


































SAFETY	
Electrical Safety	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	This is a "CLASS 1 LED PRODUCT"
	Warning Do not stare into the Laser beam.
OPERATING TEMPERATURE	
	This product is designed for a maximum ambient temperature of 50 degrees C.
ALL COUNTRIES: Install product in accordance with local and National Electrical Codes.	
SICHERHEIT	
Elektrische Sicherheit	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Das ist ein "LED Produkt der Klasse 1"
	WARNUNG Nicht direkt in den Strahl blicken.
BETRIEBSTEMPERATUR	
	Dieses Produkt wurde für den Betrieb in einer Umgebungstemperatur von nicht mehr als or 50° C entworfen.
ALLE LÄNDER: Installation muß örtlichen und nationalen elektrischen Vorschriften entsprechen.	
SIKKERHED	
Elektrisk sikkerhed	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Dette er et "PRODUKT UNDER KLASSE 1 LED"
	ADVARSEL Stirr ikke på strålen.
BETJENINGSTEMPERATUR	
	Dette apparat er konstrueret til en omgivende temperatur på maksimum 50 grader C.
ALLE LANDE: Installation af produktet skal ske i overensstemmelse med lokal og national lovgivning for elektriske installationer.	
VEILIGHEID	
Electrische Veiligheid	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Dit is een "KLASSE 1 LED-PRODUKT"
	WAARSchUWING Niet in de straal staren.
BEDRIJFSTEMPERATUUR	
	De omgevingstemperatuur voor dit produkt mag niet meer bedragen dan 50 graden Celsius.
ALLE LANDEn: het toestel installeren overeenkomstig de lokale en nationale elektrische voorschriften.	
SECURITÉ	
Securité électrique	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Ce matériel est un "PRODUIT À DIODE ÉLECTROLUMINESCENTE DE CLASSE 1"
	ATTENTION Ne pas fixer le faisceau des yeux.
TEMPÉRATURE DE FONCTIONNEMENT	
	Ce matériel est capable de tolérer une température ambiante maximum de 50 degrés Celsius.
POUR TOUS PAYS : Installer le matériel conformément aux normes électriques nationales et locales.	
TURVALLISUUS	
Sähköturvallisuus	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Tämä on "ENSIMMÄISEN LUOKAN VALODIODITUOTE"
	VARIOTUS Älä katso säteeseen.
KÄYTTÖLÄMPÖTILA	
	Tämä tuote on suunniteltu ympäröivän ilman maksimilämpötilalle 50 °C.
KAIKKI MAAT: Asetna tuote paikallisten ja kansallisten sähköturvallisuusmääräysten mukaisesti.	
NORME DI SICUREZZA	
Sicurezza elettrica	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Questo è un "PRODOTTO CON LED DI CLASSE 1"
	AVVERTENZA Non fissare il raggio con gli occhi.
TEMPERATURA DI FUNZIONAMENTO	
	Questo prodotto è concepito per una temperatura ambientale massima di 50 gradi centigradi.
TUTTI I PAESI: installare il prodotto in conformità delle vigenti normative elettriche nazionali.	
SIKKERHET	
Elektrisk sikkerhet	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Dette er et "KLASSE 1 LED PRODUKT"
	ADVARSEL Stirr ikke på strålen.
DRIFTSTEMPERATUR	
	Dette produktet er konstruert for bruk i maksimum romtemperatur på 50 grader celsius.
ALLELAND: Produktet må installeres i samsvar med de lokale og nasjonale elektriske koder.	
SEGURANÇA	
Segurança Eléctrica	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Este é um "PRODUTO CLASSE 1 LED"
	AVISO Não olhe fixamente para o raio.
TEMPERATURA DE FUNCIONAMENTO	
	Este produto foi projetado para uma temperatura ambiente máxima de 50 graus centígrados.
TODOS OS PAÍSES: Instale o produto de acordo com as normas nacionais e locais para instalações elétricas.	
SEGURIDAD	
Seguridad eléctrica	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Este es un "PRODUCTO DE DIODO LUMINISCENTE (LED) CLASE 1"
	¡ADVERTENCIA! No mirat fijamente el haz.
TEMPERATURA REQUERIDA PARA LA OPERACIÓN	
	Este producto está diseñado para una temperatura ambiental máxima de 50 grados C.
PARA TODOS LOS PAÍSES: Monte el producto de acuerdo con los Códigos Eléctricos locales y nacionales.	

SAKERHET	
Elsäkerhet	TUV-EN60950, UL1950, CSA 950
Laser	EN60825
	Detta är en "KLASS 1 LYSDIODPRODUKT"
	VARNING! Laserstrålning när enheten är öppen.
DRIFTSTEMPERATUR	
	Denna produkt är konstruerad för rumstemperatur ej överstigande 50 grader Celsius.
ALLA LÄNDER: Installera produkten i enlighet med lokala och statliga bestämmelser för elektrisk utrustning.	

Sources of Information

This guide gives the instructions for installation of a single AT-2700 PCI Fast Ethernet Network Adapter Card in a Microsoft Windows environment. More information is available for other applications of the adapter card.

- SETUP27 program*—The CardAssistant diskette contains text files with installation and configuration information for each environment. Use the program SETUP27.EXE to find the information you need for your situation. (*To view information files, insert the CardAssistant diskette in the floppy drive and type a:\setup27.*)
- Documentation on the Web*—The Allied Telesyn website, <http://www.alliedtelesyn.com>, provides a searchable instruction guide in .pdf format for configuring and troubleshooting the AT-2700 PCI Fast Ethernet Network Adapter Card. (*Browse to the manual list in the Technical Support section of the Allied Telesyn website.*)

If you are using the AT-2700 PCI Fast Ethernet Network Adapter Card in a different environment refer to “Advanced Topics” on page 6 of this guide.

Preparing for Installation

These instructions assume the computer operating system is installed according to your computer’s documentation. For the majority of applications, installing the AT-2700 PCI Fast Ethernet Network Adapter Card involves plugging the adapter card into a PCI slot in your computer and installing the driver software. The driver files for the AT-2700 PCI Fast Ethernet Network Adapter Card are found on the Allied Telesyn CardAssistant diskette, which you will be prompted to insert into the floppy drive.

Install the Adapter Card

Warning—*High voltages inside the computer present a safety hazard. Make sure the power is off before removing the cover. This LAN adapter card is for use only with IBM or compatible UL-listed personal computers that have installation instructions detailing installation of adapter card-cage accessories. Installation should be performed with precautions to prevent damage to static-sensitive components.*

Follow your computer’s instruction manual for specific information on installing peripheral devices in your computer.

Once the adapter card is seated in a PCI slot and the computer’s cover is back on, plug in the UTP cable, turn on the power, and reboot into Windows.

Important cable considerations: AT-2700TX

The AT-2700TX is for use with 10Base-T or 100Base-TX LAN segments, using an 8-pin (4-pair) RJ45 jack for the network cable. Be sure that all cabling used with the AT-2700 PCI Fast Ethernet Network Adapter Card in a 10Base-T segment is of category 3, 4 or 5, and that all cabling used in a 100Base-TX segment is of category 5.

Important cable considerations: AT-2700FX

The cable must comply with the IEEE 802.3 100Base-FX standard for 62.5/125 µm multi-mode fiber cable. The cable between the computer and the hub must be less than 2000 meters long for full-duplex operation and 412 meters long for half-duplex operation. The transmit circuit of the adapter card is connected to the receive circuit of the hub and vice versa.

Check your Windows version

The Allied Telesyn AT-2700 CardAssistant diskette provides drivers for Windows 95, Windows 98, Windows NT and version 3.11 of Windows for Workgroups. If you don’t know your Windows version, open the Microsoft Windows System Control Panel. Under the General tab of the System Properties dialog box, note your System release number. Pick the driver you need from the following table so that you can point Windows to the right directory on the CardAssistant diskette during installation.

Operating System	Release	Driver	Location
Windows 95	4.00.950, 4.00.950a	NDIS3	a:\ndis3
	4.00.950b, 4.00.950c	NDIS4	a:\
Windows NT	3.5 or 3.5.1	NDIS3	a:\ndis3
	4 or above	NDIS4	a:\
Windows 98	All	NDIS4	a:\
Windows for Workgroups	3.11	NDIS2	a:\

Install the Drivers

Windows 95 or Windows 98

From the Windows version table above, determine whether you need the NDIS3 driver or the NDIS4 driver. Install the AT-2700 PCI Fast Ethernet Network Adapter Card and start Windows. The *New Hardware Found* dialog box appears, and you are prompted for the driver.

Insert the CardAssistant diskette, and direct Windows to the location of the driver: type a:\ for the NDIS4 driver and a\ndis3 for the NDIS3 driver.

Make sure *Allied Telesyn AT-2700 PCI Fast Ethernet Network Adapter Card* appears in the driver found dialog box. Follow the Windows instructions, supplying Windows files as needed. Windows prompts you to restart the computer. You are ready to access your network.

Windows NT

With the AT-2700 PCI Fast Ethernet Network Adapter Card installed and Windows NT started, you are ready to install the driver.

- Open the add adapter dialog box as follows:
 - NT 4.x—double-click the Network icon in the Control panel. Then select the *Adapters* tab and click the *Add* button.
 - NT 3.5x—open the Main program group by double-clicking its icon; then double-click the Control Panel icon, double-click the Network icon, and click *Add Adapter* from the *Network* box.
- Insert the AT-2700 CardAssistant diskette into your floppy drive. Choose install from manufacturer’s diskette as follows:
 - NT 4.x—click the *Have Disk* button in the *Select Network Adapter* pop-up window. In the text field of the dialog box, type a:\ and choose *OK*.
 - NT3.5x—choose *<OTHER> REQUIRES DISK from Manufacturer* in the *Network Adapter Card* drop-down list. Then click *Continue*.

In the text field of the dialog box, type: a:\ndis3 and choose *OK*.

- Verify that *Allied Telesyn AT-2700 PCI Fast Ethernet Network Adapter Card* appears in the *Select OEM option* dialog box and choose *OK*.
- In the *Network Settings* dialog box, verify that *Allied Telesyn AT-2700 PCI Fast Ethernet Network Adapter Card* appears in the *Installed Adapter Cards* list. If you wish, you can configure network protocols you will be using for network communications. Select the protocols used on your network, and when you are done, click *OK* (*Close* in Windows NT 4.0).
- From the *Network Settings Change* dialog box, click *Restart Now*. After the Windows NT operating system shuts down, restart your computer.

This completes the installation. You are ready to access your network.

Note—*If you’re installing multiple cards on the same computer, see CardAssistant information file for Windows NT. (To view information files, insert the CardAssistant diskette in the diskette drive and type a:\setup27).*

Windows for Workgroups (WFW) 3.11

With the AT-2700 PCI Fast Ethernet Network Adapter Card installed, start Windows for Workgroups. You are ready to install the driver.

- From the *Network* group in Program Manager, choose *Network Setup*.
- In the *Network Setup* dialog box, choose *Networks*.
- In the *Networks* dialog box, verify that *Install Microsoft Windows Network* is selected. Then choose *OK*.
- In the *Network Setup* dialog box, choose *Sharing*.
- In the *Sharing* dialog box, select whether to allow file and/or printer sharing with other users.
- In the *Network Setup* dialog box, choose *Drivers*. Then, in the *Network Drivers* dialog box, choose *Add Adapter*.
- In the *Add Network Adapter* dialog box, select *Unlisted or Updated Network Adapter*. Then choose *OK*.
- Insert the AT-2700 CardAssistant diskette into your floppy drive. In the text box of the *Install Driver* dialog box, type: a:\ and choose *OK*.
- In the *Network Adapters* list of the *Unlisted or Updated Network Adapter* dialog box, verify that *AT-2700 PCI Fast Ethernet Network Adapter Card* is highlighted. Then choose *OK*.
- In the *Network Drivers* dialog box, verify that the *AT-2700 PCI Fast Ethernet Network Adapter Card* and its default protocols, *Microsoft NetBEUI* and *IPX/SPX Compatible Transport with NetBIOS*, appear in the *Network Drivers* list. Then choose *Close*.
- In the *Network Setup* dialog box, choose *OK*.
- If prompted, insert the required WFW diskette(s) into your floppy drive and then choose *OK*. (WFW occasionally loses its place at this point; if you get a message from Windows that it can’t find a file, try inserting WFW install diskettes 7 and 8.)
- If prompted, reinsert the CardAssistant diskette into your floppy drive. In the text box of the *Install Driver* dialog box, choose *OK*.
- From the *Windows Setup* dialog box, choose *Restart Computer*.

This completes the installation. You are ready to access your network.

The Configuration and Diagnostics Utility: SETUP27

In PCI Ethernet adapter cards, most operating parameters are under PCI-bus control. The Allied Telesyn *SETUP27* configuration and diagnostics program allows you to:

- View the configuration
- Run diagnostic tests on the EEPROM, on adapter card/computer communications, and on network communications
- View context-sensitive configuration and diagnostics help
- Switch between full- and half-duplex (requires a full-duplex hub; default is half-duplex) or force speed (default is auto detect)
- View configuration-information files about many different network operating systems

Although not required for operation, it's a good idea to run diagnostic tests every time you install an adapter; first test the adapter card off the network, then again after attaching it to the network. If you are installing the AT-2700 PCI Fast Ethernet Network Adapter Card in a network operating system not covered in this guide, you also may wish to consult one of the information files available through *SETUP27*.

To launch and run *SETUP27*:

1. Reboot the computer in DOS with no drivers loaded. (*In Windows 9x, boot into the Command prompt only option. Press the F8 key when the message Starting Windows 9x appears, and select Startup Menu choice 6. Command prompt only.*)
2. Insert the CardAssistant diskette in the floppy drive and launch *SETUP27*; type `a:\setup27`.
3. The opening screen displays a table of adapter cards installed in your computer. Select the adapter card you wish to view. Select *Configuration* or *Diagnostics* or *View information* from the main menu. (*To see a help screen within SETUP27, press the F1 key.*)

To run the network diagnostics:

The CardAssistant Network test is a live send/receive exercise, involving sending packets to a respondent (or more) on the network and counting the responses. You set up at least one computer to act as responder first then set up and start the sender. For each computer:

1. Make sure the cable is connected to the network and you get a valid Link indication.
2. Launch *SETUP27*, choose an adapter card from the opening screen, and from the main menu select *Diagnostics* and then select *Network test*.
3. Press F5 to start the sending machine. The sender counts packets sent and received. The number of packets received should be the number sent times the number of respondents.

LED Status

Label	Function	Description
100	100 Mbps	Connection established at 100 Mbps
ACT	Activity	Read/write activity on the segment
LNK	Link pulse	Link pulse detected on segment

Advanced Topics

Allied Telesyn supplies information files on the CardAssistant diskette and an on-line guide on our website.

If you are installing the adapter card in one of the following situations, you may wish to refer to this additional information for the particular network software you are using.

Multiple card installation	✓
How to see MAC address	✓
Novell server support	✓
ODI support	✓
UNIX support	✓
Removing a driver	✓
Files needed for install listed	✓
Advanced cabling considerations	✓
Sample configuration files	✓
PCI bus considerations	✓
100 Megabit considerations	✓
Full-duplex operation	✓
ACPI/Wake on LAN	✓

To view SETUP27 topics

Insert the CardAssistant diskette in the diskette drive and type:

`a:\setup27`

To view the on-line guide

Point your browser to <http://www.alliedtelesyn.com>. The manuals are located in the Technical Support section in .pdf format.

Troubleshooting Tips

A networked computer system is a complex combination of hardware and software, all of which must function for data communication to work. Although most problems occur when the adapter card is first being installed or when someone changes something in the network, a problem could be caused by your computer software, by cabling, or by many components elsewhere in the network. The following list offers some general guidelines for troubleshooting the AT-2700 PCI Fast Ethernet Network Adapter Card.

1. Carefully observe the behavior of the system and identify the exact symptoms. Gather information about the system and its components, such as device drivers, memory and extensions (e.g., QEMM), other peripheral adapter cards and the use of I/O ports and IRQs. Record your interaction with the computer, noting the conditions, your actions and the responses. Analyzing this information will help you diagnose the cause of the failure. Experiment with possible solutions. As you experiment, vary only one factor at a time.
2. Substitute known good equipment to see if the problem is eliminated.
3. Don't overlook the obvious. Make sure the adapter card is seated in the computer and the cables and connectors are securely attached.
4. Check your computer manual for BIOS Setup instructions (sometimes called CMOS Setup). Make sure the PCI slot is enabled. In some mixed ISA/PCI PCs you must make sure the PCI slot has a unique interrupt request (IRQ) number assigned.

5. Check the LNK indicator light. If the LNK indicator does not light, make sure the cabling is intact and connected to a functioning network port, and the network port speed and duplex settings match those of the network adapter card. If the LNK indicator lights but data transfer is slow, collision-prone, or non-existent, verify that your cable is of Category 3, 4, or 5. Category 1 and 2 voice-grade cable will not work properly. If the cable is more or less round in section, you probably have data grade cable, correctly paired, and no transmission problems. If, however, the cable appears flat in cross-section (as Silver Satin telephone-type cable) you probably have voice-grade cable and transmission problems. If it looks like telephone cable, double-check.
6. If you are using EMM386.EXE, verify that you have version 4.49 or higher. Lower versions of EMM386 can cause a PCI machine to lock up or reboot. Version 4.49 ships with DOS 6.22 and is available on the Microsoft forum on CompuServe.
7. If you suspect the network adapter card is not working properly, disconnect the network cable and run CardAssistant diagnostics after rebooting and with no drivers loaded. If CardAssistant software does not detect the adapter card, it could mean a conflict between the adapter card and another device, an adapter card failure, or a slot failure. You may need to reconfigure the other device to avoid the conflict. Try installing the AT-2700 PCI Fast Ethernet Network Adapter Card in another slot, then, if necessary, in another computer.
8. If the adapter card passes diagnostics, try reconnecting the computer to the network. A failure may be caused by physical medium connections or by corrupted network software. You can test the connectors and cables by swapping them for known good ones. Replace corrupted network software.
9. If, after installing and loading the driver, an error message is returned indicating that the device could not be found, and you have verified that the BIOS setup and/or the PCI setup procedure for the slot in use is correct, then re-load the driver with the following switch in the appropriate configuration file for your driver: `BUSTYPE = PCI`
The exact format of this switch will depend upon the driver in use. For example, for the ODI workstation driver, add this line to the NET.CFG file in the LINK DRIVER section for the AT-2700TX card (omit the = sign). For the NDIS 2.0 driver, add this line to the AT-2700 section of the PROTOCOL.INI file.

If your computer is supported by a system administrator or network administrator, this person can often provide the most help in resolving a problem. Allied Telesyn dealers also provide technical support for installation problems. You can contact the dealer where you bought your AT-2700 PCI Fast Ethernet Network Adapter Card for local assistance.

Technical Support or Service

You can contact the dealer where you bought your AT-2700 PCI Fast Ethernet Network Adapter Card for local assistance. If local help is unable to resolve your problem, Allied Telesyn offers technical support via fax or telephone. Refer to the <http://www.alliedtelesyn.com> website for current world-wide office locations.

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PN 613-10700-00 Rev. B

Network Adapter Card

AT-2700 Series



Quick Install Guide

FOR USE WITH AT-2700TX AND AT-2700FX PRODUCTS

Allied Telesyn