

EXHIBIT 4

User Manual

USER's MANUAL

10/100Mbps Dual Speeds
Fast Ethernet
PC Card Ethernet Adapter

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**Abocom Systems Inc Ethernet PC LAN
Card, Model FE-500A
FCC ID: MQ4FE1500A**

**Instruction Manual
Federal Communication Commission Interference Statement**

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 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.

FCC Caution: To assure continued compliance, use only the provided media coupler interface cable with RJ45 connector for connection to local area network. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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1. INTRODUCTION

ABOUT THIS MANUAL

This manual will explain how to install and use your 10/100Mbps dual speeds Fast Ethernet PC Card. The following guideline will help you through the installation process.

How to install the Card and Connect it to network

→ Chapter 2. Hardware Installation

How to install the network driver

→ Chapter 3. Software Installation

How to do trouble shooting

→ Chapter 4. Questions and Answers

Detail Specification

→ Appendix A Specifications

SYSTEM REQUIREMENTS

- An IBM compatible notebook computer with 386SX or faster processor
- At least one type II PC Card socket
- Drivers and utilities provided with this product
- PCMCIA release 2.1 compliant Card Services and Socket Services 100Base-TX Fast Ethernet or 10BaseT Ethernet connectivity to your local area network.

OPERATING ENVIRONMENTMENTS

- Novell Netware 3.x, 4.x
- Microsoft LAN Manager

- Packet Driver Applications
- Microsoft Windows for Workgroups 3.11
- Microsoft Windows 3.1
- Microsoft Windows NT 3.51, NT 4.0
- Windows 95
- Windows 98
- Windows 2000
- Lantastic 6.0
- IBM OS/2 Warp Version 3

CONTENTS IN THE PACKAGE

- Fast Ethernet PC Card Adapter
- Media coupler with single RJ-45 connector for 10BASE-T and 100BASE-TX network.
- 3.5" driver diskette
- User's Manual
- Plastic protection case for base PC Card

2. HARDWARE INSTALLATION

This chapter describes how to install the dual speeds Fast Ethernet PC Card in your notebook computer and connect it to network. It's referred to "the PC Card" in this manual.

The PC Card could be connected to either 100Mbps Fast Ethernet or 10Mbps Ethernet over unshielded twisted pair (UTP) cable. The PC Card have the ability automatic sensing and operating on either speed without manual reconfiguration.

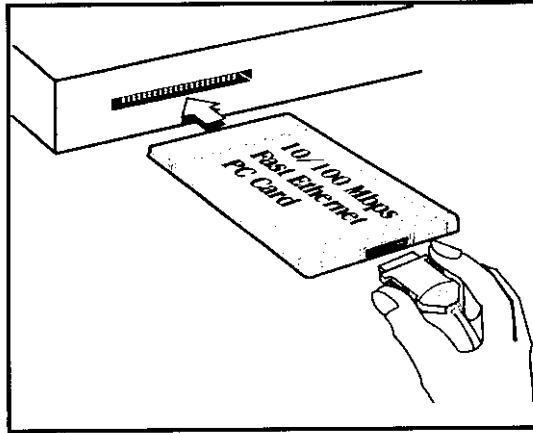
Please refer to **Chapter.3 Software Installation** on how to install network drivers using menu driven installation utility.

Inserting the Dual Speeds Fast Ethernet PC Card

1. Hold the PC Card with wide connector toward the slot and the brand label facing upward.
2. Insert the PC Card and push it firmly into the bottom.
(Please see the figure on the next page for reference)

Removing the Dual Speed Fast Ethernet PC Card

It's quite different for various computer mechanical design. Please refer to the PC Card removal instruction in the document for your notebook computer.



Connecting and Removing the Cable of Media Coupler to the PC Card

Grasp the PC Card 15-pins connector at the end of the media coupler with the pointing triangle facing upward. Gently insert it into the mating connector on the PC Card until it clicks in place at both sides.

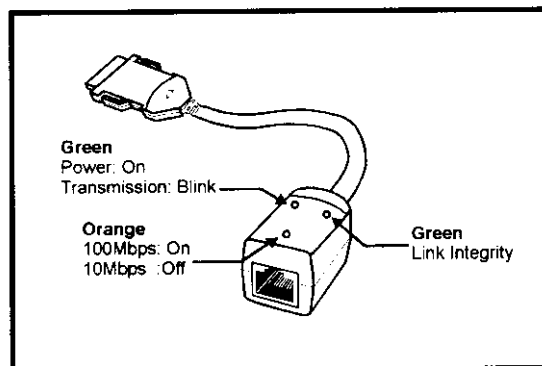
Attention should be paid when removing the 15-pins connector. Please press the both sides of the connectors before dragging out of the PC Card.

Connecting to the Network

Connect unshielded twisted pair (UTP) cable to the RJ-45 connector of media coupler before loading any network driver.

- For operation in the 100Mbps (100Base-TX) Ethernet network, a Category 5 unshielded twisted pair (UTP) cable should be used to connect between media coupler and 100Mbps hub or switch.
- For operation in the 10Mbps (10Base-T) Ethernet network, Category 3, 4 or 5 unshielded twisted pair (UTP) cable could be used to connect between the media coupler and a 10Mbps hub or switch.

LED Indicators



APPENDIX A. SPECIFICATIONS

Network Interface Specifications

- ◆10Mbps Ethernet: IEEE 802.3 standard 10BaseT baseband CSMA/CD local area network.
- ◆100Mbps Ethernet: IEEE 802.3u standard 100Base-TX baseband CSMA/CD local area network.
- ◆20/200Mbps full duplex support
- ◆Autonegotiation between all four operation modes.

Host Interface and Physical Specifications

- ◆PCMCIA 2.0/2.1 and PC Card Standard compliant.
- ◆Type II PC Card
- ◆3.37" x 2.128" x 0.197" (86mm x 54mm x 5.0mm)
- ◆30gw in weight

Operating Environments

Novell Netware 3.x, 4.x
Microsoft LAN Manager
Packet Driver Applications
Microsoft Windows for Workgroups 3.11
Windows 3.1
Microsoft Windows NT 3.51, NT 4.0
Windows 95
Windows 98
Windows 2000
Lantastic 6.0
IBM OS/2 Warp Version 3

Power Requirements:

◆ Normal Operation: +5V DC, 250mA max

General Specification

LEDs: Link Integrity, Power / Activity, 10/100Mbps

Enviroments Ranges:

Operating: 32°F to 149°F (0°C to 65°C)

Storage: -4°F to 158°F (0°C to 70°C)

Humidity: 10% - 90% , noncondensing

Certifications: FCC, Part 15, Class B

CE Mark (EN55022,ClassB, EN50082-1)