and turns solid amber when battery is completely charged. See LED Indicators on page 8 for other indications.
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Connecting to an Ethernet Hub
To connect the cradle to an Ethernet hub:

Note: For ethernet communication setup, refer to the PDT 8000 Series Product Reference Guide.
Terminal Battery Charging

1. 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.

The terminal’s charging LED blinks amber to indicate that the battery is charging and turns solid amber when battery is completely charged. The battery fully charges in less than four hours. See LED Indicators on page 8 for other indications.
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Spare Battery Charging

1. Ensure the cradle is connected to a power source. See *Power Connection on page 4*.

2. Slide the latches on both sides of the battery up, to ensure they are in the unlock position.

3. Insert the battery into the Spare Battery Charging slot on the back of the cradle. Position it with the charging contacts facing down (over charging pins) and gently press down on the battery to ensure proper contact.

4. Lock the battery into place by sliding the latches on the battery down.

The spare battery charging LED blinks amber to indicate that the terminal battery is charging and turns solid amber when the battery is completely charged. The battery fully charges in less than four hours. See *LED Indicators on page 8* for other indications.
## LED Indicators

<table>
<thead>
<tr>
<th>LED</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terminal Charging (LED is on terminal)</strong></td>
<td></td>
</tr>
<tr>
<td>Off</td>
<td>Terminal not in cradle; terminal not placed correctly; cradle is not powered.</td>
</tr>
<tr>
<td>Fast Blinking Amber</td>
<td>Error in charging; check placement of terminal.</td>
</tr>
<tr>
<td>Slow Blinking Amber</td>
<td>Terminal is charging.</td>
</tr>
<tr>
<td>Solid Amber</td>
<td>Charging complete.</td>
</tr>
<tr>
<td><strong>Spare Battery Charging (LED is on cradle)</strong></td>
<td></td>
</tr>
<tr>
<td>Off</td>
<td>No spare battery in slot; spare battery not placed correctly; cradle is not powered.</td>
</tr>
<tr>
<td>Fast Blinking Amber</td>
<td>Error in charging; check placement of battery.</td>
</tr>
<tr>
<td>Slow Blinking Amber</td>
<td>Spare battery is charging.</td>
</tr>
<tr>
<td>Solid Amber</td>
<td>Charging complete.</td>
</tr>
<tr>
<td><strong>Communication (LED is on cradle)</strong></td>
<td></td>
</tr>
<tr>
<td>Off</td>
<td>Terminal not in cradle; terminal not placed correctly; cradle is not powered.</td>
</tr>
<tr>
<td>Solid Red</td>
<td>Terminal is present, but communication has not started.</td>
</tr>
<tr>
<td>Flashing Green</td>
<td>Terminal is in the cradle, and communicating with the host computer.</td>
</tr>
<tr>
<td>Slow Flashing Red</td>
<td>Error, communication did not start.</td>
</tr>
<tr>
<td>Fast Flashing Red</td>
<td>Warning: Terminal inactivity timeout. The terminal did not finish data synchronization or had an open connection for more than 15 minutes. This time is programmable in the cradle flash parameters.</td>
</tr>
<tr>
<td>Solid Green</td>
<td>Terminal is present in the slot and communication is complete.</td>
</tr>
<tr>
<td>All LEDs Flashing Red</td>
<td>Failed automatic cradle configuration via local DHCP Service.</td>
</tr>
</tbody>
</table>
### Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Suggested Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery is not charging.</td>
<td>Terminal (or spare battery) was removed from the cradle too soon.</td>
<td>Replace the terminal or spare battery in the cradle. It can take up to four hours to recharge a completely depleted battery pack.</td>
</tr>
<tr>
<td>Battery is faulty.</td>
<td></td>
<td>Replace the battery.</td>
</tr>
<tr>
<td>Terminal (or spare battery) is not insert-ed correctly into the cradle.</td>
<td>Terminal (or spare battery) is not inserted correctly into the cradle.</td>
<td>Remove the terminal (or spare battery) and re-insert it correctly. If the battery still does not charge, contact Customer Support. If the terminal is properly inserted, the terminal's charging LED blinks amber to indicate that the battery is charging and turns solid amber when battery is completely charged. If a spare battery has been inserted properly, the spare battery charging LED blinks amber to indicate that the battery is charging and turns solid amber when battery is completely charged.</td>
</tr>
<tr>
<td>Terminal charging LED does not light when the terminal is inserted.</td>
<td>Terminal is not seated firmly in the cradle, or the battery is not properly installed in the terminal.</td>
<td>Ensure the battery is properly installed in the terminal, and re-insert the terminal in the cradle.</td>
</tr>
<tr>
<td>The cradle is not receiving power.</td>
<td></td>
<td>Ensure the power supply cable is securely connected on both ends.</td>
</tr>
<tr>
<td>Spare battery charging LED does not light when the spare battery is placed in the slot.</td>
<td>Spare battery is not placed correctly.</td>
<td>Remove the battery, wait two minutes, and re-insert the battery.</td>
</tr>
<tr>
<td>Communication Status LED does not light up.</td>
<td>Terminal has been inserted incorrectly into the cradle.</td>
<td>Remove, wait a minute, and then reinsert the terminal, ensuring it fits snugly onto the connector at the bottom of the cradle.</td>
</tr>
<tr>
<td>Cradle is not receiving power.</td>
<td></td>
<td>Ensure the power supply cable is securely connected on both ends.</td>
</tr>
</tbody>
</table>
### Symptom | Cause | Suggested Action
--- | --- | ---
All Communication Status LEDs are flashing red. | The unit could not configure itself, or it has lost the lease on its IP address. | Connect the unit to an Ethernet network with a correctly functioning DHCP server.

| Failed automatic cradle configuration via local DHCP service. | Connect a properly configured DHCP server or DHCP relay agent to the subnet, and power cycle the cradle. Check the DHCP server log to verify that the cradle is receiving a response to its DHCP request. |  |

| The Ethernet link may be down. | Ensure the ethernet cable is connected to an active hub. |  |

| 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. |  |

| Incorrect cable configuration. | Check your DHCP server and determine which IP address was allocated to the cradle, then check connectivity by pinging the cradle. |  |

| Communications software improperly configured. | Perform setup as described in this guide. Check your DHCP server and determine which IP address was allocated to the terminal slot, then check connectivity by pinging the cradle. |  |

| 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 disabled or not configured to accept network connection. | On the host computer, check File - Connection Settings - Allow network (Ethernet) Server Connection with this desktop computer. |  |
Quick Reference

### 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 50-14001-004, output rated 12VDC and minimum 9A. The power supply is certified to EN60950 with SELV outputs.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Suggested Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>During communications, no data was transmitted, or transmitted data was incomplete.</td>
<td>Terminal removed from cradle during communications.</td>
<td>Replace terminal in cradle and retransmit.</td>
</tr>
<tr>
<td>Terminal has no active connection</td>
<td>A ⚠️ icon will be visible in the status bar if a connection is currently active.</td>
<td></td>
</tr>
<tr>
<td>Terminal has successfully connected through the cradle, but no data is being transmitted over the connection.</td>
<td>Data is being transferred over the S24 radio link.</td>
<td>Temporarily disable the radio link to force data transmission through the cradle. Tap the wireless LAN icon from the systray on the Today screen. Tap the Mode/General tab. Enter an in-valid value in the ESSID: text box and tap the ok button. Power cycle the terminal. Verify that your radio link has been disabled (the wireless LAN icon has a red box with a ! on it). Once you have completed your data transmission, re-enable your radio link.</td>
</tr>
<tr>
<td>Warning Message - &quot;! Unable to obtain a server assigned IP address. Try again later or enter an IP address in Network Settings.&quot;</td>
<td>This message occurs if a suspend/resume cycle is performed and the terminal radio is not associated (e.g. due to being out of range)</td>
<td>Tap OK to close the message. The terminal will obtain address information and communicate through the ethernet cradle.</td>
</tr>
</tbody>
</table>

Warning Message - "! Unable to obtain a server assigned IP address. Try again later or enter an IP address in Network Settings." This message occurs if a suspend/resume cycle is performed and the terminal radio is not associated (e.g. due to being out of range). Tap OK to close the message. The terminal will obtain address information and communicate through the ethernet cradle.

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) 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, impact, water or other liquids, battery leakage, use of parts or accessories not approved or supplied by Seller, 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**
  - Inside US: 1-800-653-5350
  - Outside US: 1-631-738-2400
- **Canada**
  - Must be configured to run your applications.
- **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
  - +1-954-255-2610 Outside US
- **Europe/Mid-East**
  - Distributor Operations: Contact local distributor or call
  - +44 118 945 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](http://www.symbol.com/manuals).