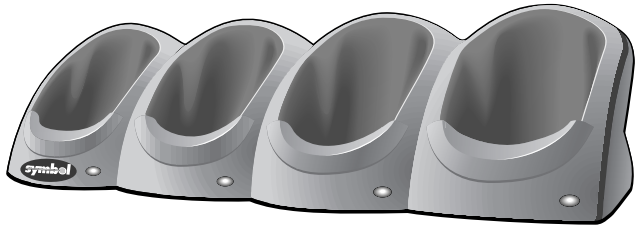


QRG

C R D 1 7 0 0 - 4 0 0 0 E
E t h e r n e t C r a d l e



symbol®

C R D 1 7 0 0 - 4 0 0 0 E E t h e r n e t C r a d l e

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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. 4,460,120; 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; 6,002,918; 6,021,947; 6,047,892; 6,050,491; 6,053,413; 6,056,200; 6,065,678; 6,067,297; 6,068,190; 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; D419,548; D423,468; D424,035.

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. 06/00

Introduction

The CRD1700-4000E 4-slot Ethernet cradle enables up to 4 SPT 1700 terminals to simultaneously communicate with their associated host computers connected to a network. Up to 4 terminals may be seated in the cradle. Additionally, up to 4 CRD1700-4000S serial cradles may be daisy-chained with this unit, providing a total of 20 slots available for host communications.

Theory of Operation

Palm HotSync Manager software supports one HotSync at a time between a single terminal and a single PC. If the application requires multiple devices to communicate simultaneously with a single host, then synchronization server software such as Scout MTS™ or AVANTGO™ is required. This software may be purchased from Symbol. Contact your Symbol sales representative for information.

About This Guide

This guide provides instruction on the setup and use of the CRD1700-4000E 4-slot Ethernet cradle. Additionally it describes steps to set up an SPT 1700 terminal for use with the CRD1700-4000E, and steps to setup the SPT 1700 Desktop Software to permit synchronization over an Ethernet network. Specifically, the following topics are discussed:

- *Set Up* on page 2
- *Unpacking the Cradle* on page 2
- *Connecting Power* on page 2
- *Setting Up for Network Communications* on page 3
- *Inter-Connecting Cradles* on page 9
- *Software Configuration* on page 10
- *Performing HotSync* on page 13.

Set Up

The set up of the cradle includes unpacking, placing the cradle on a table top and connecting the power and network communication cables.

Before setting up the cradle, make sure that SPT 1500/1700 Desktop Software (p/n SW-35138-xx) is installed and running on the host computer, as well as properly configured Network HotSync software on the SPT 1700 terminal. See the *SPT 1700 Product Reference Guide* (p/n 70-37544-xx) for instructions on the installation of this software. Specific software setup necessary to use the CRD1700-4000E is covered in this document.

Unpacking the Cradle

The shipping box should include the following:

- One 4-slot cradle (p/n CRD1700-4000E)
- This Quick Reference Guide (p/n 72-39472-xx).

No Ethernet cable is shipped with the cradle, but is required to connect the cradle to an Ethernet hub.

You will also need:

- 8Volt, 5Ampere power supply (p/n 50-14000-109).
- AC line cord

If any parts are missing or damaged, contact your authorized Customer Support Representative immediately at 1-800-659-2240 in the USA. See the back of this manual for contact information in other countries. Save the shipping box for storing or shipping.

Connecting Power

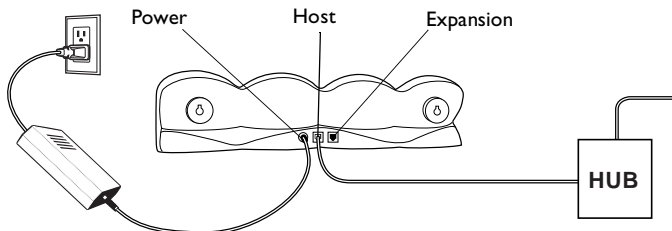
To connect power to the cradle:

1. Connect the power supply cable plug to the Power Connector on the back of the cradle, as shown in the following illustration.
2. Connect one end of a standard 10 Base-T network cable to the connector labelled *Host* on the back of the CRD1700-4000E. Connect the other end of the cable to a hub which is connected to your subnet.

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3. Connect the Power Supply AC plug to a standard electrical outlet, as shown in the following illustration.

Note: International customers must use a separate AC line cord appropriate for their respective country.



4. The LED on each slot should blink red then green. The LEDs flash green while the cradle attempts to obtain its IP address from the DHCP server. If the cradle is successful in obtaining an address, the LEDs turn off. If the cradle is unsuccessful in its attempt to obtain its IP address from the DHCP server, the LEDs flash red, and the cradle retries in 10 minutes.

Setting Up for Network Communications

The CRD1700-4000E cradle facilitates communication between SPT 1700 terminals and their associated host computers connected to an Ethernet network. As the CRD1700-4000E is an Ethernet device, it must be connected to an Ethernet network which is connected to the same network as the host computers, or an Ethernet network connected to the larger Internet via an Internet gateway. There are two methods by which this is accomplished: *DHCP mode* and *Static mode*.

DHCP Mode

I DHCP Address Mode

This is the factory default mode of the cradle. When using DHCP mode, the cradle acquires its IP address dynamically from the server. There must be a DHCP server or a DHCP relay agent on the same subnet as the CRD1700-4000E in order for the unit to be automatically

CRD1700-4000E Ethernet Cradle

configured with an IP address, a gateway IP address, 2 DNS addresses, and a subnet mask. The single IP address is shared between all slots.

To set up for network communications:

1. Ensure there is a DHCP server accessible to the CRD1700-4000E on the subnet.
2. Connect one end of a standard 10 Base-T network cable to the connector labelled *Host* on the back of the CRD1700-4000E. Connect the other end of the cable to a hub which is connected to your subnet.
3. Power-up the unit; the CRD1700-4000E performs its power-up sequence, then attempts to collect all its network parameters from the DHCP server. While collecting network parameters, all LEDs flash green. Once configuration completes, all LEDs shut off.

If configuration of the unit from the DHCP server fails, all LED's flash red. The unit retries the DHCP request every 10 minutes.

Note: Before communication between the SPT 1700 terminal and the host computer can take place, the SPT 1700 Desktop Software *must* be installed and running on the host computer.

6 DHCP Address Mode

When using the 6 DHCP address mode, the cradle acquires 6 IP addresses dynamically from the DHCP server: one for the cradle, one for each of the 4 slots, and one for the expansion slot. This feature is not enabled when using NAT translation. To perform this configuration, run the flasher utility from the debug monitor. Follow steps 1 through 6 in *Static Mode* to access the **Current Cradle Globals:** menu.

1. Select option 1 for Static mode. Set both Static Mode and NAT Mode to 0 to acquire 6 IP addresses from the DHCP server.
2. Type F to write these values to Flash memory.
3. Type Q to quit the program and exit to E86mon.

Cycle power to the cradle to effect the latest changes.

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In this mode, each slot has its own IP address and may be directly accessed by the network. On power-up, the 6 IP addresses are acquired. Periodically, the lease times are checked and renewed as required. If the renewal request is NAKed by the server, the cradle enters Panic mode and re-boots. If the cradle receives no response from the server and is unable to re-bind, it also Panics and re-boots.

Static Mode

If there is no DHCP server on your network, the cradle must be manually configured with IP addresses and other network-related information. This configuration is performed from the debug monitor (i.e., E86MON) by running the flasher utility. To enter the debug monitor:

1. Connect a null modem to a CRD1700-4000S host connector cable (p/n 70245-001). The null modem end should be connected to a COM port on the PC, and should be set to run at 115200 bps, 8N1, with XON/XOFF flow control and ASCII file transfer protocol, using a terminal emulator software, such as ProComm or Hyperterminal.
2. Connect the modular end to the expansion port of the CRD1700-4000E.
3. Power up the CRD1700-4000E. Before the power up LED sequence begins, type 'a' from the terminal program to enter the E86Mon. The following screen displays:

```
Welcome to EtherCradle Monitor version x.xx! (?<Enter> for help)
er86mon:
```

4. Next, load the flasher utility into the cradle's RAM by typing 12. Press Enter. The following screen displays:

```
er86mon:12
er86mon:
```

CRD1700-4000E Ethernet Cradle

5. Type 'g' and press Enter to run the flasher utility. The following screen displays:

```
er86mon:g
Cradle Utilities Version x.xx

I) Flash Info
P) Program Cradle Globals
Q) Quit
```

6. Select 'P' to program the cradle's global variables. The following screen displays:

```
Current Cradle Globals:

1) Static mode: 0   NAT Mode: 1
2) Cradle IP Address: 192.168.111.1
3) Router (Gateway) IP Address: 192.168.111.1
4) 1st DNS IP Address: 0.0.0.0
5) 2nd DNS IP Address: 0.0.0.0
6) Subnet mask: 255.255.255.0
7) Diagnostic mode:0

Enter Field to Edit or:
Q) quit without saving
F) update globals and quit
```

Note: Network parameters are used in Static mode only.

7. Select option 1, and update the Static mode setting to 1. Flasher asks you to specify the NAT mode. Enter 0 for no-NAT; enter 1 for NAT. Flasher asks for the Cradle IP Address. If your network uses a DHCP server, this IP address must be reserved for this CRD1700-4000E. See your network administrator for assistance. If you are not using NAT, you are asked to input the Static addresses for the 4 slots and the expansion slot.

Note: To configure the cradle for DHCP use, the static mode setting must be '0'.

8. Select option 2, and update the cradle IP address. If your network uses a DHCP server, this IP address must be reserved for this CRD1700-4000E. Your network administrator should be able to assist you.
9. Select option 3, and update the Router IP address. This address should be set to the IP address of your internet gateway.

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10. Select option 4 and 5, and set the DNS IP addresses for DNS1 and DNS 2.
11. Select option 6, and enter the correct subnet mask for your subnet.

Note: When diagnostic mode is enabled (i.e., set to '1'), the CRD1700-4000E's expansion serial port does not communicate with a CRD1700-4000S serial cradle. Instead, the CRD1700-4000E transmits diagnostic information at 115,200 bps, 8N1, using the expansion port.

12. Once all values are set correctly, type 'F' to write these values into flash memory. The terminal displays the following screen:

```
Erasing flash sector at E0000...
Cradle Utilities Version x.xx
I) Flash Info
P) Program Cradle Globals
Q) Quit
```

13. Type 'Q' to quit the program and exit back to E86mon. The following screen displays.

```
Program terminated with result code '00'
er86mon
```

14. Cycle power to the CRD1700-4000E so that the latest changes take affect.

Network Address Translation (NAT)

In both DHCP and static mode, the cradle assigns private IP addresses to each terminal and performs Network Address Translation (NAT) on all TCP/IP and UDP/IP packets as they traverse through the cradle between the outside network and the cradle's private network. The terminals are assigned private addresses according to the following table:

Terminal Slot	IP Address
1	192.168.1.1
2	192.168.1.2

CRD 1700 - 4000E Ethernet Cradle

Terminal Slot	IP Address
3	192.168.1.3
4	192.168.1.4
Expansion	192.168.1.5

Note: Do not use these IP Addresses on the terminal's host TCP/IP services.

The cradle also uses IP address 192.168.1.6, so this address, along with those listed in the above table must not be used by the outside network. The cradle modifies one IP address and port number pair inside a TCP/IP and UDP/IP packet header. Those packets going to the outside network have their source address translated to the IP address of the cradle and their source port changed to unique port number that is associated with the cradle slot it came from. Conversely, packets designated to the cradle's private network have their destination IP address and port number mapped to the equivalent private network IP address and port number. The differences in the port numbers distinguish between packets for different slots in the cradle. The benefit of both IP address and port translation is that multiple slots can simultaneously share the one network IP address of the cradle.

Accessing the outside network with the CRD 1700-4000E is not equivalent to a direct connection to the outside network. The side effect of NAT is a collection of network services that do not function at all (e.g. FTP). Since NAT modifies addresses in TCP/IP and UDP/IP headers, it is insufficient for network services that embed IP addresses inside packet data (e.g. FTP client). Also, the CRD 1700-4000E assumes that a palm client sending data with one TCP or UDP source port expects to receive replies on the same port number. Unfortunately, this is not true for some network services that may reply with data over a range of ports. These network services are unusable with the CRD 1700-4000E. Another difficulty arises with services that listen to incoming requests from the network. Since port numbers are usually fixed for a given service, no palm terminals can be set up as listeners.

Inter-Connecting Cradles

Up to four 4-slot CRD1700-4000S serial cradles may be inter-connected (daisy-chained) with the CRD1700-4000E 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

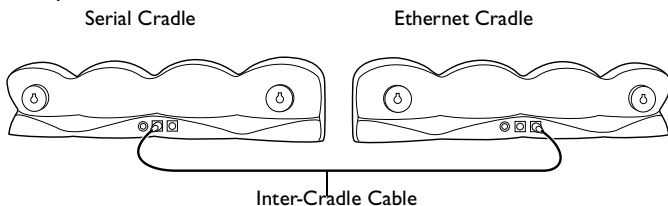
Each cradle must have its own power supply. Any other method of power hookup is unsafe.

To inter-connect cradles:

1. Connect the power supply to the second 4-slot cradle as described in the *Connecting Power* section.

Note: You must use a 8V, 5A. power supply on the serial cradle being connected to the ethernet cradle.

2. Plug one end of the inter-cradle cable into the modular jack labeled *EXP* on the back of the first cradle. The Expansion Connector is the modular jack located furthest from the Power Connector, as shown in the following illustration.
3. Plug the other end of the inter-cradle cable into the modular jack labeled *Host* on the back of the second serial cradle. The Host Connector is located between the Power Connector and the Expansion Connector, as shown in the following illustration.
4. Repeat the previous steps for any additional 4-slot serial cradles you want to connect.



Software Configuration

The CRD1700-4000E appears to SPT 1700 terminals inserted into the cradle as a direct-connect PPP service. Therefore, just as you would set up a Palm III terminal to connect to an Internet Service Provider (ISP) like CompuServe or Earthlink, the SPT 1700 terminals must be configured for use with the cradle. This section describes the steps necessary to configure the SPT 1700 terminal.

Configuring NetSync Options

NetSync must be configured for use with the CRD1700-4000E. From the HotSync panel on your SPT 1700, select each of the option panels available from the “Options” menu (accessed by tapping the Menu icon) and configure them as follows:

1. To configure the *Modem Sync Preferences*:
 - a. Select the HotSync application from the main application screen.
 - b. Select the menu icon to display the options menu.
 - c. Select Modem Sync Prefs.
 - d. Select “Network” and tap “OK”.

2. To configure the *Primary PC host Setup*:

Note: This panel is very important! It tells the SPT 1700 terminal which machine to synchronize with on the network.

- a. Select HotSync from the main application screen.
- b. Select the menu icon to display the options menu.
- c. Select Primary PC host Setup.
- d. Using the PC you will synchronize with most often, right click on the HotSync Manager in the Windows tray on the host PC. Left click on Setup, click on the Network tab and then click on the TCP/IP Settings button. Copy down the Primary PC Name, Primary PC address, and the Subnet mask, and enter that information manually on your SPT 1700.

Note: If the Subnet Mask box on your PC is empty, you do not need to enter anything in that section on your SPT 1700. Also, Network HotSync setup must be run on this PC be-

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fore the Network tab will be available.

3. To configure the *Conduit Setup*:
 - a. Select the HotSync application from the main application screen.
 - b. Select the menu icon to display the options menu.
 - c. Select Conduit Setup.
 - d. Check any items that you want synchronized and uncheck any items that you don't want synchronized. Then tap "OK."
4. To configure the *Connection Setup*:
 - a. Select the HotSync application from the main application screen.
 - b. Select the menu icon to display the options menu.
 - c. Choose the Name: Direct Serial.
 - d. Choose Port: Cradle.
 - e. Choose Speed: 57,600 bps.
 - f. Choose Flow Ctl: Automatic, Direct
 - g. Tap "Done."

Creating a CRD1700-4000E Modem Sync Service

The SPT 1700 terminal communicates with the CRD1700-4000E via a Modem Sync. The Modem Sync offers many options which must be configured for use with the CRD1700-4000E.

Create a separate CRD1700-4000E network configuration and select it as your default Modem Sync service. Use either Graffiti or the keyboard feature (click in the lower left-hand corner of the scratch pad on the *abc* to access the keyboard) to enter the following information:

1. Select the HotSync application from the main application screen.
2. Choose the Select Service box under the Modem Sync icon to create a new CRD1700-4000E service.
3. Select the Earthlink service, Click Menu->Duplicate.
4. Change the service name to CRD1700-4000E. Leave the user name and password blank. Choose the Direct Serial Connection option.

Configuring the Remote Host PC

The remote PC you wish to HotSync the SPT 1700 to must be set up for Network HotSync and configured to run from the network.

1. Make sure HotSync Manager is installed and running.
2. From the HotSync Manager, make sure Network is checked. If you don't want HotSync Manager to use a serial port, make sure Local is unchecked.

Note: The PC must be configured for proper TCP/IP network operation.

The HotSync Process

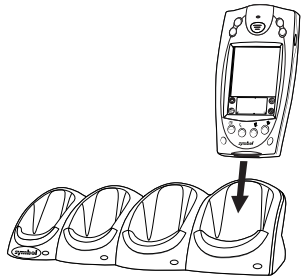
Once the CRD1700-4000E is properly connected, data communication between an SPT 1700 terminal and the host computer can take place. When a terminal is inserted in the cradle, the cradle detects its presence and attempts to initiate the process on the terminal. All local slots in the cradle operate simultaneously; the procedure starts immediately when any terminal is inserted into a local slot.

As stated earlier, if multiple slots are to be HotSync'd simultaneously, each must communicate with a different host PC. If the application requires simultaneous connection to a single host database, additional software, available from Symbol, is required.

Terminals inserted into daisy-chained cradles are HotSynced in a round-robin fashion simultaneously with any HotSyncs from local slots. Daisy-chained cradles share a logical "fifth slot" on the CRD1700-4000E, which, while it shares equal priority with the local slots, allows only one HotSync at a time.

Performing HotSync

To initiate communication between the terminal and the host, gently insert the SPT 1700 terminal into a local cradle slot, or a slot on an inter-connected serial cradle. Do not force. When properly inserted, the slot's LED turns red, then changes to flashing green, indicating that the host and the terminal are




communicating. Removing the terminal from the cradle while the LED is flashing green will result in a disruption of communication and data may be lost. If the terminal is inserted into an inter-connected serial cradle slot while another terminal on the serial cradle chain is communicating with a host, the terminal waits (its LED remains red) until the first terminal finishes communicating. After the communication session completes, the slot's LED turns solid green and remains green until the terminal is removed from the slot. To remove the terminal, pull it straight up from the slot.

Battery Charging

The CRD1700-4000E can also be used to recharge the battery in the SPT 1700 Series terminal. All four slots can be used to simultaneously recharge the batteries on four terminals. To charge the battery, insert the terminal(s) in the slot(s). The battery begins to charge. It takes approximately 2 hours to recharge the battery. After two hours, remove the terminal from the cradle and power it on. The battery charge indicator should appear to be full.

To verify that the terminal's battery is charging while seated in the cradle:

1. Power the terminal on.
2. Tap the  icon.
3. Centered on the top of the screen, an indicator displays in the shape of a lightning bolt. This indicates that the battery is charging.

Indicator Lights

Light	Indication
Off	No terminal is present in the slot.
Solid Red	Terminal is present, but communication has not started.
Green Flashing	Terminal is in the cradle, and communicating with the host computer.
Slow Red Flashing	Error, communication did not start.
Fast Red Flashing	Error, terminal inactivity timeout. The terminal did not finish HotSyncing in 15 minutes.
Solid Green	Terminal is present in the slot, communication is complete.
All LEDs Red Flashing	Automatic configuration of the cradle via the local DHCP service failed. Connect a properly configured DHCP server or DHCP relay agent to the subnet, and power cycle the CRD1700-4000E, or wait 10 minutes for a DHCP configuration retry. Or: Ethernet link is down. Make sure the ethernet cable is connected to an active hub.

Troubleshooting

Symptom	Cause	Suggested Action
LEDs do not light when the cradle is powered on.	Cradle is not receiving power.	Make sure the power supply is securely connected and receiving power.
LED does not light when the terminal is inserted.	Terminal is not seated firmly in the cradle, or the battery is not properly installed in the terminal.	Make sure the battery is properly installed in the terminal, and reseat the terminal in the cradle.
Attempt by the cradle to HotSync the terminal failed.	Terminal was removed from the cradle while the LED was blinking green.	Replace the terminal in the cradle. This allows the cradle to attempt another HotSync.
	Active Error dialog box on terminal.	Error dialog box must be cleared on the terminal. Use the stylus to press "OK" on the terminal's touchscreen.

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Symptom	Cause	Suggested Action
The cradle's LEDs are flashing red.	The unit could not configure itself, or it has lost its lease on its IP address.	Connect the unit to an Ethernet network with a correctly functioning DHCP server.
Overcurrent condition on power supply.	Faulty cradle or terminal.	Remove floor power supply input A/C voltage for 30 seconds, then re-apply power to establish the proper power supply output voltage.

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 A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la Classe A 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 55 022 - Limits and Methods of Measurement of Radio Interference Characteristics of Information technology Equipment
- EN 55024:1998; Information technology equipment-Immunity characteristics-Limits and methods of measurement.
- IEC 1000-4-2(1995-01) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 2: Electrostatic discharge immunity test.
- 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.
- IEC 1000-4-5:1995/EN61000-4-5:1995, Electromagnetic compatibility (EMC), Part 4:Testing and Measurement techniques;Section 5: Surge Immunity.
- IEC 1000-4-6:1996/EN61000-4-6:1996, 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/EN61000-4-11:1994, Electromagnetic compatibility (EMC), Part 4: Testing and measurement techniques; Section 11: Voltage Dips, Short Interruptions and Voltage Variations.
- EN 60 950 + Amd 1 + Amd 2 - Safety of Information Technology Equipment Including Electrical Business Equipment
- EN 60 825-1 (EN 60 825) - Safety of Devices Containing Lasers

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	1-800-653-5350	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	
		+44 208 945 7360	



72-39472-01
Revision B — August 2000