IBM International PC Card Modem with GSM

Installation Guide
Installationsanleitung
Guide d'installation
Manuale d'installazione
Guía de Instalación

OPTIONS
by IBM

NOTES:
This U.L. Listed ITE Accessory is intended for use in a U.L. Listed host computer. Please refer to your host computer instruction manual for specific installation procedures.

Note *Before using this information and the product it supports, be sure to read the general information in Product Warranty and Notices.*

First Edition (April 1998)

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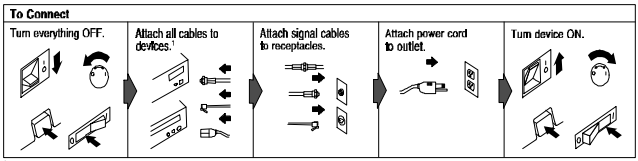
Contents

Safety

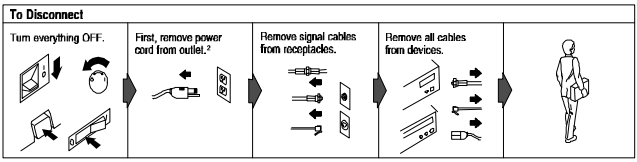
This modem card is for use only in Personal Computers that have installation instructions detailing user installation of PC cards in PCMCIA slots.

DANGER:

Electrical current from power, telephone, and communication cables is hazardous. To avoid shock hazard, connect and disconnect cables as shown below when installing, moving or opening the covers of this product or attached devices. The power cord must be used with a properly grounded outlet.



[1] In the U.K., by law, the telephone cable must be connected after the power cord.

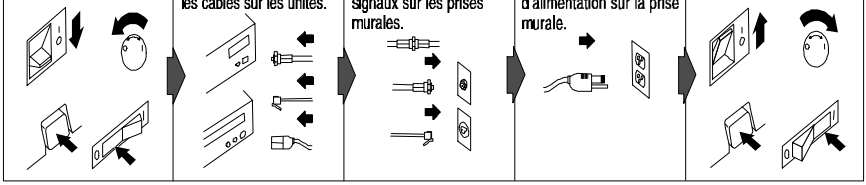


[2] In the U.K., by law, the power cord must be disconnected after the telephone line cable.

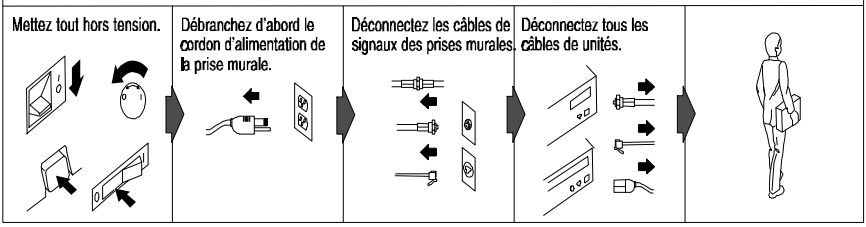
DANGER:

Le courant électrique provenant des câbles d'alimentation, téléphoniques et de transmission peut présenter un danger. Pour éviter tout risque de choc électrique, connectez et déconnectez ces câbles comme indiqué ci- dessous lorsque vous installez ou déplacez ce matériel ou les unités connectées, ou que vous soulevez un carter.*

Pour connecter



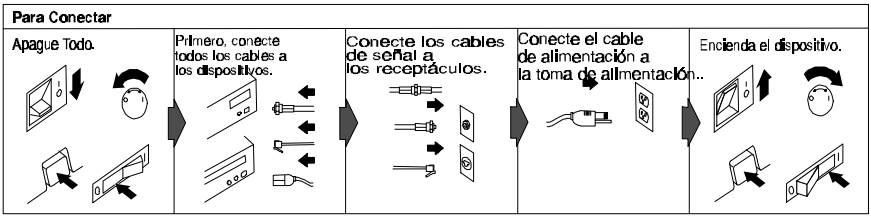
Pour deconnecter

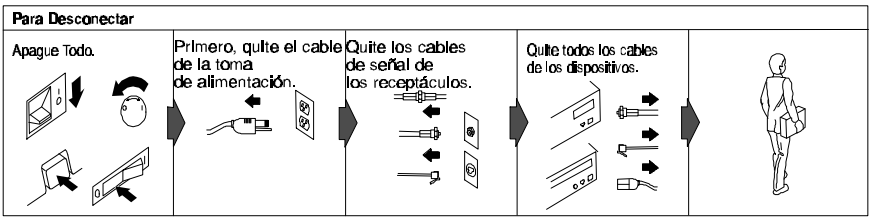


*Le cordon d'alimentation doit être branché sur un socle de prise de courant correctement mis à la terre.

PELIGRO:

La corriente eléctrica de la alimentación, teléfono y cables de comunicación es peligrosa. Para evitar peligro de descargas cuando instale, mueva o abra las cubiertas de este producto o de un disp. conectado, conecte y desconecte los cables tal como se muestra a continuachión.





Safety Information

DANGER:

To avoid a shock hazard, do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.

To avoid shock hazard:

- The power cord must be connected to a properly wired and earthed receptacle.

Any equipment to which this product will be attached must also be connected to properly wired receptacles.

DANGER:

Pour éviter tout risque de choc électrique, ne manipulez aucun câble et n'effectuez aucune opération d'installation, d'entretien ou de reconfiguration de ce produit au cours d'un orage.

Pour éviter tout risque de choc électrique :

- Le cordon d'alimentation doit être branché sur une prise d'alimentation correctement câblée et mise à la terre.
- D'autre part, tout le matériel connecté à ce produit doit également être branché sur des prises d'alimentation correctement câblées et mises à la terre.

PELIGRO

Para evitar peligo de descargas, no contecte o desconecte ningún cable, ni realice ninguna instalación, mantenimiento o reconfiguración de este producto durante una tormenta eléctrica.

Para evitar peligro de descargas:

- El cale de alimentación debe estar conectado a una toma de alimentación adecuadamente cableada y con toma de tierra.
- Cualquier equipo al cual se conecte este producto debe estar tamblén conectado a tomas de alimentación adecuadamente cableadas.

Cuando sea posible, utilice una mano para conectar o desconectar los cables de señal para impedir que se produzcan posible descargas eléctricas al tocar dos superficies con potencial eléctrico distinto.

DANGER

When using your telephone equipment basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and injury to persons, including the following:

- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.

Note:

This is a high performance analog modem. Prolonged high-speed data or fax transfers will result in the modem becoming noticeably warm. This is normal operation and does not indicate any problem. If you need to remove the modem immediately after prolonged operation and you are uncomfortable with handling the modem while it is warm, you can eject the modem from the PCMCIA slot and let it cool for about 10 seconds before handling it.

English

Contents

Introduction

Welcome and thank you from IBM

Thank you for choosing the IBM PC Card Modem with GSM. Your new PC Card can be fitted into any notebook or portable computer with a suitable slot and will enable you to connect to the Internet, use email, fax and other online computing applications.

This installation guide provides instructions for installing your IBM PC Card Modem with GSM.

Your PC Card is ‘GSM and ISDN Ready’, this means it may be upgraded to provide GSM and/or ISDN capability, please see the ‘Upgrading Your IBM PC Card Modem with GSM’ in this Installation Guide for details or consult your supplier.

We work hard to make this guide informative and the installation process easy for you, we know you will be enthusiastic to get your IBM PC Card Modem with GSM connected as fast as possible, but please follow this guide to get you to a successful installation avoiding frustration and dissappointment!

About PC Cards ?

PC Card devices, previously known as PCMCIA cards, are small, credit card sized peripheral devices that can be used with any Notebook computer with a suitable PC Card slot.

The PC Card standard allows a wide variety of peripherals, such as GSM data communications devices, modems, network adapters, SCSI interfaces, sound cards, and memory cards to be installed with a minimum of effort on the part of the user.

PC Card devices are classified into three types; Type I, Type II and Type III. The main difference between these three types is their thickness, with Type I Cards being the thinnest and Type III Cards being the thickest.

Note that a Type II card such as your IBM PC Card Modem can be used in a PC Card slot designed to accommodate either a Type II or a Type III card.

About 56K

56,000bps is supported by a growing number of Internet Service Providers (ISP's). 56K is supported on the down link only, i.e. data is received at upto 56,000bps and sent at 33,600bps. If 56K is not supported at the receiving end, the IBM International PC Card Modem with GSM will default to the next highest supported speed, e.g. 33,600bps.

The IBM PC Card Modem has a maximum download speed of 56Kbps. Actual download speed wil depend upon line conditions, line impairments and local regulations. Upload speed is restricted to 33.6Kbps as per the ITU V.34 Standard.

About this Installation Guide

A few words about this Installation Guide

We've written this guide for people with little or no technical background or communications experience. Please use the step by step guide to help you get your PC Card up and running. With this kind of guide most people get their new product connected easily and reasonably quickly. Taking care when you are going through the set up stage can save you time and trouble.

This Installation Guide includes details on:

- How to install your IBM PC Card Modem in your PC
- How to check that your IBM PC Card Modem is working
- How to get help from IBM

Further technical information, such as modem AT Commands and S Registers may be found in a Microsoft Write (.wri) file. This file can be found as an icon in the program group created during the software installation process.

Getting Started

This may seem basic but a good installation starts right here.

Before you start setting up your IBM PC Card Modem, check to see you have the following items. This is a good opportunity to familiarise yourself with the contents, the names and some of the essential terminology.

- IBM PC Card Modem
- This Installation Guide
- Utilities disk
- Communications Software CD
- Modem to lull cable
- Country specific telephone jack adapter (if required)

Installation (PC CARD)

How to install your IBM PC Card Modem with GSM

There are two stages required to install your PC Card. Stage 1, which must be performed first, is Software Installation. There are two installation procedures for the different PC operating systems that you may be using. Stage 2 is to install the card into your computer.

Important information for Windows 95 users

To eliminate the possibility of intermittent problems with communications software under certain versions of Windows 95, it is recommended that you disable the PC Card Power Management.

1. In Control Panel (Select:Start>Settings>Control Panel), double click the icon labelled power.
2. If no 'PC Card Modems' tab is present, ignore this message and proceed with your PC Card installation. If a 'PC Card Modems' tab is present proceed as follows:
3. Click the 'PC Card Modems' tab.
4. Click on 'Turn off PC Card Modems when not in use to clear it. (i.e. not selected).
5. Click OK.
6. Click on Start and choose Shutdown....
7. Click on 'Restart the computer?' and then click Yes.
8. Now proceed with the installation.

First Stage - Software Installation for Windows 95 and Windows NT 4.0

STEP1
Insert your IBM PC Card Modem Utilities disk into your computer's floppy disk drive, usually this is drive A.

STEP 2
Click on the Windows 95 or NT **Start** button

STEP 3
Click on Run in the **Start** menu

STEP 4
Type **a:\setup** in the **Run** dialogue box and then click on the **OK** button

STEP 5

Just follow the on-screen instructions and when the installation process has finished remove the Utilities disk from your floppy drive and proceed to the Second Stage, Installing your IBM PC Card Modem.

Software Installation for Windows 3.1 and 3.11

STEP 1
From Program Manager, click on File, then click on **Run**

STEP 2
Type **a:\setup** in the Command Line box, and then click on **OK**

STEP 3
Just follow the on-screen instructions and when the installation process has finished remove the Utilities disk from your floppy drive and proceed to the Second Stage, Installing your IBM PC Card Modem.

Second Stage - Installing your IBM PC Card Modem

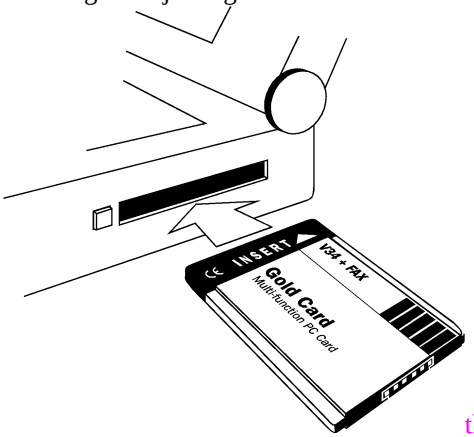
Should you encounter conflicts or difficulties while executing the following, there are additional tips available in the readme.wri file found in the c:|ibmpcard directory (or drive where you install the software) that may help you resolve the problem.

If you are using Windows 95 just plug in your PC Card taking the care identified below, it is not necessary for your computer to be switched off during this process.

If you are using Windows NT4 without Card and Socket Services then you must switch off the computer, insert the PC Card while it is off and then switch the computer back on. If in doubt, please refer to the computer manual or just shut down, insert the PC Card and switch on again.

STEP 1 - Plugging in your IBM PC Card Modem

With the label uppermost, gently insert the end of the card marked INSERT into a suitable PC Card slot on your computer. When the card is almost completely in its slot, you should feel a slight resistance. Slightly more pressure is required at this point to push the card fully into the computer, but you should never force it, as the connectors are very delicate and applying too much force can cause irreparable damage. Consult your computer's documentation for full details on inserting and ejecting PC Cards.

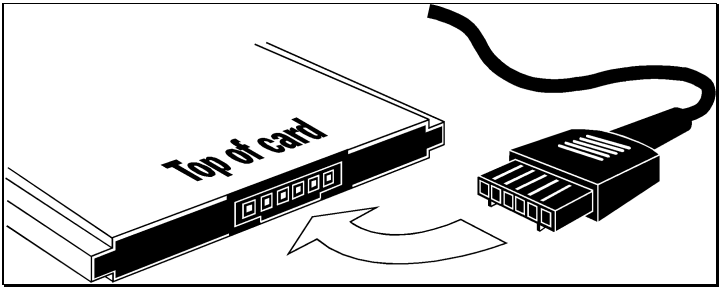


this picture will be a generic PC Card diagram

Note: Some notebook computers are fitted with PC Card slots which require the card to be fitted with the label facing downwards. If in doubt, please check the Installation Guide supplied with your notebook computer.

STEP 2 - CONNECTING THE TELEPHONE CABLE

Attach one end of the modem adapter cable to the socket on your PC Card as shown in the diagram, then plug the other end into a standard telephone line socket.



Your modem installation is now complete! You are now ready to use your email, fax or other communications software applications. If you want to test your PC Card then refer to the 'Testing your IBM PC Card Modem' section.

Country Selection

If you want to set your PC Card to work in a specific country then please refer to the following section.

Using the PC Card in other countries

Your IBM PC Card Modem is ready to be used worldwide. It features telecom approvals in many countries making it legally approved for connection.

To use the IBM modem in countries other than your 'home' country use the EasySwitch software utility. EasySwitch is a software utility that allows you to change the country setting to optimise performance of your modem and comply with local PTT regulations. You can find EasySwitch as an icon in the program group created during the software installation process. See the Country Approval flyer, supplied with your modem pubs package, for a list of certified countries at the time of publication.

While we know that it does perform worldwide, the actual approval and certification process for each country is a detailed and lengthy process, and varies by country. To keep you informed of the ongoing approvals, certification status updates will be provided at our World Wide Web site:

http://www.pc.ibm.com/us/options/modems/countries.html

Testing your PC CARD

Testing with Windows 95 or Windows NT 4.0 via the EasySwitch software utility

Click START, PROGRAMS, IBM International PC Card modem, EasySwitch, Diagnostics. If not, refer to the readme file which is located in the C:\IBMPCARD directory.

Alternate test methods:

When in Windows '95, click on **start** then choose **settings** and then **control panel**. Double click on **modems**. Windows will display a dialogue box with **modems properties** at the top, the box shows you that your PC Card has been recognised and set up on your computer.

When your modem has been recognised, click on the **diagnostics** tab of the **modem properties** box. The communications port (for example Com 3) and modem name (IBM PC Card Modem) are shown in the box. Highlight the Com port shown next to your PC Card and then click on **more info**. When you do, Windows '95 will interrogate the modem, when this has finished you will see a list of modem commands and responses from your modem. These are not really important apart from showing your modem is connected and working. Exit from here by clicking **done** and then exiting the Modems Properties and Control Panel.

Testing with Windows 3.1 and 3.11

Start the EasySwitch application which is located in the IBM PC Card Modem group of your Program Manager screen. Wait for the country flag to appear, if it does your modem is configured correctly. If not, refer to the readme file which is located in the IBM PC Card Modem group of your Program Manager screen.

Installation (Software)

Software Applications

Your IBM PC Card Modem is supplied with a range of useful software applications which you'll need to get your modem to surf the Internet, send and receive faxes, e-mail and send and receive computer files.

Follow the instructions supplied with each package to install and use this software**.**

Important :
In each software package you will need to tell the software what type of modem you are using. If the IBM PC Card Modem is not listed then choose a Hayes** compatible modem driver.

Taking care of your PC Card

Your IBM PC Card Modem is a highly intricate electronic device that requires you to take certain precautions to guarantee a reliable operation.

- Never expose your PC Card to extreme temperatures
- Do not plug your PC Card to a digital telephone socket (these can sometimes be found in offices and hotels
- Do not expose your card to extreme humid enviroments
- Do not subject your card to hard knocks, excessive force or drop them.

We are confident that if you take these simple measures your IBM PC Card Modem will serve you for many years.

Upgrading your PC Card Modem to GSM or ISDN

The IBM PC Card is "GSM and ISDN ready" - this means you can add GSM and ISDN capability by buying a GSM Upgrade Pack for your particular GSM mobile phone and an ISDN Upgrade Pack for ISDN use.

The GSM Upgrade Pack will contain the cable to connect your GSM mobile phone to your PC Card, a software licence, the GSM software for your PC Card, and an upgrade Installation Guide.

The ISDN Upgrade Pack will contain an ISDN POD that will allow you to connect your PC Card to an ISDN T2, the upgrade utility software and the installation guide.

The GSM kit and the ISDN kit are orderable at your retailer or by calling this number- (UK) +44 (0) 1908 261686
(US) 1+ 978 369 0655.

DEUTSCH

Inhaltsverzeichnis

Einführung

Willkommen bei IBM.

Wir freuen uns, daß Sie sich für IBM PC Card Modem with GSM entschieden haben. Die neue PC-Karte kann in jedes Notebook und jeden Laptop mit entsprechendem Steckplatz eingebaut werden. Damit steht Ihnen der Anschluß an Internet zur Verfügung, Sie können E-Mails und Fax-Meldungen versenden und andere Online-Rechneranwendungen nutzen.

Die technischen Daten und Funktionen der Modelle sind in der jeweiligen Produktdokumentation und Verpackung enthalten.

IBM International PC Card sind "GSM- und ISDN-fähig", was bedeutet, daß sie auf GSM- und/oder ISDN-Betrieb aufgerüstet werden können. Nähere Informationen dazu finden Sie im Handbuch unter dem Abschnitt "IBM International PC Card Modem with GSM aufrüsten" - auch Ihr Händler gibt gerne Auskunft.

Wir bemühen uns, die Benutzerhandbücher informativ zu gestalten und Ihnen den Installationsvorgang zu vereinfachen. Sicher möchten Sie die IBM PC Card Modem with GSM so rasch wie möglich anschließen - damit die Installation aber erfolgreich durchgeführt wird und Enttäuschungen ausgeschlossen sind, bitten wir Sie, den Anleitungen des Handbuchs genau zu folgen.

PC-Karten

PC-Karten, die früher als PCMCIA-Karten bezeichnet wurden, sind kleine Peripheriegeräte in Kreditkartengröße. Sie können mit jedem Notebook-Computer mit einem entsprechenden Steckplatz verwendet werden.

Der PC-Karte-Standard ermöglicht den Anschluß einer großen Bandbreite von Peripheriegeräten, wie beispielsweise GSM-Kommunikationsgeräte, Modems, Netzwerk-adapter, SCSI-Schnittstellen, Sound- und Speicher-Kar-ten. Alle können mit minimalem benutzerseitigen Aufwand installiert werden.

PC-Karten werden nach drei Typen klassifiziert: Typ I, II und III. Der Hauptunterschied zwischen diesen drei Typen besteht hinsichtlich der Dicke; Karten des Typs I sind die dünnsten, die des Typs III die dicksten Karten

Wir möchten darauf hinweisen, daß Karten des Typs II wie die IBM PC Card Modem in einem PC-Steckplatz verwendet werden können, der für Karten sowohl des Typs II als auch III ausgelegt ist.

56K

Eine Übertragungsgeschwindigkeit von 56000 bits/Sek. wird von einer zunehmenden Anzahl von Internet Service Anbietern unterstützt. 56K wird jedoch nur im Empfangsmodus unterstützt, die Daten werden also mit 56000 bits/Sek. empfangen und mit 33600 bits/Sek. gesendet. Wird der 56-K-Modus beim Empfänger nicht unterstützt, versucht die IBM International PC Card Modem with GSM die nächsthöchste Geschwindigkeit zu unterstützen , z. B. 33600 bits/Sek.

Die maximale Datenübertragungsgeschwindigkeit der IBM PC Card Modem beim Datenabruf beträgt 56Kbps, Die tatsächlich erreichte Geschwindigkeit in Empfangsrichtung richtet sich nach den jeweiligen Anschlußgegebenheiten und kann aufgrund von Beeinträchtigungen der Leitungsqualität und örtlichen Vorschriften niedriger liegen. Die Geschwindigkeit in Senderichtung ist durch di ITU-Norm V.34 auf 33,6 kbps begrenzt.

Benutzerhandbuch

Erläuterungen zum Benutzerhandbuch

Dieses Benutzerhandbuch behandelt mehrere Typen aus der rd Reihe.

Dieses Handbuch wurde für Benutzer mit wenig oder keinem technischen Hintergrundwissen oder Erfahrung im Kommunikationsbereich geschrieben. Die schrittweisen Anleitungen unterstützen Sie beim Installieren und Starten der

IBM PC Card Modem. Die Erfahrung hat gezeigt, daß die meisten Benutzer das Produkt mit Hilfe des Handbuchs einfach und relativ rasch anschließen konnten. Genaues Befolgen der Anweisungen spart auch Ihnen Zeit und Mühe.

Dieses Handbuch enthält detaillierte Informationen zum:

- Installieren des IBM PC Card Modem im PC
- Prüfen der Funktionsweise der IBM PC Card Modem
- Lösen von Problemen mit der Installation
- Anfordern von Hilfe von IBM

Weitere technische Informationen, wie beispielsweise Modem-AT-Befehle und S-Register entnehmen Sie bitte einer Microsoft Write-Datei (.wri), die beim Installieren der Software erstellt wurde

Inbetriebnahme

So eigenartig es Ihnen auch erscheinen mag, aber eine gute Installation beginnt bereits zu diesem Zeitpunkt

Bevor Sie damit beginnen, das IBM International PC Card Modem with GSM einzurichten, überprüfen Sie, ob die folgenden Elemente zur Verfügung stehen. Dies ist außerdem eine gute Gelegenheit, sich mit dem Paketinhalt, den Bezeichnungen und einigen wichtigen Begriffen vertraut zu machen

- IBM PC Card Modem
- Dieses Benutzerhandbuch der IBM PC Card Modem
- Diskette mit Dienstprogramm (Utility)
- Software-Paket für Fax & Daten-Kommunikation
- Anschlußkabel Modem-RJ11 (mit RJ11-RJ11-Adapter)
- Telefonstecker-Adapter für das jeweilige Land (soweit erforderlich)

IBM PC Card Modem installieren

Die PC Karte wird in zwei Arbeitsschritten installiert. In Arbeitsschritt 1 wird zunächst die Software installiert. Für die verschiedenen PC-Betriebssysteme gibt es zwei Installationsverfahren, die Sie verwenden können. In Arbeitsschritt 2 wird die Karte in den Computer eingebaut.

Erster Schritt - Software-Installation für Windows 95 und Windows NT 4.0

SCHRITT 1
Dienstprogramm-Diskette in das Disketten-Laufwerk des Computers einlegen; normalerweise handelt es sich dabei um das Laufwerk A.

SCHRITT 2
Schaltfläche **"Start"** von Windows 95 oder NT anklicken

SCHRITT 3
Im Menü **Start** Option **"Ausführen"** anklicken

SCHRITT 4
a:\setup in das Dialogfeld **Ausführen** eingeben und anschließend die Schaltfläche **OK** anklicken

SCHRITT 5
Folgen Sie den Bildschirmanweisungen. Ist der Installationsvorgang beendet, entnehmen Sie die Dienstprogramm-Diskette aus dem Disketten-Laufwerk. Jetzt können Sie mit Arbeitsschritt 2, dem Installieren der IBM PC Card Modem with GSM beginnen.

Software-Installation für Windows 3.1 und 3.11

SCHRITT 1
Klicken Sie im Programm-Manager zunächst "Datei" und anschließend **"Ausführen"** an

SCHRITT 2
a:\setup in das Kästchen der Befehlszeile eingeben und anschließend **OK** anklicken

SCHRITT 3
Folgen Sie den Bildschirmanweisungen. Ist der Installationsvorgang beendet, entnehmen Sie die Dienstprogramm-Diskette aus dem Disketten-Laufwerk. Jetzt können Sie mit Arbeitsschritt 2, dem Installieren der IBM PC Card Modem beginnen.

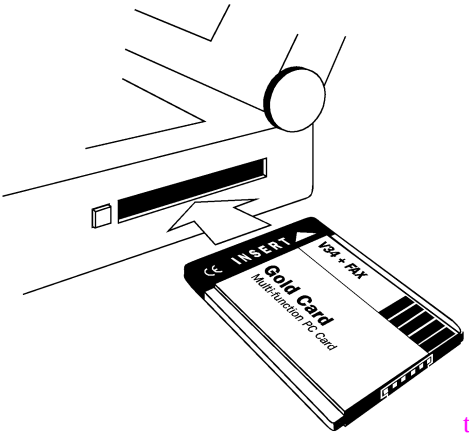
Zweiter Schritt - Installieren der IBM PC Card Modem

Wenn Sie mit Windows 95 arbeiten, bauen Sie die PC Karte mit der nachstehend beschriebenen gebotenen Vorsicht in den Computer ein. Während des Einbaus muß der Computer nicht ausgeschaltet werden.

Wenn Sie mit Windows NT4 **ohne** installierten Card- und Socket-Services arbeiten, **müssen** Sie den Computer unbedingt ausschalten. Erst nach dem Einbau der Gold Card dürfen Sie den Computer wieder einschalten. Wenn Sie sich nicht sicher sind, ziehen Sie das Computer-Handbuch zu Rate oder fahren Sie den Computer sicherheitshalber einfach herunter, bauen die IBM PC Card Modem ein und schalten den Computer wieder ein.

SCHRITT 1 - IBM PC Card Modem in Steckplatz einbauen

Das Etikett der Karte muß nach oben gerichtet sein. Führen Sie das mit "INSERT" bezeichnete Kartenende in einen entsprechenden PC-Kartensteckplatz des Computers ein. Wenn sich die Karte fast vollständig im Steckplatz befindet, ist ein leichter Widerstand zu spüren. Jetzt ist nur noch ein leichter Druck erforderlich, um die Karte vollkommen in den Steckplatz hineinzudrücken. Wenden Sie dabei jedoch niemals Gewalt an, da die Anschlüsse sehr empfindlich sind und zu große Kraftanwendung irreparable Schäden anrichten kann. Detaillierte Informationen zum Einsetzen und Ausbauen von PC-Karten entnehmen Sie bitte der Computer-Dokumentation.

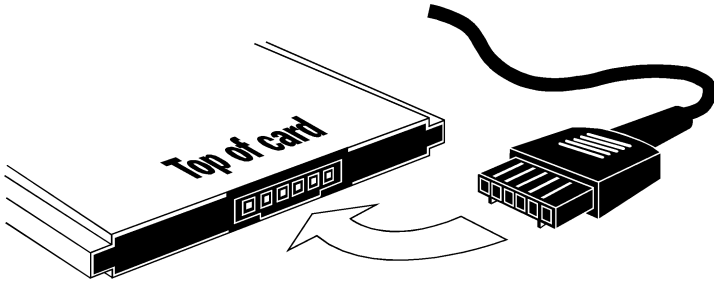


this will be a generic PC Card diagram

Anmerkung: Einige Notebook-Computer haben PC-Kartensteckplätze, bei denen das Kartenetikett nach unten gerichtet sein muß. Wenn Sie sich nicht sicher sind, sehen Sie bitte im Benutzerhandbuch nach, das Sie zusammen mit dem Notebook-Computer erhalten haben.

SCHRITT 2 - Telefonkabel anschließen

Verbinden Sie ein Ende des Modem-Adapterkabels mit der Steckstelle der PC Karte, wie nachstehend gezeigt. Schließen Sie dann das andere Ende an die normale Telefonsteckdose an.



Das Installation des Modems ist damit abgeschlossen! Ab sofort können Sie E-Mail, Fax oder andere Daten-Kommunikations-Anwendungen nutzen. Wenn Sie zunächst die PC Karte testen möchten, lesen Sie bitte den Abschnitt "IBM PC Card Modem". Wenn Sie eine Karte des Modells IBM PC Card Modem installiert haben und sie zum Arbeiten in einem bestimmten Land einrichten möchten, lesen Sie bitte den Abschnitt "Einsatz von IBM PC Card Modem in anderen Ländern".

"Einsatz von IBM PC Card Modem in anderen Ländern"

Die Modelle der IBM PC Card Modem sind weltweit einsetzbar. Sie haben die amtlichen Fernmeldezulassungen für zahlreiche Länder und können daher ohne rechtliche Probleme angeschlossen werden. Wenn Sie die IBM PC Card Modem in anderen Ländern als Ihrem eigenen nutzen möchten, benutzen Sie dazu das Software-Dienstprogramm EasySwitch. EasySwitch ist ein Software-Dienstprogramm, das Ihnen die Änderung der Ländereinstellung für eine optimale Nutzung der PC Karte und die Einhaltung örtlicher Post- und Fernmeldevorschriften ermöglicht. Sie können EasySwitch als Schaltsymbol in der Programmgruppe finden, die beim Installieren der Software generiert worden ist.

Eine aktuelle Liste der Länder, für die eine offizielle Zulassung vorliegt, finden Sie in einem gesonderten Beiblatt zum Adapterpaket. Prinzipiell ist die Funktionsfähigkeit weltweit sichergestellt; allerdings ist für jedes Land eine gesonderte Genehmigung und Zertifizierung durch die jeweils zuständigen Stellen erforderlich, was zumeist längere Zeit in Anspruch nimmt. Laufend aktualisierte Zulassungsdaten finden Sie im Internet auf unserer Website:
http://www.pc.ibm.com/us/options/modems/countries.html

IBM PC Card Modem testen

Test mit Windows '95 oder Windows NT 4.0 über das Hilfsprogramm EasySwitch

Klicken Sie auf »Start«,»Programme«,»IBM International PC Card Modem«, »EasySwitch«
»Diagnostics« (Diagnose). Solten hierbei Fehler auftreten, öffnen Sie die Readme-Datei im Verzeichnis C:\IBMPCARD.

Weitere Testverfahren:

Wenn Sie mit Windows '95 arbeiten, klicken Sie auf **Start** und wählen anschließend **"Einstellungen"** und danach **"Systemsteuerung"** Klicken Sie **"Modems"** einmal an. Windows zeigt ein Dialogfeld mit **"Eigenschaften für Modems"** an; das Feld bestätigt Ihnen, daß die PC Karte installiert und konfiguriert worden ist.

Wenn das Modem installiert worden ist, klicken Sie die Option **"Diagnose"** im Feld **"Eeigenschaften für Modems"** an. Der Kommunikationsport (beispielsweise COM 3) und die Modembezeichnung (Gold Card) werden im Feld angezeigt. Klicken Sie nun den nächsten COM-Port neben dem PC Karte mit der Maus an, dann klicken Sie auf die Option **"Details"** . Daraufhin fragt Windows '95 das Modem ab. Sie sehen dann eine Liste mit Modembefehlen und Meldungen des Modems. Diese Informationen sind jedoch nur insofern von Belang, als sie den Anschluß und die Funktionsfähigkeit des Modems angeben. Sie verlassen diese Option durch Anklicken von **"Beenden"**. Danach verlassen Sie die Optionen "Eigenschaften für Modems" und "Systemsteuerung".

Test mit Windows 3.1 und 3.11

Starten Sie die Anwendung EasySwitch, die sich in der Gruppe "IBM International PC Card Modem with GSM " in der Bildschirmanzeige des Programm-Managers befindet. Warten Sie, bis die Landesflagge angezeigt wird. Erscheint sie auf dem Bildschirm, ist das Modem richtig konfiguriert. Ist dies nicht der Fall, rufen Sie die Datei Readme auf, die sich in der Gruppe "IBM International PC Card Modem with GSM " in der Bildschirmanzeige des Programm-Managers befindet.

Software-Anwendungen installieren

Software-Anwendungen

Die IBM PC Card Modem enthält eine Reihe nützlicher Software-Anwendungen, die das Modem zum Surfen im Internet, zum Senden und Empfangen von Fax-Meldungen und E-Mail sowie von Computer-Dateien benötigt und um die Funktion eines Anrufbeantworters übernehmen zu können.

Folgen Sie zum Installieren und Benutzen dieser Software den Anweisungen, die mit jedem Paket mitgeliefert werden**.**

Wichtig :
Bei jedem Software-Paket müssen Sie angeben, welche Art von Modem Sie verwenden. Ist die IBM PC Card Modem nicht aufgelistet, wählen Sie einen Hayes-kompatiblen Modemtreiber.**

AT-Befehle und S-Register

AT-Befehle sind diejenigen Anweisungen, die die Software-Anwendung benutzt, um mit dem Modem zu "sprechen". S-Register werden zum Speichern der Einstellungen der IBM PC Card Modem benutzt.

IBM PC Card Modem GSM pflegen

Die PC Karte ist ein höchst kompliziertes elektronisches Gerät, das mit äußerster Sorgfalt behandelt werden muß, damit ein störungsfreier Betrieb gewährleistet ist.

- PC Karte niemals extremen Temperaturen aussetzen
- PC Karte nicht an digitale Telefonanschlüsse anschließen (diese sind manchmal in Büros oder Hotelzimmern vorzufinden).
- PC Karte keinen Umgebungen mit extremer Luftfeuchtigkeit aussetzen
- Karte keinen harten Schlägen oder übermäßigem Kraftaufwand aussetzen und nicht fallen lassen

Folgen Sie diesen einfachen Ratschlägen und Sie werden sich viele Jahre auf eine einwandfreie Funktion der IBM PC Card Modem verlassen können.

IBM International PC Card auf GSM aufrüsten und ISDN

IBM PC Card sind "GSM und ISDN fähig", was bedeutet, daß Sie die GSM-Funktionen mit einem GSM-Aufrüstpaket für das jeweilige GSM-Mobiltelefon aufrüsten können.

Das GSM-Aufrüstpaket enthält unter anderem das Kabel für den Anschluß des GSM-Mobiltelefons an die IBM PC Card, eine Software-Lizenz, die GSM-Software für die PC Karte und ein Benutzerhandbuch für die aktualisierte Version.

Das ISDN-Upgrade-Paket enthält einen ISDN-Schnittstellenadapter zum Anschluß der PC Card an eine ISDN-T2-Leitung, ein Softwarepaket mit diversen Utilities sowie ein Installationshandbuch

Sie können GSM-Kit und ISDN-Kit über Ihren Händler beziehen oder unter der folgenden Rufnummer bestellen:
(UK) +44 (0) 1908 261686/(US) +001 978 369 0655

Français

Sommaire

Introduction

Bienvenue et merci,

La société IBM vous remercie d'avoir choisi une carte modem IBM PC Card Modem with GSM. Cette carte PC peut être installée sur tout ordinateur portable possédant un connecteur pour cartes PC adapté, et vous permettra de vous connecter à Internet, d'envoyer des fax, d'utiliser le courrier électronique et d'autres applications informatiques online.

Les caractéristiques et les possibilités propres à chaque modèle sont décrites dans les documents qui les accompagnent et sur les emballages.

Les cartes modem IBM International PC Card ‘compatibles GSM et RNIS’, ce qui signifie qu'elles peuvent recevoir une extension GSM ou RNIS. Pour plus de renseignements, reportez-vous à la section ‘Extension GSM de votre carte modem IBM International PC Card’ dans ce manuel, ou contactez votre revendeur.

Nous nous efforçons de fournir des informations précises dans nos manuels afin de vous rendre la procédure d'installation la plus simple possible. Malgré votre envie certaine de connecter votre carte modem au plus vite, lisez attentivement les indications de ce manuel pour effectuer l'installation sans soucis!

Les cartes PC

Les cartes PC, anciennement connues sous le nom de cartes PCMCIA, sont des périphériques de la taille d'une carte de crédit, susceptibles d'être utilisés sur tous les ordinateurs portables équipés d'un connecteur pour cartes PC adapté.

La norme carte PC inclue une grande variété de périphériques, tels que les périphériques de communication GSM, les modems, les adaptateurs réseau, les interfaces SCSI, les cartes son et les cartes mémoire, qui peuvent être installés facilement par l'utilisateur.

Il existe trois types de cartes PC : type I, type II et type III, qui se distinguent par leur épaisseur. Les cartes de type I sont les plus minces et celles de type III, les plus épaisses.

Notez qu'une carte de type II, telle que votre carte modem IBM PC Card Modem with GSM peut être utilisée aussi bien avec un connecteur pour cartes PC de type II que de type III.

56K

Un nombre croissant de fournisseurs d'accès Internet acceptent la vitesse de 56.000 bps. Cette vitesse n'est possible qu'en réception de données, c'est-à-dire que les données peuvent être reçues à une vitesse pouvant atteindre 56.000 bps mais envoyées seulement à 33.600 bps. Si le terminal de réception ne prend pas en charge la vitesse de 56.000 bps, votre carte modem IBM International PC Card Modem with GSM choisit la vitesse disponible immédiatement inférieure, p. ex. 33.600 bps.

Manuel de l'utilisateur

A propos de ce manuel

Ce manuel de l'utilisateur traite le cas de plusieurs gammes de cartes modem IBM PC Card.

Il a été conçu pour des utilisateurs qui ont peu ou pas de connaissances techniques ou d'expérience dans le domaine des télécommunications. Suivez les indications étape par étape pour installer et faire fonctionner votre carte modem IBM PC Card Modem. Cela vous permet de connecter facilement et rapidement votre carte. Il convient de faire particulièrement attention au cours de l'installation, afin d'éviter les pertes de temps et les difficultés possibles.

Ce manuel de l'utilisateur explique :

- comment installer votre carte modem sur votre PC
- comment vérifier le fonctionnement de la carte
- comment résoudre les difficultés propres à l'installation
- comment obtenir de l'aide de IBM

D'autres caractéristiques techniques, telles que les commandes AT et les registres S du modem, peuvent être consultées dans un fichier Microsoft Write (.wri). Ce fichier est représenté par une icône dans le groupe de programmes créé au cours de l'installation du logiciel.

Avant de commencer

Bien que ce qui suit peut vous paraître évident, la réussite de votre installation en dépend.

Avant de commencer l'installation de votre carte modem IBM PC Card Modem, vérifiez que vous disposez des éléments répertoriés ci-dessous. Cela vous permettra également de vous familiariser avec les éléments, les noms et la terminologie de base.

- La carte PC IBM PC Card Modem
- Le manuel de l'utilisateur IBM PC Card Modem
- La disquette d'utilitaires
- Le logiciel Fax & Comms
- Modem au câble RJ11 (avec une extension RJ11-RJ11).
- Prise téléphonique spécifique au pays.

Installation de votre carte modem IBM International PC Card Modem with GSM

L'installation de votre carte modem se divise en deux phases principales. La phase 1, à effectuer en premier, concerne l'installation des logiciels. Deux procédures d'installation sont proposées, choisissez celle qui correspond au système d'exploitation de votre PC. La phase 2 concerne l'installation de votre carte sur votre ordinateur.

Information importante pour les utilisateurs Windows 95

Afin d'éliminer la survenance éventuelle de problèmes intermittents au niveau du logiciel de communications sous certaines versions de Windows 95, il est recommandé de désactiver la Gestion d'énergie de la PC Card.

1. Dans Panneau de configuration (Sélectionnez :Démarrer>Paramètres>Panneau de configuration), cliquez deux fois sur l'icône Energie.
2. Si vous n'avez aucun onglet 'PC Card Modems', ignorez ce message et poursuivez l'installation de la PC Card. Si vous en avez un, procédez de la façon suivante :
3. Cliquez sur l'onglet 'Modems PC card'.
4. Cliquez sur l'option 'Désactiver les modems PC Card quand ils ne sont pas utilisés' pour la désélectionner.
5. Cliqez sur OK.
6. Cliquez sur Démarrer et puis sur Arrêter...
7. Cliquez sur 'Redémarrer l'ordinateur ?' puis sur Oui.
8. Poursuivez l'installation.

Premiere Phase - Installation du logiciel pour Windows 95 et Windows NT4

ETAPE 1
Insérez la disquette d'utilitaires fournie avec votre carte modem IBM PC Card Modem dans le lecteur de disquettes de l'ordinateur, il s'agit généralement du **lecteur A:**.

ETAPE 2
Cliquez sur le bouton **Démarrer** de Windows 95 ou Windows NT.

ETAPE 3
Cliquez sur l'option **Exécuter** dans le menu **Démarrer.**

ETAPE 4
Tapez **a:\setup** dans la boîte de dialogue de l'option **Exécuter**, puis cliquez sur **OK.**

ETAPE 5
Suivez tout simplement les indications affichées à l'écran et lorsque la procédure d'installation est terminée, retirez la disquette d'utilitaires du lecteur de disquettes et passez à la seconde phase, l'installation de votre carte modem IBM PC Card Modem.

Installation du logiciel pour Windows 3.1 et 3.11

ETAPE 1
Dans le gestionnaire de programmes, cliquez sur Fichier, puis sur **Exécuter.**

ETAPE 2
Tapez **a:\setup** dans le champ de la ligne de commande, cliquez ensuite sur **OK.**

ETAPE 3
Suivez tout simplement les indications affichées à l'écran et lorsque la procédure d'installation est terminée, retirez la disquette d'utilitaires du lecteur de disquettes et passez à la seconde phase, l'installation de votre carte modem IBM PC Card Modem.

Seconde phase - Installation de votre carte modem IBM PC Card Modem

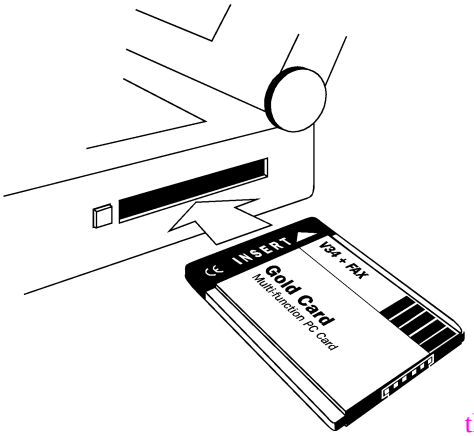
Si vous utilisez Windows 95, connectez directement votre carte modem IBM PC Card Modem en suivant les indications ci-dessous. Il n'est pas nécessaire d'arrêter votre ordinateur au cours de cette procédure.

Si vous utilisez Windows NT4.0 s**ans** la fonction ‘Card and Socket Services’, **vous devez** arrêter votre ordinateur. Ceci fait, insérez votre carte modem IBM PC Card Modem, puis redémarrez l'ordinateur. En cas de doute, veuillez vous reporter au manuel de l'ordinateur ou tout simplement, arrêtez l'ordinateur, insérez votre carte modem IBM PC Card Modem et redémarrez-le.

ETAPE 1 - Connecter votre carte modem IBM PC Card Modem

Introduisez délicatement votre carte PC (étiquette vers le haut et extrémité marquée INSERT en premier) dans un connecteur pour cartes PC du bon type, sur votre ordinateur. Lorsque la carte est presque entièrement insérée dans le connecteur, une légère résistance se fait sentir. Poussez alors légèrement plus fort pour finir d'introduire la carte dans l'ordinateur, mais ne forcez pas car les éléments de connexion sont très fragiles et en poussant trop fort vous pourriez les

endommager irrémédiablement. Reportez-vous à la documentation de votre ordinateur pour des informations complètes sur l'insertion et le retrait des cartes PC.

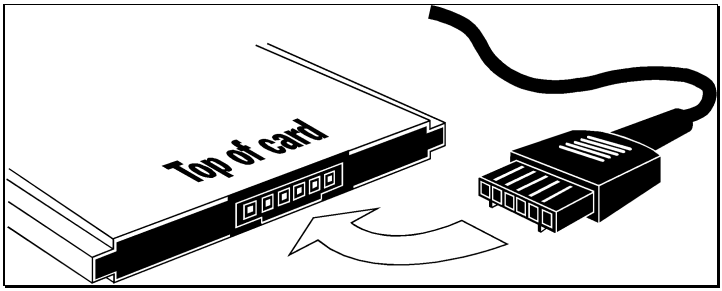


this will be a generic PC Card diagram

Remarque : Certains ordinateurs portables sont équipés de connecteurs pour cartes PC dans lesquels la carte doit être insérée avec l'étiquette tournée vers le bas. En cas de doute, veuillez vous reporter au manuel de l'utilisateur de votre ordinateur portable.

ETAPE 2 - Brancher le cordon téléphonique

Raccordez une extrémité du cordon à la prise de votre carte modem IBM PC Card Modem, comme indiqué sur la figure, puis raccordez l'autre extrémité à une prise téléphonique standard.



L'installation de votre modem est à présent terminée ! Maintenant, vous pouvez utiliser le courrier électronique, le fax ou d'autres applications de communication. Si vous désirez tester votre carte modem, reportez-vous à la section ‘Tester votre carte modem IBM PC Card Modem’. Si vous venez d'installer une carte modem IBM PC Card Modem et désirez l'utiliser dans un

pays particulier, reportez-vous à la section ‘Utilisation de votre carte modem IBM PC Card Modem à l'étranger’.

Utilisation de votre carte modem IBM PC Card Modem à l'étranger

Les cartes de la gamme IBM PC Card Modem peuvent être utilisées dans le monde entier. Elles ont été agréées par les services des télécommunications de nombreux pays et peuvent donc y être utilisées en toute légalité.

Pour vous servir de votre carte modem dans un pays étranger, utilisez le logiciel utilitaire EasySwitch. EasySwitch est un utilitaire qui permet de modifier les caractéristiques du pays afin d'optimiser le fonctionnement de votre carte modem IBM PC Card Modem et le rendre conforme aux normes locales en matière de télécommunications. EasySwitch est représenté par une icône dans le groupe de programmes créé au cours de l'installation des logiciels.
Veuillez vous référer au dépliant d’homologation PTT par pays fourni avec le manuel du modem pour connaître la liste des pays certifiés au moment de la publication du manuel. Bien que nous sachions que le modem fonctionne dans le monde entier, la procédure d’homologation et de certification pour chaque pays est très détaillée, de longue durée et spécifique au pays. Une mise à jour des homologations est disponible sur notre site Web :
http://www.pc.ibm.com/us/options/modems/countries.html

Tester votre carte modem IBM PC Card Modem

Test sous Windows ‘95

Sous Windows ‘95, cliquez sur **Démarrer**, sélectionnez **Paramètres** puis **Panneau de configuration**. Double-cliquez sur **Modems**. Windows affiche une fenêtre intitulée **Propriétés Modems**, elle vous montre que la carte modem a été identifiée et configurée par votre ordinateur.

Une fois votre modem identifié, cliquez sur l'onglet **Diagnostics** de la fenêtre **Propriétés Modems**. Le port de communication (par exemple, Com 3) et le nom du modem (IBM PC Card Modem) sont affichés dans la fenêtre. Sélectionnez le port affiché à côté du modem en cliquant dessus, puis cliquez sur **Informations complémentaires**. Windows ‘95 interroge alors le modem, suite à quoi une liste de commandes propres aux modems est affichée accompagnées des réponses de votre modem. Ces dernières ne sont pas vraiment importantes, si ce n'est qu'elles montrent que le modem est connecté et fonctionne. Revenez à la fenêtre précédente en cliquant sur **OK**, puis quittez la fenêtre Propriétés Modems et le panneau de configuration.

Test sous Windows 3.1 et 3.11

Démarrer l'application EasySwitch, elle se trouve dans le groupe IBM PC Card Modem du gestionnaire de programmes. Attendez qu'un drapeau apparaisse, signe que le modem est correctement configuré. S'il n'apparaît pas, reportez-vous au fichier lisezmoi, situé dans le groupe IBM PC Card Modem du gestionnaire de programmes.

Installation des applications

Applications

La carte modem IBM PC Card Modem est fournie avec une palette d'applications, qui vous permettront de surfer sur Internet, d'envoyer et de recevoir des fax et du courrier électronique (e-mail), d'envoyer et de recevoir des fichiers informatiques et d'utiliser votre modem comme répondeur téléphonique.

Suivez les indications fournies avec chaque logiciel pour l'installer et l'utiliser.

Important :
Pour chaque logiciel, il est nécessaire de spécifier quel type de modem vous utilisez. Si votre carte modem IBM PC Card Modem ne figure pas dans la liste, sélectionnez un pilote compatible Hayes.**

Commandes AT et 'Registres S'

Les commandes AT sont les commandes que les applications utilisent pour 'communiquer' avec le modem. Les registres S permettent de stocker les réglages de votre carte modem IBM PC Card modem.

Précautions d'utilisation de votre carte modem IBM PC Card Modem

Votre carte modem est un composant électronique d'une grande complexité, qui exige qu'on prenne certaines précautions afin de garantir la fiabilité de son fonctionnement.

- N'exposez jamais votre carte modem à des températures extrêmes.
- Ne raccordez pas votre carte modem à une prise de téléphone numérique (il y en a dans certains bureaux et hôtels).
- N'exposez pas votre carte à une trop grande humidité.
- Protégez votre carte des chocs, ne la manipulez pas sans délicatesse et ne la faîtes pas tomber.

Nous sommes convaincus que le simple respect de ces quelques points vous permettra de jouir de votre carte modem IBM PC Card Modem pendant de nombreuses années.

Extensions GSM et RNIS de votre carte modem IBM International PC Card

Les cartes modem IBM International PC Card sont “compatibles GSM et RNIS” - c'est à dire que vous pouvez les adapter au réseau GSM en achetant un kit d'extension GSM pour votre téléphone mobile GSM ainsi qu’un kit d’extension RNIS pour usage RNIS.

Le kit d'extension GSM comprend le cordon de raccordement du téléphone mobile GSM à votre carte modem, une licence d'utilisation du logiciel, le logiciel de mise à niveau pour votre carte modem, ainsi qu'un manuel de l'utilisateur.

Le kit de mise à niveau RNIS comprend un adaptateur pour RNIS permettant la connexion de votre carte PC avec un T2 pour RNIS, un logiciel d’utilitaire pour la mise à niveau et le manuel.

Les kits de mise à niveau GSM et RNIS peuvent être commandés auprès de votre revendeur ou par téléphone au numéro suivant :
(UK) +44 (0) 1908 261686/(US) +001 978 369 0655.

ITALIANO

Indice

Introduzione

Benvenuto e grazie da parte della IBM

Grazie per aver scelto IBM PC Card Modem with GSM. La Vostra nuova Scheda PC, che può essere installata in un qualsiasi calcolatore notebook o portatile dotato di uno slot adeguato, Vi consentirà di collegarvi ad Internet, utilizzare la e-mail, il fax ed effettuare altre applicazioni in linea con il computer.

I dati tecnici e le funzioni di questi modelli sono riportati sul materiale illustrativo e sulla confezione del prodotto.

IBM International PC Card sono “Pronti per i sistemi GSM e ISDN” e ciò significa che possono essere aggiornati per adeguarsi ai sistemi GSM e/o ISDN. Per ulteriori informazioni, fare riferimento al capitolo “Come Aggiornare il IBM International PC Card Modem with GSM” del presente Manuale dell’Utente o consultare il proprio fornitore.

Ci siamo impegnati per rendere i Manuali degli Utenti informativi e le procedure di installazione semplici: sappiamo con quanto entusiasmo desideriate collegare il Vostro IBM PC Card Modem ma Vi preghiamo di consultare il Manuale dell’Utente per effettuare una corretta installazione e evitare situazioni frustranti o deludenti!

Informazioni sulle schede PC

Le unità Scheda PC, precedentemente conosciute come Schede PCMCIA, sono piccole unità periferiche delle dimensioni di una carta di credito utilizzabili con un qualsiasi computer Notebook dotato di un’adeguata slot per Schede PC.

La Scheda PC standard consente l’installazione di una vasta gamma di periferiche come: dispositivi di trasmissione dati GSM, modem, adattatori di rete, interfacce SCSI, schede audio e schede di memoria, e richiede un impegno minimo da parte dell’utente.

Le unità Scheda PC vengono classificate in tre tipi: Tipo I, Tipo II e Tipo III. La differenza principale tra questi tre tipi è rappresentata dal loro spessore dove la Scheda Tipo I è quella più sottile e la Scheda Tipo III è quella più spessa.

Va notato che, una Scheda Tipo II come il IBM PC Card Modem può essere utilizzata in uno slot per Schede PC progettato per Schede Tipo II o Tipo III.

56K

Il 56,000bps è supportato da un sempre crescente numero di Provider di Servizi Internet (ISP). Il 56K è supportato solamente in fase di scaricamento dati, il che significa che i dati vengono ricevuti fino a 56,000bps ed inviati a 33,600bps. Se il 56K non è supportato dal ricevente, IBM International PC Card Modem with GSM passerà automaticamente alla seconda massima velocità supportata, ad esempio 33,600bps.

La scheda IBM PC Card Modem raggiunge una velocità massima di.ricezione dei file di 56Kbps. Le effettive velocità di ricezione dipendono dalle condizioni della linea telefonica, da difetti della linea e dalla norme vigenti locali. La velocità di invio dei file è limitata a 33.6Kbps in base allo standard ITU V.34.

Il Manuale dell'Utente

Breve descrizione del Manuale dell'Utente

Questo Manuale dell'Utente è valido per diversi modelli di schede PC del modem IBM PC Card Modem.

Abbiamo preparato questo manuale per tutti coloro che non possiedono una preparazione tecnica e non hanno esperienza nel settore delle comunicazioni. Vi invitiamo ad utilizzare la guida passo per passo per installare e far girare il Vostro IBM PC Card Modem. Grazie a questo tipo di guida la maggior parte degli utenti sarà in grado di collegare il proprio prodotto facilmente e in tempi ragionevolmente brevi. Per evitare problemi e risparmiare tempo Vi consigliamo di prestate attenzione durante la fase di set up.

Il Manuale dell'Utente contiene informazioni su:

- Come installare il modem IBM PC Card Modem nel Vostro PC
- Come verificare il funzionamento del IBM PC Card Modem
- Come risolvere eventuali problemi di installazione
- Come ottenere assistenza dalla IBM

Maggiori informazioni tecniche, quali ad esempio i Comandi AT ed Registri S per modem, sono reperibili all'interno di un file Microsoft Write (.wri). Tale file può essere trovato sotto forma di icona nel gruppo di programmi creato durante l'installazione del software.

Operazioni Preliminari

Quanto segue potrà sembrare piuttosto elementare ma la base per una buona installazione comincia proprio qui.

Prima di iniziare l'installazione del modem IBM PC Card Modem, verificate che il contenuto della confezione del prodotto corrisponda all'elenco riportato qui di seguito. Così facendo avrete modo di familiarizzare con i vari pezzi, i loro nomi e con alcuni termini fondamentali.

- La Scheda PC IBM PC Card Modem
- Il Manuale dell'Utente IBM PC Card Modem
- Il disco con i programmi di utilità
- Il pacchetto software per Fax & Comunicazioni
- La Scheda di Registrazione del Prodotto
- Modem a cavo RJ 11 (con prolunga RJ11-RJ11)
- Connettore telefonico specifico del Paese)

Come installare il modem IBM PC Card Modem

È necessario seguire due fasi per installare il IBM PC Card Modem. La Fase 1 è rappresentata dall'Installazione del Software e deve essere realizzata per prima. Esistono due diverse procedure di installazione a seconda del sistema operativo utilizzato per il Vostro PC. La Fase 2 è rappresentata dall'installazione della scheda nel Vostro computer.

Informazioni importanti per gli utenti di Windows 95

Per eliminare eventuali problemi che si possono verificare con il software di comunicazione eseguito con alcune versioni di Windows 95, si consiglia di disabilitare la funzionalià PC Card Power Management (Gestione dell'alimentazione delle schede PCMCIA).

1. Nel Pannello di controllo (Scegliere: Avvio>Impostazioni>Pannello di controllo) fare doppio clic sull'icona Alimentazione
2. Se non è presente la scheda 'PC Card Modems' (Modem PCMCIA), ignorare il messaggio e procedere all'installazione della scheda PCMCIA. Se è presente la scheda 'PC Card Modems', procedere nel seguente modo:
3. Fare clic sulla scheda 'PC Card Modems'.
4. Deselezionare la funzionalità 'Turn off PC Card Modems when not in use' (Spegnere modem PCMCIA quando non è in uso).
5. Fare clic su OK.
6. Scegliere Avvio, quindi Chiudi sessione....
7. Scegliere 'Riavvia il sistema?', quindi fare clic su Si.
8. Procedere all'installazione.

Prima Fase - Installazione del Software per Windows 95 e Windows NT4

Step 1
Inserire il dischetto dei programmi di utilità IBM PC Card Modem nell'unità disco del Vostro computer (solitamente unità disco A).

Step 2
Fare clic sul pulsante **Avvio** di Windows 95 o NT

Step 3
Fare clic sulla voce Esegui del menu **Avvio**

Step 4
Digitare **a:\setup** nella finestra di dialogo **Esegui**. Fare clic su **OK**

Step 5
Seguire le istruzioni a schermo e, quando l'installazione sarà terminata, estrarre il dischetto dei programmi di utilità dall'unità disco e passare allo Stadio 2, l'Installazione del IBM PC Card Modem.

Installazione del Software per Windows 3.1 e 3.11

Step 1
Dal Program Manager, fare clic su File, e quindi su **Esegui**

Step 2
Digitare **a:\setup** nella riga di comando della finestra di dialogo. Fare clic su **OK**

Step 3
Seguire le istruzioni a schermo e, quando l'installazione sarà terminata, estrarre il dischetto dei programmi di utilità dall'unità disco e passare allo Stadio 2, l'Installazione del IBM PC Card Modem

Seconda Fase- Installazione del IBM PC Card Modem

Se state utilizzando Windows 95 potete inserire il Vostro IBM PC Card Modem prestando attenzione alle avvertenze riportate qui di seguito. Non è necessario spegnere il computer durante questa operazione.

Se state utilizzando Windows NT4 **senza** le risorse Scheda e Presa, **dovete** spegnere il computer, inserire il PC Card a computer è spento e quindi riaccenderlo. Se avete dei dubbi, fate riferimento al manuale del computer o più semplicemente spegnete il computer, inserite il PC Card ed accendetelo nuovamente.

Step 1 - Inserimento del IBM PC Card Modem

Mantenendo l'etichetta in alto, inserite con delicatezza la parte della scheda contrassegnata con INSERT nell'appropriata slot per schede PC del Vostro computer. Quando la scheda è quasi completamente inserita si avvertirà una leggera resistenza. A questo punto sarà necessario esercitare una pressione leggermente maggiore per inserire interamente la scheda nel computer. Non forzare mai la scheda poiché una pressione eccessiva potrebbe causare danni irreparabili ai connettori. Consultate il materiale informativo del Vostro computer per ottenere maggiori informazioni circa l'inserimento e l'estrazione di Schede PC.

Nota: Alcuni computer notebook sono dotati di slot per schede PC che richiedono l'inserimento delle schede con l'etichetta rivolta verso il basso. Se siete in dubbio, consultate il manuale dell'utente in dotazione con il Vostro computer notebook.

Step 2 - COLLEGARE IL CAVO TELEFONICO
Collegare un capo del cavo dell'adattatore per modem alla presa del Vostro IBM PC Card Modem come illustrato in figura. Inserire poi l'altro capo in una presa telefonica standard.

L'installazione del modem è terminata! Potete usare l'e-mail, il fax o altre applicazioni software di comunicazione. Se desiderate provare il Vostro IBM PC Card Modem, fate riferimento alla sezione "Come provare il IBM PC Card Modem". Se avete installato un modello e volete impostare il suo funzionamento per un determinato paese, fate riferimento alla sezione "Come utilizzare il IBM PC Card Modem in altri paesi".

Come utilizzare il IBM PC Card Modem in altri paesi

I modelli IBM PC Card Modem possono essere utilizzati in tutto il mondo. Omologati per telecomunicazioni, la loro connessione è legalmente approvata in molti paesi.

Per poter utilizzare il IBM PC Card Modem in paesi diversi dal proprio, utilizzate la utility software EasySwitch. EasySwitch è una utility che consente di modificare le impostazioni relative al paese nel quale viene utilizzato il modem per ottimizzare il rendimento del IBM PC Card Modem e rispettare le normative PTT locali. Potete trovare EasySwitch sotto forma di icona all'interno del gruppo di programmi creato durante l'installazione del software.
Per consultare l'elenco del Paesi in cui è stata ottenuta l'omologazione al momento della pubblicazione, fare riferimento al pieghevole con l'omologazione PPTT fornito con la documentazione del modem.IBM certifica che i modem possono essere utilizzati in tutto il mondo, ma la procedura di approvazione e di certificazione di ciascun paese è molta lunga e complessa. Le informazioni relative ai progressi delle procedure di omologazione dei singoli Paesi verranno pubblicate sul nostro sito Web:
http://www.pc.ibm.com/us/options/modems/countries.html

Come provare il IBM PC Card Modem

Provare con Windows '95

Test da condurre con Windows 95 o Windows NT 4.0 attraverso l'utilità EasySwitch Fare clic su AVVIO, PROGRAMMI, IBM PC Card modem, EasySwitch, Diagnostics. Se non si riesce, fare riferimento al file readme situato nella directory C:IBMPCARD.
Altri modi per condurre il test:

All'interno di Windows '95, fare clic su **avvio**, scegliere **impostazioni** e poi **pannello di controllo**. Fare doppio clic su **pannello di controllo**. Windows mostrerà una finestra di dialogo riportante le **proprietà del modem** nella parte superiore. La finestra indica che il IBM PC Card Modem è stato riconosciuto ed installato nel Vostro computer.

Una volta che il modem è stato riconosciuto, fare clic sulla linguetta **diagnostica** della finestra **proprietà del modem**. La porta delle trasmissioni (ad esempio Com 3) ed il nome del modem (IBM PC Card Modem) vengono mostrati all'interno della finestra. Evidenziate la porta Com mostrata accanto al Vostro modem e fate clic su **ulteriori informazioni**. Windows '95 interrogherà allora il modem e successivamente mostrerà una lista di comandi modem e le risposte del Vostro modem. Tali informazioni non sono particolarmente importanti se non per il fatto che indicano che il Vostro modem è collegato e funziona. Uscite facendo clic su **fatto** e quindi uscite dalle Proprietà Modem e dal Pannello di Controllo.

Provare con Windows 3.1 e 3.11

Avviate l'applicazione EasySwitch che si trova nel gruppo IBM PC Card Modem della schermata del Vostro Program Manager. Attendete che appaia la bandiera del Vostro paese: se appare significa che il Vostro modem è configurato correttamente; se non appare, fare riferimento al file readme che si trova nel gruppo IBM PC Card Modem della schermata del Vostro Program Manager.

Installazione delle Applicazioni Software

Applicazioni Software

Il IBM PC Card Modem viene fornito completo di una gamma di utili applicazioni software di cui avrete bisogno per navigare su Internet, inviare e ricevere fax ed e-mail, inviare e ricevere file ed utilizzare il Vostro modem come una segreteria telefonica.

Per installare ed utilizzare questo software, seguite attentamente le istruzioni allegate**.**

Importante:
Per ogni pacchetto software sarà necessario specificare quale tipo di modem si sta utilizzando. Se il IBM PC Card Modem non è compreso nella lista, selezionate un driver modem di tipo Hayes compatibile.**

Comandi AT e "Registri S"

I comandi AT sono i comandi che l'applicazione software utilizza per "parlare" con il Vostro modem. I Registri S sono utilizzati per memorizzare le impostazioni IBM PC Card Modem.

Come avere cura del proprio IBM PC Card Modem

Il Vostro PC Card è un dispositivo elettronico estremamente complesso che necessita di alcune precauzioni al fine di garantire un funzionamento affidabile.

- Non esporre mai il PC Card a temperature estreme
- Non inserire il PC Card in una presa telefonica digitale (questo tipo di prese si trova talvolta in uffici ed alberghi)
- Non esporre la scheda ad ambienti particolarmente umidi
- Non sottoporre la scheda ad forti urti o a pressione eccessiva e non lasciarla mai cadere.

Siamo sicuri che, rispettando queste semplici precauzioni, la Vostra IBM PC Card Modem Vi accompagnerà per molti anni.

Come aggiornare il IBM International PC Card per GSM e ISDN

Molti IBM International PC Card sono “pronti per GSM e ISDN” - ciò significa che è possibile aggiungere capacità GSM comprando un pacchetto di aggiornamento per GSM per il vostro particolare telefono portatile GSM e aggiungere capacità ISDN con il pacchetto di aggiornamento per ISDN

Il pacchetto di aggiornamento per GSM conterrà il cavo per collegare il Vostro telefono portatile GSM al Vostro IBM International PC Card, una licenza per il software, il software GSM per il Vostro PC Card ed una guida dell’utente per l’aggiornamento.

Il kit di aggiornamento ISDN Upgrade Pack comprende un adattatore ISDN per il collegamento della scheda PCMCIA a una borchia ISDN T2, il software di aggiornamento e la guida per l’installazione.

È possibile ordinare i kit GSM e ISDN presso il proprio rivenditore oppure telefonando a questo numero:
(UK) +44 (0) 1908 261686/(US) +001 978 369 0655.

Español

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Introducción

Bienvenida y agradecimiento por parte de IBM

Gracias por elegir la tarjeta IBM PC Card Modem with GSM. Esta nueva PC Card puede instalarse en cualquier equipo notebook o portátil que cuente con una ranura adecuada y le permitirá conectarse a Internet, utilizar correo electrónico, fax y otras aplicaciones informáticas en línea.

Las especificaciones y funciones que proporcionan estos modelos se definen en su

documentación y embalaje correspondientes.

Muchas tarjetas IBM PC Card Modem están ‘Preparadas para GSM y RDSI’; esto significa que pueden adaptarse para su funcionamiento en GSM y/o RDSI. Vea la sección ‘Adaptación de la tarjeta IBM PC Card Modem’ de este manual del usuario o consulte a su proveedor.

Hemos realizado un gran esfuerzo para incluir la máxima información en los manuales de usuario y para facilitarle la instalación. Sabemos que estará deseando conectar la tarjeta IBM PC Card Modem lo más rápidamente posible, pero le rogamos que siga las instrucciones de este manual de usuario para conseguir una instalación correcta y evitar frustraciones y desengaños.

Acerca de las PC Cards

Las PC Cards, antes denominadas tarjetas PCMCIA, son unos pequeños dispositivos periféricos del tamaño de una tarjeta de crédito que se utilizan en cualquier equipo notebook que cuente con una ranura adecuada para PC Cards.

La norma de las PC Cards, permite al usuario, con un mínimo esfuerzo, la instalación de una amplia variedad de periféricos, como dispositivos de comunicaciones de datos GSM, módems, adaptadores de red, interfaces SCSI, tarjetas de sonido y tarjetas de memoria.

Los dispositivos de PC Card se clasifican en tres tipos: tipo I, tipo II y tipo III. La diferencia principal entre estos tres tipos es su grosor: las tarjetas de tipo I son las más finas y las de tipo III las más gruesas.

Tenga en cuenta que una tarjeta de tipo II, como la IBM PC Card Modem, se utiliza en una ranura para PC Card destinada a la conexión de tarjetas de tipo II o de tipo III.

56k

Cada vez más proveedores de servicios de Internet admiten comunicaciones a 56.000 bps. Los 56.000 bps se admiten sólo en el enlace receptor, es decir, los datos se reciben a 56.000 bps y se envían a 33.600 bps. Si el equipo receptor no admite la velocidad de 56.000 bps, la tarjeta IBM PC Card Modem pasará a la velocidad más alta siguiente que admita, por ejemplo 33.000 bps.

IBM PC Card Modem tiene una velocidad màxima de descarga de 56Kbps. Las velocidades de descarga reales dependerán de las condiciones de la línea, alteraciones de la misma y regulaciones locales. La velocidad de carga está limitada a 33.6Kbps según indica el ITU V.34 Standard.

Manual de usuario

Breve introducción a este manual del usuario

Este manual del usuario describe varias series de módems IBM PC Card Modem.

Hemos redactado este manual para personas con pocos o ningún conocimiento técnico o experiencia en telecomunicaciones. Utilice las instrucciones detalladas de este manual para preparar y manejar la tarjeta IBM PC Card Modem. Con estas instrucciones, los usuarios podrán conectar el nuevo producto de una forma sencilla y en un tiempo razonablemente breve. Teniendo cuidado en la fase de preparación, ahorrará tiempo y evitará problemas.

Este manual del usuario incluye instrucciones sobre:

La instalación del módem en el equipo
La comprobación del funcionamiento de la tarjeta
La resolución de problemas relativos a la instalación
La obtención de la asistencia que presta IBM

Preparación

Aunque parezca básico, una buena instalación comienza precisamente aquí.

Antes de comenzar la instalación del módem, compruebe los elementos siguientes. Esta es una buena oportunidad para familiarizarse con el contenido, los nombres y parte de la terminología esencial.

- IBM PC Card Modem
- Manual del usuario de la PC Card IBM
- Disco de utilidades
- Paquete de software de fax y comunicaciones
- Módem a cable RJ11 (con prolongador RJ11-RJ11)
- Adaptador de jack telefónico (específico del país

Instalación del módem IBM PC Card Modem

Son necesarias dos fases para instalar la tarjeta. La fase 1, que hay que realizar en primer lugar, es la instalación del software. Hay dos procedimientos de instalación para los distintos sistemas operativos dependiendo del equipo que vaya a utilizar. La fase 2 es la instalación física de la tarjeta en el equipo.

Información importante para usuarios de Windows 95

Para eliminar la posibilidad de problemas intermitentes con software de comunicacióon bajo ciertas versiones de Windows 95, se recomienda que desactive el Gestor de Potencia de Tarjeta PC.

1. En el Panel de control (Seleccione:Inicio>Configuración>Panel de Control). haga doble clic sobre el icono etiquetada potencia.
2. Si no está la lengüeta 'Tarjeta PC de módem', ignore este mensaje y proceda con la instalación de la tarjeta PC. Si está la lengüeta ' Tarjeta PC de módem' proceda como se indica a continuación:
3. Haga clic en la lengüeta 'Tarjeta PC de módem'.
4. Haga clic en 'Desactive la tarjeta PC de módem cuando no está un uso' para borrarlo. (esto es no seleccionado)
5. Haga clic en Aceptar.
6. Haga clic en Inicio y elija Apagar...
7. Haga clic en 'Reiniciar el equipo? y luego haga clic en Sí.
8. Ahora continúe con la instalación.

Primera fase: instalación del software para Windows 95 y Windows NT4

PASO 1

Introduzca el disco de utilidades en la unidad de disquete del equipo, que suele ser la unidad A.

PASO 2

Haga clic en el botón **Inicio** de Windows 95 o Windows NT.

PASO 3

Haga clic en la opción **Ejecutar** del menú **Inicio**.

PASO 4

Escriba **a:\setup** en el cuadro de diálogo **Ejecutar** y haga clic en el botón **Aceptar**.

PASO 5

Siga las instrucciones que aparezcan en pantalla y, una vez finalizado el procedimiento de instalación, saque el disco de utilidades de la unidad de disquete y prosiga con la segunda fase: instalación de la tarjeta IBM PC Card Modem .

Instalación del software para Windows 3.1 y 3.11

PASO 1

En el Administrador de programas, haga clic en **Archivo** y, a continuación, en **Ejecutar**.

PASO 2

Escriba **a:\setup** en el cuadro **Línea de comando** y haga clic en **Aceptar**.

PASO 3

Siga las instrucciones que aparezcan en pantalla y, una vez finalizado el procedimiento de instalación, saque el disco de utilidades de la unidad de disquete y prosiga con la segunda fase: instalación de la tarjeta IBM PC Card Modem.

Segunda fase: instalación de la tarjeta IBM PC Card Modem

Si utiliza Windows 95, sólo tendrá que conectar la tarjeta, tal y como se explica más abajo. No será necesario que desconecte el equipo durante este procedimiento.

Si utiliza Windows NT4 sin servicios de tarjeta y socket, tendrá que desconectar el equipo, introducir la tarjeta mientras esté desconectado y conectarlo a continuación. Si tiene alguna duda, consulte el manual del equipo o simplemente apague el equipo, introduzca la tarjeta y enciéndalo de nuevo.

PASO 1: Conexión de la tarjeta IBM PC Card Modem

Con la etiqueta hacia arriba, introduzca cuidadosamente el extremo de la tarjeta con la marca “INSERT”, en la ranura de la PC Card correspondiente. Cuando la tarjeta esté casi totalmente introducida, notará una ligera resistencia. En este punto, será necesaria una presión ligeramente superior para introducir la tarjeta totalmente, pero nunca debe forzarla, ya que los conectores son muy delicados y si aplica demasiada fuerza puede causar daños irreparables. Consulte, en la documentación del equipo, las instrucciones para la inserción y extracción de PC Card.

Nota: Algunos equipos notebook tienen ranuras de PC Card que requieren que la tarjeta se instale con la etiqueta mirando hacia abajo. Si tiene alguna duda, consulte el manual de usuario suministrado con el notebook.

PASO 2: CONEXIÓN DEL CABLE TELEFÓNICO

Conecte un extremo del cable adaptador del módem en el enchufe de la tarjeta como se muestra en el diagrama; a continuación conecte el otro extremo en un enchufe de línea telefónica estándar.

Ya se ha terminado la instalación del módem. Ahora podrá utilizar el correo electrónico, el fax y otras aplicaciones de software de comunicaciones. Si desea probar la tarjeta, consulte la sección “Prueba de la tarjeta IBM PC Card Modem”. Si ha instalado el modelo y desea configurar la tarjeta para que funcione en un país específico, consulte la sección “Utilización de la tarjeta IBM PC Card en otros países”.

Utilización de la tarjeta IBM PC Card Modem en otros países

Los modelos IBM PC Card Modem están preparados para su utilización en todo el mundo y cuentan con la homologación de telecomunicaciones en un gran número de países, lo que los hace estar legalmente aprobados para su conexión.

Para utilizar la tarjeta en países distintos al suyo, use la utilidad de software EasySwitch, que permite cambiar los parámetros del país para optimizar el rendimiento de la tarjeta IBM PC Card Modem y cumplir la normativa de telecomunicaciones local. Encontrará el programa EasySwitch en forma de icono en el grupo de programas creado durante el procedimiento de instalación del software. Véase el folleto de aprobación del país suministrado con la documentación del módem para obtener una lista de países homologados en el momento de la publicación,. En principio sabemos que funciona en todo el mundo, pero el proceso de homologación y certificación en cada país es un proceso largo y detallado y varía de un país a otro. Para mantenerle informado sobre las aprobaciones llevadas a cabo, se dispondrá de la actualización del estado de homologación en nuestro sitio Web.
http://www.pc.ibm.com/us/options/modems/countries.html

Prueba de la tarjeta IBM PC Card Modem

Prueba con Windows 95

Probando con Windows 95 o Windows NT 4.0 mediante la utilidad de software EasySwitch Haga clic en INICIO, PROGRAMAS, tarjeta PC IBM PC Card Modem, EasySwitch, Diagnósticos. Si no, consulte el fichero readme que está ubicado en el directorio C:IBMPCARD.
Métodos de prueba alternativos:

En Windows 95, haga clic en Inicio, elija Configuración y, a continuación, Panel de Control. Haga doble clic en Módems y aparecerá el cuadro de diálogo Propiedades de módems, en cuyo cuadro central se mostrará que la tarjeta ha sido reconocida e instalada en el equipo.

Una vez reconocido el módem, haga clic en la ficha Diagnósticos del cuadro de diálogo Propiedades de módems. En el cuadro aparecen el puerto de comunicaciones (por ejemplo Com 3) y el nombre del módem (IBM PC Card Modem). Resalte el puerto de comunicaciones que aparece junto al módem IBM International PC Card Modem with GSM y haga clic en Más información. Windows 95 interrogará al módem y, una vez concluida esta operación, aparecerá una lista de comandos y respuesta del módem conectado. No son realmente importantes y sólo muestran que el módem está conectado y funcionando. Salga de aquí haciendo clic en Aceptar y a continuación, salga de Propiedades de módems y de Panel de control.

Prueba con Windows 3.1 y 3.11

Inicie la aplicación EasySwitch que está en el grupo IBM PC Card Modem de la pantalla del administrador de programas. Espere hasta que aparezca la bandera del país, si lo hace, el módem está configurado correctamente. Si no es así, consulte el archivo Readme (Léame) del grupo IBM PC Card Modem de la pantalla del Administrador de programas.

Instalación de aplicaciones de software

Aplicaciones de software

La tarjeta IBM PC Card Modem, se suministra con un conjunto de aplicaciones de software que necesitará para navegar por Internet, enviar y recibir faxes y correo electrónico, enviar y recibir archivos y utilizar el módem como.

Siga las instrucciones suministradas con cada paquete para instalar y utilizar este software.

Importante:
En cada paquete de software tendrá que indicar qué tipo de módem está utilizando. Si la tarjeta IBM PC Card Modem no aparece en la lista, elija un controlador de módem compatible Hayes**.

Comandos At y registros S

Los comandos AT son comandos que la aplicación de software utiliza para "hablar" con el módem. Los registros S se utilizan para guardar los parámetros de la tarjeta IBM PC Card Modem.

Mantenimiento de la tarjeta IBM PC Card Modem

La tarjeta es un dispositivo electrónico muy complejo que requiere determinadas precauciones para garantizar un funcionamiento fiable.

- Nunca exponga la tarjeta a temperaturas extremas.
- No enchufe la tarjeta a un enchufe telefónico digital (como los que se encuentran a veces en oficinas y hoteles)
- No exponga la tarjeta a ambientes extremadamente húmedos.
- Evite que la tarjeta se golpee, se caiga y no la fuerce.

Tenemos la seguridad de que si tiene en cuenta estas sencillas medidas, disfrutará muchos años de la tarjeta IBM PC Card Modem.

Como actualizar la PC Card para GSM y RDSI

Las tarjetas IBM International PC Card están “preparadas para GSM y RDSI”, lo que significa que puede añadirse la función GSM comprando un paquete de actualización GSM para el teléfono móvil GSM que utilice y también añadirse la función RDSI con el paquete de actualización para RDSI

El paquete de actualización GSM contendrá el cable para conectar el teléfono móvil GSM a la tarjeta, una licencia de software, el software GSM para la tarjeta IBM International PC Card Modem with GSM y un manual del usuario para la actualización.

El paquete de actualización del RDSI contiene un adaptador de RDSI que le permitirá conectar su tarjeta PC a una T2 de RDSI, el software de utilidad de actualización y la guía de instalación

El kit GSM y RDSI se pueden pedir a su proveedor o llamando al número de teléfono : (UK) +44 (0) 1908 261686/(US) +001 978 369 0655.

Executing Commands

AT Commands and 'S Registers'

AT commands are the commands that software application use to 'talk' with your modem. S Registers are used for storing the IBM International PC Card Modem with GSM settings

Your modem is in Command Mode upon power-on and is ready to receive and execute "AT" commands. The modem remains in Command Mode until it makes a connection with a remote modem. In order for your system to execute these AT commands you must be within a communication software application such as WIN95's Hypterterminal or WIN 3.1x's Terminal.

AT Commands & Format

All commands must begin with the AT prefix, followed by the command letter and ended with the ENTER key. All default settings are printed in bold text. Spaces are allowed in the command string to increase command line readability but are ignored by the modem during command execution. All commands may be typed in either upper or lower case, but not mixed. A command issued without any parameters is considered as specifying the same command with a parameter of "0".

Note: The 1st command character in a command string must be preceded by an "AT", as in ATA, this commands the modem to auto answer.

An alternate source for technical information for the AT Commands and S Registers may be found in a Microsoft Write (.wri) file. This file can be found as an icon in the program group created during the software installation process.

AT Command Listing

ATA Answer

This command causes the modem to pick up the line and go to line in answer mode immediately. An incoming ring signal does not have to be detected by the modem. The modem will issue answer frequencies and attempt to train up to calling modem. If a connection is not established within the time period defined by S register 7, then the NO CARRIER message will be displayed.

A Answer immediately - force modem off-hook and into answer mode.

ATB Mode of operation

This command is used to put the modem into BELL mode or ITU-T (CCITT) mode. Bell modes are American modes of operation at 300bps or 1200bps.

B0 Set to standard ITU-T (CCITT) protocols .
B1 Set Bell modes.

ATD Dial command and dial modifiers

ATD causes the modem to dial according to the suffixed modifier. eg. ATDT12345 causes the modem to Tone dial 12345.

Dnnn Dial Telephone number (nnn).

Dial string modifiers:
^ Changes the state of call tone
P Set to pulse dialling.
T Set to tone (DTMF) dialling
, Pause (S8) seconds before next digit.
W Wait for dial tone.
@ Wait for quiet answer.
& Wait for credit card (bong) tone before continuing with the dial string.
; Return to command mode after dialling.
S=n Dial number stored in location n.
*#ABCD Additional DTMF tone codes.
L Dial last number called.

ATE Command echo

The ATE command controls the echoing of commands to the DTE device when in command mode.

E0	Command characters not echoed to the DTE.
E1	Command characters echoed to the DTE.

ATH Hang up

The ATH command puts the modem into an on-hook or off-hook state eg. when in command mode ATH would disconnect the call by hanging up the line.

H0	Set the modem on-hook.
H1	Set the modem off-hook.

ATI Interrogate modem

The ATI commands interrogate the modem and returns the relevant information.

I0	Request product code.
I1	Request firmware checksum.
I2	Validate internal firmware checksum (OK response).
I3	Request software release code.
I4	Product identifier.

ATL Speaker volume

The ATL commands are used to set speaker volume where appropriate.

L0	Set lowest speaker volume
L1	Set low speaker volume
L2	Set medium speaker volume
L3	Set high speaker volume

ATM Speaker control

The ATM command controls when a speaker is active.

M0	Turn loudspeaker off at all times.
M1	Enable loudspeaker until carrier is detected.
M2	Enable loudspeaker whenever modem is off-hook.
M3	Enable loudspeaker after dialling and until carrier is detected.

ATN Automode detection

The ATN command controls the automode detection.

N0 Automode detection is disabled (equivalent to setting the +MS<automode> subparameter to 0 . A subsequent handshake will be conducted according to the value of S37 or, if S37 is set to 0, according to the most recent DTE speed.
N1 Automode detection is enabled. A subsequent handshake will be conducted according to the contents of S37 or, if S37 is 0, starting at K56flex 56,000bps.

ATO Modem on-line

The ATO command is to return a modem to data mode when it is on line and in command mode.

O0 Return modem to Data mode.
O1 Return modem to Data mode and initiate retrain sequence.

ATQ Quiet message control

This command is used to switch result codes from the modem to the DTE device on or off.

Q0 Enable response codes to the DTE.
Q1 Disable response codes to the DTE.

ATS Set S register

The ATS command is used to either read the value of an S register or set it to another value. See the Special Commands and Features section for more details.

Sr? Return the contents of Register r to the DTE.
Sr=n Set the contents of Register r to n.

ATV Result code format

The ATV command determines the format of the result messages returned by the modem.

V0 Send numeric result code set.
V1 Send verbose code set.

ATW Connect message format

This command determines the format of the messages returned by the modem when it connects in error corrected mode.
W0 Report DTE speed only e.g. CONNECT 57600
W1 Report line speed, EC protocol and DTE speed
W2 Report DCE speed only e.g. CONNECT 33600

ATX Result code set and blind dialling

The ATX command determines which result code set is to be used by the modem and also determines the level of network tone recognition. See the Messages from the Modem section on page XXX for a full listing of the result codes that the modem can generate when in basic or extended mode.

X0 Select basic result code and disable all network tone recognition.
X1 Select extended result codes and disable all network tone recognition.
X2 Select extended result codes and enable dial tone recognition.
X3 Select extended result codes and enable busy tone recognition.
X4 Select extended result codes and enable both busy and dial tone recognition.

ATY Break disconnect format

This command is used to switch the break disconnect off or on. When the modem is in a non error corrected mode and the long space disconnect is switched on, the modem will transmit a 4 second break before going on hook. In error corrected mode the modem will go on hook if it receives a break of greater than 1.6 seconds.

Y0 Disable long space disconnect.
Y1 Enable long space disconnect.

ATZ Modem reset

The ATZ command resets the modem to the profile selected. For example, ATZ1 will reset the modem to profile 1. If no profile number is specified, profile 0 will be used.

Zn Reset the modem and load configuration n, where n is 0 or 1.

AT&C Data carrier detect

AT&C Controls how the modem presents the DCD signal.
&C0 DCD is always on
&C1 DCD follows carrier

page break

AT&D DTR options

The AT&D command in conjuntion with the AT&Q command determines how the modem will react to a loss of DTR.

&D0 Interpret DTR transition as per &Qn
&Q0, &Q5, &Q6 The modem ignores DTR
&Q1, &Q4 The modem hangs up
&Q2, &Q3 The modem hangs up, auto-answer is inhibited

&D1 Interpret DTR transition as per &Qn
&Q0, &Q1, &Q4, &Q5, &Q6 Asynchronous escape to command state
&Q2, &Q3 The modem hangs up, auto-answer is inhibited

&D2 Interpret DTR transition as per &Qn
The modem hangs up, auto-answer is inhibited

&D3 Interpret DTR transition as per &Qn
&Q0, &Q1, &Q4, &Q5, &Q6 The modem performs soft reset
&Q2, &Q3 The modem hangs up, auto-answer is inhibited

AT&F Restore factory configuration

This command loads the factory default configuration

&F0 Load factory configuration 0

AT&K Flow control options

The AT&K command selects the type of flow control to be used by the modem. Flow control is essential when the DTE speed is greater than the actual line speed.

&K0 Disable flow control.
&K3 Enable RTS/CTS flow control .
&K4 Enable XON/XOFF flow control
&K5 Support transparent XON/XOFF flow control
&K6 Enable RTS/CTS and XON/XOFF flow control

AT&Q Asynchronous/Synchronous operation

The AT&Q command selects the data and transmission mode.

&Q0 Select direct asynchronous mode
&Q4 Selects Autosync operation. Provides synchronous communications capability from an asynchronous terminal when used in conjunction with appropriate software.
&Q5 Modem negotiates an error corrected link
&Q6 Select asynchronous operation in normal mode

AT&R CTS control

AT&R controls the response of the CTS signal. CTS is also affected by the AT&K command.
&R0 CTS operates in accordance with V.25bis handshake
&R1 CTS controlled by flow control

AT&S DSR control

This command determines how the DSR signal operates.
&S0 DSR always ON.
&S1 DSR operates in accordance with V.24 spec.

AT&T Loopback test options

These commands are used to perform V.54 modem self tests. The tests operate for the length of time specified in S register 18. If this is set to 0, tests can be cancelled by AT&T0.
&T0 Terminate any test in progress.
&T1 Initiate Local Analogue Loop-back Test.
&T3 Initiate Local Digital Loop-back Test.
&T4 Accept requests for remote Digital Loop-back.
&T5 Deny requests for remote Digital Loop-back.
&T6 Initiate remote Digital Loop-back Test (V.54) without self test.
&T7 Initiate remote Digital Loop-back Test with self test.
&T8 Initiate local analogue loop back with self test

AT&V Display modem configuration

AT&V Displays the current configurations and the other stored profiles.
&V Display current configuration.

AT&W Save to non-volatile memory

This command saves the current configuraion into non-volatile memory.
&Wn Write active configuration to stored profile n where n is 0 or 1.
page break

AT&Y Set power on default

AT&Y Determines which profile is to be loaded when the modem is powered on

e.g. AT&Y1 means that the profile stored in location 1 is loaded on power up.

&Yn Load configuration profile n at power-up, where n is 0 or 1.

AT&Z Store telephone numbers

The AT&Z command stores a telephone number into the modems telephone directory. There are 4 telephone locations available, each containing up to 24 digits. eg. AT&Z2=12345 stores the telephone number 12345 in location 2.

&Z=n Store first telephone number.
&Z1=n Store second telephone number.

AT\A Set MNP packet sizes

The AT\A command sets the maximum block size used during an MNP connection. This command is only used when the phone line is very noisy.

\A0 Set max. packet size to 60
\A1 Set max. packet size to 128
\A2 Set max. packet size to 192
\A3 Set max. packet size to 256

AT\B Set Transmit break

The AT\B command is used to transmit a break from the local modem to the remote modem.

\Bn Send break of n (n = 1-9) durations of 100ms.

AT\K Break control

The AT\K command determines how the modem will react when a break is received. A break can be received by the modem from the remote modem, or the DTE device, or from the local modem with the AT\B command. This command only affects the modem in non-error corrected links.

\K0 Break from DTE causes the modem to enter command mode and not transmit break.
Break command causes the modem to purge its' buffers and transmit break to line
Break from remote modem causes the modem to purge its' buffers and transmit break to DTE

\K1 Break from DTE causes the modem to purge its' buffers and transmit break to line.
Break command causes the modem to purge its' buffers and transmit break to line.
Break from line causes the modem to purge its' buffers and transmit break to DTE.

\K2 Break from DTE causes modem to enter command mode and not transmit break.
Break command causes modem to transmit break to line immediately.
Break from line causes modem to transmit break to DTE immediately.

\K3 Break from DTE causes modem to transmit break to line immediately.
Break command causes the modem to transmit break to line immediately.
Break from line causes modem to transmit break to the DTE immediately.

\K4 Break from DTE causes modem to enter command mode and not transmit break.
Break command causes modem to transmit break to line in sequence with the data
Break from line causes modem to transmit break to the DTE in sequence with the data.

\K5 Break from DTE causes modem to transmit break to line in sequence with the data.
Break command causes modem to transmit break to line in sequence with the data.
Break from line causes modem transmit break to DTE in sequence with the data.

AT\N Error correction protocol

AT\N selects the error correction protocol to be used by the modem. Both LAPM and MNP4 are supported. eg. AT\N4 will cause the modem to establish a LAPM error corrected link only, if an error corrected link cannot be established the call is dropped. In reliable or auto-reliable V.42 mode, LAPM takes precedence over MNP.

\N0 Disable MNP and LAPM operation
\N1 Disable MNP and LAPM operation.
\N2 Enable reliable V.42 operation.
\N3 Enable auto-reliable V.42 operation (fallback to normal).
\N4 Enable reliable LAPM.
\N5 Enable reliable MNP operation .

AT+MS Select line modulation

This extended format command selects the modulation, enables or disables automode, specifies the lowest and highest connection rates, specifies mu-Law or A-Law codec types, enables or disables robbed bit signaling generation, and specifies the uplink rate.

The command format is:
AT+MS= <mod> , <automode>, <min_rate>, <max_rate>, <x_law>, < rb_signaling>, <uplink_rate>

To determine what options are currently selected, use the command:
AT+MS?

This command returns the current selected parameters e.g.
56,1,300,56000,1,0,33600

To determine what options the modem supports, use the command:
AT+MS=?

This command returns the available parameter values:
(0,1,2,3,9,10,11,56,64,69),(0,1),(300-56000),(300-56000),(0,1),(0,1),(300-33600)

The parameters for the AT+MS command are as follows :-

<mode>	Modulation	<min-rate>/ <max - rate>
0	V.21	300
1	V.22	1200
2	V.22bis	2400
3	V.23	1200
9	V.32	9600, 4800
10	V.32bis	14400, 12000, 9600, 7200, 4800
11	V.34	33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, 2400
56	K56flex	56000, 54000, 52000, 50000, 48000, 46000, 44000, 42000, 40000, 38000, 36000, 34000,32000
64	Bell 103	300
69	Bell 212	1200

<automode>
0 Automode disabled
1 Automode enabled (default)

<x_law>
0 mu-law
1 A-law

< rb_signaling>
0 disable robbed bit signalling
1 enable robbed bit signalling

<uplink_rate>
33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400,12000, 9600, 7200, 4800, 2400

AT%C Data compression options

The AT%C command is used to select the data compression mode. The modem supports both MNP5 and V.42bis.
%C0 Disable MNP5 and V.42bis data compression.
%C1 Enable MNP class 5 data compression only.
%C2 Enable V.42bis and disable MNP5
%C3 Enable V.42bis and MNP5
page break

AT%E Auto retrain options

This command selects the auto-retrain facility. When enabled, the modem monitors the line quality and performs a retrain when the line deteriorates. If retraining is unsuccessful, the modem disconnects the call.

%E0 Disable line quality monitor and auto retrain
%E1 Enable line quality monitor and auto retrain
%E2 Enable line quality monitor and fallback/fall forward

AT%L Receive line signal level

The AT%L command reports the receive line signal level. This command is used when the modem is on line but in command mode. A value of 009 indicates a receive line of -9dBm.

%L Return received line signal level

AT%Q Receive line noise level

The AT%Q command reports signal quality. This command is used when the modem is on line but in command mode. The higher the returned value, the noisier the line.

%Q Report line signal quality

Factory defaults

The factory default modem configuration corresponds to the following commands:

B0 E1 F0 L3 M1 N1 Q0 T V1 W1 X4 Y0
&C1 &D2 &K3 &Q5 &R1 &S0
\A1 \B3 \K5 \N3 \V1 %C3 %E2
page break

Special commands and features

A/ and +++ commands

There are two modem configuration commands that must not be preceded by the AT attention code:

1) A/
Typing A/ in the terminal emulation window causes the modem to re-execute the command previously entered. Note that it is not necessary to follow A/ with a carriage return.

2) +++
When in Data mode, if the string +++ is sent to the modem preceded and followed by a pause (which by default is one second), the modem will exit from Data mode and enter command mode. Meanwhile, the call is not automatically disconnected; data mode can be resumed by issuing the ATO command, or the call manually disconnected by issuing ATH command.
.
Fax mode

Your modem is capable of sending and receiving faxes. Fax operation is controlled automatically by the software which may have been supplied with your modem.

Your modem can send and receive faxes at up to 14400bps. The fax feature is compatible with Group 3 fax machines and fully compliant with the Class 1 control standards.

Messages from the modem

Your modem responds to commands and events by sending Result Codes. Result codes can be verbal (the default setting) or numeric, or can be turned off entirely. You can easily understand the verbal form, but your computer may find it easier to handle the numeric form. The table below lists the Hayes digital codes and their verbal equivalents.

Numeric	Long form
00	OK
01	CONNECT
02	RING
03	NO CARRIER
04	ERROR
05	CONNECT 1200
06	NO DIALTONE

07	BUSY
08	NO ANSWER
09	CONNECT 0600
10	CONNECT 2400
11	CONNECT 4800
12	CONNECT 9600
13	CONNECT 7200
14	CONNECT 12000
15	CONNECT 14400
16	CONNECT 19200
17	CONNECT 38400
18	CONNECT 57600
19	CONNECT 115200
22	CONNECT 75TX/1200RX
23	CONNECT 1200TX/75RX
24	DELAYED
32	BLACKLISTED
33	FAX
35	DATA
40	CARRIER 300
44	CARRIER 1200/75
45	CARRIER 75/1200
46	CARRIER 1200
47	CARRIER 2400
48	CARRIER 4800
49	CARRIER 7200
50	CARRIER 9600
51	CARRIER 12000
52	CARRIER 14400
53	CARRIER 16800
54	CARRIER 19200
55	CARRIER 21600
56	CARRIER 24000
57	CARRIER 26400
58	CARRIER 28800
59	CONNECT 16800
61	CONNECT 21600
62	CONNECT 24000
63	CONNECT 26400
64	CONNECT 28800
66	COMPRESSION : CLASS5
67	COMPRESSION :V42BIS
69	COMPRESSION : NONE
70	PROTOCOL : NONE
77	PROTOCOL : LAPM

78 CARRIER 31200
79 CARRIER 33600
80 PROTOCOL : ALT
81 PROTOCOL : ALT-CELLULAR
83 CONNECT 31200
84 CONNECT 33600
150 CARRIER 32000
151 CARRIER 34000
152 CARRIER 36000
153 CARRIER 38000
154 CARRIER 40000
155 CARRIER 42000
156 CARRIER 44000
157 CARRIER 46000
158 CARRIER 48000
159 CARRIER 50000
160 CARRIER 52000
161 CARRIER 54000
162 CARRIER 56000
165 CONNECT 32000
166 CONNECT 34000
167 CONNECT 36000
168 CONNECT 38000
169 CONNECT 40000
170 CONNECT 42000
171 CONNECT 44000
172 CONNECT 46000
173 CONNECT 48000
174 CONNECT 50000
175 CONNECT 52000
176 CONNECT 54000
177 CONNECT 56000

The result codes shown comprise the Extended Command set. Result codes 0-4, 6-8 and 16-18 comprise the Basic Command set.

You can disable or enable result codes using the ATQ command. Numeric or verbal result codes are selected using the ATV command. The ATX command is used to determine whether the Extended or Basic result code set is used.
page break

S Registers

Your Modem has a set of internal registers, known as "S" registers, which are used to control the fine details of its operation. Most of the "S" registers are not applicable to every day usage of your PC Card and can be ignored.

Notes:
1. The number in brackets following the S register number is the default factory setting.
2. When specifying bit-mapped registers with multiple options, the bit pattern is displayed in binary format starting with the most significant bit to the left.
3. Modifying the contents of bit-mapped S registers is not recommended.
4. All S Register values must be input as 8-bit decimal numbers.

S0 (0) Auto Answer Ring Number.

Units: Rings Range: 0 - 255
Defines the number of ring bursts before the modem automatically answers an incoming call. When set to zero, auto-answer is disabled.

S1 (0) Incoming Ring Count (read only register).

Units: Rings Range: 0 - 255
Counts the number of ring bursts received. Reset to zero after 8 seconds of no ring.

S2 (43) Escape Character.

Units: ASCII Range: 0 - 127
Defines the ASCII character used to exit into command mode from data mode. A value greater than 127 disables escape code detection.

S3 (13) Carriage Return Character.

Units: ASCII Range: 0 - 127
Specifies the ASCII code to be used as carriage return.

S4 (10) Line Feed Character.

Units: ASCII Range: 0 - 127
Specifies the ASCII code to be used as line feed.
page break

S5 (8) Backspace Character.

Units: ASCII Range: 0 - 127
Specifies the ASCII character to be used to erase the last command character entered.

S6 (4) Wait time for dial tone before blind dialling.

Units: Seconds Range: 4-7
Determines the period of time that the modem waits after connecting to line before commencing blind-dialling of the telephone number specified. The W modifier in the dial string will override this and cause the modem to wait for a dial tone before commencing dialling.

S7 (40) Wait for carrier or Silence after dialling.

Units: Seconds Range: 1 - 58
Determines the period of time that the modem waits for carrier from the remote modem before hanging up.

S8 (4) Pause time for the comma (,) dial modifier.

Units : seconds - Range : 4- 11
This register contains the pause time of the (,) dial modifier used in the dial string. Consecutive commas will invalidate the modem's approval if the total pause period exceeds 12 seconds.

S9 (6) Carrier detect response time.

Units : tenths of a second - Range : 1-255
This register contains the time period that a received carrier signal must be present for the modem to recognise it and turn on the DCD signal.
S10 (14) Loss of carrier to hang up delay time.

Units : tenths of a second - Range : 1 - 255
This register contains the time period that the modem takes to disconnect from the telephone line upon detection of loss of carrier. If S10 is set to a value less than S9 any loss of carrier will result in disconnection. The loss of carrier time period that can be tolerated is the difference between S9 and S10.

S11 (95) Duration and spacing of DTMF tones.

Units: milliseconds - range:50-255
This register contains the time period of the duration and inter-digital pause of the DTMF dialling tones. This is a read only register.

S12 (50) Escape code guard time.

Units : fiftieths of a second - range: 0-255
This register contains the time period of the escape code guard time. The escape code guard time is the delay required prior to and immediately succeeding the escape code. If the guard time is defined as 0, there will be no guard time and 3 consecutive escape characters will cause the modem to enter the command mode.

S14 (138) Bit mapped register.

Bit 0	Reserved
Bit 1	0 Disable command echo.
	1 Enable command echo.
Bit 2	0 Enable result codes.
	1 Disable result codes.
Bit 3	0 Short form result codes.
	1 Long form result codes.
Bit 4	Reserved
Bit 5	0 DTMF dial.
	1 Pulse dial.
Bit 6	Reserved.
Bit 7	0 Answer
	1 Originate

S16 (0) Test options, bit mapped (read only register).

Bit 0 0 Local analogue loop-back inactive.
1 Local analogue loop-back active.
Bit 1 Reserved
Bit 2 0 Local digital loop-back inactive.
1 Local digital loop-back active.
Bit 3 0 Remote digital loop-back requested from remote modem active.
1 Remote digital loop-back requested from remote modem active.
Bit 4 0 Status bit, remote digital loop-back inactive.
1 Status bit, remote digital loop-back active.
Bit 5 0 Remote digital loop back disabled
1 Remote digital loop back enabled
Bit 6 0 Local analogue loop back disabled
1 Local analogue loopback enabled
Bit 7 Not used.

S18 (0) Test timer.

Units : seconds - Range 0-255
This register defines the time period (in seconds) of the modems diagnostic tests. When a test has been active for a period given by the register then the modem will automatically cancel the test. A value of 0 will disable the test timer and any test will remain active until cancelled by the user.

S21 (52) Bit mapped register.

Bit 0 0 &J0
1 &J1
Bit 1 Reserved
Bit 2 0 CTS always on.
1 CTS tracks RTS.
Bits 4,3 00 DTR is ignored.
01 Enter command state when DTR inactive.
10 Clear down call when DTR inactive.
11 Clear down call and reset when DTR inactive.
Bit 5 0 DCD always active.
1 DCD is active when carrier present.
Bit 6 0 DSR always active.
1 DSR active in data mode only.
Bit 7 0 Long space disconnect disabled.
1 Long space disconnect enabled.

S22 (119) Bit mapped register.

Bits 1,0 00 Speaker off
01 Speaker low
10 Speaker medium
11 Speaker high
Bits 3,2 00 Speaker disabled.
01 Speaker on until carrier.
10 Speaker always on.
11 Speaker on until carrier, off when dialling.
Bit 6,5,4 000 Basic result codes, no busy, blind dials.
100 Extended result codes, no busy, blind dials.
101 Extended result codes, no busy, detects dialtone.
110 Extended result codes, detects busy, blind dials.
111Extended result codes, detects busy and dialtone.
Bit 7 Reserved

S23 (182) Bit mapped register.

Bit 0 0 disable remote request for remote digital loop-back.
1 enable remote request for remote digital loop-back.
Bit 3,2,1 000 DTE baud rate = 300
010 DTE baud rate = 1200
011 DTE baud rate = 2400
100 DTE baud rate = 4800
101 DTE baud rate = 9600
111 DTE baud rate = 19200
Bit 5,4 00 parity even
01 not used
10 odd parity
11 no parity
Bit 7,6 Reserved

S25 (5) Delay to DTR

Units : seconds - Range 0-255
Sets the length of time that the modem will ignore DTR before hanging up.

S26 (1) RTS to CTS delay

Units : hundredths of a second - Range : 0-255
Sets the time delay before the modem turns CTS on after detecting an off-to-on transition on RTS when &R0 is commanded.

S27 (9) Bit mapped

Bit 0,1,3 0,0 &M0 or &Q0
1,0 &M1 or &Q1
2,0 &M2 or &Q2
3,0 &M3 or &Q3
0,1 &Q4
1,1 &Q5
2,1 &Q6
Bit2,4,5 Reserved
Bit 6 0 CCITT mode
1 Bell mode
Bit 7 Reserved

S29 (0) Flash dial modifier

Units : 10 milli seconds - Range : 0-255
Sets the length in time, in units of 10ms, that the modem will go on-hook when it encounters the flash (!) dial modifier in the dialstring.

S30 (0) Disconnect inactivity timer.

Units : tens of seconds - Range : 0-255
Sets the length of time that the modem will stay on line before disconnecting when no data is sent or received. In error correction mode, any data transmitted or received will reset the timer. In other modes, any data transmitted will reset the timer.

S31 (194) Modem modes.

Bit 0 Reserved
Bit1 0 line speed detection disabled
1 line speed detection enabled
Bit 2,3 00 Error correction progress messages report DTE speed only
01Full report given
10 DCE speed only reported
Bit 4,5,6,7 Reserved

S32 (17) XON character.

Units : ASCII - Range 0-255
Sets the value of the XON character.

S33 (19) XOFF character

Units : ASCII - Range : 0-255
Sets the value of the XOFF character.

S36 (7) LAPM failure control.

This value indicates what should happen upon a LAPM failure. These fallback options are initiated upon connection if S48=128.

Bit 0,1,2 000 Modem disconnects
001 Modem stays on line and a direct mode connection is established
010 Reserved
011 Modem stays on line and a normal mode connection is established
100 An MNP connection is attempted and if it fails the modem disconnects
101 An MNP connection is attempted and if it fails a direct mode connection is established
110 Reserved
111 An MNP connection is attempted and if it fails a normal mode connection is established
Bit 3,4,5,6,7 Reserved

S37(0) Desired line connection speed

Bit 4, 3,2,1,0 00000 Attempt auto mode connection
00010 Attempt to connect at 300bps
00100 Attempt to connect at 300bps
00110 Attempt to connect at 300bps
00100 Reserved
00101Attempt V32bis/V32 4800bps
0110 Attempt to connect at 2400bps
11000 Attempt to connect at V23
11100 Attempt V32bis/V32 9600bps
11110 Attempt V32bis 12000bps

S38 (20) Delay before hanging up.

Units : seconds - Range 0-255
This register determines the time period that the modem waits before dropping the line when in error correction mode.

S39 (3) Flow control

Bits 2,1,0	000 No flow control
	011 RTS/CTS
	100 XON/XOFF
	101 Transparent XON
	110 Both methods
Bits 7,6,5,4,3	Reserved

S40 (104)	Bit mapped
Bit 0	0 Disable extended MNP services
	1 Enable extended MNP services
Bit 1	Reserved
Bit 2	0 MNP link negotiation at highest speed
	1 MNP link negotiation at 1200bps
Bit 5,4,3	000 \K0
	001 \K1
	010 \K2
	011 \K3
	100 \K4
	101 \K5
Bit 7,6	00 MNP block size 64 characters
	01 128 characters
	10 192 characters
	11 256 characters

S41 (195) Bit mapped

Bit 1,0	00 Compression disabled
	01 MNP5
	10 V42bis
	11 MNP5 and V42bis
Bit 2	0 Retrain disabled
	1 Retrain enabled
Bit 3	0 Modem to modem flow control disabled
	1 Enabled
Bit 4	0 Stream mode
	1 Block mode
Bit 7,6,5	Reserved

page break

S46 (138) Data compression control.

Range : 136 or 138
136 Execute error correction protocol with no compression
138 Execute error correction protocol with compression

S48 (0) V.42 negotiation action

Range : 0, 7 or 128

The V.42 negotiation process determines the capabilities of the remote modem. However, when the capabilities of the remote modem are known and the negotiation is unnecessary, this process can be bypassed if so desired.
If an invalid number is entered, it is accepted but S48 will act as if 128 has been entered.
7 Enable negotiation
0 Disable negotiation
128 Disable negotiation; bypass detection and proceed with LAPM

S86 (0) Connection failure identification (read only register).

This register gives diagnostic information regarding why the modem failed to connect.
0 Normal disconnection, no error occurred
4 Loss of carrier
5 V.42 failed to detect an error corrected modem at the other end
9 The modems could not find a common protocol
12 Normal disconnect initiated by the remote modem
13 Remote modem does not respond after 10 re-transmissions
14 protocol violation

S95 (44) Extended result codes

Bit 0 CONNECT result code indicates DCE speed instead of DTE speed
Bit 1 Append /ARQ to CONNECT XXX result code if error correction is on
Bit 2 Enable CARRIER XXX result code
Bit3 Enable PROTOCOL XXX result code
Bit 4 Reserved
Bit 5 Enable COMPRESSION result code
Bit 6,7 Reserved

Help and Service Information

Step 1: Troubleshooting

The modem was completely tested for proper operation at the factory before packaging for shipment. However for assistance in trouble shooting problems with your modem a complete listing of AT commands and the **Trouble Shooting Guide** can be found in the Microsoft Write (.wri) file which can be found as an icon in the program group created during the software installation process.

If the modem does not respond to the **AT** commands , please try the following

- Ensure that the modem is properly seated in your computer by removing and re-inserting the modem.
- Verify that the COM port specified in your communications software is the same as the COM port to which your modem is set.
- Ensure that the communications software is installed properly. Follow the installation instructions for the communications application carefully, and check the documentation for any additional information pertaining to your system.
- Check with your system's manufacturer to determine if system BIOS supports this feature or if updates are required.

Step 2: Preparing for the Call

Before calling, please prepare for your call by following these steps.

To assist the technical support representative, have available as much of the following information as possible:

- Computer manufacturer and computer model.
- Option number.
- Option name.
- serial number (if available).
- Proof of purchase (including date and place).
- Exact wording of the error message (if any)
- Description of the problem
- Hardware and software configuration information for your system

Step 3: Placing the Call to IBM

Technical support is available during the warranty period to answer any questions about your new IBM option. Support response time will vary depending on the number and nature of calls received.

Marketing, installation, and configuration support will be withdrawn from the PC Company HelpCenter 90 days after the option has been withdrawn from marketing.

If you call 90 days after the date of withdrawal or after your warranty has expired, you might be charged a fee. Additional support is available through the IBM PC Company automated Fax system, the PC Company Web Page, the PC Company Electronic Bulletin Board System and HelpWare offerings.

- The IBM web site at “http://www.pc.ibm.com
- The IBM Fax system at (800) 426-3395
- The IBM BBS system at 001 919 517 0001

For the support telephone and support hours by country, refer to the following table or to an optional enclosed technical support insert. If the number is not provided in the table or insert, contact your IBM reseller or IBM marketing representative.

Support 24 hours a day, 7 days a week	
Canada	1-800-565-3344
United States / Puerto Rico	1-800-772-2227

Country Specific Support	
Austria	1-54658-5060
Belux Fr	02-714-3515
Belux Fl	02-714-3570
Denmark	3-525-0291
Finland	9-22-931840
France	01-6932-4040
Germany	069-6654-9040
Ireland	01-8159202
Italy	02-482-75040
Luxembourg	298-977-5063
N.L.	020-504-0501
Norway	2-305-3240
Portugal	01-7915147 or 02-2071147
Spain	01-662-4916
Sweden	08-751-5227
Switzerland Fr, Gr, It	0800-805050
UK	01475-555059

Product Warranty

The following warranty information applies to products purchased in the United States, Canada, and Puerto Rico. For warranty terms and conditions for products purchased in other countries, see the enclosed Warranty insert, or contact your IBM reseller or IBM marketing representative.

International Business Machines Corporation Armonk, New York, 10504

Statement of Limited Warranty

The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you originally purchase for your use, and not for resale, from IBM or your reseller. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. Unless IBM specifies otherwise, the following warranties apply only in the country where you acquire the Machine. If you have any questions, contact IBM or your reseller.

Machine: IBM 56K PC Card Modem

Warranty Period*: Five (5) years
**Contact your place of purchase for warranty service information..*

Production Status

Each Machine is manufactured from new parts, or new and used parts. In some cases, the Machine may not be new and may have been previously installed. Regardless of the Machine's production status, IBM's warranty terms apply.

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The IBM Warranty for Machines

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications.
The warranty period for a Machine is a specified, fixed period commencing on its Date of Installation. The date on your receipt is the Date of Installation, unless IBM or your reseller informs you otherwise.

During the warranty period IBM or your reseller, if authorized by IBM, will provide warranty service under the type of service designated for the Machine and will manage and install engineering changes that apply to the Machine.
For IBM or your reseller to provide warranty service for a feature, conversion, or upgrade, IBM or your reseller may require that the Machine on which it is installed be 1) for certain Machines, the designated, serial-numbered Machine and 2) at an engineering-change level compatible with the feature, conversion, or upgrade.
Many of these transactions involve the removal of parts and their return to IBM.

You represent that all removed parts are genuine and unaltered. A part that replaces a removed part will assume the warranty service status of the replaced part.

If a Machine does not function as warranted during the warranty period, IBM or your reseller will repair it or replace it with one that is at least functionally equivalent, without charge. The replacement may not be new, but will be in good working order. If IBM or your reseller is unable to repair or replace the Machine, you may return it to your place of purchase and your money will be refunded.

If you transfer a Machine to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this Statement to that user. However, for Machines which have a life-time warranty, this warranty is not transferable.
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Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM.

In the United States, call IBM at **1-800-772-2227**.

In Canada, call IBM at **1-800-565-3344**.

You may be required to present proof of purchase.

IBM or your reseller will provide certain types of repair and exchange service, either at your location or at IBM's or your reseller's service center, to restore a Machine to good working order.

When a type of service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours.
You represent that all removed items are genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty service status of the replaced item. Before IBM or your reseller exchanges a Machine or part, you agree to remove all features, parts, options, alterations, and attachments not under warranty service. You also agree to ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange. You agree to:

1. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and

2. where applicable, before service is provided --

   a) follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provide,

   b) secure all programs, data, and funds contained in a Machine, and

   c) inform IBM or your reseller of changes in a Machine's location.

IBM is responsible for loss of, or damage to, your Machine while it is 1) in IBM's possession or 2) in transit in those cases where IBM is responsible for the transportation charges.
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Extent of Warranty

IBM does not warrant uninterrupted or error-free operation of a Machine.

The warranties may be voided by misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, removal or alteration of Machine or parts identification labels, or failure caused by a product for which IBM is not responsible.

THESE WARRANTIES REPLACE ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. IN THAT EVENT SUCH WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD.
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Limitation of Liability

Circumstances may arise where, because of a default on IBM's part or other liability you are entitled to recover damages from IBM. In each such instance, regardless of the basis on which you are entitled to claim damages from IBM (including fundamental breach, negligence, misrepresentation, or other contract or tort claim), IBM is liable only for:

1. damages for bodily injury (including death) and damage to real property and tangible personal property; and

2. the amount of any other actual direct damages or loss, up to the greater of U.S. $100,000 or the charges (if recurring, 12 months' charges apply) for the Machine that is the subject of the claim.

UNDER NO CIRCUMSTANCES IS IBM LIABLE FOR ANY OF THE FOLLOWING: 1) THIRD-PARTY CLAIMS AGAINST YOU FOR LOSSES OR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); 2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF IBM OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

Notices

Electronic Emission Notices

Federal Communications Commission (FCC) Statement

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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an IBM authorized dealer or service representative for help.

IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

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, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada Class B Emission Compliance Statement

This Class B digital apparatus meets the requirement of the Canadian Interference-Causing Equipment Regulations.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouiller du Canada.

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Telecommunication Notices

Federal Communications Commission (FCC) and Telephone Company Requirements

1. This adapter complies with Part 68 of the FCC rules. A label is affixed to the adapter that contains, among other things, the FCC registration number, USOC, and Ringer Equivalency Number (REN) for this equipment. If these numbers are requested, provide this information to your telephone company.

2. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have those devices ring when your number is called. In most, but not all areas, the sum of the RENs of all devices should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should call your local telephone company to determine the maximum REN for your calling area.

3. If the adapter causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance; if advance notice is not practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC.

4. Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of your equipment. If they do, you will be given advance notice to give you an opportunity to maintain uninterrupted service.

5. If you experience trouble with this product, contact your Authorized Reseller, or call IBM. In the United States, call IBM at **1-800-772-2227**. In Canada, call IBM at **1-800-565-3344**. You may be required to present proof of purchase.
   The telephone company may ask you to disconnect the adapter from the network until the problem has been corrected, or until you are sure the adapter is not malfunctioning.

6. No customer repairs are possible to the adapter. If you experience trouble with the adapter, contact your Authorized Reseller or see Help and Service section of this manual for information.

7. This adapter may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Contact your state public utility commission or corporation commission for information.

8. When ordering network interface (NI) service from the local Exchange Carrier, specify service arrangement USOC RJ11C.

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Canadian Department of Communications Certification Label

NOTICE: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The LOAD NUMBER (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the sum of the LOAD NUMBERS of all the devices does not exceed 100.

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DECLARATION OF CONFORMITY

IBM P.O. BOX 12195
3039 CORNWALLIS
RESEARCH TRIANGLE PARK, NC 277092195

declares under his sole responsibility that the produced terminal equipment identified as:

IBM International PC Card Modem with GSM

to which this declaration relates has been tested and is in conformity with the following standards:

EN60950 according to the requirements of Low Voltage Directive 73/23/EEC
EN55022 Class B and EN50082-1 according to requirements of EMC Directive 89/336/EEC

ENVIRONMENTAL CONDITIONS AND POWER REQUIREMENTS

Storage Temperature Range: -25 to 60 degrees C

Operating Temperature Range: 0 to 45 degrees C
Relative Humidity Range: 10 to 90 % (non-condensing)
Air Pressure Range: 86 to 106 kPa

This apparatus is designed for operation with low voltage supplied from the computer PC Card interface. There is no protection in the apparatus against supplies having voltages in excess of this. It is a condition of this approval that the power required by the host and the total of all adapter cards installed within the host environment, together with any auxiliary apparatus, does not exceed the power specification as stated in the Technical Reference Manual of the host computer.

The power requirements for this modem is:

Voltage: 5 V DC +/- 5%

Current: 275 mA typical operational

European Community (CE) Mark of Conformity Statement

This product is in conformity with the protection requirements of EC Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22 / European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

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