

Boca's Family of Ethernet Products

NE2000 and NE2000+ Compatible

BOCALANcard 2000 Plus

BOCALANcard 2000 Plus Combo

PRODUCT CODE:
BEN400IT
BEN400I2

Before You Begin your Installation

The product you have purchased is designed to be easily installed into most IBM PC or compatible systems. Many products have large, easy-to-read legends to allow for the easy configuring of the product. This installation manual contains detailed instructions. Most included software has automatic installation programs to place the software correctly onto your computer. However, as all computers are configured differently, you may be required to perform some basic DOS or Windows tasks. If you are not familiar with basic DOS commands such as DIR, CD, or EDIT, you should check your DOS manual, or seek assistance from you local computer dealer to install the product.



How to get Technical Assistance

The dealer that you purchased this product or your computer from is the first place you should go for technical assistance. The dealer is usually the most qualified source of help, and is most familiar with your system and how this product should be installed. Many dealers have customer service and technical support programs, with varying levels of support offered, depending on your needs and computer knowledge. ***Please contact the dealer first whenever a problem occurs.***



If your Dealer Can't Assist you

If you can't get assistance from your dealer, the manufacturer provides varying levels of technical assistance as summarized on the following page.



Boca BBS
561-241-1601



Technical Support Fax
561-997-2163



Automated Fax Retrieval System
561-995-9456



Standard Free Technical Support
561-241-8088



Priority Service
900-555-4900
(\$2 per minute)

On-Line Support!
CompuServe: GO BOCA
Internet:

email: support@boca.org
on the World-Wide WEB:
http://www.bocaresearch.com



The Standard Free Technical Support number is for quick answers to specific inquiries on product features and technical questions (call **561-241-8088**; M-F, 8 am to 6:30 pm EST). Direct access to technical support representatives is provided on a limited basis. If you require immediate attention or in-depth help with the installation of the product, please call our 900-priority support number for service. This number gives you immediate access to senior-level technicians. The number is **900-555-4900**. You will be charged \$2.00 per minute. The charges will appear on your next phone bill.

Damaged or Missing Items

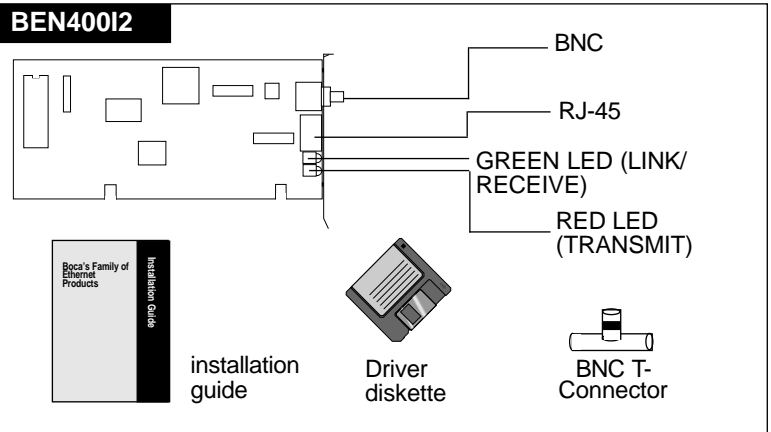
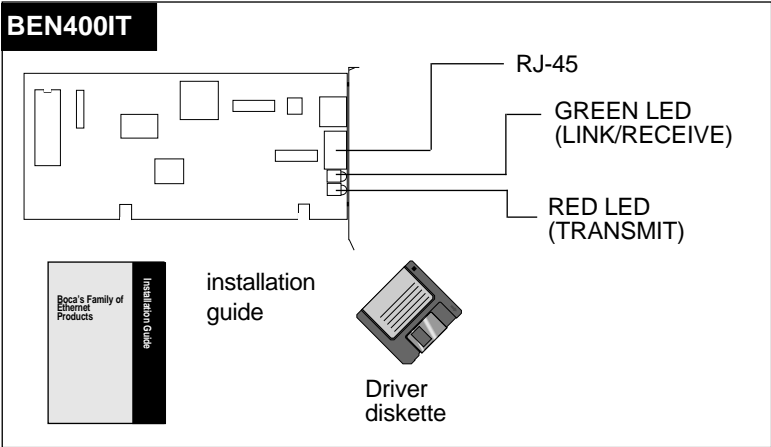
We use many world-class quality assurance programs to ensure the product you purchased is of the highest caliber. Sometimes, however, a component may be missing from the box, or is damaged or corrupt in some way. If this happens, immediately return the entire package to your place of purchase so you may exchange it for a new one. Your dealer should be able to provide you with an exchange far more quickly than by contacting us directly. If for some reason you are unable to return the product directly to its place of purchase, refer to the "Servicing Your Product" and "Warranty" sections in this manual for instructions.

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The Contents of Your Package

The contents of the BOCALANcard 2000 Plus product package are listed below. If any items are missing or appear incomplete or damaged, contact your dealer for assistance.



Quick Start (for Experienced Users)

This section is intended for knowledgeable and experienced network installers.

Other Items You May Need to Complete the Installation:

- Suitable tools to install the BOCALANcard 2000 Plus in your computer.
- Some network operating systems require some of their original installation diskettes. See your network installation manuals.

Hardware Installation

- **On Plug and Play Systems:**

Simply install the board into a 16-bit slot and it will automatically configure.

- **On Non Plug and Play Systems:**

1. Install the board into a 16-bit slot and run BENCFCG.
2. Set the board to “jumperless” mode with BENCFCG.
3. Set the desired I/O port and IRQ settings.

If you need to change any of the default settings, refer to Section Two for instructions.

Note on NE2000

The BOCALANcard 2000 Plus is compatible with existing NE2000 drivers shipped with Novell and other operating systems. In addition, drivers are also provided for full-duplex operation when network switches are used. Throughput may then reach as high as 20Mb/s.

Troubleshooting

If the adapter does not function after you have installed it with the necessary software, be sure the adapter is seated firmly and that you have set all options correctly. If you still have difficulty, refer to Section Three: Troubleshooting.

Section One: Introduction

The BOCALANcard 2000 Plus products allow you to connect the IBM personal computer ISA-bus (or compatible) to an Ethernet network. The BEN400IT adapter provides an RJ45 for connecting to an unshielded twisted-pair network (10Base-T). The BEN400I2 adapter provides a 10Base-T connector plus a 10Base2 BNC connector to attach to thin coax.

Features of the BOCALANcard 2000 Plus:

- Compliant with ISO/ANSI IEEE 802.3 specifications
- High-performance, highly integrated one-chip solution
- On-board support for connecting to a 10Base-T network (BEN400IT) or 10Base2 (BEN400I2).
- Designed to work with 286, 386, 486, and Pentium-based systems.
- Plug and Play compatible (ISA Plug and Play, v. 1.0a)
- Full-duplex capability
- Jumperless adapter—all features such as interrupt channel and I/O address are software-selectable.
- Easy installation and maintenance.
- Uses existing NE2000 drivers—no need to install new drivers.
- Low-cost solution for networks requiring 10Base-T or 10Base2 connection.
- One link/receive (GREEN) status LED indicator and one transmit (RED) status LED indicator.
- NE2000/NE2000+ compatible.

Section Two: Installation and Configuration

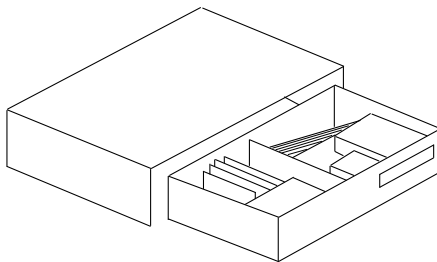
The BOCALANcard 2000 Plus Ethernet Adapters are compatible with network hardware which complies with IEEE Ethernet 802.3 standards. The BEN400IT offers a twisted-pair connector while the BEN400I2 offers a twisted-pair connector, plus a BNC connector.

2.1 Inserting the Adapter

Removing the System Cover

These instructions assume an AT-style or compatible machine.

1. Power-down your system and remove the power cord.
2. Use a screwdriver to remove the screws which hold the cover in place. Obviously, locations and types of screws as well as type of case cover will vary based on your particular system. Refer to your computer system documentation for assistance.
3. Carefully slide the cover forward—away from the rear panel. Be careful not to let the cover catch on internal cables to disk drives, controllers, or the power supply.



Inserting the Board

4. Select an empty 16-bit slot and remove the screw and metal plate that covers the external access to the slot you have selected.
5. Insert the board in the slot you have selected so that the edge connectors on the bottom of the board mate with the slot on the motherboard. Press down firmly on the board and secure it with the screw you removed in step 4.

Replacing the System Cover

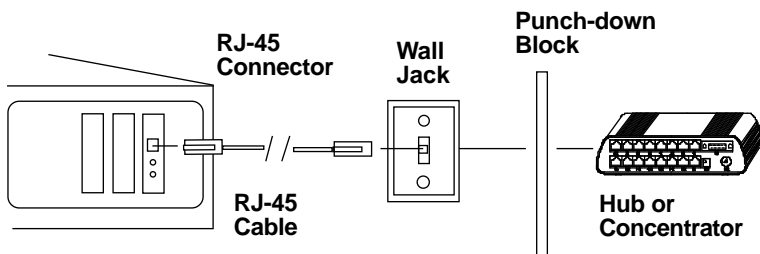
6. Slide the cover back over the chassis, again exercising care not to let it catch on any cabling. Once the cover is back in place, replace all the screws you removed in step 2.

Connecting Cables

7. Connect cables.

Boca's Ethernet products use standard pinouts. Refer to Appendix B for pin assignments.

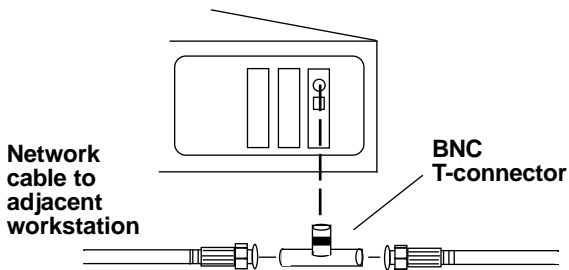
- a. **If attaching to an unshielded twisted-pair network**, connect one end of the 10Base-T cable to the RJ-45 connector on the board. Attach the remaining end to a network outlet, hub, or concentrator as shown below



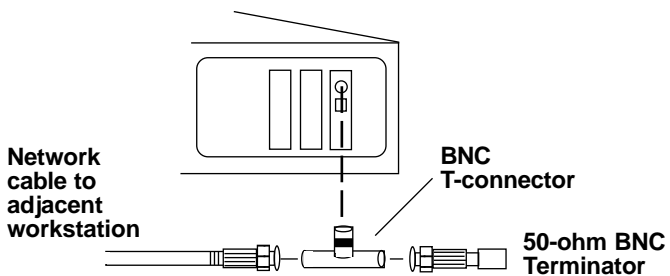
b. If attaching to “thin coax” cable:

1. Attach a BNC T-connector to the BNC port on the board. Align the notches on the card's BNC connector with those on the T-connector. Twist clockwise approximately one-quarter turn.
2. Is the workstation at the end of the cable segment?

If NO, attach the BNC connector on the cable from each adjacent workstation to the two open ends of the T-connector as shown below.



If YES, attach a terminator to the open end of the T-connector as shown below:



-
8. Re-attach all other external cables and power cords to their original position. Installation of the hardware is now complete. Go to section 2.2 Adapter Configuration.

2.2 Adapter Configuration

Loading a Single Board

The BOCALANcard 2000 Plus is a software-configurable Ethernet adapter. In order to change parameters, run the configuration utility, **BENCFG.EXE**, to specify the following options:

I/O Base Address, Interrupt Number, Run Diagnostics, and Boot ROM Address.

Loading Multiple Boards

To load more than one BOCALANcard 2000 Plus in your machine, you must configure each one separately. Configure each board to a different interrupt and I/O base address. Insert one card and run **BENCFG.EXE**. When all cards have been correctly configured, power down and re-insert all adapters. The network driver must be loaded again for each new adapter board installed in the system. For example, to load three boards in a NetWare server environment, the following must be entered.

For first adapter board: `LOAD NE2000.LAN int=X1 Port=Y1`

For second adapter board: `LOAD NE2000.LAN int=X2 Port=Y2`

For third adapter board: `LOAD NE2000.LAN int=X3 Port=Y3`

2.3 Software Configuration

Driver Support

Both BOCALANcard 2000 Plus models are NE2000 and NE2000+ compatible. High-speed drivers support the following operating systems:

- Windows 95
- Novell Server 3.x and 4.x
- Novell ODI Workstation
- Windows for Workgroups 3.11
- Windows NT 3.51
- Packet Drivers

Installation Notes

Installing the drivers and utilities is only necessary if either of the following two conditions are true:

1. You are operating in a non Plug and Play environment. You should then install the configuration utility BENCDFG.EXE.
2. You want to install high-speed drivers for Novell Client ODI, Novell Server drivers, or packet drivers.

NOTE: For operating systems such as Windows 95, Windows for Workgroups 3.11, and Windows NT, drivers are installed via a facility in the operating system. You will need to follow the instructions in this manual, as well as those supplied in your network operating system documentation.

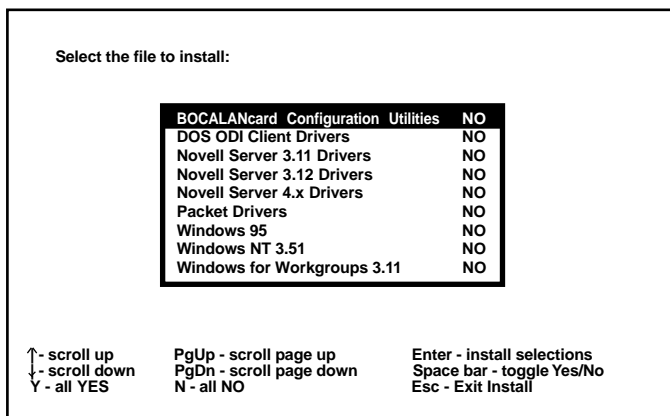
High-speed drivers for the BOCALANcard 2000 Plus for these operating systems are provided in the following subdirectories on the driver diskette as listed below.

Windows 95 \WIN95 (see Appendix E)
Windows NT \WINNT
Windows for Workgroups \WFW311

To start installation, type **A:\INSTALL** (or **B:\INSTALL**) and the following introductory screen is displayed. **NOTE: Make sure you have exited Windows completely before starting the installation.**



This program installs the BOCALANcard 2000 Plus configuration utility and drivers on your computer. Press the escape key [ESC] at any time to abort the installation. Each question has a default answer. If the default is correct, press ENTER in response. Otherwise, type the correct answer and press ENTER. If you make a mistake, press the BACKSPACE key and retype the answer. The Installation Option screen then appears:



The choices are as follows:

- BOCALANcard Configuration Utilities
- DOS ODI Client Drivers
- Novell Server 3.11 Drivers
- Novell Server 3.12 Drivers
- Novell Server 4.x Drivers
- Packet Drivers
- Windows 95
- Windows NT 3.51
- Windows for Workgroups 3.11

Configuration

Configuration is “automatic” when running a Plug and Play system. Otherwise, the BOCALANcard 2000 Plus is configured with the BENCFG.EXE program, which is installed when you select “BOCALANcard Configuration Utilities” from the installation menu. The card can operate in one of two modes:

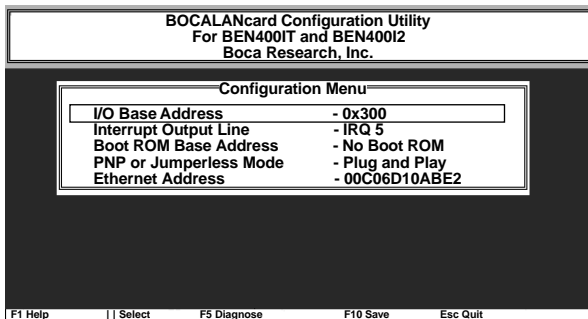
1. Non Plug and Play Systems:

- Software-configurable by the BENCFG.EXE program (jumperless), or

2. Plug and Play Systems:

- Plug and Play Mode (factory default). If you have Plug and Play running or installing BENCFG.EXE is NOT necessary.

When you run BENCFG.EXE, the following main selection screen is displayed:



The options are summarized as follows:

I/O Base Address: Changes the board's I/O address when in "jumperless" mode.

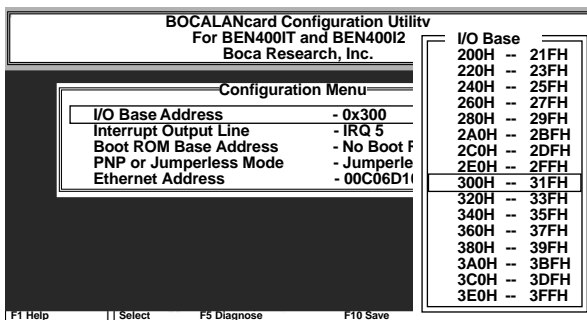
Interrupt Output Line: Changes the board's IRQ when in "jumperless" mode.

Boot ROM Base Address: Specifies Boot ROM options or no Boot ROM.

PNP or Jumperless Mode: Specifies Plug and Play or jumperless mode.

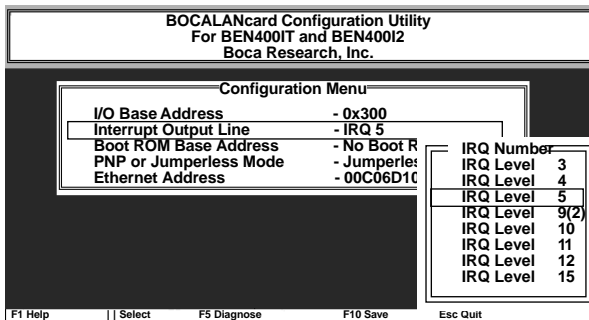
Ethernet Address: Displays the IEEE Ethernet address assigned to the board (this is never user-configurable).

I/O Base Address



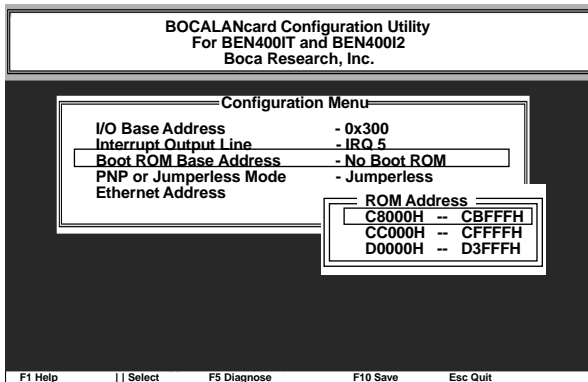
The BOCALANcard 2000 Plus can operate in a range from 0200h to 03E0h, requiring an address window of 1Fh. If the board is in Plug and Play mode, you will not be able to change the I/O address because the Plug and Play configuration is responsible for the configuration of Plug and Play boards. Also, if the board is in non Plug and Play (or “jumperless” mode), the BENCFG.EXE program determines which I/O addresses are in use by other devices and “grays” out (disables) these choices.

IRQ



The BOCALANcard 2000 Plus can operate with the following IRQ settings: 3, 4, 5, 9(2), 10, 11, 12, or 15. Note that most secondary IDE hard-disk controllers operate on IRQ15, so if the system is not a “diskless workstation”, IRQ15 should be avoided.

BOOT ROM BASE ADDRESS



The BOCALANcard is compatible with an NE2000-type Boot ROM. Refer to the documentation provided with your boot ROM for configuration instructions. Do NOT enable this option unless there is a boot ROM present. The default setting is NO BOOT ROM.

PNP OR JUMPERLESS MODE

This selects the operating mode of the BOCALANcard 2000 Plus: PNP (Plug and Play) or Jumperless (configured by BENCFG.EXE).

- 1. If either your BIOS is Plug and Play, or you have Windows 95,** do not install the BOCALANcard Configuration Utility. Leave the card in the default Plug and Play mode.
- 2. If you neither have Windows 95, nor is your BIOS Plug and Play,** then you must install the BOCALANcard Configuration Utility. Run BENCFG and set the mode to “jumperless”. Press **F10** to save changes made in BENCFG.

Notes on Using the BOCALANcard 2000 Plus in Plug and Play Mode without Using a Plug and Play Operating System

It is possible to use the BOCALANcard 2000 Plus in Plug and Play mode without using a Plug and Play operating system. Your operating system vendor may provide software utilities to do so. For example, Intel Corp. provides the “ISA Plug and Play Kit” for MS-DOS type computers. These utilities configure the BOCALANcard when in Plug and Play mode. The BENCFG program can report how the utility configured the card (I/O Address, IRQ) so that you can set up your operating system accordingly.

Section Three: Troubleshooting

If you encounter difficulties with your BOCALANcard 2000 Plus, the problem may be a faulty installation or configuration settings which conflict with other devices. Check the following:

- **STATUS LEDs.** The BOCALANcard 2000 Plus has two LEDs that are visible from the rear of the board. These status indicators show whether or not the cable is connected along with transmit/receive activity.

GREEN: Link/Receive Status

RED: Transmit Status

Power on the system, connect the network cable, and observe the LEDs. The green LED shows that it is connected with another 10Base-T transceiver. If the green light is ON, then the system is connected to the network. If the green light is flickering, the system is connected to **and** receiving data from the network. See charts explaining LED status on next page.

Using RJ45 with connection type set to Auto (default) or RJ-45

LIGHT	CONDITION	STATUS
GREEN	ON	LINK established
	OFF	No LINK established
	Flickering	Receiving data from network
RED	ON	BOCALANcard NOT transmitting data to network.
	Flickering	BOCALANcard IS transmitting data to network

Using BNC with connection type set to Auto (default)

LIGHT	CONDITION	STATUS
GREEN	OFF	Always off.
RED	ON	BOCALANcard NOT transmitting data to network.
	Flickering	BOCALANcard IS transmitting data to network

Using BNC with connection type set to BNC		
LIGHT	CONDITION	STATUS
GREEN	ON	BOCALANcard not receiving data from network
	Flickering	BOCALANcard IS receiving data from the network.
RED	ON	BOCALANcard NOT transmitting data to network.
	Flickering	BOCALANcard IS transmitting data to network

- **BOARD SETTINGS.** If you are using a Novell network, make sure that the settings in the NET.CFG file are correct. Also, when NE2000.COM is executed, NET.CFG must be in the same directory as NE2000.COM.

If you are using another type of network (NDIS, etc.), read the driver installation instructions again to be sure that I/O address and IRQ settings are correct.

Review the installation again and check software setup.

Also make sure that any of the setting selections you have made do not conflict with devices that are currently in your system. You may want to vary the settings on your board to see if it makes a difference. Remember to modify the NET.CFG or your batch files as well.

- **MAKE SURE THAT THE NETWORK YOU ARE CONNECTED TO IS FUNCTIONING.**
- **REPLACE THE ADAPTER WITH ANOTHER KNOWN TO FUNCTION AND TRY TO LOGIN AGAIN.**
- **TRY THE ADAPTER IN A DIFFERENT COMPUTER.**
- **MAKE SURE YOU ARE USING DRIVERS MADE FOR NE2000 COMPATIBILITY.**
- **REFER TO THE README FILE FOR A COMPREHENSIVE LIST OF POSSIBLE ERROR MESSAGES AND SUGGESTED REMEDIES.**

If none of the above isolates and solves the problem, refer to Appendix G: Servicing Your Boca Product.

Appendix A: Specifications

BOCALANcard 2000 Plus (BEN4001T)

- 10Base-T twisted pair transceiver with RJ-45 connector
- 10Base-T operating distance 100 meters (328') maximum hub to node length
- Diagnostic LEDs: link/receive (GREEN LED) indicator and transmit (RED LED) indicator
- Software-Selectable interrupts, memory address, and a base I/O address.

BOCALANcard 2000 Plus Combo (BEN40012)

- All features as listed above plus:
- 10Base2 BNC connector for thin coax
- 10Base2 operating distance: 185 meters (607') maximum hub to node length

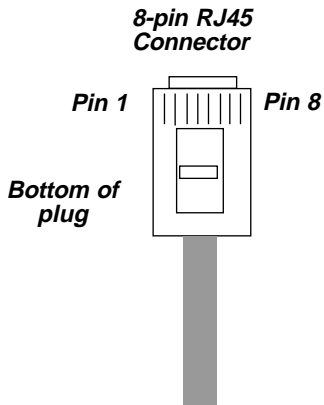
Appendix B: Pin-Out Assignments

Pin-out assignments for the 10Base-T connector are as follows:

8-pin

1	Tx+
2	Tx-
3	Rx+
4	NC
5	NC
6	Rx-
7	NC
8	NC

Boca's Ethernet products use a 8-pin 10Base-T connector.



Appendix C: NET.CFG Options for NetWare

Included on the driver disk in the Novell ODI sub-directory is a file that establishes the base settings for your adapter. This file is called NET.CFG, and is a text file that describes these settings. If a configuration is different from the default settings or if you are using multiple protocols, you need to modify this NET.CFG file. This appendix explains how.

The NET.CFG file is a configuration file that contains section headings and options for the ODI software.

You may also need to see the documentation specific to your protocol for additional NET.CFG information. Use any DOS text editor to modify the file.

Conventions

Main section headings must be left-justified and are not case sensitive. The heading must precede the options you want to include in that section. Options are not case sensitive and must be preceded by a tab or hard spaces.

Precede comments with a semicolon (;). End each line with a hard return. Write all numbers in decimal notation except where noted otherwise.

Options

The following chart lists the driver options defined by the DOS ODI software. The options available for the BOCALANcard 2000 Plus driver and IPX protocol stack are shown in a sample NET.CFG file. Protocol stacks other than IPX may have additional options not listed here. Refer to the other protocol's documentation for more information. In this chart, the main NET.CFG section headings are bold and flush with the left margin. NET.CFG options are listed under each heading and indented.

Link Driver <i>PNPODI.COM</i>
PORT [#1 #2] hex_starting_address [hex_number_of_ports] NODE ADDRESS hex_address SLOT number FRAME frame_type PROTOCOL name hex_protocol_IDframe_type SAPS number LINKS STATIONS number ALTERNATE MAX FRAME SIZE number CONNECTOR DIX INT[#1 #2]channel_number
Link Support
BUFFERS communication_number [size] MEMPOOL number[k]
Protocol <i>protocol name</i>
BIND #board_number

The BOCALANcard 2000 Plus has these NET.CFG options available:

- INTERRUPT#
- NODE ADDRESS
- FRAME
- PROTOCOL (such as IPX)
- PORT

The NE2000 driver requires that the following lines be set accordingly:

```
INT
PORT
FRAME
```

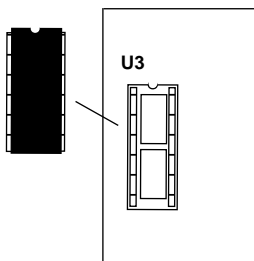
The following figure is a sample of the structure of any given NET.CFG file:

```
LINK DRIVER NE2000
INT X (where X is the interrupt request for the BOCALANcard)
PORT YYY (where YYY is the port address for the
          BOCALANcard)
FRAME ETHERNET_802.3
```

Appendix D: Installing Boot ROMs

Installing the ODI Boot ROM (must be NE2000-compatible)

1. Obtain a boot ROM
2. Put the Boot ROM in the 28-pin socket. Make sure you line up the notch on the Boot ROM with the notch on the socket.
3. To enable the Boot ROM, run the BENCNFG utility. Select Mode Settings, then Boot ROM Enable.



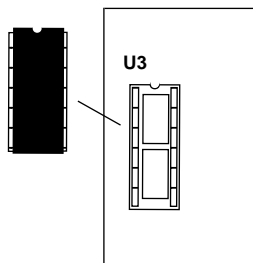
4. The Boot ROM will work only with the following three configurations:

	I/O	INTERRUPT	BOOT ROM ADDRESS
CONFIG.1	300h	3	C800h
CONFIG.2	320h	5	CC00h
CONFIG.3	340h	4	D000h

5. Follow the Boot ROM installation procedure given in the Novell Installation manual to create the Boot Image on the Novell Server.
6. Remove any boot drives from the workstation (A:, C:) and re-boot the system.

Installing the NDIS Boot ROM

1. Obtain a boot ROM.
2. Put the Boot ROM in the 28-pin socket. Make sure you line up the notch on the Boot ROM with the notch on the socket.
3. To enable the Boot ROM, run the BENCFG utility. Select Mode Settings, then Boot ROM Enable.
4. The Boot ROM will work only with the following three configurations:



	I/O	INTERRUPT	BOOT ROM ADDRESS
CONFIG.1	300h	3	C800h
CONFIG.2	320h	5	CC00h
CONFIG.3	340h	4	D000h

5. Follow the LAN Manager server setup procedure for starting remote booting services on the LAN Manager server. Refer to the LAN Manager documentation.
6. Remove any boot drives from the workstation (A:, C:) and re-boot the system.

Appendix E: Windows 95 Full-Duplex Driver

To take advantage of our Windows 95 high-speed full-duplex driver, perform the following steps (**ONLY APPLIES TO FULL-DUPLEX HUBS**).

CAUTION: If you use the full-duplex driver with a half-duplex hub, you may experience diminished performance.

1. With the BOCALANcard 2000 Plus card installed in your system, start Windows 95 as you normally would. The “New Hardware Found” screen is displayed.
2. Select “Driver from Disk Provided by Manufacturer”.
3. Insert the BOCALANcard 2000 Plus Drivers and Utilities diskette into your floppy drive.
4. Enter the path: A:\WIN95 (or B:\WIN95). Select OK.
5. The “Select Device” screen is displayed. Select “BOCALANcard 2000 Plus” and click OK.
6. Next, the BOCALANcard 2000 Plus Properties screen is displayed. Note the following selections under “Property”:

EARLYTRANSMIT (enables early transmit; allows processing of data while still **receiving** data from the network, increasing overall throughput).

EARLYRECEIVE (enables early receive; allows processing of data while **sending** data to the network, increasing overall throughput).

FULLDUPLEX (enables full duplex; allows the BOCALANcard 2000 Plus to transmit and receive data at the same time without causing a collision. This increases bandwidth from 10Mbps to 20Mbps. Note that the use of a full duplex Ethernet switch is required.)

Under “Value”, select Enable for all three of these properties.

7. Select OK. Files are then copied to your system. You will then be prompted for your original Windows 95 CD or diskettes from which files will be copied. When this is complete, you are finished.

Appendix F: FCC Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. 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 instructions, may cause harmful interference to radio communications. Misuse of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

**CHANGES OR MODIFICATIONS TO THIS EQUIPMENT
NOT EXPRESSLY APPROVED BY THE MANUFACTURER
COULD VOID YOUR AUTHORITY TO OPERATE THE
EQUIPMENT.**

Appendix G: Servicing Your Boca Product

If your Boca product requires service, first contact the authorized dealer from whom you purchased the product. If the dealer is unable to assist you, and you must contact Boca Research, Inc., please follow the instructions below. Our electronic BBS is available 24 hours a day at (561) 241-1601 and will support data transmission speeds up to 28.8Kbps with settings of N, 8, 1. If you have a modem, the BBS may be helpful (especially during off hours) if you have a question about product settings or compatibility, or if you wish to download driver software or utilities.

If the Troubleshooting section did not resolve your problem, you may call our technical support staff for assistance. If you haven't referred to the Troubleshooting section, there's a good chance the solution to your problem is there.

NOTE: CALLING TECHNICAL SUPPORT WITHOUT COMPLETE AND ACCURATE INFORMATION CONCERNING YOUR PROBLEM MAY BE BOTH TIME-CONSUMING AND FRUSTRATING FOR YOU.

1. When calling Boca Research Technical Support, have the following information available:

**Board name and part #
(located on the board)
Computer manufacturer
Computer model
Peripherals in system
Operating system and version**

If you suspect a problem with a specific program or software package, make note of the name, version or release number, and manufacturer of the software.

2. Call Boca Research Technical Support Department between the hours of 8:00 a.m. and 6:30 p.m. Monday through Friday EST at (561) 241-8088. A technical support specialist will be available to discuss the problem(s) you are experiencing. If factory service is required, you

will be given a Return Merchandise Authorization (RMA) number. **PLEASE PLACE THIS NUMBER ON THE OUTSIDE OF THE PACKAGE** when you return the item(s) for service and reference it on any correspondence included in the package. Boca Research, Inc. will return any product which is not accompanied by an RMA number.

3. Refer to the Warranty Statement if the product is covered under the five-year Boca Research, Inc. Limited Warranty.
4. Certain parts will not be covered under the Boca Research, Inc. Limited Warranty. Dealer installed parts are warranted by the dealer. Parts which you have installed yourself are covered only by the suppliers warranties. In these cases, Boca Research, Inc. can identify which parts are defective, but will not replace such parts until we receive written authorization from you. Cost of parts and labor involved in making such repairs will be billed to you C.O.D.
5. When returning the product to Boca Research, Inc. for repairs, please be sure to include:
 - the **BOCALANcard 2000 Plus (board only)**
 - **your name**
 - **your return street address (for UPS purposes),**
 - **your phone number,**
 - **and the RMA number mentioned above.**

Package the product securely in a container equivalent to the original packaging, and insure the package to protect against loss or damage during transit. Shipping charges must be prepaid; C.O.D. shipments will not be accepted. Please use the address below for all correspondence:

Boca Research, Inc.
RMA Department - RMA # _____
1601 Clint Moore Road
Boca Raton, FL 33487-2841

6. If the repairs performed on your product were covered by the warranty, Boca Research, Inc. will return it prepaid via UPS.

Appendix H: Warranty

Boca Research, Inc. (BRI) warrants to the original buyer of this BRI product that the hardware is free of defects in materials and workmanship for a period of five (5) years from the date of purchase from BRI or an authorized dealer ("the Warranty Period"). Should the product fail to be in working order at any time during the five-year period, BRI, will at its option, repair or replace this product as described below, provided that in BRI's sole determination the part or product has not been abused, misused, repaired, or modified.

All products will be serviced and returned via ground at no charge to customers.

All returns for limited warranty service require a Return Merchandise Authorization (RMA). All customers are required to demonstrate proof of purchase when requesting an RMA. The period of warranty commences on the date of purchase. A dated copy of the sales slip must be included with the returned merchandise.

Products which require Limited Warranty service during the warranty period should be delivered to BRI at the address in the Appendix (Servicing Your Boca Product) with proof of purchase, copy of canceled check (if any), and the Return Merchandise Authorization (RMA) number provided by BRI Technical Support. Refer to the Appendix in this manual. Replacement parts or complete products will be furnished on an exchange basis only. Replaced parts and/or products become the property of BRI.

If the returned product is sent by mail, the purchaser agrees to prepay shipping charges, insure the product or assume the risk of loss or damage which may occur in transit, and to use a shipping container equivalent to the original packaging. BRI does not make any warranties in respect to the product, either expressed or implied, including no implied warranties of merchantability or fitness for a particular purpose, except as expressly provided in this agreement. If any labor, repair, or parts replacement is required because of accident, negligence, misuse, theft, vandalism, fire, water or other peril; or because of conditions outside of specifications, including, but not limited to, electrical power, temperature, humidity or dust; or by moving, repair relocation, or alteration not performed by BRI, or by any other cause other than normal use, the warranty and maintenance obligations provided herein shall not apply.

BRI SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR FOR LOSS, DAMAGE, OR EXPENSE DIRECTLY OR INDIRECTLY ARISING FROM CUSTOMER'S USE OF OR INABILITY TO USE THE EQUIPMENT EITHER SEPARATELY OR IN COMBINATION WITH OTHER EQUIPMENT, OR FOR PERSONAL INJURY OR LOSS OR DESTRUCTION OF OTHER PROPERTY, OR FROM ANY OTHER CAUSE.

This warranty shall not be applicable to the extent that any provision of this warranty is prohibited by any Federal, state, or municipal law which cannot be preempted. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Publication Date: July, 1996

Printed in the U.S.A.

BEN400T2.PM5



Manual Part # 9491
Rev. 1.1