



**IBM 32X/10X/40X/16X
MAX CD-RW/DVD-ROM 组
合驱动器**

用户指南



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注：在使用本资料及其支持的产品之前，请阅读第 D-1 页的附录 D，『Product warranty and support information』和第 E-1 页的附录 E，『Notices』中的信息。

安全: 请先阅读

Before installing this product, read the Safety Information.

مع، يجب قراءة دات السلامة

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 **Safety Information**
(安全信息)。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtete příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας
(safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

安裝本產品之前，請先閱讀「安全資訊」。

目录

安全: 请先阅读	iii
关于本书	vii
注册您的选项	vii
安装与用户指南	1-1
产品描述	1-1
安装要求	1-2
开始之前	1-2
操作预防措施	1-2
驱动器控件和接口	1-3
安装驱动器	1-4
步骤 1. 打开计算机	1-4
步骤 2. 打开驱动器包装	1-4
步骤 3. 设置配置跳线	1-5
步骤 4. 选择 IDE 接口	1-6
步骤 5. 将驱动器安装在托架中	1-6
步骤 6. 将电缆连接到驱动器上	1-7
步骤 7. 完成硬件安装	1-8
步骤 8. 更新计算机配置	1-8
步骤 9. 安装 CD-RW 和 DVD 软件	1-9
步骤 10. 设置计算机用于 DVD 视频回放	1-9
使用 CD-R 和 CD-RW 光盘	1-10
格式化 CD	1-10
创建数据 CD 或备份数据文件	1-11
观看 DVD 电影	1-11
DVD 区域代码	1-11
保养和维护	1-12
保养 CD 或 DVD	1-12
保养 CD-RW / DVD-ROM 组合驱动器	1-12
手动弹出光盘	1-13
附录 A. 产品规格	A-1
附录 B. 问题解决	B-1
附录 C. 定制设备驱动程序配置设置	C-1
对 Windows Me 启用 DMA	C-1
对 Windows 2000 启用 DMA	C-1
对 Windows XP 启用 DMA	C-2
附录 D. Product warranty and support information	D-1

Warranty information	D-1
Warranty period	D-1
Service and support	D-1
Warranty information on the World Wide Web.	D-1
Online technical support	D-1
Telephone technical support	D-2
IBM Statement of Limited Warranty Z125-4753-06 8/2000	D-3
Part 1 - General Terms	D-3
Part 2 - Country-unique Terms	D-6
附录 E. Notices	E-1
Trademarks	E-2
Electronic emission notices	E-2
Federal Communications Commission (FCC) statement	E-2

关于本书

本手册包含安装和使用 IBM® 32X/10X/40X/16X MAX CD-RW/DVD-ROM 组合驱动器的指示信息。本手册分成以下部分：

第 1 部分：安装与用户指南

本指南包含以下语言的产品描述和安装指示信息：

- 英语
- 法语
- 德语
- 西班牙语
- 意大利语
- 巴西葡萄牙语
- 简体中文
- 繁体中文
- 日语

第 2 部分：附录

这一部分包含设备驱动程序、问题解决、保证和支持信息以及声明信息。

注：本手册的插图可能与您的硬件稍有不同。

注册您的选件

感谢您购买本 IBM 产品。请花点时间注册您的产品，并向我们提供有助于 IBM 将来更好地为您服务的信息。您的反馈对于我们在开发对您相当重要的产品和服务，以及寻找更好的方式以便与您沟通方面具有重要价值。请在以下 IBM Web 站点注册您的产品：

<http://www.ibm.com/pc/register>

IBM 将向您发送有关您所注册产品的信息和更新材料，除非您在 Web 站点的调查表中表明您不希望接收进一步的信息。

安装与用户指南

这一部分包含 IBM 32X/10X/40X/16X MAX CD-RW/DVD-ROM 组合驱动器的产品描述、硬件和软件安装指示信息以及操作信息。

产品描述

本产品包含一个可以读写 CD-R 和 CD-RW 光盘，也可以读 CD-ROM、DVD-ROM、DVD-RAM、DVD-RW 和 DVD-R 光盘的独特的多功能驱动器。本工具箱还包含一张 CD，该 CD 上含有“联机用户指南”，适用于 Microsoft® Windows® 2000 Professional、Microsoft Windows Millennium Edition (Me)、Microsoft Windows XP Home 和 Microsoft Windows XP Professional 的 MPEG-2 解码软件和 CD 刻录软件。

选件包中包含以下物品：

- 一个 IBM 32X/10X/40X/16X MAX CD-RW/DVD-ROM 组合驱动器
- 一包安装螺钉（四个，M3 x 5-mm，开槽）
- 一根 18 英寸的 IDE 电缆
- 一根音频“Y”电缆
- 一张 IBM CD-RW/DVD-ROM 软件 and 用户指南 CD
- 一本《激光安全指南》
- 一本《快速安装指南》

如有任何物品缺少或损坏，请与购买处联系。务必保留购货凭证；可能需要它来接受保修服务。有关技术支持信息，请参阅第 D-1 页的附录 D，『Product warranty and support information』。

本驱动器可以读许多 DVD 和 CD 格式，包括 DVD Video、Video CD 和音频 CD 格式。它还能写大多数 CD-RW 可重写和 CD-R 可刻录格式，包括高速 CD-R 介质。必须安装所包含的 MPEG-2 解码软件来播放 DVD Video 文件，同时必须安装所包含的 CD 刻录软件来写 CD-R 和 CD-RW 光盘。本驱动器还能读多段、扩展体系结构（CD-XA）光盘和 Kodak Photo CD。本驱动器能以高达用于 CD-ROM 和 CD-R 介质的标准 CD-ROM 驱动器速度的 40 倍（40X）传送数据。本驱动器能以高达用于 DVD 介质的标准 DVD-ROM 驱动器速度的 16 倍（16X）传送数据。本驱动器能读大多数 DVD-RAM、DVD-RW 和 DVD-R 介质类型，并符合 DVD-Multi Player 兼容性规范。本驱动器的设计适用于安装在使用集成驱动电子设备（IDE）或增强型 IDE（EIDE）体系结构的个人计算机中。

安装要求

在安装驱动器之前，请确保计算机满足以下系统需求：

- 最小处理器：
 - Intel® Pentium® 133 MHz
 - Intel Pentium II 233 MHz 用于 MPEG-2 回放
- 最小 RAM: 32 MB
- Windows 2000、Windows Me、Windows XP Home 或 Windows XP Professional 操作系统
- 可用的半高驱动器托架
- 可用的 IDE 连接
- 40 MB 可用的硬盘驱动器空间
- 700 MB 可用的硬盘驱动器空间用于 CD 复制功能
- 支持 44.1 或 48 kHz 采样速率的音频解决方案
- 可选立体声扬声器
- 2X AGP 视频，具有 MPEG-2 回放的重叠支持

开始之前

安装 CD-RW/DVD-ROM 组合驱动器之前，请阅读本节中有关操作预防措施和有关使用驱动器控件和接口的信息。

操作预防措施

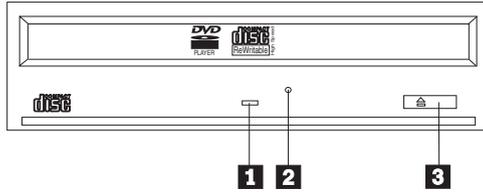
请采用以下操作预防措施来保护您的驱动器：

- 在准备安装 CD-RW/DVD-ROM 组合驱动器之前，将其保存在防静电袋中。安装时尽量不要移动；移动会使静电累积起来。
- 小心谨慎地操作驱动器。跌落或震动驱动器可能损坏驱动器壳中的组件。
- 不要强行插入 IDE 电缆或电源电缆。这样做可能损坏接口或驱动器。

驱动器控件和接口

下图显示了驱动器控件和接口的位置和功能。

驱动器前视图:



1 忙指示灯

当驱动器从光盘读取或写入光盘时，该指示灯发亮。

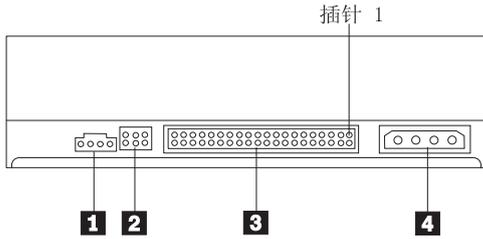
2 紧急弹出孔

该孔提供了对弹出机构的访问，以便可将光盘从驱动器中取出。

3 打开 / 关闭按钮

推送此按钮时会打开和关闭光盘抽屉。

驱动器后视图



1 音频输出接口

该接口将模拟音频信号传送至音频适配器。

2 配置插针

这些插针用于设置驱动器配置。

3 IDE 接口

该接口将 CD-RW/DVD-ROM 组合驱动器连接到 IDE 电缆。

4 电源接口

该接口将 CD-RW/DVD-ROM 组合驱动器连接到电源电缆。

安装驱动器

请按照以下步骤来安装 CD-RW/DVD-ROM 组合驱动器：

步骤 1. 打开计算机

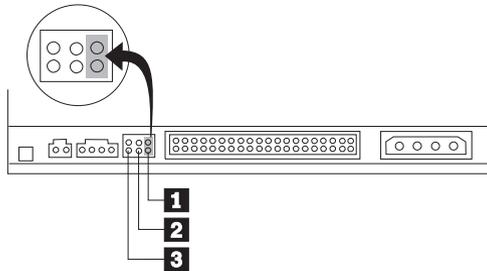
1. 关闭计算机和所有连接的设备。
2. 从计算机和所有连接的设备上拔下所有电源线。
3. 从计算机上卸下外盖。有关卸下计算机外盖的指示信息，请参考计算机文档。

步骤 2. 打开驱动器包装

1. 在打开包装驱动器的防静电袋之前，让袋子与未上漆的金属表面接触至少两秒钟。这样可排尽包装和身体上的静电。
2. 从袋子中取出驱动器。
如果必须放下驱动器，请将防静电袋放在垫平的表面（例如杂志）上，并将驱动器放在防静电袋上。

步骤 3. 设置配置跳线

如图所示，通过在配置插针上安插跳线，可将您的驱动器设置为主 **1**，从 **2** 或电缆选择 **3**。



请使用以下准则来确定 CD-RW/DVD-ROM 组合驱动器的正确配置。

- 如果 CD-RW/DVD-ROM 组合驱动器是与 IDE 电缆连接的唯一设备，请将该驱动器配置为主设备。这是预配置。
- 如果 CD-RW/DVD-ROM 组合驱动器将是 IDE 电缆上的第二个设备，请将该驱动器配置为从设备。务必将另一个设备配置为主设备。在某些情况下，当同一电缆上的另一个设备配置为从设备时，硬盘驱动器可能需要“存在从设备之下的主设备”跳线设置。有关在其它设备上设置配置跳线的更多信息，请参考随计算机提供的文档。
- 一些非 IBM 计算机使用特殊的 ATA 电缆，该电缆的两根电线反接在设备接口中，使得可通过电缆而非跳线位置来配置驱动器。请仅对配备了这些特殊电缆的计算机使用电缆选择位置。请参阅随计算机提供的文档，以确定您的 ATA 适配器是否需要将跳线置于电缆选择位置。

如果将跳线置于电缆选择位置，IDE 电缆会基于电缆上驱动器的位置自动指定主和从设置。无论 CD-RW/DVD-ROM 组合驱动器是电缆上连接的唯一设备还是第二个设备，都必须对该布线系统使用电缆选择设置。最靠近 IDE 控制器的驱动器会自动成为主驱动器。IDE 电缆上的任何其它设备也须设置为电缆选择。

步骤 4. 选择 IDE 接口

较新的计算机通常有两个 IDE 接口。如果您的计算机有两个 IDE 接口，请使用第二个 IDE 接口来连接 CD-RW/DVD-ROM 组合驱动器。第二个 IDE 接口通常与连接到硬盘驱动器的主 IDE 接口相邻。所选择的 IDE 接口和电缆位置将决定要对驱动器使用哪一种配置跳线设置。

- 如果有两个 IDE 接口，请将 CD-RW/DVD-ROM 组合驱动器用随驱动器提供的 IDE 电缆连接到第二个 IDE 接口。如果 CD-RW/DVD-ROM 组合驱动器是第二个 IDE 接口上唯一的设备，则使用主配置设置。如果第二个接口上除了 CD-RW/DVD-ROM 组合驱动器之外还有另一个设备，则使用从配置设置。
- 如果必须将 CD-RW/DVD-ROM 组合驱动器连接到与较快的设备（例如硬盘驱动器）相同的 IDE 接口，请对 CD-RW/DVD-ROM 组合驱动器使用从设置，而对较快的设备使用主设置。在某些情况下，当同一电缆上的另一个设备配置为从设备时，硬盘驱动器可能需要“存在从设备之下的主设备”设置。有关在其它设备上设置配置跳线的进一步信息，请参考随计算机或所述设备提供的文档。
- 一些非 IBM 计算机支持电缆选择设置，在这种设置中，电缆上设备的位置决定设备是主设备还是从设备。请参阅随计算机提供的文档以确定系统是否支持此设置。

步骤 5. 将驱动器安装在托架中

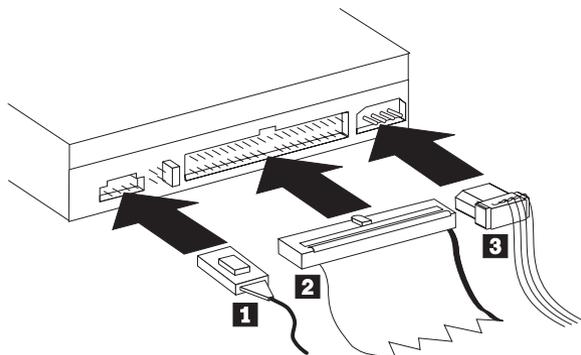
警告： 在将螺钉直接拧入驱动器时，务必使用选件包中的安装螺钉。使用过长的螺钉可能损坏驱动器。

可将 CD-RW/DVD-ROM 组合驱动器水平或垂直安装在计算机中。如果垂直安装 CD-RW/DVD-ROM 组合驱动器，则必须在关闭驱动器托盘之前固定好放入驱动器的任何光盘，否则该驱动器将不能正确读光盘。

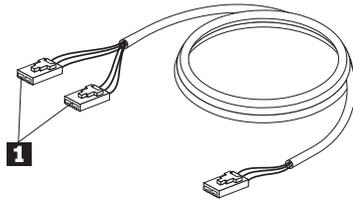
1. 将驱动器滑入托架中。您的计算机可能对安装存储设备的过程有特定的要求。有关存储设备的更多信息，请参考随计算机提供的文档。
2. 将驱动器托架的螺钉孔与驱动器外壳或安装支架的螺纹孔对准。
3. 拧入螺钉，先不要拧紧，以检查其位置。通常，每一侧使用两个螺钉。验证已正确对准；然后拧紧螺钉以固定驱动器。不要拧得过紧。

步骤 6. 将电缆连接到驱动器上

下图显示了电缆连接到驱动器的位置。



下面是随选件包提供的内部音频电缆的插图。



1. 内部音频电缆具有双接头端和单接头端。将双接头端 **1** 中的一个接头连接到 CD-RW/DVD-ROM 组合驱动器的音频输出接口。如果有另外的 CD-ROM、CD-RW 或 DVD-ROM 驱动器，请将另一个双接头端连接到该驱动器的音频输出接口。将单接头端连接到声音适配器上。

2. 将 40 针 IDE 电缆接口 **2** 连接到驱动器的 IDE 接口中。调整电缆，使有颜色编码的一侧最靠近电源电缆接口 **3**。如果 IDE 接口上未连接任何电缆，请使用随本选件提供的 IDE 电缆。IDE 电缆最多可有三个接口。当要在 IDE 电缆上仅连接一个设备时，为获得最佳信号质量，请将此电缆的一端连接到 IDE 接口，并将电缆的另一端连接到设备上。不要使用中间接口。如果计算机的 IDE 接口上未连接任何电缆，或者如果计算机 IDE 电缆上只有一个设备接口，则请使用随本选件提供的 IDE 电缆。

如果要将两个设备连接到 IDE 电缆上，请将电缆的一端连接到 IDE 接口，并将主设备和从属设备连接到另一端的其余接口。许多计算机具有两根电缆，用于连接至多四个 ATA 设备。为获得最佳性能，请将快速设备（例如硬盘驱动器）连接到与主 IDE 接口连接的电缆上，并将 CD-RW/DVD-ROM 组合驱动器或其它速度较慢的设备（例如 CD-ROM 驱动器、磁带机和可移动介质）连接到与第二个 IDE 接口连接的电缆上。

3. 将四芯电源电缆 **3** 连接到 CD-RW/DVD-ROM 组合驱动器的电源接口上。确保电缆不会受到计算机外盖的挤压，且所有其它电缆和电源连接都是安全可靠的。

步骤 7. 完成硬件安装

1. 确保 CD-RW/DVD-ROM 组合驱动器已妥善安装，并且接口已牢牢连接。
2. 确保电缆不妨碍计算机外盖，且未阻塞电源风扇叶片或气流通路。
3. 重新安装计算机外盖。
4. 重新连接所有外接设备。
5. 将所有电源线插入电气插座。

步骤 8. 更新计算机配置

完成硬件安装后，请重新启动计算机。通常，在打开计算机时显示配置设置信息屏幕。如果未看到此屏幕，请检查计算机文档以获取有关访问配置或设置实用程序的信息。

要察看大多数 IBM 计算机的配置信息，请在启动期间，屏幕右上角显示 IBM 图形时按 F1。完成信息检查后，请保存更改并退出。

步骤 9. 安装 CD-RW 和 DVD 软件

必须安装三种软件应用程序，以便使用该驱动器的 CD-RW 和 DVD 视频功能。所有这些软件都包含在 *IBM CD-RW/DVD-ROM 软件* 和 *用户指南 CD* 上。

IBM CD-RW/DVD-ROM 软件和用户指南 CD 包含以下软件应用程序：

- Intervideo WinDVD，用来支持 DVD 视频回放
- IBM RecordNow，用来支持传统 CD 制作
- IBM Drive Letter Access (DLA)，用来支持拖放式 CD 刻录
- UDF Reader Software

要安装这些应用程序，请执行以下步骤：

1. 将 *IBM CD-RW/DVD-ROM 软件* 和 *用户指南 CD* 插入 CD-RW/DVD-ROM 组合驱动器中。浏览器自动启动。
2. 在浏览器中单击 **RecordNow**，单击 **Drive Letter Access**，然后单击 **WinDVD**。
3. 重新启动计算机。
4. 如果浏览器不启动，请打开命令窗口，对每个应用程序输入以下内容，其中 e 是 CD-RW/DVD 组合驱动器的驱动器盘符：

```
e:\launch.bat
```

IBM CD-RW/DVD-ROM 软件 和 *用户指南 CD* 的 \DRIVERS\VIDEO 目录中包含若干视频设备驱动程序。这些驱动程序对您在回放 DVD 视频遇到困难时会很有用。使用它们之前，请查阅系统手册以确定您拥有何种视频硬件。要安装它们，请使用操作系统的“添加新硬件”功能。

步骤 10. 设置计算机用于 DVD 视频回放

本节提供有关启用 DMA 设置的指示信息，这样您可以用 DVD-ROM 驱动器来播放 DVD 电影。

1. 在桌面上或“开始”菜单中右击**我的电脑**。
2. 从弹出菜单中选择“属性”。
3. 检查操作系统，然后按照第 C-1 页的附录 C，『定制设备驱动程序配置设置』中包含的启用 DMA 的适当指示信息进行操作。
 - 如果操作系统是 Windows Me，请按照第 C-1 页的『对 Windows Me 启用 DMA』中的指示信息进行操作。
 - 如果操作系统是 Windows 2000，请按照第 C-1 页的『对 Windows 2000 启用 DMA』中的指示信息进行操作。
 - 如果操作系统是 Windows XP，请按照第 C-2 页的『对 Windows XP 启用 DMA』中的指示信息进行操作。

使用 CD-R 和 CD-RW 光盘

CD-RW/DVD-ROM 组合驱动器既可写 CD-R 光盘，又可写 CD-RW 光盘。CD-RW 光盘可以擦除和重新使用多次；CD-R 光盘只可写一次。

RecordNow 用于复制 CD，创建新的数据 CD 和制作可由标准 CD-RW 驱动器和 CD 播放器读取的新的音频 CD。

DLA 用于制作可以修改多次的文件压缩文档和数据 CD。它还提供了直接盘符访问的便利。当与 CD-RW 介质一起使用时，DLA 与使用软盘存储文件非常相似。如果 DLA 与 CD-R 介质一起使用，则在 CD 写满之前可进行写入和重写，然后数据便固定下来。DLA 创建的介质只能用支持多重读取方式的较新 CD-ROM 驱动器和 DVD-ROM 驱动器读取。

Windows XP 内置了拖放支持。该功能不需要其它软件即可与驱动器一起工作。如果安装 DLA，操作系统内置的支持便由 DLA 功能取代，但可从驱动器盘符的 DLA 菜单中启用。

当使用其它操作系统读未关闭介质时，可能需要 UDF Reader。将提供的 UDF Reader 安装在其它需要读光盘的系统上，而不是安装在您的系统上。

CD-R 光盘在音频 CD 播放器上是可播放的。CD-RW 光盘在大多数音频 CD 播放器上是不可播放的。

注：CD-RW 介质速度由写速度来评定。该驱动器可以写高速和低速 CD-RW 介质。

驱动器	介质	写	读
低速	低速	是	是
低速	高速	否	是
高速	低或高	是	是

格式化 CD

在能将文件拖放到光盘之前，必须使用 DLA 格式化一张空白 CD-R 或 CD-RW 光盘。

要用 DLA 程序格式化 CD-R 或 CD-RW 光盘：

1. 插入空白光盘。
2. 双击**我的电脑**。
3. 右击 **CD-RW** 图标。
4. 单击**格式化**。
5. 在“卷标”窗口中输入光盘标题。光盘名称至多可有 11 字符。
6. 如果打算对该光盘使用数据压缩，请选择**对该光盘启用压缩复选框**。

7. 如果想要使用 EasyWrite 进行后台格式化, 请选择 **EasyWrite** 复选框。
8. 单击**开始**以开始光盘格式化, 格式化完成时请单击**确定**。
9. 当出现格式化完成框时单击**确定**。现在可将信息写入光盘了。

注: 取决于介质速度, 标准格式化将花费 4 到 45 分钟。EasyWrite 格式化将花费不到 2 分钟, 但是如果 CD 弹出或计算机关闭, 则需花费额外的时间。

注: 在格式化光盘的同时可以在计算机上执行其它任务。

创建数据 CD 或备份数据文件

要创建数据 CD, 请使用以下过程:

1. 单击**开始 --> 程序 --> IBM RecordNow --> RecordNow**。
2. 选择想要执行的任务, 并按照提示进行操作。

观看 DVD 电影

在安装 CD-RW/DVD-ROM 组合驱动器、配置 DMA 和安装 DVD 观看软件后, 可以观看 DVD 电影。

当插入 DVD 时, WinDVD 将自动启动。如果想手动启动 WinDVD, 请按以下指示信息操作:

1. 单击**开始**, 单击**程序**, 然后单击 **Intervideo WinDVD**。
2. 单击 **Intervideo WinDVD**。

DVD 电影播放器窗口打开。有关如何使用 DVD 电影播放器的更多信息, 请按 **F1** 参考 WinDVD 联机帮助。

DVD 区域代码

区域代码有助于防止未经授权而复制 DVD 内容。全球分为六个区域, MPEG-2 解码软件包含与驱动器要使用的区域相应的区域代码设置。通常, 每张 DVD 制造时都带有区域代码设置, 使得它只能在具有相同区域代码设置的 DVD 驱动器中观看。DVD 的区域代码设置由包装背面的区域代码符号指示。下表列出了六个区域代码及其相应的区域代码符号。

区域代码	区域
1	美国、加拿大
2	欧洲、中东、南非、日本
3	东南亚、台湾、韩国
4	拉丁美洲、澳大利亚、新西兰
5	前苏联、非洲其它地区、印度
6	中华人民共和国

系统会提示您进行初始区域选择。如果插入的 DVD 具有不同于初始区域代码的区域代码，则 WinDVD 将询问是否要更改区域代码设置。在设置初始区域代码后，至多可更改初始设置中的区域代码四次。在更改初始设置中的区域代码四次后，它便固定下来，不能再做更改。要更改区域代码，必须有一张具有新的区域代码设置的 DVD。

要显示区域代码状态，请按以下指示信息进行操作：

1. 在 WinDVD 窗口中单击 **DVD 选项**。
2. 单击 **DVD 区域**。

保养和维护

本节包含有关保养 CD-RW/DVD-ROM 组合驱动器和与该驱动器一起使用的 CD 和 DVD 的信息。

保养 CD 或 DVD

数字光盘是精密介质，必须谨慎操作并保持清洁，以确保它们保持可读。以下预防措施有助于延长光盘寿命。

警告： 以圆周运行擦拭光盘可能损坏光盘并导致数据丢失。

- 握住光盘边缘或中心孔来操作光盘。不要触摸光盘表面。
- 要除去灰尘或指纹，请用柔软、不起毛的布从中心向边缘擦拭光盘。
- 不要在表面书写。
- 不要将光盘置于直接日照下。
- 不要使用商用清洗剂来清洁光盘。
- 不要弯曲光盘。

保养 CD-RW / DVD-ROM 组合驱动器

要在操作期间保护 CD-RW/DVD-ROM 组合驱动器，请遵循以下预防措施：

- 当驱动器在使用时不要移动它。这样做可能导致数据错误，或可能损坏驱动器或光盘。
- 避免使驱动器暴露在以下条件下：
 - 高湿度
 - 高温
 - 过多灰尘
 - 机械振动
 - 意外震动或跌落
 - 置于倾斜表面上
 - 直接日照
 - 意外的温度变化
- 不要将异物插入驱动器中。
- 不要将物品堆叠在驱动器上。
- 不要卸下驱动器外盖或试图维修驱动器。

- 在移动驱动器部件之前，从光盘抽屉中取出任何光盘，并确保关闭抽屉。
- 保存原始包装材料。如果需要将驱动器部件装运到另一位置，请使用原始包装材料以确保驱动器安全运送。

手动弹出光盘

如果发生电源故障，且驱动器不能弹出光盘，请关闭计算机，并拉直大回形针以形成一个工具。拉直端必须伸出至少 45 mm (1.8 in.) 长。将伸出端插入驱动器正面的紧急弹出孔中（请参阅第 1-3 页的“驱动器前视图”）。推送回形针直到托盘打开。轻轻拉出托盘直到可以取出光盘。

附录 A. 产品规格

本附录包含以下信息:

- 物理规格
- 电源要求
- 环境要求
- 读速度
- 写速度

物理规格

32X/10X/40X/16 MAX CD-RW/DVD-ROM 组合驱动器的物理规格¹列在下表中。

物理规格	
高度	41.3 mm (1.62 in.)
宽度	146 mm (5.75 in.)
长度	190 mm (7.48 in.)
重量	900 g (1.98 lb.)

电源要求

下表按电压级别列出了 32X/10X/40X/16 MAX CD-RW/DVD-ROM 组合驱动器的电源规格。这些电源规格在驱动器的电源接口处测得，并且都是额定值。

电源规格	电压	平均值	最大值
电压为	5V dc	700 mA	1200 mA
电压为	12V dc	650 mA	1100 mA

1. 产品描述数据代表 IBM 的设计目标，并且是为进行比较而提供的；基于各种因素，实际结果可能不同。本产品数据不构成保证。数据如有更改，恕不通知。

规格	运行时	非运行时
温度（非冷凝）	+5° C 至 +45° C (+41° F 至 +113° F)	-20° C 至 +60° C (-4° F 至 140° F)
相对湿度（非冷凝）	10% 至 80%	5% 至 90%

读速度

介质	读速度
DVD-ROM 单层	6 至 16X 恒定角速度 (CAV)
DVD-ROM 双层	3.3 至 8X (CAV)
DVD-R - 3.95 GB	2.5 至 5X (CAV)
DVD-R - 4.7 GB	2.5 至 6X (CAV)
DVD-RAM	2X (ZCLV)
DVD-RW	2.5 至 6X (CAV)
CD-ROM/CD-R	16 至 40X (CAV)
CD-RW (ISO 9660, 已关闭)	14 至 32X (CAV)
CD-DA (DAE)	16 至 40X (CAV)

写速度

介质	写速度
CD-R	16 至 32X 区域恒定线速度 (ZCLV)
CD-RW	10X (CLV)

注：可以垂直或水平安装此驱动器。

附录 B. 问题解决

计算机问题可能由硬件、软件或用户错误造成。使用本节中的信息，您也许能自己解决问题或搜集可以传递给服务技术人员的有用信息。您可能还需要参考计算机、操作系统或声音适配器的文档。

请检查以下列表，以获取可能符合您所碰到情况的任何问题描述。

- **您的计算机或 CD-RW/DVD-ROM 组合驱动器运行不正确，或者忙指示灯不发光。**

请采取以下操作：

1. 检查光盘是标签侧朝上装入的。
2. 检查所有设备已正确连接到计算机和电气插座上。
3. 关闭计算机，拔下计算机和所有连接设备的电缆，并卸下计算机外盖。
4. 检查所有电源电缆和 IDE 电缆均已安全连接。断开 IDE 电缆的连接并检查弯曲或偏向的插针。如果未发现任何问题，请重新连接接口电缆。将计算机外盖装回原处，并重新连接所有电缆和电源线。打开计算机，重新启动操作系统，并通过按打开/关闭按钮来尝试打开装入托盘。如果托盘未能打开，且忙指示灯不发光，请关闭计算机并尝试使用另一根 4 芯直流电源电缆。
5. 检查 IDE 电缆上有颜色编码的一侧与 IDE 接口上的插针 1 对齐，且最靠近 CD-RW/DVD-ROM 组合驱动器上的电源电缆。请参阅第 1-7 页的『步骤 6. 将电缆连接到驱动器上』。
6. 检查 CD-RW/DVD-ROM 组合驱动器和 IDE 电缆上的任何其它设备的设置是否正确。
7. 如果 IDE 电缆的中间接口连接到系统板上的 IDE 接口，请拔下该接口并重新连接电缆。如果 IDE 接口上只有一个设备，请将电缆一端的接口连接到 IDE 接口，而另一端的接口连接到设备上，保留中间接口（如果有一个）开路。

如果 IDE 接口上有两个设备，请将电缆一端的接口连接到 IDE 接口。如果有一个硬盘驱动器，请把它连接到电缆另一端的接口上，而把 CD-RW/DVD-ROM 组合驱动器连接到中间接口上。

- **不能访问 CD-RW/DVD-ROM 组合驱动器，或者不显示 DVD-ROM (CD-ROM) 图标。**

在正确安装了 CD-RW/DVD-ROM 组合驱动器后，DVD-ROM 或 CD-ROM 图标显示在“我的电脑”窗口中。双击**我的电脑**。如果 CD-ROM 图标不显示在打开的窗口中，请验证驱动器安装是否正确。验证配置跳线设置是否正确。重新启动计算机。如果驱动器图标仍旧不显示，请继续执行以下步骤：

1. 单击**开始**，单击**设置**，然后单击**控制面板**。
2. 单击**系统**。
3. 单击**设备管理器**选项卡。
4. 双击**按类型查看设备**。

5. 从“设备管理器”窗口显示的列表中选择**硬盘控制器**。验证与控制器不存在冲突。设备状态指示控制器是否在正确工作。
6. 从“设备管理器”窗口显示的列表中选择 **CD-ROM**。验证列表中存在 CD-ROM 设备且没有冲突。设备状态指示设备是否在正确工作。
7. 单击**确定**。
8. 关闭所有窗口并重新启动计算机。

如果仍旧不显示设备图标，请检查电缆连接和设备跳线设置，并解决可能存在的任何冲突。

- **操作系统不能识别 CD-RW/DVD-ROM 组合驱动器，或者驱动器运行不稳定。**
某些计算机具有用于海量存储设备的“兼容”和“高性能”方式。通常，CD-RW/DVD-ROM 组合驱动器在“高性能”方式下运行的效果较好。但是，如果驱动器在该方式下不能正确运行，则可能需要使用“兼容”方式。

请使用以下过程来检查计算机的配置设置信息。

1. 访问系统配置实用程序。在大多数 IBM 计算机上，当系统启动时按 F1 即可执行该操作。
2. 选择 **Devices**。
3. 向下滚动至 **Mass Storage Devices** 区域。

有关选择 IDE 性能方式的附加详细信息，请参考随计算机提供的文档。

- **不能读光盘。**

请采取以下操作：

1. 光盘可能已弄脏；请如第 1-12 页的『保养 CD 或 DVD』所述清洁光盘。
2. 光盘可能损坏；请尝试使用另一张光盘。
3. 光盘是非 ISO-9660、High Sierra Group (HSG) 或 Universal Disc Format (UDF) 兼容的。请与购买处协商。

- **光盘不发声。**

1. 检查是否在使用数据 CD。
2. 调整音频适配器音量控制钮。请参阅随音频适配器和音频 CD 播放器程序提供的文档。
3. 关闭计算机，从计算机和所有连接设备的电气插座上拔下电缆，并卸下计算机外盖。确保 CD-RW/DVD-ROM 组合驱动器和声音适配器之间连接了音频信号电缆。

- **提供的音频电缆上的接口不适合音频适配器上的接口。**

某些音频适配器可能需要一根特殊的电缆。请参阅随音频适配器提供的文档。

可能必须为 CD-RW/DVD-ROM 组合驱动器另行购买一根音频电缆。如果在使用 IBM 计算机或 IBM 音频适配器，请参考第 D-1 页的附录 D，『Product warranty and support information』。

- **将 WinDVD 与 Windows 2000 一起使用时，出现 Unable to Create Overlay Window (无法创建重叠窗口) 消息。**

1. 需要更新视频设备驱动程序，以启用重叠支持。请与视频适配器或计算机的制造商联系以获取更新。某些设备驱动程序提供在 *IBM CD-RW/DVD-ROM 软件* 和 *用户指南 CD* 上。
 2. 屏幕分辨率可能过高。尝试将分辨率设置为 800 x 600 x 16 bpp, 60 Hz。
- **当插入 CD-RW/DVD-ROM 组合驱动器后，DVD 电影不自动开始播放。**
 1. 自动播放已关闭。请按照以下指示信息操作以打开自动播放：
 - a. 单击**开始**，然后单击**控制面板**，接下来单击**设备管理器**。
 - b. 选中**自动插入通知**。
 2. 既包含程序，又包含 DVD 视频内容的 DVD 将自动播放程序内容。要观看视频内容，请手动启动 WinDVD。有关手动启动 WinDVD 的更多信息，请参阅第 1-11 页的『观看 DVD 电影』。
 - **视频看起来不连贯或失落帧。**
 1. 确保对您的计算机硬盘驱动器控制器启用了 DMA。
 2. 屏幕分辨率可能过高。尝试将分辨率设置为 800 x 600 x 16 bpp, 60 Hz。
 3. 如果您的计算机微处理器的性能比奔腾 II 450 微处理器差，则在某些 DVD 上出现一点抖动是正常的。
 - **不重新启动系统的情况下不能在 Windows 2000 系统中读 CD 介质（数据或音频）。**
 1. IBM Rapid Access II Keyboard 设备驱动程序可能会妨碍 CD 驱动器运行。
 - a. 通过“控制面板”中的“添加 / 删除程序”来除去 Rapid Access II Keyboard 设备驱动程序。
 - b. 如果您有 Rapid Access II Keyboard 并想恢复其功能，则需要访问 IBM 支持 Web 站点以下载最新的设备驱动程序（版本 1007 或更高版本）。

附录 C. 定制设备驱动程序配置设置

Windows Me 有两个设备驱动程序配置参数：“自动插入通知”和 DMA。

“自动插入通知”参数使计算机能在光盘插入驱动器后自动开始播放或访问光盘。

DMA 参数通过使计算机 DMA 控制器处理从 CD 到内存的数据转移，释放计算机微处理器以执行更重要的任务，从而改善了计算机性能。例如，激活 DMA 可能使电影和游戏运行更平滑，因为微处理器将对视频分配更长的处理时间。

对 Windows Me 启用 DMA

要从 Windows Me 桌面更改 DMA 参数设置，请执行以下操作：

1. 单击开始 --> 设置 --> 控制面板。
2. 单击查看所有控制面板选项。
3. 双击系统。
4. 单击设备管理器选项卡。
5. 双击 **CD-ROM**。
6. 单击想要修改的驱动器。
7. 单击设置选项卡。
8. 单击以选择 **DMA** 复选框。
9. 单击确定。

对 Windows 2000 启用 DMA

要更改 Windows 2000 的 DMA 参数设置，请执行以下操作：

1. 单击开始 --> 设置 --> 控制面板。
2. 双击系统。
3. 单击硬件选项卡。
4. 单击设备管理器。
5. 单击 **IDE ATA/ATAPI 控制器**以展开树。
6. 双击相应于 CD-ROM 端口的设备。它是 **Primary IDE** 或 **Secondary IDE**。
7. 单击高级设置选项卡。
8. 单击传送模式菜单并选择 **DMA**（若可用）。
9. 单击确定。
10. 单击关闭以关闭“系统特性”窗口。显示一条消息，通知您系统设置已更改。
11. 单击确定以重新启动计算机。

对 Windows XP 启用 DMA

要从 Windows XP 桌面更改 DMA 参数设置，请执行以下操作：

1. 单击开始 --> 控制面板。
2. 单击切换到经典视图。
3. 双击系统。
4. 单击硬件选项卡。
5. 单击设备管理器按钮。
6. 单击 IDE ATA/ATAPI 控制器以展开树。
7. 双击与 CD-RW 所在位置相应的控制器（**Primary IDE** 或 **Secondary IDE**）。
8. 单击高级设置选项卡。
9. 选择与 CD-RW 位置相应的适当传送模式下拉列表，（设备 **0** 为主设备、设备 **1** 为从设备）。
10. 选择 **DMA**（若可用）。
11. 单击确定。

附录 D. Product warranty and support information

Warranty information

This section contains the warranty period for your product, information about obtaining warranty service and support, and the IBM Statement of Limited Warranty.

Warranty period

Contact your place of purchase for warranty service information. Some IBM Machines are eligible for on-site warranty service depending on the country or region where service is performed.

Machine - IBM 32X/10X/40X/16X MAX CD-RW/DVD-ROM Combination Drive
--

Warranty period - One year

Service and support

The following information describes the technical support that is available for your product, during the warranty period or throughout the life of the product. Refer to your IBM Statement of Limited Warranty for a full explanation of IBM warranty terms.

Warranty information on the World Wide Web

The IBM Machine Warranties Web site at http://www.ibm.com/servers/support/machine_warranties/ contains a worldwide overview of the IBM Limited Warranty for IBM Machines, a glossary of terms used in the Statement of Limited Warranty, Frequently Asked Questions (FAQ), and links to Product Support Web pages. The IBM Statement of Limited Warranty is available from this Web site in 29 languages in Portable Document Format (PDF).

Online technical support

Online technical support is available during the life of your product through the Personal Computing Support Web site at <http://www.ibm.com/pc/support/>.

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 IBM 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:

- Option name
- Option number
- 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.

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

Support 24 hours a day, 7 days a week	
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 and regions	Go to http://www.ibm.com/pc/support/ , and click Support Phone List .

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 『CRUs』), 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

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 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 purchase 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, 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 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 nonperformance 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 third 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 or loss, 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 shall be limited to damages.

附录 E. Notices

IBM may not offer the products, services, or features discussed in this document in all countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

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*IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.*

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Any references in this publication to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product, and use of those Web sites is at your own risk.

Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly.

Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Trademarks

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM
HelpCenter

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

Intel and Pentium are trademarks of Intel Corporation in the United States, other countries, or both.

Other company, product, or service names may be the trademarks or service marks of others.

Electronic emission notices

IBM 32X/10X/40X/16X MAX CD-RW/DVD-ROM Combination

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 a la réglementation d'Industrie Canada

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

Deutsche EMV-Direktive (electromagnetische Verträglichkeit)

Zulassungsbeseinigunglaut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) vom 30. August 1995 (bzw. der EMC EG Richtlinie 89/336):

Dieses Gerät ist berechtigt in Übereinstimmungmit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraph 5 des EMVG ist die:

IBM Deutschland Informationssysteme GmbH, 70548 Stuttgart.

Informationen in Hinsicht EMVG Paragraph 3 Abs. (2) 2:

Das Gerät erfüllt die Schutzanforderungen nach EN 50082-1 und EN 55022 Klasse B.
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EN 50082-1 Hinweis:

『 Wird dieses Gerät in einer industriellen Umgebung betrieben (wie in EN 50082-2 festgelegt), dann kann es dabei eventuell gestört werden. In solch einem FA11 ist der Abstand bzw. die Abschirmung zu der industriellen Störquelle zu vergrößern. 』

Anmerkung:

Um die Einhaltung des EMVG sicherzustellen sind die Geräte, wie in den IBM Handbüchern angegeben, zu installieren und zu betreiben.

European Union - emission directive

This product is in conformity with the protection requirements of EU Council Directive 89/336/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 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 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 - Directiva 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 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 della 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.

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Japanese statement of compliance for products less than or equal to 20 A per phase

高調波ガイドライン適合品



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中国印刷

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