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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

The MDM 3006 Modem Module allows you to dial into a remote host computer using an SPT 1700, an SPT 1800, a PPT 2700, or a PPT 2800.

About This Guide

This Quick Reference Guide provides information for installing, configuring, removing, and using the MDM 3006. Specific topics in this guide include:

- MDM 3006 Connectors on page 2
- Attaching and Removing the MDM 3006 on page 2
- Charging the Terminal's Battery on page 2
- Connecting to the Phone Line on page 3
- Configuring for Palm OS on page 4
- Configuring for Pocket PC 2000 on page 8
- Configuring for Pocket PC 2002 on page 13
- Modem Country Setup on page 19
- *Troubleshooting* on page 20
- Technical Specifications on page 24
- Regulatory Information on page 25
- Service Information on backcover.

For detailed information on any SPT 1700, SPT 1800, PPT 2700 or PPT 2800 terminal, please refer to the *Quick Reference Guide* or *Product Reference Guide* for that terminal.

For information on ordering other accessories or Symbol manuals, please contact your Symbol Support Center, as listed on the backcover of this manual.



Attaching and Removing the MDM 3006

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To attach the MDM 3006 to your terminal, place it at the bottom of the terminal as shown, and press the terminal into place.

To remove, pull the terminal from the MDM 3006.

While the MDM 3006 is attached, you cannot.

- use a cradle for battery charging or ٠ communication
- use the RS-232 serial port on the bottom of the terminal.

Charging the Terminal's Battery

To charge the terminal's battery with the MDM 3006 attached, you need a power supply and a line cord.

- Note: Use only a Symbol-approved power supply (p/n 50-14000-107) output rated 9VDC and minimum 2A. The power supply is certified to EN60950 with SELV outputs.
- Hinweis:Benutzen Sie nur eine Symbol Technologies genehmigt Stromversorgung (p/n 50-14000-107) in den Ausgabe: 9VDC und minimum 2A. Die Stromversorgung ist bescheinigt nach EN60950 mit SELV Ausgaben.



To charge the terminal's battery:



The terminal's battery is fully charged after two hours, if terminal is off. You can continue to use the terminal while it is plugged into the wall outlet.

Connecting to the Phone Line

To dial in to a remote host computer using the MDM 3006, you will need an RJ-11 cable. To connect this cable:

- Insert the RJ-11 cable into the RJ-11 phone jack on the MDM 3006.
- 2. Connect the other end of the cable into an analog telephone jack on the wall.

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Caution: To reduce the risk of fire, use only No. 26 AWG or larger RJ-11 cable.

Using the Correct Telephone Line Type

Use a standard analog phone line. In an office, use a line connected to a fax machine or modem. In a hotel, request a room with a standard phone line. If necessary, check with the local phone company or administrator to ensure you're using the right type of line before connecting to the modem.

Configuring for Palm OS

Note: Modem drivers for Palm OS version 3.2 and 3.5 are available at http://devzone.symbol.com. The drivers enable power to the modem through the terminal's serial port. For OS version 3.2, use PowerDrv32.prc; for version 3.5, use PowerDrv35.prc. Use HotSync to load the driver onto the terminal, and then perform a soft reset.

Host Computer Setup

To use the MDM 3006 to synchronize with your network, Palm Desktop Software must be installed and an external modem must be attached to the host computer's COM port.

 Install Palm Desktop Software on your host computer. Download the latest version from www.palm.com/support. Refer to the instructions included with the software you download. Start Palm Desktop and configure the HotSync Manager for modem connections. Refer to the instructions included with software you download.

Modem Requirements

- a terminal
- an MDM 3006 modem
- telephone number from your dial-in server administrator
- a dial-in account on the host system, including a user ID and password
- a RJ11 or RJ12 modem cable
- a functioning telephone jack that supports plug-in modems connected to the local telephone system.

Terminal Setup

To define modem connection settings:

- 1. Tap the Applications icon in the Graffiti area to display the *Applications Launcher* screen.
- 2. Tap the Prefs icon to display the *Preferences* screen.
- Tap the triangle in the upper right corner of the screen to display a menu and select Connection.
- Tap New... to create a new connection, or select Custom from Available Configuration drop-down menu and tap Edit....



5. Enter a name for the connection in the Name: text box.

- 6. Select **PwrCradle to Modem** from the *Connection Method* drop-down menu.
- 7. Select **TouchTone** from the *Dialing* drop-down menu.
 - Note: Do not select **Rotary** unless you are sure your telephone service does not support Touch Tone dialing.
- 8. Select **Off** from the *Volume* drop-down menu (there is no speaker in this modem).
- 9. Tap the Details... button to select speed and flow control.
- 10. Select **57,600 bps** from the *Speed* drop-down menu for best performance.
- 11. Select **Automatic** from the *Flow Ctl* drop-down menu for the modem connection.
- 12. If necessary, edit the *Init String:* text box to set country parameters. The modem defaults to operation with US telephone networks. To operate the modem with other country telephone networks, you must set the appropriate country code. See *Modem Country Setup* on page 19.
- 13. Tap the OK button until you return to the *Preferences* screen shown in step 2 on page 5.

To prepare your terminal for a modem HotSync operation:

1. Tap the Applications icon in the Graffiti area to display the *Applications Launcher* screen.

- 2. Tap the HotSync icon.
- 3. Tab **Modem** on the *HotSync* screen.

- Tap the Menu icon in the Graffiti area and select Modem Sync Prefs... from the Options menu.
- 5. Tap Direct to modem.
- 6. Tap the OK button.
- 7. Tap the Enter phone # button to open the *Phone Setup* screen.



- 9. If necessary, select the *Dial Prefix:* check box and enter a dial prefix (such as "9") to access an outside line. A comma can be used to insert a "pause" in the dialing sequence.
- 10. If your phone line has call waiting, select the *Disable call waiting:* check box and enter a code to avoid an interruption during the modem HotSync operation.
- 11. If you want to use a calling card to place the call, select the Use calling card: check box and enter the calling card number.



12. Tap the OK button to return to the HotSync dialog. Communication setup is now complete.

How to Dial in

- 1. Tap the Applications icon in the Graffiti area to display the *Applications Launcher* screen.
- 2. Tap the HotSync icon.
- 3. Tap Modem on the HotSync screen.
- Select the name you gave the connection in step 5 on page 5 by tapping the drop down menu for connection names.
- 5. Tap the HotSync icon to start dialing.
- If successful, a series of dialog boxes pop-up in succession and the connection is authenticated by the host computer.



Configuring for Pocket PC 2000

Host Computer Setup

To use the MDM 3006 to communicate with your network, ActiveSync and Remote Access Server (RAS) software must be installed on the host computer. Other types of modem applications can also be used with your MDM 3006.

 Install ActiveSync on your host computer. Download the latest version of the software from http://www.microsoft.com. Refer to the installation and RAS instructions included with the ActiveSync software you download.

- 2. Start ActiveSync on the host computer. Ensure that the modem RAS connection is selected (tap *File Connection Settings*). For more information, refer to the ActiveSync user instructions.
- 3. Set up a partnership via the ActiveSync connection using a serial connection to your host computer. For instructions, refer to the *Product Reference Guide* for your terminal.

For information on communicating via a serial connection, refer to the *Product Reference Guide* for your terminal.

Modem Requirements

To communicate by modem, you need:

- a terminal
- an MDM 3006 modem
- a telephone number, IP address and DNS/WINS address information from your dial-in server administrator
- a dial-in account on the host system, including a user ID and password
- an RJ11 or RJ12 modem cable
- a functioning telephone jack that supports plug-in modems connected to the local telephone system.

Terminal Setup

- 1. Power the terminal on.
- 2. Tap Start Settings.
- 3. Tap the Modem icon on the *Connections* tab.

- 4. Tap **New connection...** in the *Connections* tab.
- 5. Enter a name for the connection in the *Enter a name for the connection:* text box.
- Select Powered Serial on COM7 from the Select a modem: dropdown menu.
- 7. Select **57600** from the *Baud Rate:* drop-down menu.



- 8. Tap the Advanced... button.
- 9. Select 8, None, 1, and Hardware in the Port Settings tab.
- 10. Select appropriate times for terminal use, if your dial-in server requires manual input for each connection.
- 11. Tap the TCP/IP tab.
- 12. Enter parameters supported by your server.
- 13. Tap the Name Servers tab.
- 14. Enter parameters supported by your server.
- 15. Tap the OK button. The *Make New Connection* screen, shown above, appears.
- 16. Tap the Next button.
- 17. Enter the country code, area code, and phone number you want to call.
- 18. Tap the Next button.
- 19. Select other options.

- 20. If necessary, edit *Extra dial-string modem commands:* text box to set country parameters. The modem defaults to operation with US telephone networks. To operate the modem with other country telephone networks, you must set the appropriate country code. See *Modem Country Setup* on page 19.
- 21. Tap the Finish button.
- 22. Tap the Dialing tab.
- 23. Setup the location you are calling from.
- 24. Tap the Dialing Patterns... button.
- 25. Enter the appropriate dialing patterns.
- 26. Tap the OK button until you exit the modem configuration. Communication setup is now complete.

How to Dial In & ActiveSync

- 1. Attach the MDM 3006 to the terminal.
- 2. Plug one end of the modem cable into the MDM 3006, and plug the other end into the telephone jack.
- 3. Power on the terminal.
- 4. Tap Start Settings Connections PC and deselect the Automatically synchronize when serial cable is connected using: check box to temporarily disable serial cable detect before using ActiveSync.
- 5. Tap the OK button.
- 6. Tap Start Programs.
- 7. Tap the Connections icon.
- 8. Tap the ActiveSync icon.

- 9. Select the modem connection from the *Choose a method to* connect to the selected desktop computer. drop-down menu.
- Select the name of the host computer from the *Connect to:* drop-down menu (prior partnership via a serial connection is required).
- 11. Tap the Connect button.
- 12. Enter a User name, Password, and Domain for your connection, if required.
- 13. Tap the Connect button to initiate dialing.
- 14. The modem dialout commences and, if successful, you will see a series of dialog boxes pop-up in succession, as shown below:



15. When finished, tap the Disconnect button to close the ActiveSync session.

Configuring for Pocket PC 2002 Host Computer Setup

To use the MDM 3006 to communicate with your network, ActiveSync and Remote Access Server (RAS) software must be installed on the host computer. Other types of modem applications can also be used with your MDM 3006.

- Install ActiveSync on your host computer. Download the latest version of the software from http://www.microsoft.com. Refer to the installation and RAS instructions included with the ActiveSync software you download.
- 2. Start ActiveSync on the host computer. Ensure that the modem RAS connection is selected (tap *File Connection Settings*). For more information, refer to the ActiveSync user instructions.
- 3. Set up a partnership via the ActiveSync connection using a serial connection to your host computer. For instructions, refer to the *Product Reference Guide* for your terminal.
 - Note: For information on communicating via a serial connection, refer to the *Product Reference Guide* for your terminal.

Modem Requirements

- a terminal
- an MDM 3006 modem
- a telephone number, IP address and DNS/WINS address information from your dial-in server administrator
- a dial-in account on the host system, including a user ID and password

- an RJ11 or RJ12 modem cable
- a functioning telephone jack that supports plug-in modems connected to the local telephone system.

Terminal Setup

Installing eConnect

eConnect is a control panel applet you may install in a Pocket PC 2002 terminal; it automates the launch of a modem connection and applications, such as ActiveSync or Internet explorer.

Download eConnect (for Pocket PC 2002) from http://devzone.symbol.com. Follow the installation instructions included to install the software on your terminal.

Country Setup

The modem defaults to operation with US telephone networks. To operate the modem with other country telephone networks, you must change the modem Country Code.

- 1. Tap Start Settings.
- 2. Tab the Connections tab.
- 3. Tap the Connections icon on the *Connections* tab.
- 4. Tap the Modify button under the When needed, automatically connect to Work using these settings: dropdown menu.
- 5. Tap **SnapOnModem** in the *Modem* tab.
 - Note: The SnapOnModem connection is created while installing eConnect.
- 6. Tap the Next button, twice.

Quick Reference

- 7. Edit *Extra dial-string modem commands:* text box to set country parameters. See *Modem Country Setup* on page 19.
- 8. Tap the Finish button.

How to Dial In

- 1. Attach the MDM 3006 to the terminal.
- 2. Plug one end of the modem cable into the MDM 3006, and plug the other end into the telephone jack.
- 3. Power on the terminal.

To Use ActiveSync

- Tap Start ActiveSync Tools Options PC and deselect the Enable synchronization when cradled using: check box to temporarily disable serial cable detect before using ActiveSync.
- 2. Tap Start ActiveSync Tools Options PC and select the Include PC when synchronizing remotely and connect to: check box to ensure the host computer you wish to synchronize with is identified.

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 Tap Start - Settings - System eConnect to view the eConnect applet.

- 4. Select the Use eConnect for Docking Events check box.
- 5. Select the Launch ActiveSync check box.
- 6. Tap the OK button.
- Tap Start ModemSync. The modem dialout commences and, if successful, a series of dialog boxes pop-up in succession, as shown below:

eConnect Settings		
Use #Connect for Doc When bocked: Launch AttiveSync Estableh TCP/IP Cor Launch Application	king Event wetton	*
SvindovsVerplora.exe Parame:		•
Serial Port Baud Rate:	115500	•

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- 8. After connecting, ActiveSync starts and synchronizes with the host computer.
- 9. To disconnect, tap the Stop button on the ActiveSync screen.

To surf the Internet

- Tap Start Settings System eConnect to view the eConnect applet.
- 2. Select the Use eConnect for Docking Events check box.
- 3. Select the *Establish TCP/IP* Connection check box.
- 4. Select the *Launch Application* check box.
- Tap the button, and select the Internet Explorer application (\Windows\iexplore.exe).
- 6. Tap the Finish button.
- 7. Tap the OK button.
- Tap Start ModemSync. The modem dialout commences and, if successful, a series of dialog boxes pop-up in succession, as shown below:



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- 9. When connected, Internet Explorer starts. You can now surf the Internet, if permitted by your server.
- 10. To disconnect, tap the two arrows on the navigation bar to expose the *Connected* dialog box.
- 11. Tap the End button.

Modem Country Setup

The modem defaults to operation with US telephone networks (country code: B5). To operate the modem with other country telephone networks, you must set the appropriate country code by entering the Country of Installation command. The modem will adjust it's operating parameters to comply with the telephone network in the country specified.

Syntax

+GCI=<country_code>

Enter this command in the *Init String:* text box for Palm OS, described in step 12 on page 6 or in the Extra dial-string modem commands: text box of the Modem Settings screen, described in step 20 on page 11 and step 7 on page 15

Country	Code	Country	Code	Country	Code
Austria	FD or 0A	Greece	e 46 Norway FD or 82	FD or 82	
Belgium	FD or 0F	Iceland	FD	Portugal	8B
Brazil	16	Ireland	FD or 57	Spain	FD or A0
Canada	20	Italy	FD or 59	Sweden	FD or A5
Denmark	FD or 31	Liechtenstein	FD	Switzerland	FD or A6
Finland	FD or 3C	Luxembourg	FD	TBR-21 (Europe)	FD
France	FD or 3D	Mexico	73	United Kingdom	FD or B4
Germany	FD or 42	Netherlands	FD or 7B	United States	B5 (Default)
Note: It is highly recommended that you use FD where possible. If you have trouble connecting, use the alternate code where provided.					

Supported Countries

MDM Modem

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Troubleshooting

Symptom	Possible Cause	Action
Terminal not communicating through the	The modem cable is not fully connected.	Ensure the modem cable is connected securely to both the MDM 3006 and to the telephone jack.
MDW 3000.	MDM 3006 is not se- curely attached to the bottom of the terminal.	Remove and re-attach the MDM3006, ensure it is firmly seated on the bottom of the terminal.
	Communications soft- ware is not installed or configured properly.	Perform setup as described in <i>Config-uring for Palm OS</i> on page 4, <i>Configur-ing for Pocket PC 2000</i> on page 8, or <i>Configuring for Pocket PC 2002</i> on page 13.
	Problems in the tele- phone lines that pre- vent communication.	Connect a conventional telephone and dial the remote modem to verify the telephone lines are functioning propo- erly. You should hear the remote mo- dem answer the call and emit answering tones. If not, contact the re- mote System Administrator.
	Terminal's battery is low or discharged. Power to the modem is shut off if the battery is low.	Ensure you have a charged battery. Use an external DC power adaptor to recharge the battery.

Symptom	Possible Cause	Action
Terminal battery is not charging through the Power Connec- tor.	The power cable is not fully connected.	Ensure the power cable is connected securely to both the MDM 3006 and to AC power.
	Terminal and modem were unplugged from AC power too soon.	Plug the terminal and modem back into the AC power source. If a terminal bat- tery pack is fully depleted, it can take 2 hours to fully recharge (if the terminal is suspended) and longer if the terminal is operating.
	Battery is faulty.	Verify that other batteries charge prop- erly. If so, replace the faulty battery.
	MDM 3006 device is not securely attached to the bottom of the ter- minal.	Remove and re-attach the MDM 3006, ensure it is firmly attached on the bot- tom of the terminal. Verify that the bat- tery is charging by tapping <i>Start</i> - <i>Settings</i> - <i>System</i> - <i>Power</i> .

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Symptom	Possible Cause	Action
ActiveSync fails.	A partnership was not established with the host computer.	Establish a partnership with the host computer. See <i>Host Computer Setup</i> on page 4, page 8, and page 13.
	Host computer is not selected in the Active- Sync dialogue on the terminal.	Select host computer in the ActiveSync dialogue. See <i>How to Dial in</i> on page 8, page 11, and page 15.
	Modem RAS connec- tion not allowed by host computer.	Select RAS connection at the host com- puter in the <i>File - Connection Settings</i> dialog box. Refer to the ReadMe files located in the Microsoft ActiveSync folder on your host computer.
	Terminal or MDM 3006 was disconnected from the telephone line while the ActiveSync was in progress.	Disconnect the modem cable for 30 seconds to hang up the local telephone connection. Close any open windows on the terminal and any modem connections.
	Synchronization did oc- cur, however the ses- sion is configured to close immediately after synchronization is com- plete.	Pocket PC 2000: Verify the setting of the Disconnect when completed check box on the ActiveSync dialog when con- nected. Pocket PC 2002: Verify the setting of the When manually synchronizing dis- connect when complete check box by tapping Start - ActiveSync - Tools - Op- tions - Schedule tab.

Quick Reference

Symptom	Possible Cause	Action
Dial-out fails	Location setting is in- correct.	Verify Dialing Locations. Verify Dialing Patterns are correct for your current lo- cation. For example, enter 'G' in the 'For local calls, dial.' field to dial directly, or '9,G' if your telephone system re- quires '9' to be dialed first to access an outside line.
	Incorrect server phone number.	Verify the phone number you are con- necting to from the <i>Connecting</i> dialog boxes.
	For Pocket PC 20002 - 'Trouble Connecting: There is no answer at the number dialed. Ver- ify the phone' error message appears	Modem may be required to be powered prior to opening port for dial-out. Tap Start - Settings - System - Symbol Set- tings - Settings - External5VoltPower and select ActiveOn.
	For Pocket PC 2002 - the Connection Manag- er routes are incorrect.	Warm reset your terminal as described in the <i>Product Reference Guide</i> for your terminal. Confirm the connection set- tings. See <i>How to Dial In</i> on page 15.
Terminal has successfully connected through mo- dem, but no data is being transmitted over the con- nection.	Data is being trans- ferred over S24 radio link.	Temporarily disable the radio link to force data transmission to use modem connection. Tap the wireless LAN icon from the systray on the Today screen. Tap the <i>Mode/General</i> tab. Enter an in- valid value in the <i>ESSID</i> : text box. Pow- er cycle the terminal. Verify that your radio link has been disabled (the wire- less LAN icon has a red box with a ! on it). Once you have completed your data transmission, re-enable your radio link.

M D M M o d e m 3006 Module

Technical Specifications

ltem	Description
Asynchronous character format	Up to 10 bits, including data, start, stop, and parity bits
Asynchronous data rates	Transmission rate fallback through 300 bps
Chipset	Conexant SCM
Compatible public switched network jacks	RJ11
Dialing capability	Tone and rotary pulse
Line requirements	Public switched telephone network (PSTN) including international connections
Operating environment	Altitude: up to 20,000 ft. Humidity: 10% to 90% non-condensing
Operating temperature	Operating: 0 ^o to 50 ^o C Storage: -20 ^o to 65 ^o C
Operating modes	Asynchronous, full duplex, automatic and manual call origi- nate
Performance	Line speed up to 56,000 bps Terminal to modem speed (DTE speed) up to 230,400 bps, depending on terminal - 57,600 bps recommended V.42bis data compression V.42 LAPM error correction
Current consumption (typical)	160 mA connected state 155 mA disconnected state
Ringer equivalence	0.1B
Standards & protocols	Bell 103, Bell 212A, Hayes AT command set, ITU Versions: V.17, V.21, V.22A, V.22b, V.22bis, V.23, V.25, V.27ter, V.29, V.32, V.32bis, V.34, V.42bis, V.90

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 (50-14000-107) output rated 9Vdc and minimum 2A. The power supply is certified to EN60950 with SELV outputs.
- Hinweis: Benutzen Sie nur eine Symbol Technologies genehmigt Stromversorgung (50-14000-107) in den Ausgabe: 9Vdc und minimum 2A. 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.

Telecom Approval Warnings and Notices

This product contains Symbol Modem Type MCDB

Connecting to the telephone network

A compliant telephone lead is required with RJ11 plug (line is on middle pair) for connection to modem, terminated with an appropriate and correctly wired local telecom connector compatible with the telephone network. Such a cable may be sourced from your local supplier. Alternatively compliant RJ11 plug to RJ11 plug cables may be used with a range of adapters for places such as Europe.

Caution:	To reduce risk of fire, use only No. 26 AWG or larger telecommunica-
	tion line cord.

User and Service Access - No user service is intended and no part of the modem, other than the line connection plug, is accessible to users.

United States

Where this device contains a Symbol Technologies, Inc. internal modem, this equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. A Supplier's Declaration of Conformity for the modem type may be obtained from http://www2.symbol.com/doc/ On the exterior of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3).

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

This equipment must be connected to the telephone network or premises wiring using a compatible modular jack (RJ11C) compliant with the applicable FCC Part 68 rules and requirements adopted by ACTA. A compliant telephone cord and modular plug must be used.

This equipment must not be used on party lines.

If your premises has specially wired alarm equipment connected to the telephone line, ensure the installation of this modern does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Should you experience trouble with this equipment, please contact your facility's Technical or Systems Support first who will contact your nearest Symbol Customer Service Centre. If necessary, the Symbol Support Centre may be contacted at: 1-800-653-5350 If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

If the modem causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the modem. If this happens the telephone company will provide advance notice so you may make any necessary modifications to maintain uninterrupted service.

Fax

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless it clearly contains a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.) In order to program this information into your fax/ modem, you should consult documentation supplied with the necessary fax driver application software being used with the host terminal.

Canada

Where this equipment contains a modem supplied by Symbol Technologies, Inc., the product will be marked with IC: followed by the approval number. The Term "IC:" before the certification number only signifies that the Industry Canada technical specifications were met.

Industry Canada does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: User should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

The European Economic Area (EEA)

Statement of Compliance for Modems

Symbol Technologies, Inc., hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A Declaration of Conformity may be obtained from http://www2.symbol.com/doc/

The modem is designed to interwork with the following Public Switched Telephone Networks: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

Warranty

(A) Seller's hardware Products are warranted against defects in workmanship and materials for a period of ninety (90) days from the date of shipment, 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) 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. Shipment to and from Seller will be at Seller's expense, unless no defect is found. 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. The aforementioned provisions do not extend the original warranty period of any Product that had either been repaired or replaced by Seller. (C) 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 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 HERUNDER INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABLILTY 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 COUNTIRES, 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 ¹	1-800-653-5350 1-631-738-2400	Canada		905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific		337-6588
Australia	1-800-672-906	Austria/Österreich		1-505-5794-0
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 Inside	40 00 Spain
Sweden/Sverige	84452900		+34 91 Outside	324 40 00 9 Spain
Latin America Sales Support	1-800-347-0178 Ins +1-561-483-1275 C	side US Dutside US		
Europe/Mid-East Distributor Operations	Contact local distrib +44 118 945 7360	outor or call		

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.



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