

Trust PCI Ethernet Combi

User's Manual

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Introduction

This manual is a guide to the installation and use of the Trust PCI Ethernet Combi.

Your PCI-based adapter is a high performance Ethernet adapter that is NE2000 compatible. The Ethernet adapter is based upon Industry Standard PCI Local Bus Specification 2.0, that features Plug-and-Play (PnP) functions, making it fully auto-configurable.

The Ethernet adapter offers the network medium selection of 10BASE-T (RJ-45), or 10BASE2 (BNC) connection. It also includes 16K buffer RAM for faster network transmission and reception, and two LEDs for troubleshooting.

The Ethernet adapter includes a complete set of drivers for all popular Network Operating Systems. It is also compatible with all NE2000 drivers supplied by your Network Operating Systems. Especially, the Ethernet adapter is Microsoft Windows 95 compatible. The optional BOOT ROM device allows a diskless workstation to be connected to the network.

Chapter 1 explains how to install the Ethernet Combi.

Chapter 2 describes the installation of the drivers and the BOOT ROM installation.

Chapter 3 provides solutions to problems.

Appendix A provides a list of cable specifications and technical specifications.

Chapter 1 - Installation of the Trust PCI Ethernet Combi

This section describes how to install your Ethernet adapter. Perform the following steps to install the adapter.

1. Turn off your computer and all peripherals.
2. Make a note of the cables and cords that are connected to the computer and disconnect them.
3. Remove your personal computer's cover (refer to the owner's manual of your personal computer).
4. Select any available PCI slot, and remove the slot cover.
5. Carefully install the Ethernet adapter into the expansion slot by firmly pressing the card into the edge of the connector slot until the adapter is snugly seated in the expansion slot and fasten the retaining bracket with the screws from the slot cover.
6. Reinstall your personal computer's cover and connect the power cord and all cables.
7. Connect the Ethernet cable to your personal computer.

Note

Systems Requirements: A PC and BIOS that support the PCI Local Bus Specification 2.0.

1.1 Configuration and Diagnostics

Your Ethernet adapter is automatically configured when you power-up your computer. In certain computers, however, you must modify your BIOS by entering your CMOS SETUP utility.

To view the configuration parameters assigned by the BIOS, insert the software diskette into your drive and execute the utility software, EZPCI.

Before you install the drivers and connect the adapter to the network, make sure to run the diagnostics to assure the proper functioning of the adapter.

The diagnostics includes two groups of tests:

1. Card Initialization and Loopback Test
This test comprises a series of tests designed to check Network Controller Registers, on-board RAM, Internal Loopback and Interrupt Generation.

2. Advanced Network Test

This test verifies that the network cable is connected, so that the adapter can transmit and receive data.

The test requires two computers. One computer, configured as the Master, generates and sends test messages. The other computer, configured as the Slave, receives messages and transmits them back to the Master. Results can be viewed on both the Master and Slave computers. A screen menu provides you with the instructions to conduct this test.

Note

Run the Card Initialization and Loopback Test before running the Advance Network Test to ensure that the basic functions of the adapter are working properly.

Chapter 2 - Installation of the drivers

Before you connect your adapter to the network, you have to install the driver first.

The Ethernet adapter is fully NE2000 compatible and can use any NE2000 compatible driver that is included in your Networking Operating System. You can also use the drivers supplied by the software diskette compatible with your Networking Operating System.

The driver for each Networking Operating System is under a separate directory. Each directory includes a README.TXT file to describe the detailed installation procedure. A RELEASE.TXT file under the root directory lists the information of all the available drivers.

2.1 BOOT ROM Installation

The optional BOOT ROM device allows you to connect a diskless workstation to the network. Perform the following steps to install your BOOT ROM device.

1. Insert the BOOT ROM into the socket on the adapter.
2. Execute the EZPCI file to enable the BOOT ROM function by selecting the appropriate BOOT ROM size.
3. Refer to the installation procedure provided by your Networking Operating System. You will find the reference subjects listed under three commonly used Networking Operating Systems.

Novell Netware: DOSGEN

Microsoft LAN MANAGER: Starting remote booting service

3COM 3+ LAN MANAGER: Creating a start-up volume

Chapter 3 - Troubleshooting

This section describes causes of certain failures of the adapter and the actions to be taken to resolve the problems.

PROBLEM	ACTION
PCI scan specified, device not found	Verify that the PCI Ethernet adapter is physically installed properly. Otherwise, replace the adapter.
Connection failure if using an unshielded twisted pair (UTP) cable	Verify that the UTP cable is firmly attached.
Connection failure if using coaxial cable	Verify that the coaxial cable is properly terminated.

Appendix A

A.1 Cable Specifications

The Ethernet adapter has some connector alternatives. Each connector requires a different cable. This section describes each cable's specification.

* Cable for RJ-45 connector for 10BASE-T network

Cable type:	UTP with 2 twisted pairs of 22, 24 or 26 AWG
Twists per foot:	2 to 3 (min.)
Nominal impedance:	100 Ω
Maximum cable length:	300"(100 m)
Maximum Attenuation:	8 to 10 dB per 100 m at 10Mz

* Cable for thin coaxial BNC connector for 10BASE2 network

Cable type:	RG-58A/U or RG-58C/U
Minimum distance:	0,5 m (between two nodes)
Maximum segment length:	185 m
Maximum nodes per segment:	30

Note

The coaxial cable must be terminated by a 50 Ω terminator at both ends.

A.2 Technical Specifications

IEEE 802.3 Standard:	10BASE-T, and 10BASE2
Wiring connector:	RJ-45 and BNC
Bus Characteristics:	32 bits; PCI Local Bus Specification 2.0
I/O address:	Being assigned by the BIOS to a free I/O address block
IRQ line:	INTA; being assigned by the BIOS to a free IRQ (interrupt) number
RAM buffer:	16 KB
BOOT ROM Size:	8 KB, 16 KB, and 32 KB
Dimensions:	5.20" x 3.27"
Power Consumption:	430 mA, at 5V
Operating Temperature:	0 to 55 °C
Operating Humidity:	10 to 90 %, non-condensing