



\*P09N4210\*

**Attention: Read First - IBM ATA-100 (EIDE) Hard Disk Drive User's Guide Supplement**

**If you are using Microsoft® Windows® 3.1, Windows 95, or Windows 98:** Disregard this section on setting drive configuration jumpers; instead, read the "Installing DiskGo!" section in the *User's Guide*. DiskGo! Will provide direction in setting jumpers.

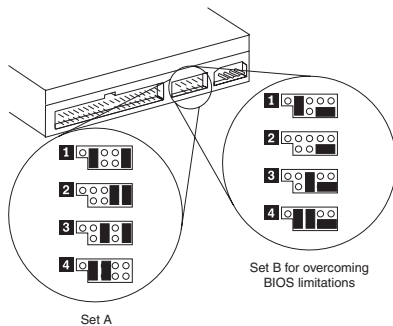
**If you are using Microsoft Windows NT® Workstation, Microsoft Windows 2000 Professional, Microsoft Windows Millennium Edition (Me) or IBM® OS/2®:** Read this entire section on setting jumpers; this information supplements the information in your *User's Guide*.

Your new IBM ATA-100 (EIDE) Hard Disk Drive offers a choice of jumper configurations so that the drive will function properly on the widest range of computers. In some older computers, the BIOS (basic input/output system) microcode will not recognize a large capacity hard disk drive. Computers made before 1998 commonly do not recognize drives larger than 4.2 GB (GB equals approximately 1 000 000 000 bytes). Many newer computers do not recognize drives larger than 8.4 GB or 32 GB. The following instructions will help you determine if your computer has one of these BIOS limitations and the configuration settings your computer requires so that the drive will be recognized.

IBM uses drives from a number of manufacturers. Locate the label on your hard disk and find the diagram that it corresponds to from the following figures. (The sample model numbers given are for 20.4 GB drives). Configure your drive using a jumper setting from **Set A** in the figure that corresponds to your drive. Return to the *User's Guide* and follow instructions beginning with "Determining Where to Begin" in the Installation Guide (Part 2).

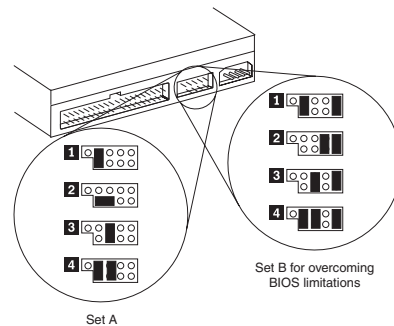
**Attention** The labeling on some drives could direct you to the wrong figure below. One family of 7200RPM drives has an IBM logo on the top of its label followed by "Fireball Plus AS". For these drives refer to the Quantum Figure below. Two families of Maxtor drives, clearly labeled Maxtor D540-4K or D740-6L were developed by Quantum before it was absorbed by Maxtor. For these drives also refer to the Quantum Figure. As a check, look at the jumper pins and jumper setting information on the drive. It should look similar, but not necessarily identical to the "Set A" information in the corresponding figure of this supplement. The information in this supplement is provided to document jumpering capabilities not always covered by the drive labels.

Figure 1. IBM manufactured drives  
Model number style similar to: DTLA - 37020



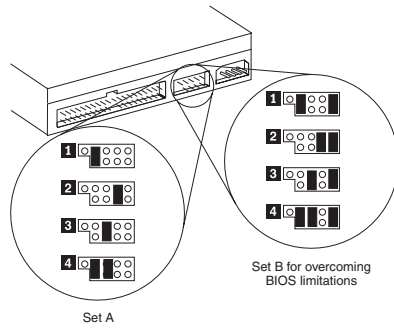
- 1** Master/single
- 2** Slave
- 3** Cable Select
- 4** Master with non-ATA Compatible Slave

Figure 2. Quantum manufactured drives  
Model number style similar to: QMP20500AS-A



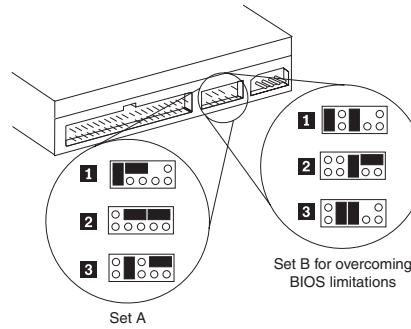
- 1** Master/single
- 2** Slave
- 3** Cable Select
- 4** Master with non-ATA Compatible Slave

Figure 3. Fujitsu manufactured drives  
Model number style similar to: MPG3204AT-B



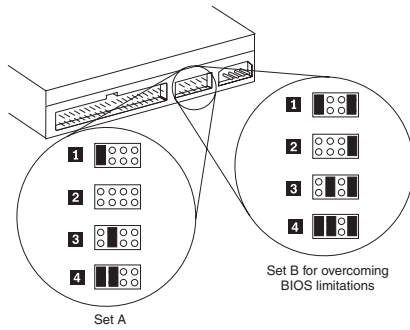
- 1 Master/single
- 2 Slave
- 3 Cable Select
- 4 Master with non-ATA Compatible Slave

Figure 4. Maxtor manufactured drives  
Model number style similar to: 92049H3



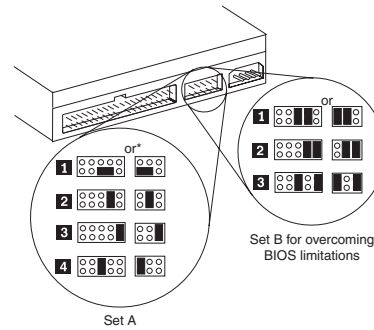
- 1 Master/single
- 2 Slave
- 3 Cable Select

Figure 5. Seagate manufactured drives  
Model number style similar to: ST320414A



- 1 Master/single
- 2 Slave
- 3 Cable Select
- 4 Master with non-ATA Compatible Slave

Figure 6. Western digital manufactured drives  
Model number style similar to: WD205BA



- 1 Master/Single
- 2 Slave
- 3 Cable Select (not available in Set B)
- 4 Master with non-ATA Compatible Slave

\*Note: Some WD Drives have 5 jumper positions; others have only 3.

## Troubleshooting

If you follow the steps in the *User's Guide*, and the configuration-setup program recognizes your drive at its true capacity, partition and format your drive using instructions given in the "Partitioning and formatting your drive" section in the *User's Guide*.

If the configuration-setup program reports the drive capacity as smaller than what it actually is, you must use *Disk Manager* to access the full capacity of the drive using the instructions in the "Partitioning and formatting using *DiskManager*" section in the *User's Guide*.

**If you are using Microsoft Windows 2000 or Windows Me**, when *DiskManager* requires the selection of an operating system choice, select **Windows 98** and choose to format and partition with **FAT 32**.

If your drive functions incorrectly after you restart your computer, check to make sure that the drive interface cable and the drive power supply cable are connected correctly. Next, attempt to disable the auto-detection facility of your setup software as described in "Step 1. Solving Problems" in the *User's Guide* Appendix B.

If your drive continues to function incorrectly after performing the above actions, your computer might have problems starting up because the setup program in your BIOS cannot correctly identify your high-capacity drive. To solve these BIOS problems, you must reconfigure the jumpers on your drive to the desired setting selected from Set B in the figure that corresponds to your disk drive. This will reduce the capacity that your BIOS sees so it can recognize your drive. You must use *DiskManager* to access the full capacity of the drive using the instructions in the "Partitioning and formatting using *DiskManager*" section in the *User's Guide*.

If your computer still functions incorrectly, contact the IBM HelpCenter®, using the information given in "Step 3. Placing the Call to IBM" in the *User's Guide* Appendix B.

# Specifications for your IBM ATA-100 (EIDE) Hard Disk Drive

<i>Performance<sup>2</sup> (all values typical averages):</i>	<b>5400 rpm drives</b>	<b>7200 rpm drives</b>
Read - seek time	12 ms	8.7 ms
Buffer size	512KB <sup>3</sup>	2.0MB <sup>4</sup>
Data transfer rates (drive buffer to system memory) (MBps <sup>1</sup> )		
Maximum burst rates		
Ultra DMA Mode 5	100	100
Ultra DMA Mode 4	66	66
Ultra DMA Mode 2	33	33
Multiword DMA Mode 2	16	16
PIO Mode 4	16	16
Sustainable rates (drive inner diameter to outer-minimum)	15-29	19-36
<b>Part Numbers:</b>		
Option part number (the part number on the drive carton)	See note 5.	See note 5.
Drive part number (the part number on the drive)		
Field Replaceable Unit (FRU) part number (also on the drive)		
<b>Logical Parameters:</b>		
Number of heads	16	16
Number of cylinders	16383	16383
Number of sectors per track	63	63
LBAs or user sectors per drive	See drive label.	See drive label.
<sup>1</sup> When referring to hard-disk-drive transfer rates, MBps equals 1 000 000 bytes per second. <sup>2</sup> Actual performance varies based upon many factors and is frequently less than the maximum possible. <sup>3</sup> Up to 192 KB reserved for drive firmware. <sup>4</sup> Up to 384 KB reserved for drive firmware. <sup>5</sup> A current table of drive part numbers for your option can be found by searching at <a href="http://www.ibm.com/support">http://www.ibm.com/support</a> for the option part number you purchased.		

## Warranty Information

Machine Name - IBM Personal Systems Group, Options by IBM branded, 3.5-inch ATA-100 Hard Disk Drive Options.  
 Warranty Period - Three Years

See the IBM Statement of Limited Warranty included in this publication for IBM's warranty terms and conditions. The IBM Machine Warranty worldwide Web site at [http://www-1.ibm.com/servers/support/machine\\_warranties/](http://www-1.ibm.com/servers/support/machine_warranties/) contains a worldwide overview of IBM's Limited Warranty for IBM Machines, a glossary of terms used in the Statement of Limited Warranty, Frequently Asked Questions (FAQs) and links to Product Support pages. The IBM Statement of Limited Warranty is available from this Web site in 29 languages in Portable Document Format (PDF).

## Service and support

With the original purchase of an IBM machine, you have access to extensive support coverage. During the IBM machine warranty period, you may call IBM or your reseller for problem determination assistance under the terms of the IBM Statement of Limited Warranty.

## Online and telephone technical support

This section contains information on how to obtain online and telephone technical support.

### Online technical support

Online technical support is available during the life of your product. Online assistance can be obtained through the Personal Computing Support Web site and the IBM Automated Fax System.

<b>Online technical support</b>	
IBM Personal Computing Support Web Site	<a href="http://www.ibm.com/pc/support">http://www.ibm.com/pc/support</a>
IBM Automated Fax System	1-800-426-3395 (U.S. and Canada)

During the warranty period, assistance for replacement or exchange of defective components is available. In addition, if your IBM option is installed in an IBM computer, you might be entitled to service at your location. Your technical support representative can help you determine the best alternative.

## Telephone technical support

Installation and configuration support through the HelpCenter will be withdrawn or made available for a fee, at IBM's discretion, 90 days after the option has been withdrawn from marketing. Additional support offerings, including step-by-step installation assistance, are available for a nominal fee.

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

1. Option name
2. Option number
3. Proof of purchase
4. Computer manufacturer, model, serial number (if IBM), and manual
5. Exact wording of the error message (if any)
6. Description of the problem
7. 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.

For the support telephone number and support hours by country, refer to the following table. If the number is not provided, contact your IBM reseller or IBM marketing representative. Response time may vary depending on the number and nature of the calls received.

<i>Support 24 hours a day, 7 days a week</i>	
Canada (Toronto only)	416-383-3344
Canada (all other)	1-800-565-3344
U.S.A. and Puerto Rico	1-800-772-2227
All other countries	Go to <a href="http://www.ibm.com/pc/support/">http://www.ibm.com/pc/support/</a> , and click <b>Support Phone List</b> .

## Product warranties and notices

This section contains the product warranties and electronic emissions notices.



## IBM Statement of Limited Warranty

Z125-4753-06 8/2000

### Part 1 - General Terms

*This Statement of Limited Warranty includes Part 1 - General Terms and Part 2 - Country-unique Terms. The terms of Part 2 replace or modify those of Part 1. The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you 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. The term "Machine" does not include any software programs, whether pre-loaded with the Machine, installed subsequently or otherwise. Unless IBM specifies otherwise, the following warranties apply only in the country where you acquire the Machine. **Nothing in this Statement of Limited Warranty affects any statutory rights of consumers that cannot be waived or limited by contract.** If you have any questions, contact IBM or your reseller. 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 ("Specifications"). The warranty period for a Machine is a specified, fixed period commencing on its Date of Installation. The date on your sales receipt is the Date of Installation unless IBM or your reseller informs you otherwise. If a Machine does not function as warranted during the warranty period, and IBM or your reseller are unable to either 1) make it do so or 2) replace it with one that is at least functionally equivalent, you may return it to your place of purchase and your money will be refunded.

#### Extent of Warranty

The warranty does not cover the repair or exchange of a Machine resulting from misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, or failure caused by a product for which IBM is not responsible. The warranty is voided by removal or alteration of Machine or parts identification labels.

**THESE WARRANTIES ARE YOUR EXCLUSIVE WARRANTIES AND 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.**

***Items Not Covered by Warranty***

IBM does not warrant uninterrupted or error-free operation of a Machine. Any technical or other support provided for a Machine under warranty, such as assistance via telephone with how-to questions and those regarding Machine set-up and installation, will be provided **WITHOUT WARRANTIES OF ANY KIND.**

**Warranty Service**

To obtain warranty service for a Machine, contact IBM or your reseller. If you do not register your Machine with IBM, you may be required to present proof of purchase. During the warranty period, IBM or your reseller, if approved by IBM to provide warranty service, provides without charge certain types of repair and exchange service to keep Machines in, or restore them to, conformance with their Specifications. IBM or your reseller will inform you of the available types of service for a Machine based on its country of installation. At its discretion, IBM or your reseller will 1) either repair or exchange the failing Machine and 2) provide the service either at your location or a service center. IBM or your reseller will also manage and install selected engineering changes that apply to the Machine.

Some parts of IBM Machines are designated as Customer Replaceable Units (called "CRU"), e.g., keyboards, memory, or hard disk drives. IBM ships CRUs to you for replacement by you. You must return all defective CRUs to IBM within 30 days of your receipt of the replacement CRU. You are responsible for downloading designated Machine Code and Licensed Internal Code updates from an IBM Internet Web site or from other electronic media, and following the instructions that IBM provides.

When warranty 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. Many features, conversions, or upgrades involve the removal of parts and their return to IBM. A part that replaces a removed part will assume the warranty service status of the removed part. 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

1. ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange;
2. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and
3. where applicable, before service is provided:
  - a. follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provides;
  - b. secure all programs, data, and funds contained in a Machine;
  - c. provide IBM or your reseller with sufficient, free, and safe access to your facilities to permit them to fulfill their obligations; and
  - d. 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.

Neither IBM nor your reseller is responsible for any of your confidential, proprietary or personal information contained in a Machine which you return to IBM or your reseller for any reason. You should remove all such information from the Machine prior to its return.

**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), except for any liability that cannot be waived or limited by applicable laws, IBM is liable for no more than

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, up to the charges (if recurring, 12 months' charges apply) for the Machine that is subject of the claim. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code.

This limit also applies to IBM's suppliers and your reseller. It is the maximum for which IBM, its suppliers, and your reseller are collectively responsible.

**UNDER NO CIRCUMSTANCES IS IBM LIABLE FOR ANY OF THE FOLLOWING: 1) THIRD-PARTY CLAIMS AGAINST YOU FOR 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, LOST PROFITS OR LOST SAVINGS, EVEN IF IBM, ITS SUPPLIERS 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 LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

**GOVERNING LAW**

Both you and IBM consent to the application of the laws of the country in which you acquired the Machine to govern, interpret, and enforce all of your and IBM's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Agreement, without regard to conflict of law principles.

**Part 2 - Country-unique Terms**

---

**AMERICAS**

**BRAZIL**

**Governing Law:** *The following is added after the first sentence:* Any litigation arising from this Agreement will be settled exclusively by the court of Rio de Janeiro.

**NORTH AMERICA**

**Warranty Service:** *The following is added to this Section:* To obtain warranty service from IBM in Canada or the United States, call 1-800-IBM-SERV (426-7378).

**CANADA**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:* laws in the Province of Ontario.

**UNITED STATES**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:* laws of the State of New York.

**ASIA PACIFIC**

**AUSTRALIA**

**The IBM Warranty for Machines:** *The following paragraph is added to this Section:* The warranties specified in this Section are in addition to any rights you may have under the Trade Practices Act 1974 or other similar legislation and are only limited to the extent permitted by the applicable legislation.

**Limitation of Liability:** *The following is added to this Section:* Where IBM is in breach of a condition or warranty implied by the Trade Practices Act 1974 or other similar legislation, IBM's liability is limited to the repair or replacement of the goods or the supply of equivalent goods. Where that condition or warranty relates to right to sell, quiet possession or clear title, or the goods are of a kind ordinarily acquired for personal, domestic or household use or consumption, then none of the limitations in this paragraph apply.

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:* laws of the State or Territory.

**CAMBODIA, LAOS, AND VIETNAM**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:* laws of the State of New York.

*The following is added to this Section:*

Disputes and differences arising out of or in connection with this Agreement shall be finally settled by arbitration which shall be held in Singapore in accordance with the rules of the International Chamber of Commerce (ICC). The arbitrator or arbitrators designated in conformity with those rules shall have the power to rule on their own competence and on the validity of the Agreement to submit to arbitration. The arbitration award shall be final and binding for the parties without appeal and the arbitral award shall be in writing and set forth the findings of fact and the conclusions of law.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator.

The two arbitrators appointed by the parties shall appoint a third arbitrator before proceeding upon the reference. The third arbitrator shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the ICC. Other vacancies shall be filled by the respective nominating party. Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

The English language version of this Agreement prevails over any other language version.

**HONG KONG AND MACAU**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:* laws of Hong Kong Special Administrative Region

**INDIA**

**Limitation of Liability:** *The following replaces items 1 and 2 of this Section:*

1. liability for bodily injury (including death) or damage to real property and tangible personal property will be limited to that caused by IBM's negligence;

2. as to any other actual damage arising in any situation involving nonperformance by IBM pursuant to, or in any way related to the subject of this Statement of Limited Warranty, IBM's liability will be limited to the charge paid by you for the individual Machine that is the subject of the claim.

## **JAPAN**

**Governing Law:** *The following sentence is added to this Section:*

Any doubts concerning this Agreement will be initially resolved between us in good faith and in accordance with the principle of mutual trust.

## **NEW ZEALAND**

**The IBM Warranty for Machines:** *The following paragraph is added to this Section:*

The warranties specified in this Section are in addition to any rights you may have under the Consumer Guarantees Act 1993 or other legislation which cannot be excluded or limited. The Consumer Guarantees Act 1993 will not apply in respect of any goods which IBM provides, if you require the goods for the purposes of a business as defined in that Act.

**Limitation of Liability:** *The following is added to this Section:*

Where Machines are not acquired for the purposes of a business as defined in the Consumer Guarantees Act 1993, the limitations in this Section are subject to the limitations in that Act.

## **PEOPLE'S REPUBLIC OF CHINA (PRC)**

**Governing Law:** *The following is replaces this Section:*

Both you and IBM consent to the application of the laws of the State of New York (except when local law requires otherwise) to govern, interpret, and enforce all your and IBM's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Agreement, without regard to conflict of law principles.

Any disputes arising from or in connection with this Agreement will first be resolved by friendly negotiations, failing which either of us has the right to submit the dispute to the China International Economic and Trade Arbitration Commission in Beijing, the PRC, for arbitration in accordance with its arbitration rules in force at the time. The arbitration tribunal will consist of three arbitrators. The language to be used therein will be English and Chinese. An arbitral award will be final and binding on all the parties, and will be enforceable under the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958).

The arbitration fee will be borne by the losing party unless otherwise determined by the arbitral award. During the course of arbitration, this Agreement will continue to be performed except for the part which the parties are disputing and which is undergoing arbitration.

## **EUROPE, MIDDLE EAST, AFRICA (EMEA)**

### ***THE FOLLOWING TERMS APPLY TO ALL EMEA COUNTRIES.***

The terms of this Statement of Limited Warranty apply to Machines purchased from IBM or an IBM reseller.

#### **Warranty Service:**

If you purchase an IBM Machine in Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland or United Kingdom, you may obtain warranty service for that Machine in any of those countries from either (1) an IBM reseller approved to perform warranty service or (2) from IBM. If you purchased an IBM Personal Computer Machine in Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Kazakhstan, Kirghizia, Federal Republic of Yugoslavia, Former Yugoslav Republic of Macedonia (FYROM), Moldova, Poland, Romania, Russia, Slovak Republic, Slovenia, or Ukraine, you may obtain warranty service for that Machine in any of those countries from either (1) an IBM reseller approved to perform warranty service or (2) from IBM.

If you purchase an IBM Machine in a Middle Eastern or African country, you may obtain warranty service for that Machine from the IBM entity within the country of purchase, if that IBM entity provides warranty service in that country, or from an IBM reseller, approved by IBM to perform warranty service on that Machine in that country. Warranty service in Africa is available within 50 kilometers of an IBM authorized service provider. You are responsible for transportation costs for Machines located outside 50 kilometers of an IBM authorized service provider.

#### **Governing Law:**

The applicable laws, that govern, interpret and enforce rights, duties, and obligations of each of us arising from, or relating in any manner to, the subject matter of this Statement, without regard to conflict of laws principles, as well as Country-unique terms and competent court for this Statement are those of the country in which the warranty service is being provided, except that in 1) Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Hungary, Former Yugoslav Republic of Macedonia, Romania, Slovakia, Slovenia, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan, the laws of Austria apply; 2) Estonia, Latvia, and Lithuania, the laws of Finland apply; 3) Algeria, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Djibouti, Democratic Republic of Congo, Equatorial Guinea, France, Gabon, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Lebanon, Mali, Mauritania, Morocco, Niger, Senegal, Togo, and Tunisia, this Agreement will be construed and the legal relations between the parties will be determined in accordance with the French laws and all disputes arising out of this Agreement or related to its violation or execution, including summary proceedings, will be settled exclusively by the Commercial Court of Paris; 4) Angola, Bahrain, Botswana, Burundi, Egypt Eritrea, Ethiopia, Ghana, Jordan, Kenya, Kuwait, Liberia, Malawi, Malta, Mozambique, Nigeria, Oman, Oman Pakistan, Qatar, Rwanda, Sao Tome, Saudi Arabia, Sierra Leone, Somalia, Tanzania, Uganda, United Arab Emirates, United Kingdom, West Bank/Gaza, Yemen, Zambia, and Zimbabwe, this Agreement will be governed by English Law and disputes relating to it will be submitted to the exclusive jurisdiction of the English courts; and 5) in Greece, Israel, Italy, Portugal, and Spain any legal claim arising out of this Statement will be brought before, and finally settled by, the competent court of Athens, Tel Aviv, Milan, Lisbon, and Madrid, respectively.

**THE FOLLOWING TERMS APPLY TO THE COUNTRY SPECIFIED:**

**AUSTRIA and GERMANY**

**The IBM Warranty for Machines** *The following replaces the first sentence of the first paragraph of this Section:*

The warranty for an IBM Machine covers the functionality of the Machine for its normal use and the Machine's conformity to its Specifications.

*The following paragraphs are added to this Section:*

The minimum warranty period for Machines is six months. In case IBM or your reseller is unable to repair an IBM Machine, you can alternatively ask for a partial refund as far as justified by the reduced value of the unrepaired Machine or ask for a cancellation of the respective agreement for such Machine and get your money refunded.

**Extent of Warranty:** *The second paragraph does not apply.*

**Warranty Service:** *The following is added to this Section:*

During the warranty period, transportation for delivery of the failing Machine to IBM will be at IBM's expense.

**Limitation of Liability:** *The following paragraph is added to this Section:*

The limitations and exclusions specified in the Statement of Limited Warranty will not apply to damages caused by IBM with fraud or gross negligence and for express warranty.

*The following sentence is added to the end of the first paragraph of item 2:*

IBM's liability under this item is limited to the violation of essential contractual terms in cases of ordinary negligence.

**EGYPT**

**Limitation of Liability:** *The following replaces item 2 in this Section:*

as to any other actual direct damages, IBM's liability will be limited to the total amount you paid for the Machine that is the subject of the claim. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code.

Applicability of suppliers and resellers (unchanged).

**FRANCE**

**Limitation of Liability:** *The following replaces the second sentence of the first paragraph of this Section:*

In such instances, regardless of the basis on which you are entitled to claim damages from IBM, IBM is liable for no more than: (items 1 and 2 unchanged).

**IRELAND**

**Extent of Warranty:** *The following is added to this Section:*

Except as expressly provided in these terms and conditions, all statutory conditions, including all warranties implied, but without prejudice to the generality of the foregoing all warranties implied by the Sale of Goods Act 1893 or the Sale of Goods and Supply of Services Act 1980 are hereby excluded.

**Limitation of Liability:** *The following replaces items one and two of the first paragraph of this Section:*

1. death or personal injury or physical damage to your real property solely caused by IBM's negligence; and
2. the amount of any other actual direct damages, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Machine that is the subject of the claim or which otherwise gives rise to the claim.

*Applicability of suppliers and resellers (unchanged).*

The following paragraph is added at the end of this Section:

IBM's entire liability and your sole remedy, whether in contract or in tort, in respect of any default shall be limited to damages.

**ITALY**

**Limitation of Liability:** *The following replaces the second sentence in the first paragraph:*

In each such instance unless otherwise provided by mandatory law, IBM is liable for no more than:

1. (unchanged)
2. as to any other actual damage arising in all situations involving non-performance by IBM pursuant to, or in any way related to the subject matter of this Statement of Warranty, IBM's liability, will be limited to the total amount you paid for the Machine that is the subject of the claim.

*Applicability of suppliers and resellers (unchanged).*

The following replaces the second paragraph of this Section:

Unless otherwise provided by mandatory law, IBM and your reseller are not liable for any of the following: (items 1 and 2 unchanged)

3) indirect damages, even if IBM or your reseller is informed of their possibility.

**SOUTH AFRICA, NAMIBIA, BOTSWANA, LESOTHO AND SWAZILAND**

**Limitation of Liability:** *The following is added to this Section:*

IBM's entire liability to you for actual damages arising in all situations involving nonperformance by IBM in respect of the subject matter of this Statement of Warranty will be limited to the charge paid by you for the individual Machine that is the subject of your claim from IBM.

**UNITED KINGDOM**

**Limitation of Liability:** *The following replaces items 1 and 2 of the first paragraph of this Section:*

1. death or personal injury or physical damage to your real property solely caused by IBM's negligence;
2. the amount of any other actual direct damages, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Machine that is the subject of the claim or which otherwise gives rise to the claim;



*The following item is added to this paragraph:*

3. breach of IBM's obligations implied by Section 12 of the Sale of Goods Act 1979 or Section 2 of the Supply of Goods and Services Act 1982.

Applicability of suppliers and resellers (unchanged).

The following is added to the end of this Section: IBM's entire liability and your sole remedy, whether in contract or in tort, in respect of any default will be limited to damages.

---

## Electronic emissions notices

IBM Personal Systems Group, Options by IBM branded, 3.5 inch ATA-100 Hard Disk Drive Options.

### 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.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM authorized dealers. 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.

Responsible Party:

International Business Machines Corporation  
New Orchard Road  
Armonk, NY 10504  
Telephone: 1-919-543-2193

 Tested To Comply  
With FCC Standards  
FOR HOME OR OFFICE USE

### Industry Canada Class B emission compliance statement

This Class B digital apparatus complies with Canadian ICES-003.

### Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de classe B est conforme à la norme NMB-003 du Canada.

### Deutsche EMV-Direktive (electromagnetische Verträglichkeit)

Dieses Gerät ist berechtigt in Übereinstimmung mit dem deutschen EMVG vom 9.Nov.92 das EG-Konformitätszeichen zu führen.

Der Aussteller der Konformitätserklärung ist die IBM UK, Greenock.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse B.

### European Union - emission directive

This product is in conformity with the protection requirements of EU Council Directive 89/366/ECC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

IBM can not 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.

### Union Européenne - Directive Conformité électromagnétique

Ce produit est conforme aux exigences de protection de la Directive 89/336/EEC du Conseil de l'UE sur le rapprochement des lois des États membres en matière de compatibilité électromagnétique.

IBM ne peut accepter aucune responsabilité pour le manquement aux exigences de protection résultant d'une modification non recommandée du produit, y compris l'installation de cartes autres que les cartes IBM.

Ce produit a été testé et il satisfait les conditions de l'équipement informatique de Classe B en vertu de CISPR22 / Standard européen EN 55022. Les conditions pour l'équipement de Classe B ont été définies en fonction d'un contexte résidentiel ordinaire afin de fournir une protection raisonnable contre l'interférence d'appareils de communication autorisés.

## Unione Europea - Direttiva EMC (Conformidad electromagnética)

Este producto satisface los requisitos de protección del Consejo de la UE, Directiva 89/336/CEE en lo que a la legislación de los Estados Miembros sobre compatibilidad electromagnética se refiere.

IBM no puede aceptar responsabilidad alguna si este producto deja de satisfacer dichos requisitos de protección como resultado de una modificación no recomendada del producto, incluyendo el ajuste de tarjetas de opción que no sean IBM.

Este producto ha sido probado y satisface los límites para Equipos Informáticos Clase B de conformidad con el Estándar CISPR22 y el Estándar Europeo EN 55022. Los límites para los equipos de Clase B se han establecido para entornos residenciales típicos a fin de proporcionar una protección razonable contra las interferencias con dispositivos de comunicación licenciados.

## Union Europea - Normativa EMC

Questo prodotto è conforme alle normative di protezione ai sensi della Direttiva del Consiglio dell'Unione Europea 89/336/CEE sull'armonizzazione legislativa degli stati membri in materia di compatibilità elettromagnetica.

IBM non accetta responsabilità alcuna per la mancata conformità alle normative di protezione dovuta a modifiche non consigliate al prodotto, compresa l'installazione di schede e componenti di marca diversa da IBM.

Le prove effettuate sul presente prodotto hanno accertato che esso rientra nei limiti stabiliti per le apparecchiature di informatica Classe B ai sensi del CISPR 22 / Norma Europea EN 55022. I limiti delle apparecchiature della Classe B sono stati stabiliti al fine di fornire ragionevole protezione da interferenze mediante dispositivi di comunicazione in concessione in ambienti residenziali tipici.

이 기기는 가정용으로 전자파 적합등록을 기기로서  
주거지역에서는 물론 모든 지역에서 사용 할 수 있습니다.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをしてください。

09N4210

Printed in the U.S.A.

© Copyright International Business Machines Corporation 2001. All rights reserved

Note to U.S. Government Users – Documentation related to restricted rights – Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

HelpCenter, IBM, and OS/2 are trademarks of the IBM Corporation in the United States, other countries, or both.

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation in the United States or other countries or both.