Chapter 1   Introduction

The GE200011 Series are 16-bit Jumper & Jumperless Novell NE2000 compatible Ethernet adapters designed for users to connect IBM PC/XT/AT and its compatible computers to an IEEE802.3 Ethernet network. The GE200011 Series includes the following three models:

*GE2000ll-2 : Supports both RJ-45 phone jack & BNC connectors for IOBASE-T UTP cable and 1 OBASE-2 thin coaxial cable connections.

* GE2000ll-CX : Supports BNC connector for 10BASE-2 thin coaxial cable connection.

*GE2000ll-TP : Supports RJ-45 phone jack connector for 1 OBASE-T UTP cable connection.

(All of these three models support an AUI expension connector for an optional AUI expension cable)

Features 8 Benefits

The GE200011 series allow users to configure the hardware by using either jumper or software. The auto-setup feature makes the card "plug & play". 8 interrupts and 8 I/O addresses are supported to increase the flexibility of the hardware installation. It is also equipped with 16KB SRAM on-board data buffer, socket for an optional 8KB remote boot ROM. In addition, it provides comprehensive driver supports for those most popular network operating systems (NOS) such as, NetWare, Personal NetWare, LAN Manager, WFW, and TCP/IP. Diagnostic program is provided for detecting hardware configuration / connection / operation failure.

The major features and benefits of GE200011 Series are summarized as follows:

- Conforms to IEEE802.3 CSMA/CD Ethernet standard
- Fully Novell NE2000 compatible
- Configuration by jumers or software (Jumperless mode)
- Auto hardware configuration through auto-setup program
- Auto-dectection for 8/16-bit bus interface and media type
- Supports 8 interrupts, and 8 I/O Addresses
- Provides 16K data buffer
- A boot PROM socket available for optional 8 KB remote boot PROM
- Provides IPX & ODI drivers for NetWare and Personal NetWare, NDIS driver for IAN Manager, Windows for Workgroups, and Packet driver for TCP/IP
- Expension slot available for optional AUI connector
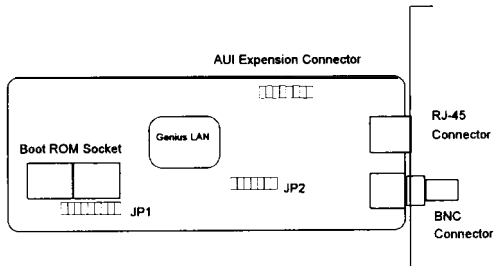
Location of Components

Figure 2. GE2000II-2 *Component*

Jumper Description

Jumper	Description
JP1	Selects Jumperless mode or Jumper mode and its IRQ line
JP2	Selects I/O address, Boot ROM enable and address

JP1
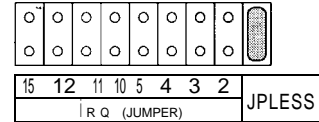
Figure 3. Jumper 1

JP2

Figure 4. *Jumper* 2

Capter 2   **Hardware Installation**

The hardware installation requires the following two steps:

- Adapter Configuration
- Adapter Installation
- Adapter Diagnostic

Adapter Configuration

This GE200011 LAN adapter supports both software configuration (Jumperless mode), and the jumper setting (Jumper mode). Both configuration modes are described as follows:

Jumperless Mode Configuration

GE200011 is by default set at jumperless mode (IRQ=3, I/O address:300H), users can configure the LAN adapter by using the software. There are two steps to configure LAN adapter: Step 1. set JP1 on "JPLESS", Step 2. run SETUP program.

Step 1. Set JP1 on "JPLESS":

Figure 5. Jumperless mode setting

Then, user can start to install the LAN adapter into PC and run SETUP program to configure the hardware (Please refer to Adapter Installation for the procedure of installing the LAN adapter)
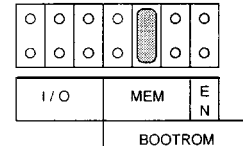
Step 2. Run SETUP Program

To run SETUP program in the DOS prompt, please locate the prompt under A:\SETUP subdirectory and type:
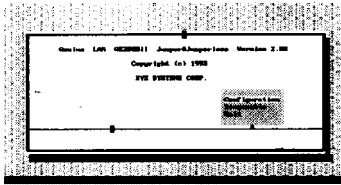A:>SETUP [↵]

Figure 6. Setup Program

To configure the LAN adapter, please select "Configuration" and **press[↵]** and the program begins.

Auto Setup

GE2000II provides auto-configuration function. By selecting this function, the program will automatically detect the available IRQ and I/O, and avoid the potential conflicts in the systems.

Manual Setup

Users may configure the adapter by selecting "Manual Setup". The "*" mark shown in the menu means that there is a potential conflict, and you can not use that address.
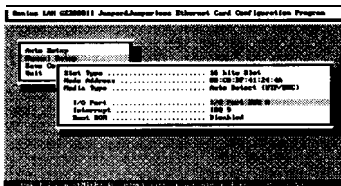

Figure 7. Manual Setup

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Save Configuration

After comoletina the setuo oroaram. users MUST select "Save Configuration" to save the selection and reboot PC system again by truning OFF/ON power switch.

Jumper Mode Configuration

If jumper configuration is used, the following jumper settings (JP1 and JP2) are required:

I. JP1 Setting (IRQ Setting)

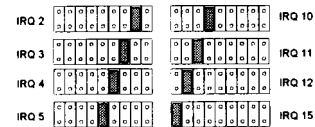Remove jumper from "JPLESS" position and put it to the IRQ position which is selected.

Figure 8. IRQ Jumper setting

II. JP2 Setting (I/O, Boot ROM, Memory address setting)

I/O Address Setting
GE200011 is factory-set to use I/O address 300H. If address 300H is occupied by other hardware, please change the setting on JP2 to another address. The figure below shows the settings.
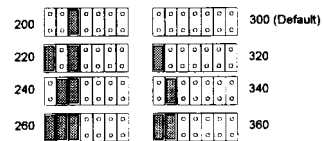

Figure 9. I/O Jumper setting

2-3

Boot ROM Usage and Memory Address Setting
An optional boot ROM is available to be installed on the
adapter. JP2 is by default set to Boot ROM disable. If a
boot ROM is installed on the adapter, move the jumper to
the appropriate address as the following figure shows.

Figure 10.   Boot ROM Usage setting

Figure I 1.   Memory Address Setting

Adapter   Installation

In order to prevent any possible damage, please follow the
procedure below to install the adapter:

1. Turn off the power of PC and unplug its AC power cord.
2. Remove the cover of the computer's chassis.
3. Plug the adapter into an available ISA bus slot.
4. Secure the adapter in the slot by tightening the screw on
   metal mount to the back of the PC's chassis.
5. Replace the cover of the PC's chassis.

6. Connect the adapter to the network using thin or twisted-
   pair Ethernet cable. (an optional AUI expansion port is
   available for thick Ethernet cable). A 50-ohm terminator
   (not supplied) is required when the BNC T-connector is
   located at the end of a RG-58 coaxial cable segment.

Figure 12. Network Installation

Adapter Diagnostic

In the main menu screen of the setup program, the user
could move cursor to Diagnostic, and press [J] to execute
adapter diagnostic program.

Figure 13. Adapter Diagnostic

The following selections are available:

Hardware Configuration	To show the hardware configuration such as adapterID, I/O address, and **IRQ**
Transmit / Receive Test	When the product transmits or receives a packet in the network, the transmit or receive counter will be increased.
Cable Test	To check the -cable status. If the cable is not connected properly, cable fault signal will appear on screen.
Reconfiguration	To reconfigure your adapter if you need to.

Chapter 3   Driver Installation

The GE200011 series needs software driver programs to work with network operating systems. These programs are loaded on the diskette contained in the GE200011 series package.

Before intalling the driver programs, please make sure the following points:

● The LAN adapter is configured properly either by software or by jumper setting.

● All network cables are well connected and the right cable is used.

The driver diskette contains drivers for most major network environments including Novell's NetWare, Personal NetWare, Microsoft's LAN Manager, Windows for Workgroups, and Packet driver for TCP/IP. Detailed installation steps of each driver program are described in the " READ. ME" file in the related sub-directories.

Appendix A Specifications

Specification

Standard :	IEEE802.3 CSMA/CD Ethernet 10BASE-2 and 1 OBASE-T
Data Rate :	10 Mbps
Hardware :	IBM PC/XT/AT, and compatibles
Interface :	BNC for GE2000ll-CX, RJ-45 for GE2000ll-TP, and both connectors for GE2000ll-2
Expansion :	AUI expansion connector
Interrupts :	IRQ2, 3,4, 5, 10, 11, 12, 15
I/O Address :	200H, 220H, 240H, 260H, 300H, 320H, 340H, and 360H
Data Buffer :	16 KBytes
Boot ROM Address :	C000H to DFFFH
Dimension :	79mm x 185mm
Weight :	IIOg

Operating Environment

Temperature :	0° to 55°C (operating)
	: -10° to 65°C (storage)
Humidity	: 10% to 90% (non-condensing)
Power	: 300mA at+5V

Hardware Certification

- Meets FCC Part 15, Class A requirement

Function Certification

- Novell: "Yes, It runs with NetWare"
- NSTL: "Network Interface Card Stress Test"

Appendix B Warranty

Limitation of Liability

ALL EXPRESSED AND IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE AND ANY OTHER WARRANTY FOR PRODUCTS NOT SPECIFIED ARE LIMITED IN DURATION TO THE APPLICABLE PERIOD AS SET FORTH IN THIS WARRANTY, AND NO WARRANTIES WILL APPLY AFTER SUCH PERIOD.

IF THIS PRODUCT IS NOT AS WARRANTED, YOUR SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT AS PROVIDED HEREOF. ON NO EVENT SHALL WE BE LIABLE TO YOU, THE BUYER, FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA

OR PROFITS OR INABILITY TO SUCH PRODUCT, EVEN IF WE OR AN AUTHORIZED DISTRIBUTOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

Warranty

We hereby warrant this Ethernet GE200011 series products, if properly handled under normal use and only for the purpose it is designed for, to be free of defects in workmanship for LIFE TIME from the date of purchase from an authorized distributor or dealer.

Life-time Warranty

If the product is found to be defective, we will either repair or replace'the product. However, we assure that the expense for workmanship is free for "life-time". Repaired parts and replaced product will be furnished on an exchange basis and will be either new or reconditioned.

This warranty does not include any damage to the product resulting from, but not limited to, accident, disaster, misuse, abuse or modification. We do not warrant that the operation of the hardware will be uninterrupted or error free.

Software Driver

The software driver and reference material are provided "AS IS" without warranty as to their performance, merchantability, or fitness for any particular purpose. However, the diskette containing the software driver is covered by the 90-day warranty, protecting you, the buyer, against failure during that period.

Disclaimer

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FCC Warning

This equipment generates radio frequency energy and, if not installed and used in accordance with the instructions in this manual, may cause interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

This eauioment has been tested and found to be complied with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection aganist such interference when operated in a commercial environment, Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures required to correct the interference.

Table of Contents

Preface

This installation guide provides information on the installation and usage of GE200011 Jumper & jumperless Ethernet local area network adapters. It is divided into three chapters and two appendixes. The following summarizes the contents of the chapters and appendices:

Chapter 1   Introduction
This chapter gives description of the product, including summary of features and benefits.

Chapter 2   Hardware Installation-
This chapter provides the instruction in Adapter Installation, Jumper Mode Configuration, Jumperless Mode Configuration, and Adapter Diagnostic.

Chapter 3   Driver Installation
This chapter tells you how to use the adapter's driver diskette.

Appendix A   Technical Specifications
This appendix lists the technical specification of the product, as well as the application environment and Software, Hardware certifications.

Appendix B   Warranty
This appendix tells the warranty policy of GE200011 series product.

Package Contents

Carefully unpack the package and check its contents against the following checklist:

1. One GE200011 Jumper & Jumperless Ethernet Adapter (GE2000II-2, GE2000II-CX, or GE2000II-TP)

2. One driver diskette

3. Users Manual

4. BNC T-connector (for Models GE2000II-2, GE2000II-CX only)

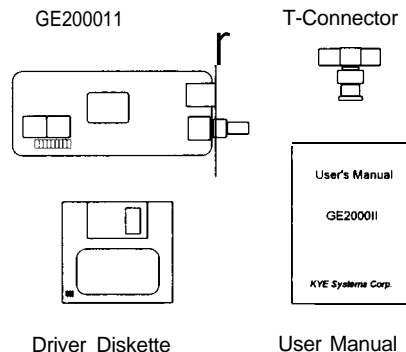If there is any item missed or damaged, please contact your dealer or the place of purchase for repairs.

Figure I. Package content