



Užívateľská príručka pre sériovú ATA jednotku pevného disku



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Zabezpečenie

Pred inštaláciou tohto produktu si prečítajte bezpečnostné informácie.

مج، 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 přečtěte 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 produktu si prečítajte bezpečnostné informácie.

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」。

Úvod

Ďakujeme vám, že ste si zakúpili tento produkt spoločnosti IBM. Nájdite si chvíľku na zaregistrovanie svojho produktu a poskytnite nám informácie, ktoré pomôžu spoločnosti IBM zlepšiť svoje služby. Vaše odpovede sú hodnotné pri vývoji produktov a služieb, ktoré sú pre vás dôležité, ako aj pri vývoji lepších spôsobov našej komunikácie s vami. Zaregistrujte si svoj produkt na webovej stránke IBM:

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

Pokiaľ v dotazníku na webovej stránke neoznačíte, že si nepravete dostávať ďalšie informácie, bude vám IBM posilať informácie a aktualizácie k vašim zaregistrovaným produktom.

Informácie o tejto príručke

Táto príručka obsahuje návod na inštaláciu, nastavenie a používanie pevného disku IBM® Serial ATA. Príručka je rozdelená do nasledujúcich častí:

Časť 1: Popis produktu a softvéru, inštalčné požiadavky, návod na zaobchádzanie a inštalčné a konfiguračné informácie v nasledujúcich jazykoch:

- Brazílska portugalčina
- Čeština
- Angličtina
- Francúzština
- Nemčina
- Taliančina
- Japončina
- Zjednodušená čínština
- Slovenčina
- Španielčina
- Tradičná čínština

Časť 2: Odstraňovanie problémov, servisné informácie a poznámky.

Poznámka: Ilustrácie v tejto publikácii sa môžu mierne odlišovať od vášho hardvéru.

Kapitola 1. Popis produktu

Pevný disk IBM Serial ATA (SATA) je možné nainštalovať len do počítača so sériovou architektúrou ATA. Pevný disk IBM SATA sa pripája k rozhraniu SATA v konfigurácii jedného disku na jeden kábel, takže sa nevyžaduje žiadne nastavovanie mostíkov do režimu Master alebo Slave, ako to poznáme z paralelnej architektúry ATA.

Váš disk je možné nakonfigurovať nasledovným spôsobom:

- Samostatný disk
 - Na inštaláciu jediného disku v počítači
 - Na výmenu pevného disku
- Jeden z viacerých diskov na prevádzku s inými nainštalovanými pevnými diskami

Váš balík produktu obsahuje:

- Sériový disk ATA
- 4 upevňovacie skrutky
- *CD Software and User's Guide*
- Príručku s bezpečnostnými informáciami
- Kábel SATA

V prípade, že niektoré súčasti chýbajú alebo sú poškodené, kontaktujte miesto nákupu. Nezabudnite si vziať doklad o kúpe. Môžete ho potrebovať pri záručnom servise.

Opis softvéru

CD, ktoré sa dodáva s vašim produktom, obsahuje pomocný program inštalácie disku Disk Manager.

Upozornenie: Ak svoj nový disk inštalujete na počítači bez jednotky CD-ROM, môžete si vytvoriť inštaláciu disketu na inom systéme s jednotkou CD-ROM použitím čistej naformátovanej diskety a *CD Software and User's Guide*. **Informácie o vytvorení inštalácie diskety na počítači bez jednotky CD-ROM nájdete v časti** "Vytvorenie diskety programu Disk Manager" na strane 3.

Program Disk Manager testuje, delí, formátuje a pripravuje disk na inštaláciu operačného systému. Disk Manager môže byť spustený z *CD Software and User's Guide*, čím sa eliminuje nutnosť použitia systémovej diskety. Skôr ako začnete inštalovať Disk Manager, musíte k počítaču pripojiť nový disk.

Ak používate systém Windows 2000 alebo Windows XP, môžete na delenie a formátovanie ďalšieho disku použiť namiesto programu Disk Manager svoj operačný systém.

Pomocný program Disk Manager obsahuje aplikácie, ktoré:

- rozdeľujú a formátujú disk
- kopírujú všetky súbory z jedného disku na druhý, čím sa zjednodušuje pridanie disku, ktorý nahradí váš štartovací disk a bude obsahovať váš operačný systém
- modifikujú vašu konfiguráciu aplikácie tak, aby sa v prípade potreby sprístupnilo označenie zmenenej jednotky CD-ROM

Plánovanie inštalácie

Táto časť obsahuje podrobné informácie, ktoré vám pomôžu naplánovať vašu inštaláciu pevného disku.

Požiadavky na inštaláciu

Inštalácia disku si vyžaduje:

- **Dokumentáciu**

Dokumentácia, ktorá je dodávaná spolu s počítačom a operačným systémom

- **Port SATA**

Váš počítač musí mať na systémovej doske port SATA alebo adaptér zbernice SATA. Ak si nie ste istý, či tento port máte, pozrite si dokumentáciu vášho počítača.

Plánovanie konfigurácie

Pomocný program Disk Manager poskytuje informácie o umiestnení a konfigurácii pevných diskov.

Inštrukcie na obrazovke poskytujú pokyny k umiestneniu a konfigurácii vašich diskov.

Program Disk Manager spustíte takto:

1. Vložte do mechaniky CD-ROM disk CD *Software and User's Guide*.
2. Vyberte si jazyk.
3. Kliknite na **DiskManager**.
4. Vyberte si jazyk a kliknite na **OK**.
5. V hlavnej ponuke programu Disk Manager vyberte **View/Print Online Manual** a stlačte **Enter**.
6. Vyberte **Before Running Disk Manager**.
7. Vyberte **Adding a Hard Drive - Considerations**.
8. Vyberte **Notes on Adding a Drive**, čím vyvoláte informácie o umiestnení a konfigurácii vášho disku.

Plánovanie delenia

Najnovšie vydania operačných systémov Microsoft poskytujú možnosť použitia 32-bitovej tabuľky alokovania súborov nazývanú FAT32. FAT32 podporuje oddiely do veľkosti 2 TB¹ a veľkosti klastrov 4 KB² pre oddiely do 8 GB³. Ak máte FAT32, potom budete svoj disk schopný pripraviť aj bez zvažovania obmedzení veľkosti oddielu alebo výkonnosti úložného priestoru. Ak chcete zistiť, či máte nainštalovaný FAT32, vyberte existujúci disk v zložke **My Computer** a vyberte **Properties**. Ak je nainštalovaný FAT32, karta **General** zobrazí pod názvom disku "FAT32".

Ak používate systém Windows XP, musíte pre svoj nový disk použiť NTFS (NT File System). Viac informácií o delení disku v systéme Windows XP nájdete v časti "Delenie a formátovanie disku" na strane 7.

Vytvorenie diskety programu Disk Manager

Ak váš počítač neobsahuje jednotku CD-ROM a chceli by ste vytvoriť bootovaciu disketu programu Disk Manager, postupujte takto:

1. Zoberte inštaláčnu CD k počítaču s jednotkou CD-ROM, ktorý má nainštalovaný systém Microsoft Windows 95 alebo novší.
2. Počítač spustíte a vložte CD do jednotky CD-ROM.
3. Vyberte si jazyk.
4. Kliknite na **DiskManager**.
5. Vyberte si jazyk a kliknite na **OK**.
6. Kliknite na **Next**.
7. Prečítajte si licenčné podmienky a kliknite na **Yes**.
8. V okne "Disk Manager installation is complete" musí byť pole **Check and Run Disk Manager now!** označené. Kliknite na **Finish**.
9. Z ponuky programu Disk Manager kliknite na **Maintenance**.
10. V okne "Maintenance options" vyberte **Create a Disk Manager Diskette**.
11. Vyberte si jazyk. Dvakrát kliknite na **Continue**.
12. Vložte čistú, naformátovanú disketu do disketovej mechaniky.
13. Prečítajte si licenčné podmienky a kliknite na **Yes**.
14. Kliknite na **Start**.
15. Ak sa zobrazí správa "Disk Manager Diskette created successfully", kliknite na **Exit**. Vyberte disketu z disketovej mechaniky.
16. Kliknite na **Cancel**, a potom na **Exit**.

1. Pri odkazoch na kapacitu pevných diskov znamená TB (terabajt) 1 000 000 000 000 bajtov; celková kapacita, dostupná užívateľovi, sa môže líšiť v závislosti od operačného systému.

2. Pri odkazoch na veľkosť klastrov znamená 1 KB (kilobajt) 1 024 bajtov.

3. Pri odkaze na kapacitu pevného disku znamená GB (gigabajt) 1 000 000 000 bajtov; celková kapacita, dostupná užívateľovi, sa môže líšiť v závislosti od operačného systému.

Používanie diskety programu Disk Manager

Ak chcete na inštaláciu disku použiť disketu programu Disk Manager, postupujte takto:

1. Vložte disketu do disketovej mechaniky počítača, v ktorom chcete nainštalovať nový disk.
2. Vypnite počítač.
3. Zapnite počítač. Počítač sa spustí z diskety.
4. Postupujte podľa pokynov na obrazovke.
5. Výberom **View/Print Online Manual** si môžete prečítať a vytlačiť online pomoc.
6. Položka ponuky **Easy Disk Installation** vyhovuje väčšine inštalácií.

Inštalácia jednotky

Ak na svojom existujúcom disku používate systém Windows 2000 alebo Windows XP, musíte nainštalovať nový disk skôr, ako použijete systém Windows na jeho rozdelenie a formátovanie.

Inštrukcie uvedené v tejto časti sú všeobecným návodom, ktorý vyhovuje väčšine počítačov. Špecifické informácie o inštalácii pevného disku do vášho počítača nájdete v dokumentácii svojho počítača.

Krok 1. Otvorenie počítača

Pred jeho otvorením vykonajte nasledujúce kroky:

1. Vypnite počítač.
2. Odpojte káble počítača a pripojených zariadení z elektrických zásuviek.

Teraz je bezpečné otvoriť počítač. Špecifické informácie o otváraní vášho počítača nájdete v dokumentácii, ktorá je súčasťou vášho počítača.

Krok 2. Vybalenie jednotky

Pri vybaľovaní a manipulácii s diskom postupujte podľa nasledujúcich pokynov. Manipuláciu obmedzte na minimálnu možnú mieru, kvôli hroziacemu riziku poškodenia a kvôli riziku výboja statickej elektriny.

1. Antistatický obal neotvárajte, kým nie ste pripravený disk nainštalovať. Statická elektrina môže zničiť disk aj ďalšie komponenty počítača.
2. Dotknite sa vnútorného vodivého povrchu antistatického obalu obsahujúceho disk a na dve sekundy položte ruku na nezafarbenú kovovú časť počítača. Toto odvedie statickú elektrinu z obalu aj z vášho tela.
3. Pred manipuláciou s diskom sa uzemnite dotykom nezafarbeného povrchu počítača. Ak opustíte svoje pracovisko, po návrate sa uzemnite znova.
4. Disk chytajte vždy len za okraj. Nedotýkajte sa plošných spojov, komponentov alebo pinov konektorov.

5. Počas inštalácie jednotky sa vyvarujte zbytočnej manipulácie. Nešetrné zaobchádzanie môže poškodiť hlavy disku, rotujúce disky a ložiská v jednotke pevného disku.
6. Ak musíte disk odložiť, umiestnite antistatický obal na rovnú podložku a položte na tento obal disk stranou s komponentmi smerom nahor.

Poznámka: Ak chcete nainštalovať disk do 5,25 palcovej pozície, budete potrebovať konverznú sadu.

Krok 3. Upevnenie jednotky v pozícii

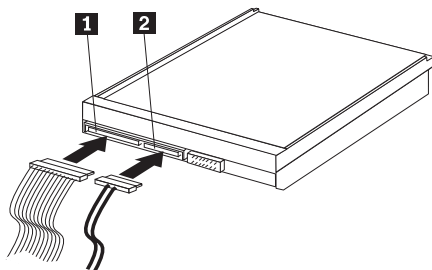
Disk môžete upevniť horizontálne alebo vertikálne. Pri upevňovaní jednotky v pozícii postupujte podľa nasledujúcich krokov:

1. Jednotku zasuňte do pozície.
2. Ak budete pridávať svoj nový disk do systému s existujúcim diskom, skontrolujte, či je nový disk umiestnený tak, že je hneď vedľa existujúceho disku a je aj rovnako orientovaný. Týmto sa vyhnete prekrúteniu kábla pri pripájaní diskov.
3. Zarovnajte otvory pre skrutky v pozícii s otvormi pre skrutky jednotky disku alebo expanznej konzoly.
4. Ručne pripevnite skrutky tak, aby zľahka upevnili disk v pozícii. Pri niektorých inštaláciách budete možno musieť použiť otvory pre skrutky v spodnej časti (strana dosky plošných spojov) jednotky.
5. Skontrolujte zarovnanie disku a skrutky pritiahnite. Nedoťahujte ich príliš silno.

Krok 4. Pripojenie káblov k jednotke

Pri pripájaní káblov postupujte podľa nasledujúceho návodu.

1. Pripojte kábel, ktorý bol dodaný spolu s vaším produktom k 7 pinovému portu (**2**) vášho disku.
2. Pripojte druhý koniec kábla k sériovému portu ATA. Sériový port ATA sa môže nachádzať na systémovej doske počítača alebo na adaptéri, ktorý je nainštalovaný v rozširujúcom slotе.



1 15 pinový napájací konektor SATA

2 7 pinový kábel

3. Nájdite nepoužívaný 15 pinový napájací konektor SATA vychádzajúci z napájacieho zdroja počítača a pripojte ho k napájaciemu konektoru disku (**1**). Napájací konektor je možné zapojiť len jedným spôsobom. Nezapájajte ho násilu. Ak konektor nezapadne použitím primeranej sily, skontrolujte orientáciu konektora kábla a skúste znova.

Poznámka: Pripojte len jeden napájací kábel.

Krok 5. Dokončenie inštalácie jednotky

Pri dokončení inštalácie disku postupujte podľa nasledujúceho návodu:

1. Skontrolujte, či je disk bezpečne pripevnený a káble sú pevne pripojené.
2. Skontrolujte, či káble neprekážajú krytu počítača a či neblokujú ventilátor napájacieho zdroja alebo prúdenie vzduchu.
3. Vráťte kryt počítača na svoje miesto.
4. Pripojte späť všetky zariadenia. Uistite sa, že klávesnica, myš a káble monitora sú pevne pripojené.
5. Pripojte všetky elektrické napájacie káble.

Príprava disku na používanie

Pretože ste zmenili hardvér počítača, po reštarte sa zobrazí informatívna obrazovka nastavenia konfigurácie. Niektoré počítače vyžadujú, aby ste vykonali voľby konfigurácie hneď po prvom reštarte po inštalácii nového zariadenia. Ak sa táto obrazovka neobjaví, pozrite sa do dokumentácie vášho počítača, ako ju sprístupniť. Pri väčšine počítačov IBM sa sprístupňujú informácie o nastavení konfigurácie počas spustenia počítača stlačením klávesu F1, keď sa v pravom hornom rohu objaví výzva na spustenie konfiguračného programu.

V informáciách o nastavení konfigurácie skontrolujte nasledujúce:

- Či program nastavenia konfigurácie indikuje očakávanú veľkosť vášho nového disku. Uložte zmeny, ukončíte konfiguračný program a pokračujte s “Delenie a formátovanie disku” na strane 7.
- Ak počítač nereaguje alebo ak reštart neprebehol úspešne, prejdite na Kapitola 2, “Riešenie problémov”, na strane 9.

Delenie a formátovanie disku

Ak pridávate disk do počítača, ktorý má nainštalovaný Windows 2000 na existujúcom disku, postupujte podľa nižšie uvedených pokynov na rozdelenie a formátovanie vášho nového SATA disku.

1. Zapnite počítač.
2. Kliknite na **Start -> Programs -> Control Panel**.
3. Dvakrát kliknite na **Administrative Tools**.
4. Dvakrát kliknite na **Computer Management**.
5. Dvakrát kliknite na **Storage**.
6. Dvakrát kliknite na **Disk Management**.
7. Na ponukovej lište kliknite na **Action -> All Tasks -> Create Volume**. Otvorí sa **Create Volume Wizard**.
8. Pri delení a formátovaní disku postupujte podľa zobrazených inštrukcií.

Ak pridávate disk do počítača, ktorý má nainštalovaný Windows XP na existujúcom disku, postupujte podľa nižšie uvedených pokynov na rozdelenie a formátovanie vášho nového SATA disku.

Poznámka: Keď inštalujete IBM ThinkAccessories Hard Disk Drive pod Windows XP, aby ste mali dostupnú kapacitu nad 137 GB, je potrebný minimálne balík Service Pack 1a (SP1a).

1. Zapnite počítač.
2. Kliknite na **Start -> My Computer**.
3. Kliknite pravým tlačidlom myši na **My Computer**.
4. Kliknite na **Manage**. Otvorí sa okno Computer Management.

5. V ponuke na ľavej strane kliknite raz na **Disk Management**.
6. V ponukovej lište kliknite na **Action -> All Tasks -> Format**.
7. Otvorí sa okno Format. Postupujte podľa pokynov na obrazovke a naformátujte a rozdeľte disk.

Poznámka: Ak inštalujete disk na počítač, ktorý ešte neobsahuje žiadny disk, postupujte podľa nasledujúcich inštrukcií o delení a formátovaní nového disku v systémoch Windows 2000 alebo Windows XP použitím NTFS:

1. Do disketovej mechaniky vložte prvú inštalačnú disketu Windows 2000 alebo Windows XP (*Setup Disk #1*) alebo vložte do jednotky CD-ROM inštalačné CD systému Windows 2000 alebo Windows XP.
2. Reštartujte počítač.
3. Pri delení a formátovaní disku postupujte podľa inštrukcií v užívateľskej príručke systému Windows 2000 alebo Windows XP.

Správa disku

Program Disk Manager, ktorý je súčasťou CD *IBM Serial ATA Software and User's Guide*, poskytuje nástroje na správu disku, ktoré vám umožňujú:

- deliť a formátovať disk
- v prípade potreby aktualizovať označenia jednotky CD-ROM
- kopírovať súbory zo starého disku na nový bez zmeny adresára alebo názvov súborov
- spustiť diagnostické programy na testovanie a správu disku

Viac informácií o týchto nástrojoch získate kliknutím na tlačidlo Help v programe Disk Manager, v časti Maintenance Options.

Kapitola 2. Riešenie problémov

Ak inštalujete svoj nový pevný disk a program, aktivovaný pri spustení, neodpovedá alebo neidentifikuje nový disk správne, asi bude problém s hardvérom. Viac informácií nájdete v nasledujúcich častiach.

Odstraňovanie hardvérových problémov

Aby ste identifikovali a odstránili hardvérový problém, postupujte takto:

1. Skontrolujte pripojenie káblov podľa nasledujúceho postupu.
 - a. Vypnite počítač.
 - b. Odpojte káble počítača a pripojených zariadení z elektrických zásuviek.
 - c. Odstráňte kryt počítača a odpojte káble rozhrania z disku.
 - d. Zapojte kábel rozhrania disku a kábel napájania disku. Pozrite si časť “Krok 4. Pripojenie káblov k jednotke” na strane 6.
 - e. Overte, či je napájací kábel správne pripojený k disku.
 - f. Vráťte kryt počítača na svoje miesto.
 - g. Pripojte napájací kábel k počítaču.
 - h. Reštartujte počítač.

Ak problém znova nenastane, vráťte sa na krok “Príprava disku na používanie” na strane 7. Ak problém nastane znova, pokračujte krokom 2.
2. Skontrolujte, či nenastal konflikt s iným zariadením a reštartujte počítač tak, že bude zapojený len nový pevný disk.
 - a. Vypnite počítač.
 - b. Odpojte káble počítača a pripojených zariadení z elektrických zásuviek.
 - c. Odstráňte kryt počítača a odpojte všetky zariadenia z portov IDE a SATA.
 - d. Pripojte nový disk k sériovému portu ATA.
 - e. Vráťte kryt počítača na svoje miesto.
 - f. Preverte pripojenie všetkých externých káblov.
 - g. Počítač reštartujte a skontrolujte veľkosť disku, oznámenú programom nastavenia konfigurácie. Ak je teraz disk identifikovaný správne, nastal problém kompatibility jedného z odpojených zariadení.
 - h. Ak chcete zistiť zdroj problému nekompatibility:
 - Pozrite si užívateľské príručky pripojených zariadení.
 - Viac informácií nájdete v online príručke *Disk Manager Online Manual*. Ak chcete túto online príručku otvoriť, postupujte podľa nasledujúcich krokov:
 - 1) Vložte do mechaniky CD-ROM disk *CD Software and User's Guide*.

- 2) Vyberte si jazyk.
 - 3) V ľavej strane okna kliknite na **DiskManager**.
 - 4) Vyberte si jazyk a kliknite na **OK**.
 - 5) V hlavnej ponuke programu Disk Manager vyberte **View/Print Online Manual** a stlaďte **Enter**.
- Ak je konfliktným zariadením pevný disk, ktorý nie je produktom spoločnosti IBM, pozrite si webové stránky jeho výrobcu alebo telefonicky kontaktujte linku pomoci.
 - Po odstránení problému s kompatibilitou sa vráťte späť na “Príprava disku na používanie” na strane 7, aby ste dokončili proces prípravy disku.

Priloha A. 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.

Machine - Serial ATA Hard Disk Drive

Warranty period	Service delivery method
Parts - 1 year, labor - 1 year	Customer carry-in or mail-in

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 Support Center 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-IBM-SERV
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.

Priloha B. 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
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Armonk, NY 10504-1785
U.S.A.*

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Trademarks

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

IBM
IBM logo

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

Electronic emission notices

Serial ATA Hard Disk Drive

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 55024:1998 und EN 55022:1998 Klasse B.

EN 55022 Hinweis:

“Wird dieses Gerät in einer industriellen Umgebung betrieben (wie in EN 55022:B 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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