IBM®

56K PC Card Data/Fax Modem with XJACK connector

Installation Guide

OPTIONS
by IBM

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

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Part 1 : Safety 1-1

Part 2 : Quick Installation 2-1

Installing Modem in Windows 3.x and NT 4.0 2-2

Installing Modem in Windows95 2-2

Installing Modem in OS/2 Warp 2-3

Part 3 : Introduction 3-1

Package Contents 3-1

Additional Information for Installing with Windows NT 4.0 3-2

Vertifying OS/2 COM port setting 3-2

Part 4 : Testing Your Modem 4-1

Part 5 : Help and Service Information 5-1

Step 1: Troubleshooting 5-1

Step 2: Preparing for the Call 5-2

Step 3: Placing the Call to IBM 5-2

Part 6 : Product Warranty 6-1

Part 7 : Notices 7-1

Electronic Emission Notices 7-1

Telecommunication Notices 7-2

Notices 7-5

Trademarks 7-5

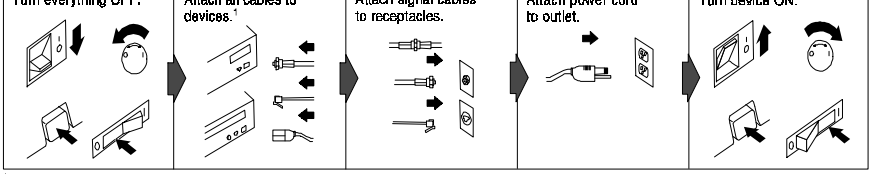
Part 1 : Safety

This modem card is for use only in Listed Personal Computers that have installation instructions detailing user installation of card cage accessories.

DANGER:

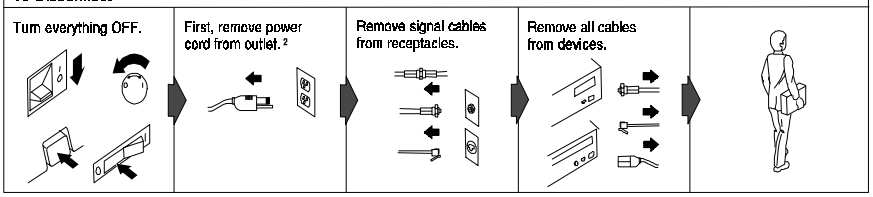
Electrical current from power, telephone, and communication cables is hazardous. To avoid shock hazard, connect and disconnect cables as shown below when installing, moving or opening the covers of this product or attached devices. The power cord must be used with a properly grounded outlet.

To Connect



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

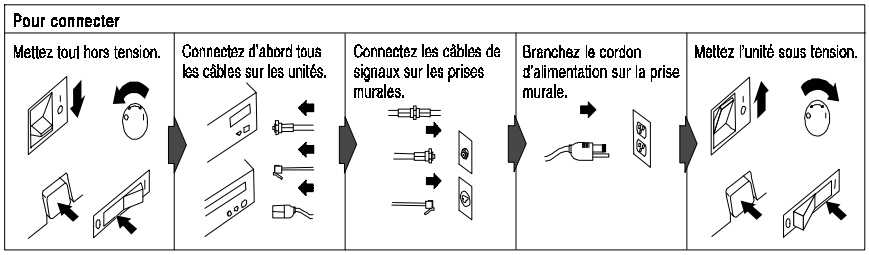
To Disconnect

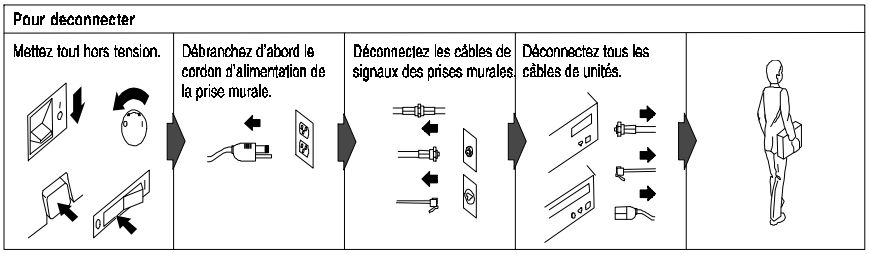


[2] In the U.K., by law, the power cord must be disconnected after the telephone line cable.

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.*

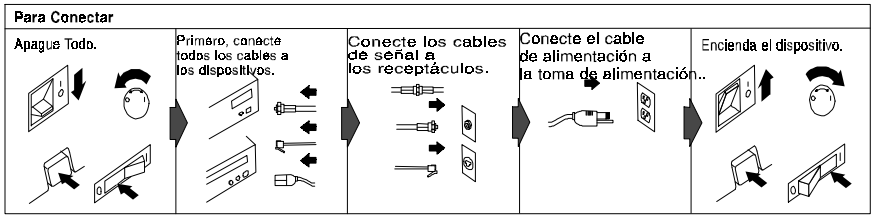


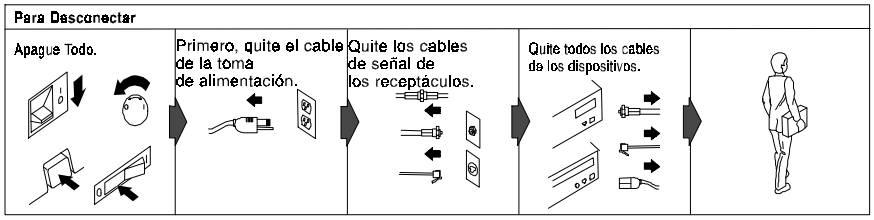


*Le cordon d'alimentation doit être branché sur un socle de prise de courant correctement mis à la terre.

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.





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.

Part 2 : Quick Installation

Thank you for purchasing an IBM 56K PC Card Modem with XJACK** Connector. This card is fully PCMCIA** 2.1 compatible and ready to plug into your computer slot.

Note:

Do NOT connect your modem to a digital PBX (switchboard) system, because you may damage the modem. Modems are designed to function with analog telephone lines, such as most residential lines. When in a hotel or office building, please request an analog or fax line from the concierge or facilities personnel.
Do NOT connect your modem to an ISDN line. In some countries, ISDN (digital) lines are being provided for residences and businesses. These lines may damage the modem.

Please note that this modem is fully compatible with analog telephone lines that are connected to a Digital Exchange. The Digital Exchange supplies analog lines to homes and businesses.

Important: Be sure to retain your proof of purchase because it might be required to receive warranty service. You can find information on how to get help, technical support, and warranty service in *Help and Service Information.*

Installing Modem in Windows 3.x and NT 4.0

1. For NT , Check the Devices applet in the Control Panel to make sure PCMCIA support is enabled. The startup type should be “boot” and the status should say “started”.
2. Power off your computer.
3. Insert the modem card into a PCMCIA card slot on your computer. Make sure that the card is completely inserted and mated securely to the computer.
4. Connect one end of the RJ11 phone cable to the XJACK® connector on the modem.
5. Connect the other end of the modem cable to an analog telephone line
6. Power on your computer, start Windows
   The modem is now ready for use.

Installing Modem in Windows95

1. Power on your computer, start Windows95.
2. Insert the modem card into a PCMCIA card slot of your computer. Make sure that the card is completely inserted and mated securely to the computer.
3. **New Hardware Found** will be on the screen.
4. Select option **Driver from disk provided by hardware manufacturer**
5. Click on **OK**.
6. Insert the Windows95 Installation diskette into diskette drive **A:**
7. Click on **OK**.
8. Follow the Windows95 prompts to complete installation.
9. Connect one end of the RJ11 phone cable to the XJACK® connector on the modem.
10. Connect the other end of the modem cable to an analog telephone line

The modem is now ready for use.

Installing Modem in OS/2 Warp

1. Power on your computer, start OS/2.
2. Insert the modem card into a PCMCIA card slot of your computer. Make sure that the card is completely inserted and mated securely to the computer.
3. Open the “OS/2 system folder”.
4. Open “System Setup”.
5. Run the “Selective Install”.
6. Click on the option (icon) for PCMCIA support.
7. Select your laptop from the list.
8. Check “PCMCIA Modem/FAX” box.
9. Select “OK” to install OS/2 Warp’s built-in PCMCIA card and socket services.
10. Follow the OS/2 instructions to complete the install.
11. After the installation has completed, reboot the computer.
12. Connect one end of the RJ11 phone cable to the XJACK® connector on the modem.
13. Connect the other end of the modem cable to an analog telephone line

The modem is now ready for use.

Guide abrégé d’installation

Merci d'avoir choisi le modem IBM 56K avec connecteur XJACK**. Cette carte est complètement compatible avec PCMCIA** 2.1 et elle est prête à être insérée dans la fente de l’ordinateur.

Remarque:

NE branchez PAS votre modem à un système numérique PBX (commutateur privé), cela pourrait endommager le modem. Les modems sont conçus pour fonctionner sur des lignes téléphoniques analogiques comme celles qu’on retrouve dans la plupart des résidences. Dans un hôtel ou un bureau, demandez au personnel des lieux d’utiliser une ligne analogique ou de fax.

NE branchez PAS votre modem sur une ligne RNIS (numérique). Dans certains pays, les lignes RNIS sont disponibles aux résidences et aux entreprises. Ce type de lignes peut endommager le modem.

Veuillez noter que ce modem est entièrement compatible avec les lignes téléphoniques analogiques qui sont relicés à un commutateur numérique. Le commutateur numérique fournit des lignes analogiques aux résidences et aux entreprises.

Entretien et Garantie

Pour obtenir une assistance technique ou pour connaître les heures d’assistance ainsi que les conditions et la période de la garantie, reportez-vous aux documents qui sont inclus ou contactez votre revendeur ou le représentant en marketing IBM.

Installation sous Windows 3.x et NT 4.0

1. Pour NT, vérifez l'accessoire Périphériques dans le Panneau de Configuration pour vous assurer que le support PCMCIA est activé. Le type de démarrage devrait être «boot» (programme d'amorce) et l'état devrait être «started» (démarré).

2. Éteignez l'ordinateur.

3. Insérez la carte modem dans la fente réservée à la carte PCMCIA de l'ordinateur. Assurez-vous que la carte est bien insérée et s'ajuste parfaitement à l'ordinateur.

4. Branchez une extrémité du câble téléphonique RJ11 au connecteur XJACK® du modem.

5. Branchez l'autre extrémité du câble du modem à une ligne téléphonique analogique.

6. Allumez l'ordinateur, démarrez Windows.

Le modem peut maintenant être utilisé.

Installation sous Windows95

1. Allumez l'ordinateur, démarrez Windows 95.

2. Insérez la carte modem dans une fente PCMCIA de l'ordinateur. Assurez-vous que la carte est bien insérée et s'ajuste parfaitement à l'ordinateur.

3. **Nouveau matériel** s'affiche à l'écran.

4. Choisir l'option Pilote sur disque fourni par le constructeur (**Driver from disk provided by hardware manufacturer**).

5. Cliquez sur **OK**.

6. Introduisez la disquette d'installation Windows95 dans le lecteur de disquettes A:

7. Cliquez sur **OK**.

8. Suivez les invetes de Windows95 pour achever l'installation.

9. Branchez une extrémité du câble téléphonique RJ11 au connecteur XJACK® du modem.

10. Branchez l'autre extrémité du câble du modem à une ligne téléphonique analogique.

Le modem peut maintenant être utilisé.

Installation du modem sous OS/2 Warp

1. Allumez l'ordinateur, démarrez OS/2 Warp.

2. Insérez la carte modem dans une fente PCMCIA de l'ordinateur. Assurez-vous que la carte est bien insérée et s'ajuste parfaitement à l'ordinateur.

3. Ouvrez le « Dossier système OS/2 ». (OS/2 system folder)

4. Ouvrez « Paramètres du système » (System Setup).

5. Exécutez la fonction « Sélection d'installation » (Selective Install).

6. Cliquez sur incône pour support PCMCIA.

7. Choisissez votre ordinateur portable dans la liste.

8. Cochez la case « PCMCIA Modem/FAX ».

9. Choisissez « OK » pour installer les services intégrés pour support et carte PCMCIA sous OS/2 Warp.

10. Suivez les instructions OS/2 pour achever l'installation.

11. Lorsque l'installation est terminée, redémarrez l'ordinateur.

12. Branchez une extrémité du câble téléphonique RJ11 au connecteur XJACK® du modem.

13. Branchez l'autre extrémité du câble du modem à une ligne téléphonique analogique.

Le modem peut maintenant être utilisé.

Instalaciôn Rápida

Gracias por comprar el Data/Fax módem 56Kbps PCMCIA IBM con Conector XJACK**. Esta tarjeta es totalmente compatible con PCMCIA** y viene ya preparada para que usted sólo tenga que introducirla en la ranura de su ordenador.

Nota:

NO conecte el módem a un sistema PBX (tablero), ya que puede causar daños. Los módems han sido diseñados para funcionar con las líneas teléfonicas, del tipo de la mayoría de las líneas telefónicas domiciliarias. Si se encuentra en un hotel o en un edificio de oficinas, pídale al conserje o al personal una línea análoga o de fax.

NO conecte el módem a una línea ISDN. En algunos países, los negocios y las residencias utilizan líneas (digitales) ISDN. Estas líneas pueden causarle daños al módem.

Le rogamos observe que este módem es totalmente compatible con líneas telefónicas análogas conectadas a un Intercambio Digital. Este Intercambio Digital suministra líneas análogas para negocios y domicilios.

Servicio Post-Venta y Garantía

Para servicio técnico, horas de servicio, y téminos y condiciones de la garantía, consulte la información adjunta, o póngase en contacto con su suministrador IBM o el representante de marketing IBM.

Cómo Instalar el Módem en Windows 3.x y NT 4.0

1. Para NT, verificar el icono de Mecanismos en el Panel de Control para asegurarse de que PCMCIA ha sido activado. El tipo de iniciación debe indicar “iniciar” y el estado debe indicar “iniciado”.

2. Desconecte el ordenador.

3. Introducir la tarjeta del módem en la ranura para la tarjeta PCMCIA del ordenador. Asegúrese que la tarjeta se haya introducido totalmente y se haya acoplado bien al ordenador.

4. Conectar un extremo del cable del teléfono RJ11 al conector XJACKÒ del módem.

5. Conectar el otro extremo del cable del módem a una línea de teléfono análoga.

6. Encienda el ordenador, inicie Windows.

El módem está listo para su uso.

Cómo Instalar el Módem en Windows95

1. Encienda el ordenador, inicie Windows 95.

2. Introduzca la tarjeta del módem en la ranura para la tarjeta PCMCIA del ordenador. Asegúrese de que la tarjeta se haya introducido totalmente y que se haya acoplado bien al ordenador.

3. **Localizado Nuevo Hardware** aparecerá en pantalla.

4. Seleccione la opción **Driver del disco suministrado por el fabricante de hardware**.

5. Hacer clic en **OK**.

6. Introduzca el disquete de Instalación de Windows95 en el drive A: del disquete.

7. Hacer clic en **OK**.

8. Seguir los prompts de instrucciones de Windows95 para finalizar la instalación.

9. Conectar un extremo del cable del teléfono RJ11 al conector XJACKÒ del módem.

10. Conectar el otro extremo del cable del módem a una línea de teléfono análoga.

El módem está listo para su uso.

Cómo Instalar el Módem en OS/2 Warp

1. Encienda el ordenador, inicie OS/2.

2. Introduzca la tarjeta del módem en la ranura para la tarjeta PCMCIA del ordenador. Asegúrese de que la tarjeta se haya introducido totalmente y que se haya acoplado bien al ordenador.

3. Abrir el “Sistema OS/2”.

4. Abrir “Instalar Sistema”.

5. Ejecutar “Instalación Selectiva”.

6. Hacer clic en la opción (icono) de PCMCIA.

7. Seleccionar el laptop de la lista.

8. Verificar la caja “PCMCIA Módem/FAX”.

9. Seleccionar “OK” para instalar los servicios de la tarjeta PCMCIA y conector incorporados OS/2 Warp.

10. Seguir las instrucciones OS/2 para finalizar la instalación.

11. Una vez haya finalizado la instalación, reiniciar el ordenador.

12. Conectar un extremo del cable del teléfono RJ11 al conector XJACKÒ del módem.

13. Conectar el otro extremo del cable del módem a una línea de teléfono análoga.

El módem está listo para su uso.

Part 3 : Introduction

Package Contents

Along with this Installation Guide, the following items are included in this package:

- IBM 56K PC Card modem with XJACK** Connector

  (FRU part number 04K0054).
- RJ-11 to RJ-11 Cable with cable coupler
- Software Program License
- Diskette for Windows95 /Windows NT 4.0 operating systems. (Also includes README and AT Command files)
- Communication software

As you examine these items, look for any physical damage.
Retain the shipping container in the event that you need to ship your IBM 56K PC Card modem with XJACK Connector.

Important: Be sure to retain your proof of purchase because it might be required to receive warranty service. You can find information on how to get help, technical support, and warranty service in *Help and Service Information.*

Additional Information for Installing with Windows NT 4.0

- After power on, open **Control Panel**
- Double click **Modems** icon
- **Install New Modem** panel should appear on your screen
- Check **don't detect modem**
- Click **NEXT**
- Insert supplied Windows95 Installation diskette in diskette drive
- Click on OK
- Under Models, you should see **IBM 56K Data-Fax Modem**
- Remove diskette, click on **NEXT**
- Windows NT 4.0 will request you select a com port, select any one then click on **NEXT**.
- If NT says it is unable to add modem to com port, click **OK** and re-run modems from control panel but do NOT select **don't detect modem**. Windows NT 4.0 will then correctly assign the modem to a com port.

Vertifying OS/2 COM port setting

- Open **System Setup** in **System** folder.
- Double click on the **Plug-and-play** icon.
- You should see **modem configured in** the slot number the modem is in.
- To find out which COM port the modem is assigned to, select the slot and double click on it.
- This will display the COM port and IRQ (interrupt) that is assigned to the modem.

Part 4 : Testing Your Modem

Refer to the Application Software's Installation Manual to load the communications software you will be using.

1. Turn on your computer.
2. Start your communication software and be sure it is in the command mode. This is also known as terminal mode.
3. Setup your communication software to 19200 and the communication port your modem is using.
4. If the port opened properly, go to the next step. Otherwise, check if you have any other communication software trying to use the same port. If so, close that software. If not, switch to a different COM port.
5. Type **AT&F** and press **enter**, you should see an **OK** response. If nothing happened at this point, this indicates that the modem is not getting the proper IRQ.
6. Type **AT\N1** and press **enter**
7. Type **ATE1** and press **enter**
8. Type **ATS18=n** and press **enter**

   NOTE: n is the number of seconds (30-255) you want the test to last.
9. Type **AT&T1** press **enter**. You should see **CONNECT nnnnn** (n is the connect speed you selected) displayed on your screen. After the CONNECT message, the modem is in the data mode. You can type any character on your keyboard and see them displayed on your screen.
10. When the time you specified in register S18 expires, you see **OK** displayed on your screen.
11. Type **AT&F** and press **enter**, you should see an **OK** response on your screen.

Dial Tone Test

1. Turn on your computer.
2. Start your communication software and be sure it is in the command mode. This is also known as terminal mode.
3. Setup your communication software to the communication port your modem is using.
4. Type **ATZ** and press **Enter**.

   Typing this command sets the modem to the default values. Your modem responds by displaying **OK** on your screen.
5. Type **ATL3** and press **Enter**.

   Typing this command increases the volume level at the modem speaker. Your modem responds by displaying **OK** on your screen.
6. Type **ATD** and press **Enter**.

   You should hear a dial tone from the modem speaker.
7. Press **Enter**.

   You should no longer hear the dial tone. Your modem responds by displaying **NO Carrier** on your screen.

This completes the Dial Tone Test

Part 5 : Help and Service Information

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

Step 1: Troubleshooting

The modem was completely tested for proper operation at the factory before packaging for shipment. If the modem does not respond to the **AT** commands described in *Testing your modem*, 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.

Step 2: Preparing for the Call

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

- Option name, description and serial number (if any)
- Order and or Field Replaceable Unit (FRU) part numbers
- Proof of purchase
- Computer manufacturer, model, serial number (if IBM) and manual
- Exact wording of the error message (if any)
- Description of the problem
- Hardware and software configuration information for your system
- If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

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.

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
Puerto Rico	1-800-772-2227
United States	1-800-772-2227

Part 6 : 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.

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.

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.

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.

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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.

Part 7 : 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.

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.

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.

Étiquette d'homologation du ministère des Communications du Canada

AVIS : L'étiquette du ministère des Communications du Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunications. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêchent pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause d'un mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: l'utilisateur ne doit pas tenter de faire ces raccordements lui-même, il doit avoir recours à un service d'inspection des installations électriques ou à un électricien, selon le cas.

AVIS: L'INDICE DE CHARGE (IC) assigné à chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordé à un circuit téléphonique bouclé utilisé par ce dispositif. L'extrémité du circuit bouclé peut consister en n'importe quelle combinaison de dispositifs pourvu que la somme des INDICES DE CHARGE de l'ensemble des dispositifs ne dépasse pas 100.

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