

NETGEAR®

Copper Gigabit Ethernet Card Installation Guide

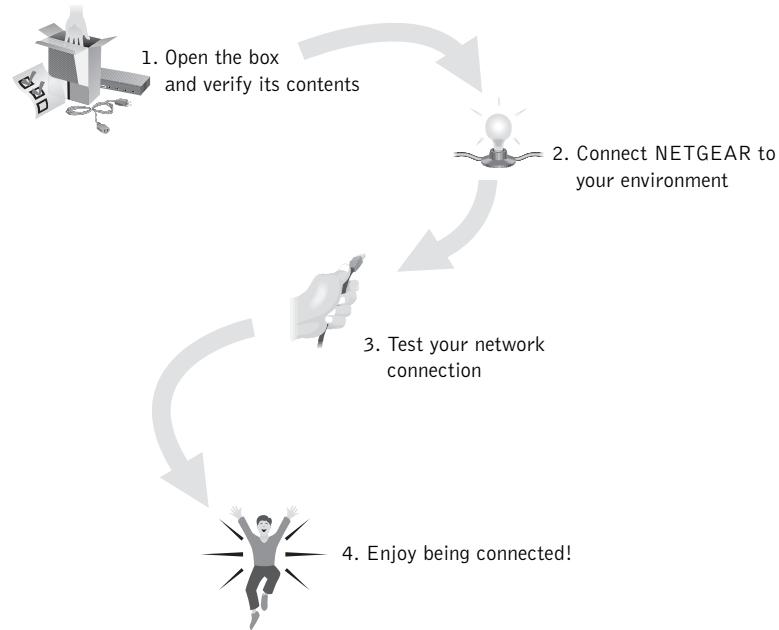
MODEL
GA 622T

Introduction

NETGEAR's GA622T Copper Gigabit Ethernet Card accelerates your network to 1000 Mbps over Cat 5 networking cables and eliminates the problem of network bottlenecks. This high-performance, 100/1000 adapter is ideal for multiple 100 Mbps clients accessing a 1 Gbps server. It comes equipped with drivers supporting all popular operating systems and optimized for peak server performance. The versatile GA622T provides the ultimate throughput with 64-bit PCI connections, and speeds up legacy systems with 32-bit PCI capacity. Simple Plug and Play installation will have your network up and running in minutes.

START HERE

Instructions in this guide are for users of Microsoft Windows Operating Systems.



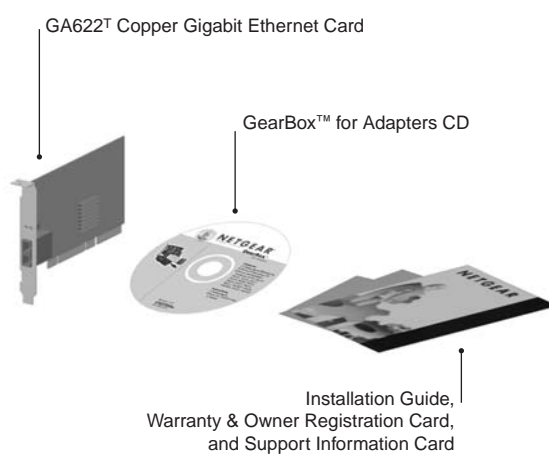
As a last step, be sure to register your Ethernet card at <http://www.NETGEAR.com>.

Plan Your Time

Estimated setup time for this product is only **00:10** minutes.

1 OPEN BOX AND VERIFY CONTENTS

Make sure that your package contains the following:



- GA622T Copper Gigabit Ethernet Card
- GearBox™ for Adapters CD
- GA622T Copper Gigabit Ethernet Card Installation Guide
- Warranty & Owner Registration Card
- Support Information Card

2 CONNECT NETGEAR TO YOUR ENVIRONMENT

Verify Software Requirements

The instructions given in this guide are for using the GA622T Fiber Gigabit Ethernet Card in a Windows XP, Windows 2000 or server that runs the Microsoft® Windows NT® 4.0 operating system. You must have Service Pack 6 installed on your Windows NT server. You can download Service Pack 6 from the Microsoft Download Center at: <http://www.microsoft.com/downloads>

Note: If your server is operating in a Novell® NetWare, or Red Hat® Linux environment, refer to the Reference Guide for the Model GA622T Copper Gigabit Ethernet Card included on the GearBox™ for Adapters CD at path:\GA622T\DOC...

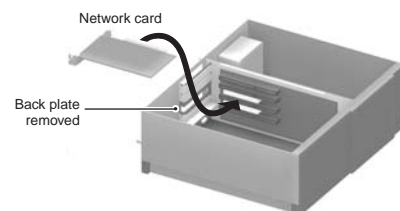
Verify Hardware Requirements

You must have a Microsoft Windows operating system hardware and software requirements, and has an open 32-bit or 64-bit PCI expansion slot with bus mastering capability.

Install the Card

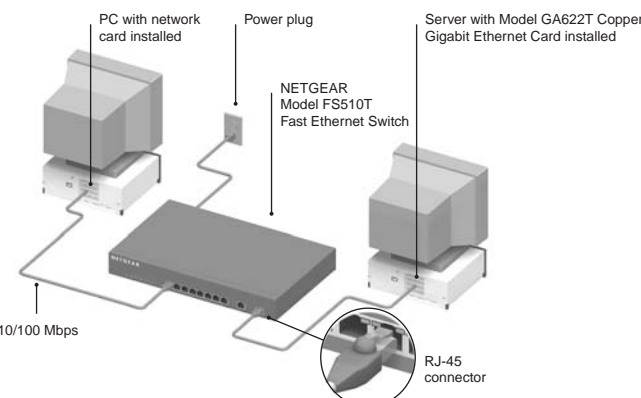
Note: Touch a grounded metal object to free yourself of static electricity before you handle the card.

1. Turn the power off and unplug the power cord from your computer.
2. Remove the PC cover.
3. Choose an available PCI slot (either a 32-bit or a 64-bit slot) and remove the corresponding back plate from the PC chassis.
4. Insert the card into the PCI expansion slot.
- Caution:** To avoid damaging any components on the card, handle it by the edges, using your thumbs to push it securely into the PCI slot. Make sure the card is fully inserted into the slot to prevent the PC operating system from freezing at startup. If you are inserting the card into a 32-bit slot, part of the connector edge on the card remains undocked. This situation is normal and does not affect the operation of the card.
5. Fasten the card to the rear of the computer chassis by tightening the screw that is on the PC.
6. Replace the PC cover and reconnect the power cord to the PC.



Connect the Network Cables

Using the appropriate cable, connect the port on a network hub or switch to the port on the card. The port on the card performs autonegotiation and supports full-duplex operation.



Unshielded Twisted Pair (GA622T)	Category 5 cabling	100 meters max
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3 INSTALL NETWORK DRIVER

This section explains how to install the Network Driver in various Microsoft Windows Operating Systems. Some versions of Microsoft Windows Operating System may respond with different dialog boxes, or the dialog boxes may open in a different sequence than those shown in this guide, but should prompt you for the same information.

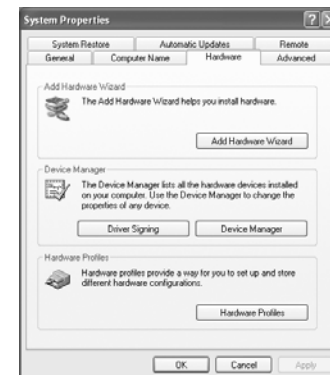
Before you proceed with the installation steps, decide on a name for your network and for each PC. The whole network must have the same workgroup name while each PC must have a unique name. These names can be entered by going to Start>Settings>Control Panel>Network and clicking on the Identification tab. You also need to have the Microsoft Windows Operating System CD-ROM and the GearBox™ for Adapters CD ready to use in the installation process.

Please refer to README file in GearBox™ for Adapters CD and NETGEAR support website for latest FAQ and trouble-shooting information.

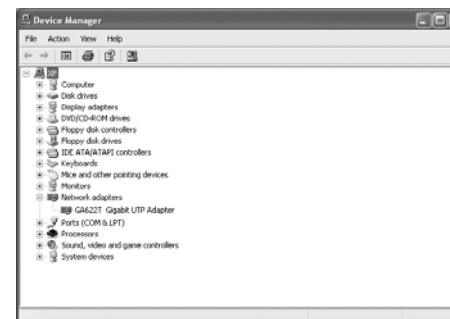
Install the Windows XP Network Driver

Note: If the "Insert Disk" window opens and a message prompts you to insert your Windows CD-ROM at any time during the installation process, insert the Windows CD-ROM in Drive D (the CD-ROM drive) and click on "OK". Then follow the next step in the instructions.

1. Turn on the power to the computer and start Windows XP.
2. Double-click "My Computer" on the desktop, double-click "Control panel" and then double-click "System".
3. Click "Hardware" and click "Device Manager" tab, then double-click "Network adapters".



4. Double-click "GA622T Gigabit UTP Adapter".



5. Click "Driver" and click "Update Driver" tab, then click "OK".



6. A Hardware Update Wizard will appear. Insert the GearBox™ for Adapters CD into your CD-ROM drive. Select "Install from a list or specific location (Advanced)". Click "Next".



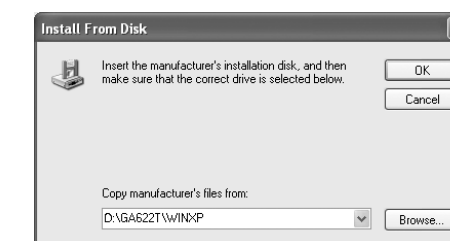
7. When the following dialog box opens, select "Don't search. I will choose the driver to install.", then click "Next".



8. When Select Network Adapter box opens, click "Have Disk" then click "Next".



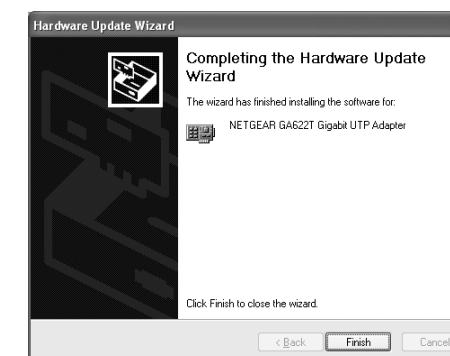
9. The Install From Disk box will open. Type "D:\GA622T\WINXP" and click "OK".



10. "NETGEAR GA622T Gigabit UTP Adapter" will appear in the model list. Click "Next".



11. The next Windows appears with the following adapter name : NETGEAR GA622T Gigabit UTP Adapter. Click "Finish".



12. Remove the GearBox™ for Adapters CD from the CD-ROM drive.

The model GA622T Gigabit Adapter installation for Windows XP is now complete.

Install the Windows 2000 Network Driver

Note: If the "Insert Disk" window opens and a message prompts you to insert your Windows CD-ROM at any time during the installation process, insert the Windows CD-ROM in Drive D (the CD-ROM drive) and click on "OK". Then follow the next step in the instructions.

1. A Found New Hardware Wizard dialog box will appear, indicating that Windows 2000 has found the adapter. Insert the GearBox™ for Adapters CD into your CD-ROM drive. Click "Next".



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Support Information
Phone: 1-888-NETGEAR
E-mail: support@NETGEAR.com
www.NETGEAR.com

See Support Information Card for additional phone numbers.

Internet / World Wide Web

Go to <http://www.NETGEAR.com> for the NETGEAR Web page.
Defective or damaged merchandise can be returned to your point-of-sale representative.

IMPORTANT!

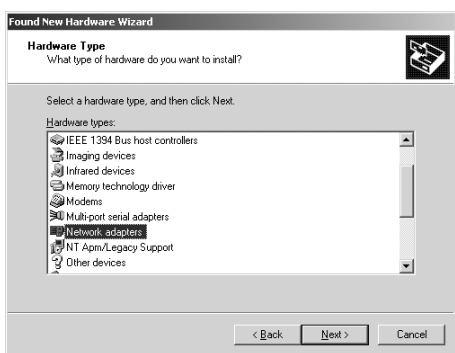
Please register online. YOU MUST REGISTER TO OBTAIN TECHNICAL SUPPORT. PLEASE RETAIN PROOF OF PURCHASE and this warranty information. To register your product, get product support, or to obtain product information and NETGEAR product documentation, direct your Web browser to the <http://www.NETGEAR.com> Web page.



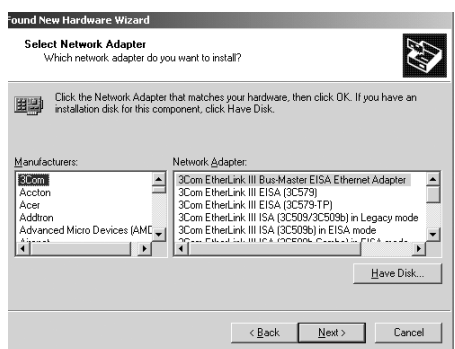
2. The install hardware device drivers dialog box will appear. Select "Display a list of the known drivers for this devices so that I can choose a specific driver". Click "Next".



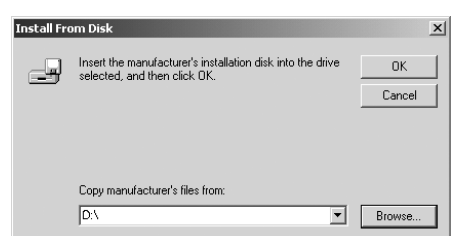
3. The Hardware Type dialog box will appear. Select " Network Adapters" then click "Next".



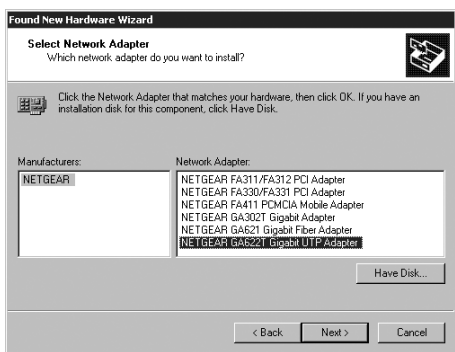
4. When the Select Network Adapter box open, click "Have disk" then click "Next".



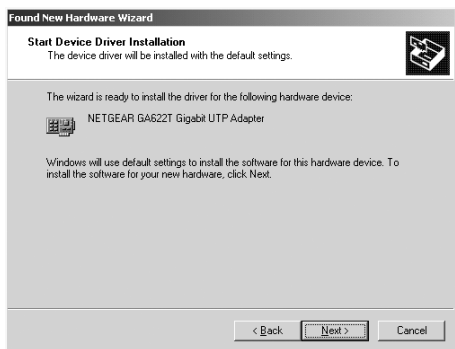
5. Insert the the GearBox™ for Adapters CD into your CD-ROM drive. In the Install From Disk box, type "D:\." and click "OK".



6. Highlight the "Netgear GA622T Gigabit UTP Adapter" in the model list. Click "Next".



7. When the dialog box open, click "Next".



8. Digital Signature Not Found dialog box may appear. Click "Yes".

9. The next Windows appears with the following adapter name : NETGEAR GA622T Gigabit UTP Adapter. Click "Finish".



10. Remove the GearBox™ for Adapters CD from the CD-ROM drive.

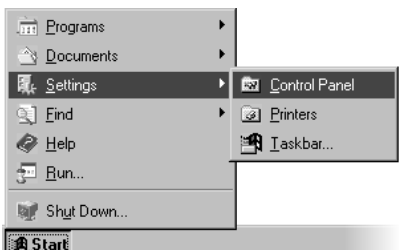
The Model GA622T Gigabit Adapter installation for Windows 2000 is now complete.

Install the Windows NT Network Driver

Note: If the "Insert Disk" window opens and a message prompts you to insert your Windows CD-ROM at any time during the installation process, insert the Windows CD-ROM in Drive D (the CD-ROM drive) and click on "OK". Then follow the next step in the instructions.

1. Turn on the power to the computer and start Windows NT.

2. From the Windows desktop menu, click the "Start" button, point to "Settings", and then click "Control Panel".



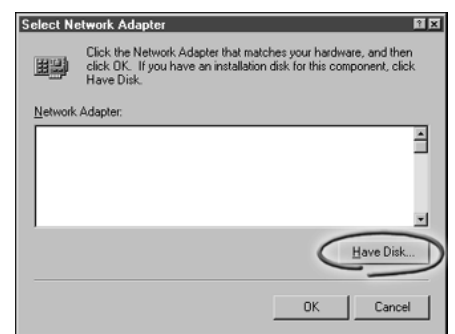
3. Double-click the Network icon.

The Network dialog box opens, which displays a list of installed components. Click the "Adapters" tab, and then click "Add".

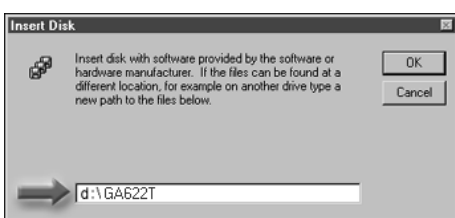


4. If any previously installed GA622T Copper Gigabit Ethernet Card drivers are listed, you need to update the drivers as explained in the Reference Guide for the Model GA622T Copper Gigabit Ethernet Card.

The Select Network Adapter dialog box opens. Click the "Have Disk" button.



5. The Insert Disk dialog box opens. Insert the GearBox™ for Adapters CD into the server's CD-ROM drive. In the text box, type D:\GA622T and then click "OK".

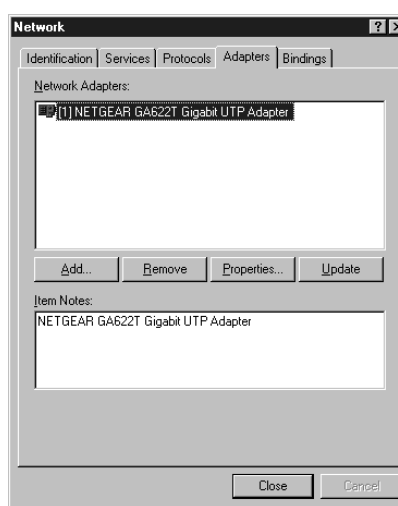


6. The Select OEM Option dialog box opens. Make sure NETGEAR GA622T Copper Gigabit Ethernet Card is highlighted, and then click "OK".



7. The driver is copied onto your system. The Network dialog box opens, then click "Close".

If other cards in your server use TCP/IP bindings, the Microsoft TCP/IP Properties dialog box opens. Set any necessary TCP/IP configurations, and then click "OK".



8. When prompted to restart your computer, click "Yes".

The Model GA622T Gigabit Adapter installation for Windows NT is now complete.

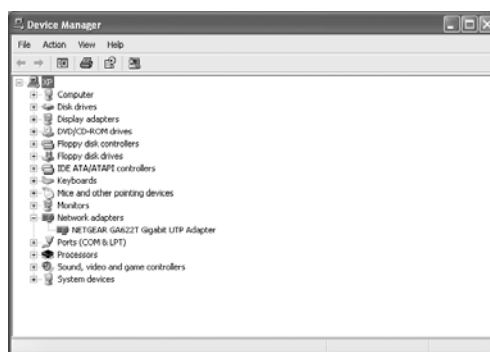
4 TEST YOUR NETWORK CONNECTION

To verify your installation:

1. Double-click "My Computer" on the desktop, double-click "Control Panel", and then double-click "System".



2. Click "Hardware" and click "Device Manager" tab, and then double-click "Network adapters".



3. Double-click "NETGEAR GA622T Gigabit UTP Adapter". A message will appear describing the status of the device.



5 ENJOY BEING CONNECTED!

Features

Your GA622T card provides you with the following key features:

- Up to 1000 Mbps speed using Cat 5 cables
- 64-bit PCI bus with 32-bit capability
- Flexible 100/1000 Mbps capability
- Includes proven Gigabit controller technology
- No fiber cables necessary
- Demonstrated interoperability within major operating systems
- Simple installation
- Networked PCs can share Internet access, printers, Zip drives, and CD-ROM drives
- Users of networked PCs can compete against each other when playing interactive games
- Free technical support seven days a week, twenty-four hours a day

TECHNICAL SPECIFICATIONS

Property:	Description:
Standards Compatibility	IEEE 802.3ab Gigabit Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3u Auto Negotiation IEEE 802.3x Flow Control
GA622T Network Connection	RJ-45 connector for Category 5 UTP cable Full-duplex 2000 Mbps (1000 Mbps each way) Gigabit Ethernet
Host Connection	Single slot, short form factor, PCI card with 32-bit connectors Single slot, long form factor, PCI card with 64-bit connectors PCI rev 2.2 compliant Clock speed up to 66 MHz
DC Operating Voltage	+5V +/- 5%
Power Consumption	14 watts, maximum 2.8A @ + 5VDC
Dimensions	6.6 x 3.7 in. (16.8 x 9.5 cm)
Weight	3.8 oz. (104 g)
Operating Temperature	0 to 40° C
Operating Humidity	10 to 90% noncondensing
Agency Compliance	CE mark, commercial FCC, Part 15, Class B EN 55 022 (CISPR 22), Class B Canada ICES-003, Class B

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Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice.

NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

Certificate of the Manufacturer/Importer

It is hereby certified that the Model GA622T Copper Gigabit Ethernet Card has been suppressed in accordance with the conditions set out in the BMPT-AmtsblVfG 243/1991 and VfG 46/1992. The operation of some equipment (for example, test transmitters) in accordance with the regulations may, however, be subject to certain restrictions. Please refer to the notes in the operating instructions.

Federal Office for Telecommunications Approvals has been notified of the placing of this equipment on the market and has been granted the right to test the series for compliance with the regulations.

VCCI Statement

This equipment is in the Class B category (information equipment to be used in a residential area or an adjacent area thereto) and conforms to the standards set by the Voluntary Control Council for Interference by Data Processing Equipment and Electronic Office Machines aimed at preventing radio interference in such residential areas.

When used near a radio or TV receiver, it may become the cause of radio interference.

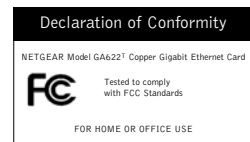
Read instructions for correct handling.

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: 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 or more of the following measures: (1) Reorient or relocate the receiving antenna, (2) Increase the separation between the equipment and receiver, (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, (4) Consult the dealer or an experienced radio/TV technician for help.



EN 55 022 Statement

This is to certify that the Model GA622T Copper Gigabit Ethernet Card is shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022 Class B (CISPR 22).

Compliance is dependent upon the use of shielded data cables.

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Model GA622T Copper Gigabit Ethernet Card) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Règlement sur le brouillage radioélectrique du ministère des Communications

Cet appareil numérique (Model GA622T Copper Gigabit Ethernet Card) respecte les limites de bruits radioélectriques visant les appareils numériques de classe B prescrites dans le Règlement sur le brouillage radioélectrique du ministère des Communications du Canada.