

Trust PCI Ethernet Card 100MB

User's Manual

version 1.0/ digital

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Preface

This manual is intended to be used by persons with some experience in the use and installation of computer networks.

You will require the manual supplied with your network, or the help of your network administrator, as well as a working knowledge of the English language.

Conventions observed in this manual

<key> You are required to press the indicated key. The name of the key is shown between angle brackets.

'System' This indicates a specific term used by a program. These refer to terms as used by, e.g. Windows.

Introduction

Congratulations! By purchasing the Trust Fast Ethernet Card 100MB you have obtained an advanced product that will enable your network to operate at the fastest possible speed.

The Trust Fast Ethernet Card 100MB is compatible with both classic 10 Mb and fast 100 Mb networks. The correct speed is automatically set, so you can upgrade your network to 100 Mb step by step if you wish.

The Trust Fast Ethernet Card 100MB can simultaneously transmit and receive data (full duplex) via compatible networks. This function is also set automatically if the network supports this option.

The Trust Fast Ethernet Card 100MB is suitable only for linking a computer with a LAN of the Ethernet type using UTP or STP wiring with a length of no more than 100 metres in an office environment.

You will need the following to use the Trust Fast Ethernet Card 100MB:

- an AT compatible computer with a free PCI slot and at least one other computer fitted with a network card to connect to;
- an operating system suitable for network use. Please refer to the specifications in Appendix A for a list of compatible operating systems.

Chapter 1: Safety

Do not service your computer with the power switched on; to avoid personal injury and damage to the equipment, make sure the power plug is disconnected from the mains supply.

Your computer should be connected to a suitable earthed power outlet to avoid the risk of electric shock and other hazards via the network.

Chapter 2: Description

The Trust Fast Ethernet Card 100MB is a network card suitable for both 10 Mb and 100 Mb Ethernet networks. The Trust Fast Ethernet Card 100MB has no settings that have to be adjusted on the card itself, all settings are made through the software.

At the rear of the card, you will find a number of indicator lights to check the proper connection of the card to the network (see figure 1). These indicators have the following meaning:

Name	Light on	Light off
100M	Fast Ethernet network	Normal network
Full	Full duplex network	Half duplex network
Link	Network connected	No network
ACT	Network active	Network inactive
Col	Collision / much traffic	Little traffic

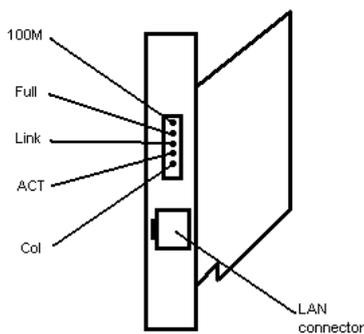


Figure 1 Rear view of the card

Chapter 3: Hardware Installation

You will need a Phillips screwdriver and a small flat-bladed screwdriver.

Take precautions against static discharge when unpacking and installing the product. Static discharge can cause damage to the product. Discharge your body and clothing by touching an earthed object, e.g. the computer case, or perform the installation at an ESD protected workbench.

In addition to this manual, the package should contain the following:

- The Trust Fast Ethernet Card 100MB card;
- a driver disk.

Contact your dealer if any of the above are missing.

Your computer case will have to be opened before the Trust Fast Ethernet Card 100MB can be installed. Make a note of the position of the cables connection to the computer and disconnect the cables. You can now open the computer case.

Caution!

Do not service your computer with the power switched on; to avoid personal injury and damage to the equipment, make sure the power plug is disconnected from the mains supply.

Locate a free PCI slot, remove the slot cover plate, insert the Trust Fast Ethernet Card 100MB in the slot and secure the card with the mounting screw. Most PCI slots have a white connector. ISA type slots, which mostly use black connectors, are unsuitable for the Trust Fast Ethernet Card 100MB.

Refer to the manual supplied with your computer if you are in any way uncertain about how to install expansion cards.

Tip

In many computers the VGA card controlling the VDU also occupies a PCI slot. If you are running Windows 95, do not move this card to a different PCI slot, as this will require reinstallation of the Windows 95 drivers, causing any custom settings you have made for your display to be lost.

Replace the PC case and reconnect all the cables.

Chapter 4: Software Installation - Preparation

4.1 Running the Diagnostics Program

The diagnostics program enables you to make sure the Trust Fast Ethernet Card 100MB is in proper working order. As defects to the Trust Fast Ethernet Card 100MB seldom occur, you do not necessarily have to run this test, in which case you should proceed to Section 4.2.

Follow these steps to run the diagnostics program:

1. Boot your computer under MS-DOS.
2. Insert the Trust Fast Ethernet Card 100MB diskette into drive A.
3. Change drives to A.
4. Type 'INSTALL'. The setup screen will be displayed.
5. Press <Enter>. The menu options screen will be displayed.
6. Select 'Diagnostics programs' from the menu.
7. Press <Enter>. The program will ask for permission to use the 'c:\diag' directory.
8. Press <Enter> to confirm.
9. The system will proceed to install a number of files from disk. When this operation is completed, the program will ask if you want to start the diagnosis.
10. Press <Enter> to start the diagnostics program. A setup screen will be displayed.
11. Press <Enter> for the menu.
12. Make a note of the values for the interrupt and the address. You may require this information later on.
13. Press <Enter> to start the 'Adapter Basic Diagnostics'.
14. The Trust Fast Ethernet Card 100MB will now be tested by the program. Unless you have connected a loop-back cable to the network card, the last test (External Loop Back) will report a failure. You can ignore this error message.

15. Press <Esc> to interrupt the test. The test will not terminate by itself.

4.2 Unpacking the Drivers

If you plan to use a Novell Netware network, proceed to Section 5.1. All other drivers are archived on the diskette in compressed form and will require unpacking. Proceed as follows:

1. Boot your computer under MS-DOS.
2. Insert the Trust Fast Ethernet Card 100MB diskette into drive A.
3. Change drives to A.
4. Type 'INSTALL'. The setup screen will be displayed.
5. Press <Enter>. The menu options screen will be displayed.
6. Select 'Customised Install' from the menu.
7. At the 'All NOS' option, press <Enter> to install every item on the list. The program will ask for permission to use the 'c:\ethpci' directory.
8. Press <Enter> to confirm.
9. The system will now proceed to install a number of files from disk. This may take a couple of minutes.
10. Press <Enter> to exit the installation program.
11. You are now ready to install the drivers for your particular type of network.

Chapter 5: Software Installation

The many different types of network systems on the market and the rapid developments in this field make it impossible to prepare an exhaustive manual that will cover the installation for every type of network system.

The diskette contains English directions for every network operating system. This information can be found in the README file. You will find a file for each of the network systems. This file is located in the same subdirectory as the driver files. The main directory is called c:\ethpci.

5.1 Installing Novell Netware under DOS

A quick installation procedure has been provided for this operating system. To install this, proceed as follows:

1. Boot your computer under MS-DOS.
2. Insert the Trust Fast Ethernet Card 100MB diskette into drive A.
3. Change drives to A.
4. Type 'INSTALL'. The setup screen will be displayed.
5. Press <Enter>. The menu options screen will be displayed.
6. From the menu, select 'Quick Install for Netware'.
7. Press <Enter>. The program will ask for permission to use the 'c:\dos.odi' directory.
8. Press <Enter> to confirm.
9. The system will now ask for some details about your network. Follow the on-screen instructions. If you have any queries, please refer to the Novell manual or contact your system administrator.
10. Some changes will be made to your startup files.
11. Press <Enter> several times to exit the installation program.
12. From the original Netware Workstation diskettes, copy the 'NETX.EXE' program to the c:\dos.odi directory.

5.2 Windows 95

The Trust Fast Ethernet Card 100MB is compatible with the Plug & Play standard, so it will be automatically recognized by Windows 95.

Windows 95 comes standard with drivers for network cards fitted with the same chipset as the Trust Fast Ethernet Card 100MB. Whether the standard drivers can be used depends on your version of the Windows 95 operating system:

- Windows 95 SR1: The Windows driver will not work, so do not attempt to use it. Remove it if Windows 95 installs it automatically.
- Windows 95 SR2: The standard Windows 95 driver work, so you can use it.
- Unknown Windows 95: Follow the rules for Windows 95 SR1.

The installation procedure discussed in Section 4.2 has copied the drivers supplied with the Trust Fast Ethernet Card 100MB to the c:\ethpci\win95 directory. Use the 'Add new hardware' option in Windows 95 to install these drivers. Refer to the README file in the c:\ethpci\win95 directory for further information.

Chapter 6: Troubleshooting

Although the Trust Fast Ethernet Card 100MB is easy to install, setting up a computer for network use is not a simple task. Keep the network manuals at hand.

As the Trust Fast Ethernet Card 100MB can be used in combination with a large variety of network systems, the troubleshooting procedures have necessarily been limited to general guidelines.

6.1 No connection at all

If the computer cannot connect to the server or any other computer, first make sure that:

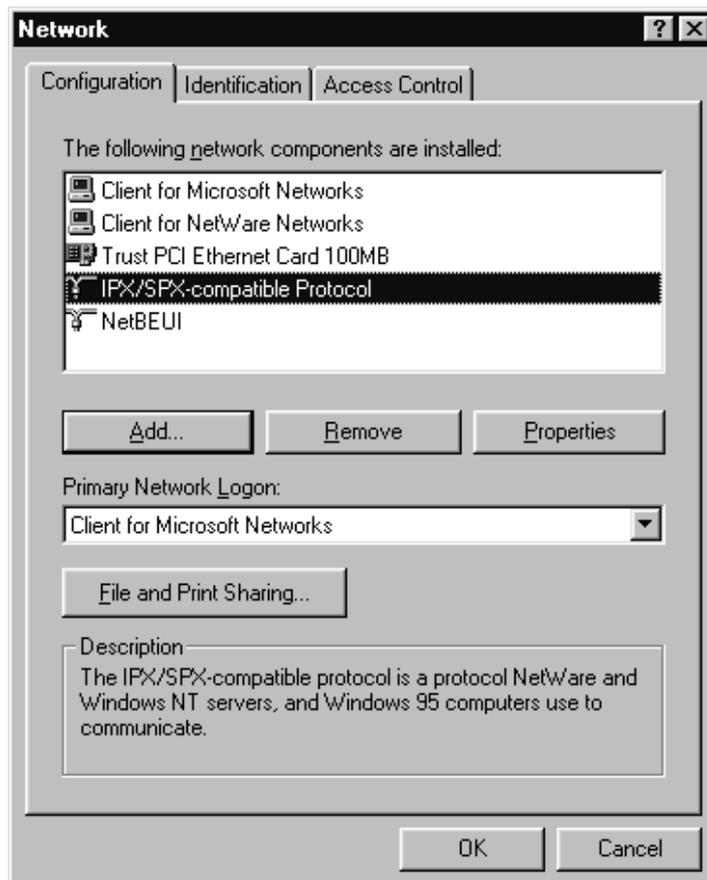
- a) The drivers for the Trust Fast Ethernet Card 100MB have been correctly installed. If the card is out of order, or it is not correctly seated in the expansion slot, the drivers will refuse to load.
- b) The correct drivers have been selected for the network you plan to use. Contact your system administrator for information about the network.
- c) The correct values have been entered for the packet type and the IP address.
- d) The plug of the network cable is pressed well home in the connector of the Trust Fast Ethernet Card 100MB.
- e) The network junction box is working. Try connecting using a different workstation connected to the same junction box .
- f) The connection is run through a Hub. UTP or STP cable cannot be linked directly between two computers.
- g) Windows 95 has not been started in the 'Command prompt only' mode. In this mode, the Windows 95 drivers no longer work. If you want to use the network in this mode, install the DOS drivers.

6.2 No connection under Windows 95

Refer also to the Microsoft Windows manual for further information.

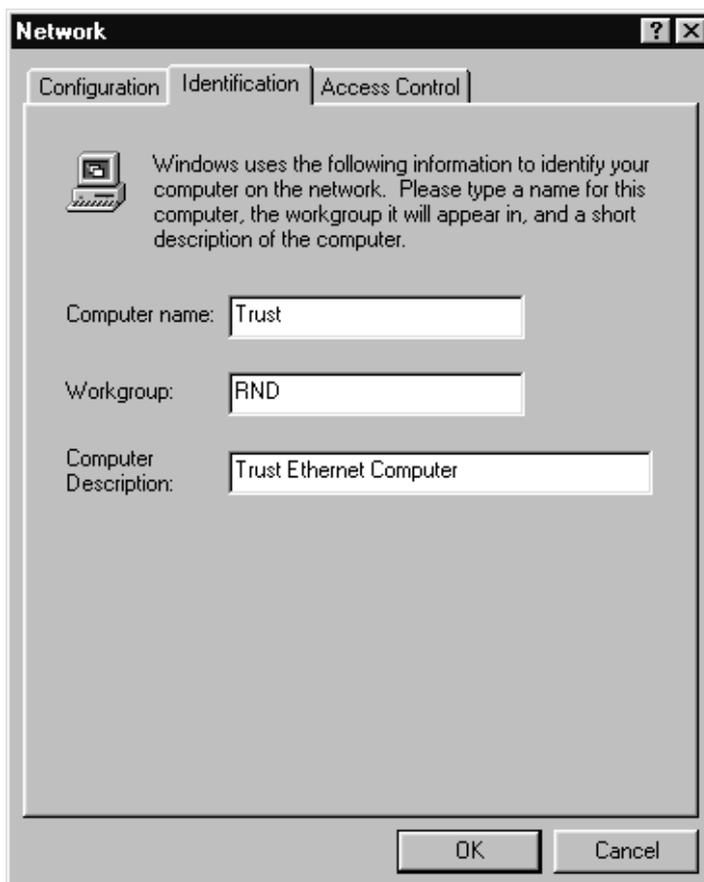
Make sure:

- a) The NETBEUI protocol and the 'Client for Microsoft networks' have been loaded. Check the network properties. These components are required to obtain a connection. If necessary, add these components by clicking on the 'Add' with the mouse.



- b) the NETBEUI protocol has been bound to the Trust Fast Ethernet Card 100MB driver. Select 'Bindings' in the network properties. This is required only if the link has been manually broken. During the installation of a new network card, Windows 95 will automatically set up this link.

- c) The name for the workgroup is the same for both systems. The workgroup name you enter must be known to the server. If necessary, change the name. Consult your network administrator if you do not know the name of your workgroup. The workgroup name cannot be the same as any other computer name in the same network.



6.3 Novell Netware server not found

Make sure:

- a) The correct 'packet' type has been selected. Most Novell Networks use Ethernet_802.3. Contact your system administrator for information about the correct 'packet'-type.

- b) The 'IPX/SPX protocol' and the 'Client for Novell Networks' have been loaded under Windows 95.

Appendix A: Technical Specifications

Settings:

Plug & Play for Windows 95.

EEPROM configuration for non-PnP-systems.

Network Type:

Compatible with normal Ethernet 10 Mb and Fast Ethernet 100 Mb following the 100TX standard.

Slot:

PCI, 32-bit.

Performance Improvements:

- Full Duplex
- PCI Bus Master
- Automatic selection of fastest connection

Media Connection

- RJ45 using class 5 cable (STP/UTP) for 100 Mb
- RJ45 using class 3, 4 or 5 cable (STP/UTP) for 10 Mb

Marks of Approval:

CE mark, EN-55022 class B and EN-50082-1

Indicator lights:

5 lights: 100/10 Mbps, Full/Half duplex, Link, Active (data) and Collision

Operating system	Driver
• D-Link LANsmart	• NDIS driver
• D-Link TCP/IP for DOS	• MS LAN Manager
• Novell Netware 3.x and 4.x ODI driver	• WIN/TCP Pathway Access for DOS
• Packet driver	• IBM PC LAN Support Program
• FTP PC/TCP	• IBM LAN Server
• SUN PC-NFS	• DEC Path Works
• 3COM 3+Share	• Banyan VINES
• NetBIOS Driver	• 3COM 3+Open
• WINDOWS NT	• Unixware
• Windows NT Advanced Server	• SCO UNIX
• Windows 95	• AT&T UNIX
• SCO Open Server	• Solaris UNIX
• Winsock	• NCSA