

External Half-High SCSI Storage Enclosure

User's Guide

OPTIONS
by IBM

Note: If you are using this product in the United States, Canada, or Puerto Rico, be sure to read the information under Appendix C, “Product Warranty and Notices” on page 3-15 before using this information and the product it supports.

For all other countries, the warranty terms and conditions applicable in the country of purchase are available from IBM or your reseller.

First Edition (June 1998)

The following paragraph does not apply to the United Kingdom or any country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This publication could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time.

This publication was developed for products and services offered in the United States of America. IBM may not offer the products, services, or features discussed in this document in other countries, and the information is subject to change without notice. Consult your local IBM representative for information on the products, services, and features available in your area.

Requests for technical information about IBM products should be made to your IBM reseller or IBM marketing representative.

Copyright International Business Machines Corporation 1998. All rights reserved.

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

Contents

Safety: Read First	iv
Product Registration	v
<hr/>	
Part 1: About This Book	1-1
<hr/>	
Part 2: Installation Guide	2-1
<hr/>	
Part 3: Appendixes	3-1
Appendix A. Safety Information	3-1
Appendix B. Help and Service Information	3-11
Step 1: Problem Solving	3-11
Step 2: Preparing for the Call	3-12
Step 3: Placing the Call to IBM	3-12
Step 4: Placing the Call to Hard Disk Drive Manufacturers	3-14
Appendix C. Product Warranty and Notices	3-15
Notices	3-17
Trademarks	3-17
Electronic Emissions Notices	3-18

Safety: Read First



CAUTION: Read the Safety Information in the Appendix, page 3-1, before installing this product.

Bitte beachten: Vor der Installation dieses Produkts bitte die Sicherheitsinformationen im Anhang (Seite 3-1) durchlesen.

ATTENTION: Lire les Consignes de Sécurité en Annexe, page 3-1, avant d'installer ce produit.

Precaución: Antes de instalar este producto, lea la información sobre seguridad que aparece en el apéndice, páginas 3 a 1.

注意: この製品をインストールする前に、付録ページ3-1の安全に関する表示をお読み下さい。

ATTENZIONE: Prima di procedere all'installazione di questo dispositivo, leggere le Informazioni sulla sicurezza nell'Appendice a

ADVERTÊNCIA: Leia a informação sobre segurança no Apêndice, página 3-1, antes de instalar este produto.

OPOZORNĚNÍ: Před instalací tohoto výrobku si přečtěte Informace o bezpečnosti v Dodatku, str. 3-1.

BEMÆRK: Læs sikkerhedsinformationen i tillægget, side 3-1, før du installerer dette produkt.

LET OP: Voordat dit produkt wordt geïnstalleerd dient de informatie over veiligheid in de bijlage op pagina 3-1 gelezen te worden.

ATTENTION: Avant d'installer ce produit, veuillez lire les renseignements en matière de sécurité à la page 3-1 de l'Annexe.

VAROITUS: Lue liitteen sivulla 3-1 olevat turvallisuusohjeet, ennen tämän laitteen asentamista.

זהירות: קרא את הוראות הבטיחות המופיעות בנספח, עמ' 3-1, לפני התקנת מכשיר זה.

FIGYELMEZTETÉS: Mielőtt beszerelné a terméket, olvassa el a függelék 3-1 oldalán található biztonsági információkat.

주의: 본 제품을 설치하기 전에 부록의 3쪽 1항에 있는 안전 수칙을 숙독한다.

ADVARSEL: Les informasjonen om sikkerhet i Appendiks, side 3-1, før du installerer dette produktet.

UWAGA: Przed zainstalowaniem tego wyrobu należy przeczytać informację dotyczącą bezpieczeństwa w Załączniku na str. 3-1.

CUIDADO: Leia as Informações de Segurança no Anexo, página 3-1, antes de instalar este produto.

小心: 請在安裝本產品之前仔細閱讀3-1頁附錄中的安全信息。

Opozorilo: Upoštevajte varnostna obvestila v dodatku, stran 3-1., preden napravo instalirate.

WARNING: Läs säkerhetsinformationen i bilagan, sid. 3-1 innan du installerar denna produkt.

Product Registration

Thank you for purchasing OPTIONS by IBM. Please take a few moments to register your product and provide us with information that will help IBM to better serve you in the future. Your feedback is valuable to us in developing products and services that are important to you, as well as in developing better ways to communicate with you. Register your option on the IBM Web site at:

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

IBM will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.

Part 1: About This Book

This manual contains information on the External Half-High SCSI Storage Enclosure. The manual is divided into the following parts:

- Part 1:** Outline of the manual
- Part 2:** Product information and installation instructions in the following languages: English, German, French, Spanish, Japanese, Italian, and Brazilian Portuguese
- Part 3:** Safety information, help and service information, warranty, and notices

Note: The illustrations in this manual might be slightly different from your hardware.

Part 2: Installation Guide

The IBM External Half-High Storage Enclosure is an enclosure for half high SCSI devices, including tape drives and hard disk drives. When you install the drive in the enclosure, you must attach it to the interface of a SCSI adapter. The SCSI adapter can be part of the computer system board or can be an adapter installed in an expansion slot.

The enclosure option includes:

- External Half-High SCSI Storage Enclosure
- External Half-High SCSI Storage Enclosure User's Guide*
- Mounting parts kit (metric-screw and machine-screw standoff posts, and mounting screws)
- Narrow (50-pin) internal SCSI cable (preinstalled in the enclosure)
- Wide (68-pin) internal SCSI cable
- Filler panel LED cable (preinstalled)
- Front cover LED cable (preinstalled)
- SCSI ID cable with jumpers for 2-mm pins
- SCSI ID cable with jumpers for 0.100-inch jumper pins
- Power cable (preinstalled)

Contact your place of purchase if an item is missing or damaged. Be sure to retain your proof of purchase. It might be required to receive warranty service.

Installation Requirements

To install a drive in this external storage enclosure, you must have the following:

- Phillips head screwdriver for mounting the drive and for replacing the SCSI cable in the storage enclosure

- Flat blade screwdriver to detach the front panel if you are installing a front-loading 5.25-inch drive

- SCSI interface that is either on a SCSI adapter or is built-in to the system board of your computer

- Wide (68-pin) or narrow (50-pin) external SCSI cable (two or more if installing multiple storage enclosures)

- SCSI terminator (for the last drive in a SCSI chain)

- A power cord (Obtain from your dealer the IBM power cord that is used in your country.)

- A screw starter (optional)

Installing a Drive in the Storage Enclosure

Follow these steps to install a drive in your external storage enclosure.

Step 1. Assigning a SCSI ID to a Drive

Each SCSI device connected to a SCSI adapter must be assigned, at the time of installation, a unique SCSI identification number (ID). Usually, your computer or SCSI adapter comes with a configuration program that lets you see which SCSI IDs are in use. Otherwise, you might need to physically inspect each device to identify its SCSI ID.

Select a SCSI ID from 0 to 15 for wide (68-pin) SCSI drives or 0 to 6 for narrow (50-pin) SCSI drives. Do not assign an ID of 7, because this is normally used by the SCSI adapter.

The SCSI adapter assigns a priority to each SCSI ID number. The higher ID numbers normally are assigned to the higher priorities. Assign the higher ID numbers to hard disk drives or other devices that are used most often or are faster than other devices in the SCSI chain. Assign lower ID numbers to slower SCSI devices, such as CD-ROMs or tape drives.

Depending on your computer, there are several ways to view your current SCSI ID settings:

For your IBM PC, Intellistation, or Netfinity server with SCSI support, consult your *User's Guide* for SCSI configuration

information. For the IBM PCI Fast/Wide UltraSCSI Adapter (PN 76H3579 or PN 02K3454), use **Ctrl+A** when prompted during POST for SCSI configuration information. Check the documentation that comes with your computer or SCSI adapter for more information on how to view configuration information. Use SCSI adapter utility programs, if available. Inspect the installed SCSI devices to see how the jumpers that determine the IDs are set if required.

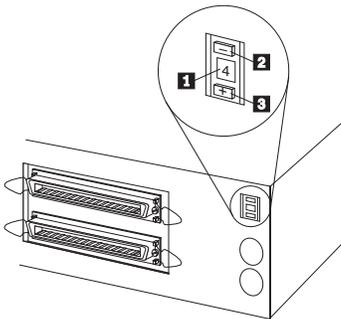
Step 2. Preparing for Installation

Attention: If the storage enclosure is already operating, you must turn off the enclosure and unplug the power cord attached to the enclosure.

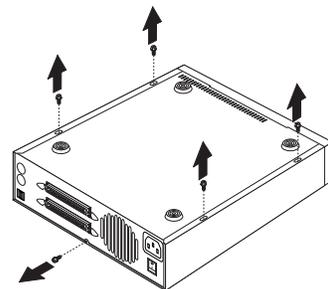
Turn off all devices attached to the computer. Turn off the computer. Unplug the power cord for the computer.

Step 3. Setting the SCSI ID on the Storage Enclosure

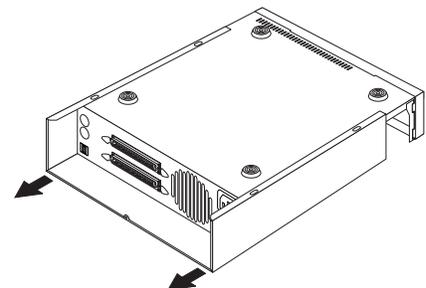
Locate the SCSI ID switch at the rear of the external storage enclosure. Set a SCSI ID that matches the one you assigned to your drive. Press the bottom button 3 to increase the ID. Press the top button 2 to decrease the ID. The indicator 1 shows the SCSI ID. (The SCSI ID indicator on the storage enclosure is preset to 4.)



Attention: Be sure to set aside the cover screws. You will need them later to replace the cover.



2. Remove the cover by gently sliding it toward the rear of the enclosure until it is completely disengaged from the enclosure tray.



Step 4. Removing the Storage Enclosure Cover

To remove the storage enclosure cover:

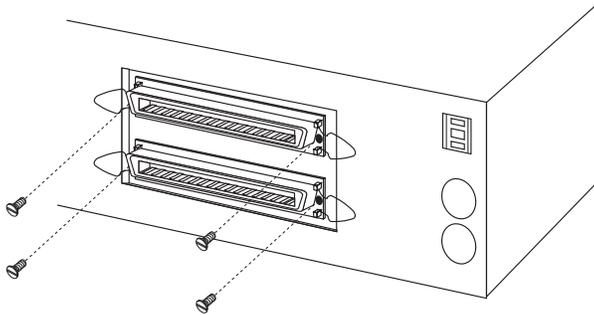
1. Remove the five screws holding the storage enclosure cover in place. Remove one screw from the rear of the unit and four screws from the bottom of the unit.

Step 5. Installing an Internal SCSI Cable in the Storage Enclosure

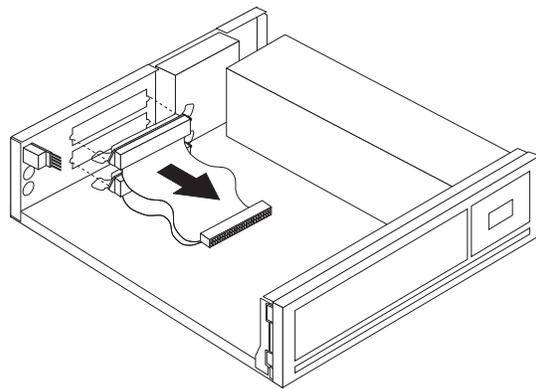
If you are installing a wide SCSI drive, you must remove the narrow (50-pin) internal SCSI cable that comes preinstalled in the storage enclosure and install the wide (68-pin) internal SCSI cable (provided). (If you are installing a narrow SCSI drive, you will not need to remove the narrow (50-pin) internal SCSI cable.)

To remove the narrow internal SCSI cable:

1. Remove the screws from the narrow SCSI cable connectors at the rear of the storage enclosure as shown. Set the screws aside for the wide SCSI internal cable.



2. Gently pull the two ends of the narrow SCSI internal cable toward the inside of the enclosure tray as shown until the cable connectors are completely disengaged from the slots at the rear of the storage enclosure.



3. Store the cable in a safe place. You will need it if you install a narrow device in the future.

To install the wide internal SCSI cable:

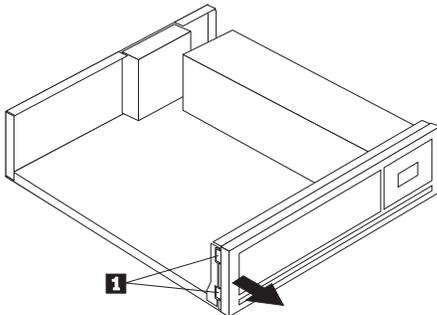
1. Place one end of the internal wide (68-pin) SCSI cable in the top slot and the other end in the bottom slot on the rear of the storage enclosure so that the SCSI cable connectors are facing the outside of the tray. When you place the cable connectors in the slots, use the same orientation as the preinstalled connectors.
2. Secure the SCSI cable connectors to the storage enclosure by reinserting the screws into the screw holes in the cable connectors.

Step 6. Removing the Filler Panel for a Front-Loading 5.25-Inch Drive

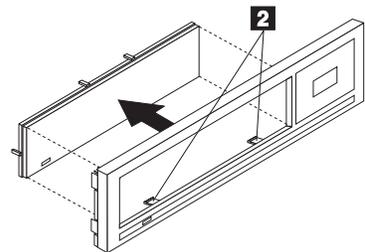
If you are installing a 5.25-inch drive in the storage enclosure, you must remove the filler panel from the enclosure so that the drive will be accessible after it is mounted.

To remove the filler panel:

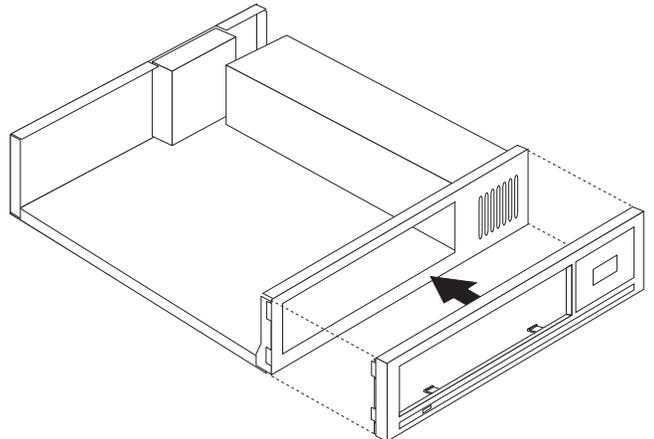
1. Lift the two tabs on one side of the front panel 1 with a screwdriver and remove the front panel from the external storage enclosure tray as shown.



2. Press the two notches below the filler panel 2 and push the filler panel toward the inside of the external storage enclosure until the filler panel is disengaged from the front cover.



3. Store the filler panel in a safe place. You will need it if you remove the front-loading drive.
4. Replace the storage enclosure cover as shown.



Step 7. Connecting an LED Cable to the Drive

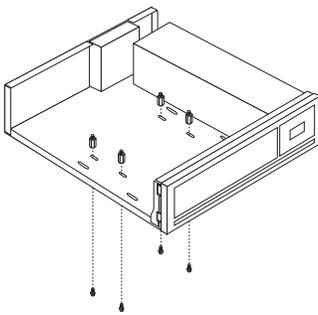
Note: Not all SCSI devices provide support for an LED cable. Refer to your device's *User's Guide* for supported features.

Connect one of the storage enclosure light-emitting-diode cables to the LED pins on the drive. If you are installing a 3.5-inch drive, connect the filler panel LED cable to the LED pins on the drive. If you are installing a 5.25-inch drive, you must remove the filler panel, and the LED cable attached to it, to expose the drive bezel. (See "Step 6. Removing the Filler Panel for a Front-Loading 5.25-Inch Drive" for instructions on removing the filler panel.)

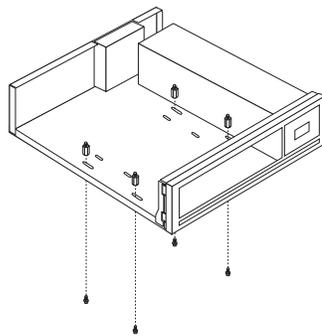
Step 8. Mounting a Drive in the Storage Enclosure

Attention: This option contains two kinds of standoff posts: standoff posts with metric-screw (fine) threads and standoff posts with machine-screw (coarse) threads. Be sure to use the thread that fits easily into the screw holes on the bottom of your drive. Visually inspect the screw holes of your device, or refer to the *User's Guide* of your device, to determine the correct size before installing the standoff. You will damage your drive if you use force to insert incorrect threads in the drive screw holes.

Mount a drive in the external storage enclosure using the correct standoff posts for your drive and the screws as shown. Align the standoff posts on top of the tray with the four slots that match the width of your drive. From the bottom of the tray thread the mounting screws through the four slots before installing the screws in the standoff posts.



Standoff post and screw placements for mounting a 3.5-inch drive



Standoff post and screw placements for mounting a 5.25-inch drive

Check the drive alignment and tighten the mounting screws. *Do not overtighten.*

If you are mounting a front-loading 5.25-inch drive, be sure that there is no space between the drive bezel and the front cover of the storage enclosure.

Step 9. Connecting Cables

To attach the storage enclosure cables to the drive:

1. The option package includes a SCSI ID cable for 0.100-inch drive jumper pins and a SCSI ID cable for 2-mm drive jumper pins. Select the SCSI ID cable with the correct jumpers for the pins on your drive.

Note: Some drives allow you to use jumpers to set device configuration such as parity, termination power, termination, delay motor start, or SCSI ID. If you prefer to set the SCSI ID with your drive jumpers, you do not have to use the SCSI ID cable to select a SCSI ID.

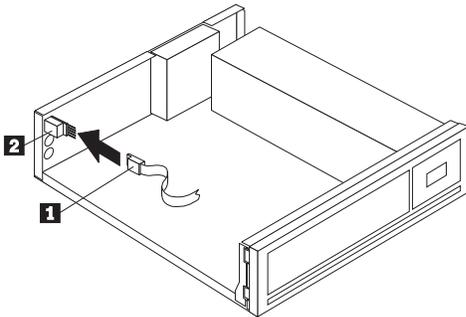
Locate the SCSI ID jumper pins on the drive, and remove any jumpers on these pins.

A colored wire and a black wire are connected to each jumper. When you place the storage enclosure SCSI ID cable jumpers on the drive, the colored wires must be aligned with the row of signal pins on the drive, and the black wires must be aligned with the row of ground pins on the drive. Refer to the documentation that comes with your drive to determine where the drive's pins are located.

Place the violet/black-wired jumper on the ID1 drive jumper pins, the orange/black-wired jumper on the ID2 drive jumper pins, the green/black-wired jumper on the ID4 drive jumper pins, and the yellow/black-wired jumper on the ID8 drive jumper pins. (Do not use the yellow/black-wired jumper for narrow (50-pin) SCSI drives.) Refer to the drive manufacturer's documentation for specific pin configurations. Wide devices support IDs from 0 to 15, and narrow devices support IDs from 0 to 6 (see "Step 1. Assigning a SCSI ID to a Drive").

Connect the five-pin connector at the end of the SCSI ID cable 1 to the connector 2 in the corner of the enclosure tray as

shown. The SCSI ID cable connector fits only one way. If you have difficulty, turn it over and try again.



2. If you are installing a 50-pin narrow drive, connect the storage enclosure's narrow SCSI internal interface cable (provided) to the SCSI cable connector on your drive. To ensure proper operation, be sure to match pin 1 on your cable with pin 1 on the drive connector.

If you are installing a 68-pin wide drive, you must attach a wide (68-pin) SCSI internal interface cable (provided) to the drive. Use instructions given in "Step 5. Installing an Internal SCSI Cable in the Storage Enclosure" to install a wide (68-pin) SCSI internal cable in the storage enclosure.

3. You must purchase an external SCSI cable to attach the enclosure to the SCSI adapter or to attach the enclosure to another enclosure.

Refer to the following table to determine the correct SCSI external cable to use:

Type of connection	External SCSI cable needed
SCSI adapter with narrow connector to external narrow device	Usually 50-pin high density connector to 50-pin centronics
SCSI adapter with narrow connector to external wide device	Usually 50-pin high density connector to 68-pin centronics
SCSI adapter with wide connector to external narrow device	68-pin to 50-pin centronics - not recommended due to termination issues
SCSI adapter with wide connector to external wide device	68-pin to 68-pin centronics
External wide device to external wide device	68-pin to 68-pin centronics - length may vary from .5 to 1.5 meters
External narrow device to external narrow device	50-pin to 50-pin centronics - length varies

If this is the only storage enclosure that is to be attached to the SCSI chain, connect one end of an external SCSI cable (not provided) to the top SCSI cable connector on the rear of the external storage enclosure. Connect the other end of the external SCSI cable to the SCSI adapter on your computer.

4. Connect the power cable from the storage enclosure to the 4-pin connector on the drive. The connector fits only one way. If you have difficulty, turn it over and try again.

Step 10. Terminating the Device

If you have only one SCSI drive and the drive is not self-terminating, a SCSI terminator (not provided) must be installed on the bottom SCSI cable connector at the rear of the external storage enclosure. (You must use a 68-pin active external terminator for a wide drive, and a 50-pin active external terminator for a narrow drive.) If your drive is self-terminating, installing a SCSI terminator is optional. However, installing the external terminator will help prevent problems with the drive signal and performance capability.

If you have more than one drive, a terminator is installed only on the last device in the SCSI chain (see “Step 11. Connecting Multiple External Storage Enclosures”).

Step 11. Connecting Multiple External Storage Enclosures

You can connect the external storage enclosure to a chain of storage enclosures. However, the chain can be connected to one SCSI adapter only. Your SCSI adapter and ANSI cable length standards limit the distance and number of storage enclosures you can install. For narrow SCSI drives, the standard specifies a maximum SCSI cable length (internal and external cables combined) of six meters (19.7 feet). For Fast SCSI, Fast/Wide SCSI, UltraSCSI, or UltraWide SCSI devices, the maximum SCSI cable length is three meters (9.8 feet). If more than four devices are on the SCSI cable, the cable must not exceed 1.5 meters (4.9 feet).

To connect the external storage enclosure to a chain of external storage enclosures:

1. Be sure to turn off all the external storage enclosures and remove power cords attached to the enclosures.
2. Connect one end of the external SCSI cable to the SCSI interface on your computer and the other end of the external SCSI cable to the top SCSI cable connector on the rear of the first external storage enclosure in the chain.
3. Connect an external SCSI cable to the bottom SCSI cable connector on the rear of the first external storage enclosure.
4. Attach the external SCSI cable from the first external storage enclosure to the top SCSI cable connector on the rear of the next storage enclosure.

When multiple SCSI external storage enclosures are cabled together, you must terminate the last SCSI device on the chain. Be sure that no other SCSI terminators are installed on the other external storage enclosures in the chain. Use an active external SCSI terminator on the bottom SCSI cable connector on the rear of the last external storage enclosure. (You do not need a SCSI terminator if the drive in the last enclosure is self-terminating. However, installing a SCSI terminator on a self-terminating drive will help prevent problems with the drive’s signal quality and performance.)

Step 12. Completing the Installation

To complete the installation:

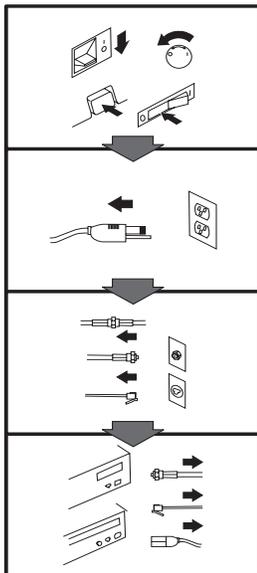
Check all cable connections and check to see that no cables are protruding into the fan.

Replace the cover of the storage enclosure by installing the cover screws on the rear and bottom of the storage enclosure.

Connect a power cord (not provided) to the rear of the storage enclosure; then to a properly grounded electrical outlet. Next, turn on the storage enclosure by pressing the power switch at the rear of the enclosure prior to turning on the system.

Your installation is complete.

Appendix A. Safety Information



To Disconnect:

⚠ Danger:

Electrical current from power, telephone, and communication cables is hazardous. To avoid shock hazard, disconnect cables as shown before opening the computer covers to install this product. The power cord must be used with a properly grounded outlet.

- Turn Everything OFF.
- First, remove power cord from outlet. (In the U.K., by law, the power cord must be disconnected after the telephone line cable.)
- Remove signal cables from receptacles.
- Remove all cables from devices.

Vor dem Entfernen der Anschlüsse:

⚠ Vorsicht:

Befolgen Sie die folgenden Schritte, um gesundheitliche Schäden durch stromführende Telefon- und Verbindungskabel auszuschließen. Um eine Berührungsspannung zu vermeiden, Kabel vor dem Öffnen der Computerabdeckungen bei der Installation dieses Produktes, wie abgebildet, herausziehen. Das Netzkabel darf nur an eine ordnungsgemäß geerdete Steckdose angeschlossen werden.

- Schalten Sie alle Geräte AUS.
- Ziehen Sie zuerst das Netzkabel aus der Steckdose.
- Entfernen Sie die Signalkabel von den Anschlußbuchsen.
- Entfernen Sie alle Kabel von den Geräten.

Précautions de déconnexion

⚠ Danger:

Le courant électrique des câbles électriques, téléphoniques et de communication est dangereux. Pour éviter tout risque d'électrocution, déconnectez les câbles comme indiqué avant d'ouvrir les capots de l'ordinateur pour installer ce produit. Il convient d'utiliser le câble d'alimentation avec une prise correctement raccordée à la terre.

- Eteignez tous les appareils.
- Débranchez tout d'abord le câble d'alimentation de la prise de courant. (Au Royaume-Uni, la législation exige que le câble d'alimentation soit débranché après le câble téléphonique.)
- Débranchez les câbles de signalisation des prises femelles.
- Débranchez l'ensemble des câbles des périphériques.

Para desconectarse

⚠ Peligro:

La corriente eléctrica procedente de cables de alimentación, teléfono y comunicaciones es peligrosa. Para evitar descargas eléctricas, desconecte los cables tal y como se muestra y abra las cubiertas del ordenador antes de instalar este producto. El cable de alimentación debe utilizarse con una toma debidamente conectada a tierra.

- Desconecte todo.
- En primer lugar, retire el cable de alimentación de la toma. (En el Reino Unido, la legislación determina que el cable de alimentación se desconecte después del cable de línea telefónica.)
- Retire los cables de señal de los receptáculos correspondientes.
- Retire todos los cables de los dispositivos.

取外し時：

⚠ 危険：

電源、電話及び通信ケーブルからの電流は危険なものです。電気ショックの危険を避けるために、この製品をインストールするためにコンピューターのカバーを取外す前に、次の順序でケーブルを取外してください。

- すべての電源を切ってください。
- 最初にコンセントから電源コードを取外してください。
- コネクターから通信ケーブルを取外してください。
- 装置から全てのケーブルを取外してください。

Per scollegare:

⚠ Pericolo:

La corrente elettrica che attraversa i cavi di alimentazione, i cavi telefonici e i cavi per le comunicazioni è pericolosa. Per evitare il rischio di scosse elettriche, prima di procedere all'apertura del coperchio dell'elaboratore per installare il dispositivo, scollegare i cavi nel modo qui indicato. Il cavo di alimentazione deve essere inserito in una presa elettrica collegata correttamente a terra.

- Spegnerne tutto (posizione OFF).
- Innanzitutto, scollegare il cavo di alimentazione dalla presa. (nel Regno Unito, per disposizione di legge, è obbligatorio scollegare il cavo di alimentazione dopo aver scollegato il cavo telefonico).
- Scollegare i cavi di segnale dai connettori.
- Scollegare tutti i cavi dai dispositivi.

Para desligar

⚠ Perigo:

A corrente elétrica da unidade de alimentação, do telefone e dos cabos de comunicação é perigosa. Para evitar o risco de choques elétricos, desligue os cabos de acordo com as instruções relativas à instalação antes de abrir as tampas do computador para instalar este produto. O cabo de alimentação deve ser usado numa tomada devidamente ligada a terra.

- Desligue tudo
- Primeiro remova o cabo de alimentação da tomada. (De acordo com as leis do Reino Unido, o cabo de alimentação deve ser desligado depois do cabo da linha telefônica.)
- Remova os cabos de sinal dos receptáculos.
- Remova todos os cabos dos dispositivos.

Odpojení:

⚠ Výstraha:

Elektrický proud ze sit'ových, telefonních a komunikačních kabelů je nebezpečný. Abyste při instalaci tohoto výrobku předešli úrazu elektrickým proudem, před otevřením krytů počítače odpojte kabely dle obrázku. Sit'ový kabel musí být použit s řádně uzemněnou zásuvkou.

- Vypněte všechna připojená zařízení.
- Nejdříve odpojte sit'ový kabel ze zásuvky. (Ve Spojeném království musí být podle zákona sit'ový kabel odpojen až po odpojení telefonní přípojky).
- Odpojte signálové kabely.
- Odpojte všechny kabely periferních zařízení.

Læs følgende inden frakobling:

⚠ Fare:

Elektrisk strøm fra strømførende kabler og telefon- og kommunikationskabler er farlig. For at undgå elektrisk stød skal du sørge for at koble kablerne fra som vist, før du åbner computerens dæksler for at installere dette produkt. Den strømførende ledning skal tilsluttes en javdet stikkontakt.

- SLUK for alt.
- Fjern først den strømførende ledning fra stikkantaten. (I Storbritannien skal den strømførende ledning frakobles efter telefonkablet iflg. lov).
- Fjern signalkabler fra kontakter.
- Fjern alle kabler fra enheder.

Ontkoppelen

Gevaarlijk:

Elektrische stroom afkomstig uit netsnoeren, telefoonkabels en communicatiekabels kan gevaarlijk zijn. Als u dit produkt wilt installeren, moet u, ter voorkoming van elektrische schokken, voordat u de computer openmaakt de kabels, zoals afgebeeld, ontkoppelen. Sluit het netsnoer altijd aan op een geaard stopcontact.

- Zet alles UIT.
- Haal eerst de stekker uit het stopcontact. (In het Verenigd Koninkrijk bent u wettelijk verplicht eerst de telefoonkabel en pas dan het netsnoer los te maken.)
- Haal de signaalkabels uit de ingangen.
- Verwijder alle kabels van de apparaten.

Pour déconnecter

Danger:

Le courant électrique des câbles électriques, téléphoniques et de communication est dangereux. Pour éviter tout risque d'électrocution lors de l'installation de ce produit, déconnectez les câbles tel que montré avant d'ouvrir les couvercles de l'ordinateur. Utilisez le câble d'alimentation avec une prise correctement raccordée à la terre.

- Éteignez tous les appareils.
- Débranchez d'abord le câble d'alimentation de la prise de courant. (Au Royaume-Uni, la réglementation exige que le câble d'alimentation soit débranché après le câble téléphonique.)
- Débranchez les câbles de transmission du signal des prises femelles.
- Débranchez tous les câbles des appareils.

Irrota laite seuraavasti:

Vaara:

Virta-, puhelin- ja tietoliikennejohdoissa liikkuva sähkövirta on vaarallista. Voit tätä laitetta asentaessasi välttää sähköiskut irrottamalla johtimet esitetyllä tavalla ennen tietokoneen kansion avaamista. Virtajohto on liitettävä oikein maadoitettuun pistorasiaan.

- Katkaise kaikista laitteista virta.
- Irrota virtajohto pistorasiasta. (Yhdistyneiden Kuningaskuntien lain mukaan virtajohto on irrotettava ennen puhelinjohdon irrottamista.)
- Irrota signaalkaapelit vastakkeista.
- Irrota kaikki johdot laitteista.

כדי לנתק:

סכנה:

זרם חשמלי מכבלי כח, טלפון ותקשורת מהווה סכנה. כדי למנוע התחשמלות, נתק את הכבלים לפי האיור לפני פתיחת מארזי המחשב לשם התקנת מכשיר זה. את כבל החשמל יש לחבר לשקע מוארק כראוי.

- כבה את כל המפסקים.
- נתק תחילה את כבל החשמל מהשקע (בבריטניה החוק דורש לנתק את כבל החשמל אחרי כבל הטלפון).
- נתק את כבלי האותות משקעיהם.
- נתק את כל הכבלים מההתקנים השונים.

Szétcsatlakoztatás

Balesetvesztély:

A hálózati, telefon és kommunikációs kábelben levő elektromos áram veszélyes. Az áramütés veszélyének elhárítása érdekében, a termék beszerelésekor, a számítógép burkolatának felnyitása előtt húzza ki a vezetékeket. A hálózati vezetékek megfelelően földeltnek kell lennie.

- Kapcsoljon mindent KI.
- Először a hálózati vezetéket húzza ki az aljzatból. (Az Egyesült Királyságban előírás, hogy a hálózati vezetéket a telefonvezeték után kell szétcsatlakoztatni.)
- Húzza ki a jel-kábelt az aljzatából.
- Húzza ki az összes vezetéket a berendezésekből.

차단하려면 :

⚠ 위험 :

전원, 전화, 통신 케이블에서 나오는 전류는 유해하다. 쇼크 위험을 없애려면 본 제품 설치를 위해 컴퓨터 뚜껑을 열기 전에 케이블을 차단한다. 전원 코드는 제대로 접지된 콘덴사와 사용돼야 한다.

- 모든 전원을 차단한다.
- 우선 콘덴사에서 전원 코드를 뺀다. (영국에서는 법으로, 전화선을 뺀 다음 전원 코드를 차단해야 한다.)
- 수신기로 부터 신축 케이블을 뺀다.
- 컴퓨터 장치에서 모든 케이블을 뺀다.

Frakobling

⚠ Fare:

Elektrisk strøm fra strøm -, telefon - og kommunikasjonskabler er farlig. For å unngå fare for støt, må du koble fra kabler, som vist, før du åpner datamaskindeksler for å installere dette produktet. Strømledningen må kun brukes i jordede stikkontakter.

- Slå alt AV.
- Trekk først ut strømledningen fra stikkontakten. (I Storbritannia sier loven at strømledningen må kobles fra etter telefonledningen.)
- Trekk ut signalkablene fra kontaktene.
- Trekk ut alle kablene fra enhetene.

Aby rozłączyć:

⚠ Ostrzeżenie:

Prąd elektryczny obecny w kablach zasilania, telefonicznych lub komunikacyjnych jest niebezpieczny. Aby uniknąć porażenia, przed otwarciem pokrywy komputera w celu zainstalowania tego wyrobu, należy odłączyć kable, jak to zostało pokazane. Musi być użyty przewód zasilania elektrycznego z odpowiednim uziemieniem.

- Wyłącz wszystko (położenie OFF).
- W pierwszej kolejności odłącz przewód zasilania elektrycznego z gniazdka. (W Wielkiej Brytanii prawo nakazuje, by przewód zasilania został odłączony po kablu linii telefonicznej).
- Wyłącz kable sygnałowe z gniazdek.
- Wyłącz wszystkie kable z urządzeń.

Para desligar:

⚠ Perigo:

A corrente eléctrica da unidade de alimentação, do telefone e dos cabos de comunicação é perigosa. Para evitar o risco de choques eléctricos, desligue o cabo de acordo com as indicações antes de abrir a caixa do computador para instalar este produto. O cabo de alimentação deve ser utilizado numa tomada devidamente ligada à terra.

- Desligue tudo.
- Primeiro, retire o cabo de alimentação da tomada. (De acordo com as leis do Reino Unido, o cabo de alimentação deve ser desligado depois do cabo da linha telefónica.)
- Retire os cabos de sinal das tomadas.
- Retire todos os cabos dos dispositivos.

斷開步驟 :

⚠ 危險 :

動力電纜、電話電纜和通信電纜上的電流是危險的。為避免電擊危險，在打開電腦機蓋安裝本產品之前斷開電纜，如圖所示。動力電纜必須妥善接地。

- 關掉一切電源。
- 首先將動力電纜從輸出端取下。(根據英國法律規定，動力電纜必須在電話電纜之後斷開。)
- 從插座上取下信號電纜。
- 從裝置上取下所有電纜。

Izključenje:

⚠ Nevarnost:

Struja iz električnega, telefonskega ali komunikacijskega voda je nevarna. V namenu, da se izognete šoku, izključite vode, kot kaže slika, preden dvignete računalniške pokrove, da bi napravo instalirali. Strujni vod je treba uporabljati s primerno ozemljitvijo.

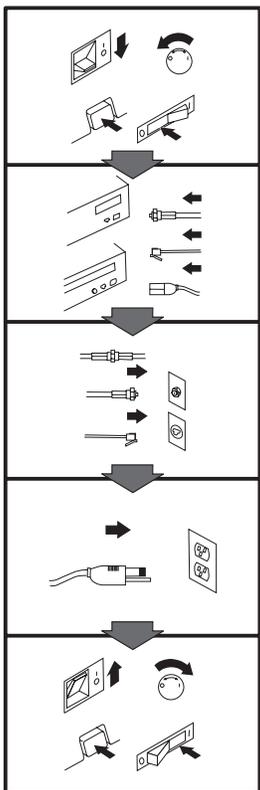
- Izključite vse (na "OFF").
- Najprej odstranite strujni vod iz izhodnega vtikaljšča. (V Veliki Britaniji je po zakonu treba strujni vod izključiti po telefonskem vodu).
- Odstranite signalne vode iz sprejemnikov.
- Odstranite vse vode iz naprav.

Urkoppling

⚠ Fara:

Ström från el-, tele- och kommunikationskablar måste behandlas med försiktighet. För att undvika att få en elektrisk stöt måste du innan du öppnar höljet på datorn koppla ur kablarna enligt beskrivningen nedan. Strömkabeln måste alltid användas i ett jordat uttag.

- Stäng av allting.
- Ta först ur strömkabeln från strömuttaget. (I Storbritannien måste enligt lag strömkabeln tas ur efter telefonkabeln.)
- Ta bort signalkablarna från uttagen.
- Ta bort alla kablarna från enheterna.



To Connect:

⚠ Danger:

Electrical current from power, telephone, and communication cables is hazardous. To avoid shock hazard, connect cables as shown after closing the computer covers. The power cord must be used with a properly grounded outlet.

- Turn everything OFF.
- Attach all cables to devices. (In the U.K., by law, the telephone cable must be connected after the power cord.)
- Attach signal cables to receptacles.
- Attach power cord to outlet.
- Turn device ON.

Vor dem Anschließen:

⚠ Vorsicht:

Befolgen Sie die folgenden Schritte, um gesundheitliche Schäden durch stromführende Telefon- und Verbindungskabel auszuschließen. Um eine Berührungsspannung zu vermeiden, Kabel nach dem Schließen der Computerabdeckungen, wie abgebildet, anschließen. Das Netzkabel darf nur an eine ordnungsgemäß geerdete Steckdose angeschlossen werden.

- Schalten Sie alle Geräte AUS.
- Schließen Sie alle Kabel an die Geräte an.
- Schließen Sie die Signalkabel an die dafür vorgesehenen Anschlußbuchsen an.
- Verbinden Sie das Netzkabel mit der Steckdose.
- Schalten Sie das Gerät EIN.

Avant de vous connecter

⚠ Danger:

Le courant électrique des câbles électriques, téléphoniques et de communication est dangereux. Pour éviter tout risque d'électrocution, connectez les câbles comme indiqué après avoir replacé les capots de l'ordinateur. Il convient d'utiliser le câble d'alimentation avec une prise correctement raccordée à la terre.

- Mettez tous les appareils hors tension.
- Raccordez l'ensemble des câbles aux périphériques. (Au Royaume-Uni, la législation exige que le câble téléphonique soit branché après le câble d'alimentation).
- Raccordez les câbles de signalisation aux prises femelles.
- Raccordez le câble d'alimentation à la prise de courant.
- Mettez les appareils sous tension.

Para conectarse

⚠ Peligro:

La corriente eléctrica procedente de cables de alimentación, teléfono y comunicaciones es peligrosa. Para evitar descargas eléctricas, conecte los cables tal y como se muestra después de cerrar las cubiertas del ordenador. El cable de alimentación debe utilizarse con una toma debidamente conectada a tierra.

- Desconecte todo.
- Conecte todos los cables a los dispositivos. (En el Reino Unido, la legislación determina que el cable de teléfono se conecte después del cable de alimentación.)
- Conecte los cables de señal de los receptáculos correspondientes.
- Conecte el cable de alimentación a una toma.
- Active el dispositivo.

接続時：

⚠ 危険：

電源、電話及び通信ケーブルからの電流は危険なものです。電気ショックの危険を避けるために、コンピューターのカバーを取り付け後に、次の順序でケーブルを接続してください。

- すべての電源を切ってください。
- すべてのケーブルを装置に接続してください。
- コネクタに通信ケーブルを接続してください。
- コンセントに電源コードを接続してください。
- 装置の電源を入れてください。

Per collegare:

⚠ Pericolo

La corrente elettrica che attraversa i cavi di alimentazione, i cavi telefonici e i cavi per le comunicazioni è pericolosa. Per evitare il rischio di scosse elettriche, collegare i cavi nel modo qui indicato solo dopo aver chiuso l'elaboratore con il coperchio. Il cavo di alimentazione deve essere inserito in una presa elettrica collegata correttamente a terra.

- Spegner tutto (posizione OFF).
- Collegare tutti i cavi ai dispositivi. (nel Regno Unito, per disposizione di legge, è obbligatorio collegare il cavo telefonico dopo aver collegato il cavo di alimentazione).
- Collegare i cavi di segnale agli appositi connettori.
- Collegare il cavo di alimentazione a una presa elettrica
- Accendere la periferica (posizione ON)

Para ligar:

⚠ Perigo

A corrente elétrica da unidade de alimentação, do telefone e dos cabos de comunicação é perigosa. Para evitar o risco de choques elétricos, ligue os cabos de acordo com as instruções relativas à instalação depois de fechar as tampas do computador. O cabo de alimentação deve ser usado numa tomada devidamente ligada à terra.

- Desligue tudo
- Ligue os cabos aos dispositivos. (De acordo com as leis do Reino Unido, o cabo de alimentação deve ser desligado depois do cabo da linha telefônica.)
- Ligue os cabos de sinal aos receptáculos.
- Ligue o cabo de alimentação à tomada.
- Ligue o dispositivo.

Připojení:

⚠ Výstraha

Elektrický proud ze síťových, telefonních a komunikačních kabelů je nebezpečný. Abyste předešli úrazu elektrickým proudem, kabely dle obrázku připojte až po uzavření krytů počítače. Síťový kabel musí být použit s řádně uzemněnou zásuvkou.

- Vypněte všechna zařízení.
- Připojte všechny kabely periferních zařízení. (Ve Spojeném království musí být podle zákona telefonní přípojka připojena až po připojení síťového kabelu).
- Připojte signálové kabely.
- Připojte síťový kabel do zásuvky.
- Zapněte přístroj.

Læs følgende inden tilkobling:

⚠ Fare:

Elektrisk strøm fra strømførende kabler og telefon- og kommunikationskabler er farlig. For at undgå elektrisk stød skal du sørge for at koble kablerne til som vist, før du lukker computerens dæksler igen. Den strømførende ledning skal tilsluttes en javdet stikkontakt.

- SLUK for alt.
- Tilslut alle kabler til enheder. (I Storbritannien skal telefonkablet tilsluttes efter den strømførende ledning iflg. lov).
- Tilslut signalkabler til kontakter.
- Tilslut den strømførende ledning til stikkontakten.
- TÆND for enheden.

Aansluiten

Gevaarlijk:

Elektrische stroom afkomstig uit netsnoeren, telefoonkabels en communicatiekabels kan gevaarlijk zijn. Ter voorkoming van elektrische schokken, moet u nadat de computer dichtgemaakt is de kabels, zoals afgebeeld, aansluiten. Sluit het netsnoer altijd aan op een geaard stopcontact.

- Zet alles UIT.
- Bevestig de snoeren aan de apparaten. (In het Verenigd Koninkrijk bent u wettelijk verplicht eerst het netsnoer en pas dan de telefoonkabel aan te sluiten.)
- Bevestig de signaalkabels in de juiste ingangen.
- Steek de stekker van het netsnoer in het stopcontact.
- Zet het apparaat AAN.

Pour connecter

Danger:

Le courant électrique des câbles électriques, téléphoniques et de communication est dangereux. Pour éviter tout risque d'électrocution, connectez les câbles tel que montré après avoir fermé les couvercles de l'ordinateur. Utilisez le câble d'alimentation avec une prise correctement raccordée à la terre.

- Mettez tous les appareils hors tension.
- Raccordez tous les câbles aux appareils. (Au Royaume-Uni, la réglementation exige que le câble téléphonique soit branché après le câble d'alimentation.)
- Raccordez les câbles de transmission du signal aux prises femelles.
- Raccordez le câble d'alimentation à la prise de courant.
- Mettez l'appareil sous tension.

Kytke seuraavasti:

Vaara:

Virta-, puhelin- ja tietoliikennejohdoissa liikkuva sähkövirta on vaarallista. Voit välttää sähköiskut liittämällä johdot esitetyllä tavalla, sen jälkeen kun olet sulkenut tietokoneen kannet. Virtajohto on liitettävä oikein maadoitettuun pistorasiaan.

- Katkaise kaikista laitteista virta.
- Liitä kaikki johdot laitteisiin. (Yhdistyneiden Kuningaskuntien lain mukaan virtajohto on liitettävä ennen puhelinjohdon irrottamista.)
- Liitä signaaliikaapelit vastakkeisiin.
- Liitä virtajohto pistorasiaan.
- Kytke laitteeseen virta.

כדי לחבר:

סכנה:

זרם חשמלי מכבלי כח, טלפון ותקשורת מהווה סכנה. כדי למנוע התחשמלות, חבר את הכבלים לפי האיור אחרי סגירת מארזי המחשב. את כבל החשמל יש לחבר לשקע מוארק כראוי.

- כבה את כל המפסקים.
- חבר את כל הכבלים להתקנים (בבריטניה החוק דורש לחבר את כבל הטלפון אחרי כבל החשמל).
- חבר את כבלי האותות לשקעייהם.
- חבר את כבל החשמל לשקע.
- הדלק את המכשיר.

Csatlakoztatás:

Balesetveszély:

A hálózati, telefon és kommunikációs kábelben levő elektromos áram veszélyes. Az áramütés veszélyének elhárítása érdekében csak a számítógép burkolatának bezárása után csatlakoztassa a vezetékeket. A hálózati vezetéknek megfelelően földeltnek kell lennie.

- Kapcsoljon mindent KI.
- Csatlakoztassa a vezetékeket a berendezésekhez. (Az Egyesült Királyságban előírás, hogy a telefonvezeték a hálózati vezeték után kell csatlakoztatni.)
- Csatlakoztassa a jelkábelt az aljzatába.
- Csatlakoztassa a hálózati vezetéket az aljzatába.
- Kapcsolja BE a készüléket.

연결하려면 :

⚠ 위험 :

전원, 전화, 통신 케이블에서 나오는 전류는 유해하다. 쇼크 위험을 없애려면 본 제품 설치를 위해 컴퓨터 뚜껑을 닫은 후에 케이블을 연결한다. 전원 코드는 제대로 집지된 콘덴사와 사용돼야 한다.

- 모든 전원을 차단한다.
- 장치에 모든 케이블을 연결한다. (영국에서는 법으로, 전화선을 먼저 연결한 다음 전원코드를 연결해야 한다.)
- 수신기에 신호 케이블을 연결한다.
- 콘덴사에 전원 코드를 연결한다.
- 컴퓨터 장치를 켜다.

Tilkobling

⚠ Fare:

Elektrisk strøm fra strøm-, telefon- og kommunikasjonskabler er farlig. For å unngå fare for støt, må du koble til kabler, som vist, etter at datamaskindekslene er lukket. Strømledningen må kun brukes i jordede stikkontakter.

- Slå alt AV.
- Koble alle kablene til enhetene. (I Storbritannia sier loven at telefonledningen må kobles til etter strømledningen.)
- Sett signalkablene i kontaktene.
- Sett strømledningen i stikkontakten.
- Slå apparatet PÅ.

Aby podłączyć:

⚠ Ostrzeżenie:

Prąd elektryczny obecny w kablach zasilania, telefonicznych lub komunikacyjnych jest niebezpieczny. Aby uniknąć niebezpieczeństwa porażenia, po zamknięciu pokryw komputera podłącz kable jak to zostało pokazane. Musi być użyty przewód zasilania elektrycznego z odpowiednim uziemieniem.

- Wyłącz wszystko (położenie OFF)
- Podłącz wszystkie kable do urządzeń (W Wielkiej Brytanii prawo nakazuje by kabel linii telefonicznej został podłączony po przewodzie zasilania).
- Podłącz kable sygnałowe do gniazdek.
- Podłącz przewód zasilania do gniazodka.
- Włącz urządzenie. (Polożenie ON).

Para ligar:

⚠ Perigo:

A corrente eléctrica da unidade de alimentação, do telefone e dos cabos de comunicação é perigosa. Para evitar o risco de choques eléctricos, ligue os cabos de acordo com as indicações antes de fechar a caixa do computador. O cabo de alimentação deve ser utilizado numa tomada devidamente ligada à terra.

- Desligue tudo.
- Ligue os cabos aos dispositivos. (De acordo com as leis do Reino Unido, o cabo do telefone deve ser ligado depois do cabo de alimentação.)
- Ligue os cabos de sinal as tomadas.
- Ligue o cabo de alimentação à tomada.
- Ligue o dispositivo.

連接步驟 :

⚠ 危險 :

動力電纜、電話電纜和通信電纜上的電流是危險的。為避免電擊危險，在蓋上電腦機蓋之後連接電纜，如圖所示。動力電纜必須妥善接地。

- 關掉一切電源。
- 將所有電纜連接於裝置。(根據英國法律規定，電話電纜必須在動力電纜之前連接。)
- 將信號電纜連接於插座。
- 將動力電纜連接於輸出端。
- 打開裝置電源。

Vključenje:

⚠ Nevarnost:

Struja iz električnih, telefonskih in komunikacijskih vodov je nevarna. Da se izognete šoku, vključite vode, kot kaže slika, po tem, ko ste zaprli računalniške pokrove. Strujni vod je treba uporabljati s primerno ozemljitvijo.

- Izključite vse (na "OFF").
- Priključite vse vode na napravo. (V Veliki Britaniji je po zakonu treba telefonski vod vključiti po strujnem vodu).
- Priključite signalne vode sprejemnikom.
- Priključite električni vod izhodnemu vtikalšču.
- Vključite napravo (na "ON").

Anslutning

⚠ Fara:

Ström från el-, tele- och kommunikationskablar måste behandlas med försiktighet. För att undvika att få en elektrisk stöt måste du sedan du stängt höljet på datorn ansluta kablarna enligt beskrivningen nedan. Strömkabeln måste alltid användas i ett jordat uttag.

- Stäng av allting.
- Anslut alla kablarna till enheterna. (I Storbritannien måste enligt lag telefonkabeln anslutas efter strömkabeln.)
- Anslut signalkablarna till uttagen.
- Anslut strömkabeln till strömuttaget.
- Slå på enheten.

Appendix B. ***Help and Service Information***

If you have questions about your new Options by IBM product, or require technical assistance, visit the IBM PSG Web site at <http://www.pc.ibm.com> for IBM, Options by IBM, or Service and Support information. Additionally, you may receive information from our PSG faxback system at 1-800-426-3395, or from our PSG BBS at 1-919-517-0001. If you require voice support, you can contact the HelpCenter 24 hours a day, seven days a week. Response time may vary depending on the number and nature of the calls received. Marketing, installation, and configuration support through the HelpCenter will be withdrawn or made available for a fee, at IBM's discretion, 90 days after the Option has been withdrawn from marketing. Additional support offerings, including step by step installation assistance, are available for a nominal fee. 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.

Step 1: Problem Solving

Your problem with the option or computer can be caused by hardware, software, or incorrect usage. Using the information in this section, you might be able to solve your problem, or gather helpful information to resolve the problem. Before calling IBM, take the following steps:

1. Review the *User Guide's* installation steps, and review any README.TXT files if your option contains installation diskettes or CD-ROM media.
2. Visit the Service and Support IBM PSG Web site at <http://www.pc.ibm.com> for information on your IBM system unit or Option by IBM product. Advanced drivers, microcode, BIOS, or useful hints and tips will be posted to the IBM PSG Web site and BBS when they are made available. If you are having problems with an OEM device or system unit, consult your documentation or visit the manufacturer's Web site, BBS, or fax services.
3. Check that the device in the storage enclosure has power cable, SCSI ID cable, and SCSI internal interface securely attached.
4. Check that the storage enclosure has power and that the SCSI external interface cable is securely and properly attached.
5. Check that proper SCSI termination has been applied to internal or external devices, or to both internal and external devices.
6. Check that the SCSI ID switch indicator on the storage enclosure matches the SCSI ID assigned to the drive by using your SCSI

adapter's configuration utility, or by visual inspection. No two SCSI devices may share the same SCSI ID.

7. Make sure that cabling is correct, and that it does not exceed ANSI standards.
8. Check that parity is set correctly for your configuration.
9. Check that termination power is supplied by your adapter or device. The SCSI adapter usually supplies termination power, and multiple devices might supply termination power. Ensure that termination has been applied correctly (see step 5).
10. Reconfigure your SCSI adapter or SCSI device. Check for bent or misaligned pins. You might need to remove and reinstall existing devices, to change data transfer support from synchronous to asynchronous, or to disable wide negotiation when installing a narrow device to a wide SCSI adapter. Refer to the documentation for your SCSI adapter.

Step 2: Preparing for the Call

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

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

3-12 External Half-High SCSI Storage Enclosure

7. Hardware and software configuration information for your system

If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

Step 3: Placing the Call to IBM

If you call 90 days or more after the date of withdrawal or after your warranty has expired, you might be charged a fee.

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

<i>Support 24 hours a day, 7 days a week</i>	
Canada	1-800-565-3344
U.S.A. / Puerto Rico	1-800-772-2227

Additional Technical Support Resources

Online technical support is available during the warranty period of your product. Online assistance can be obtained through the IBM PSG Automated Fax System, the PSG Web page, and the PSG Electronic Bulletin Board System.

<i>Online Technical Support</i>	
IBM PSG Web Page	www.pc.ibm.com
IBM PSG BBS	1-919-517-0001
IBM PSG Automated Fax System	1-800-426-3395

Step 4: Placing the Call to Hard Disk Drive Manufacturers

Use the following table for disk manufacturer information. For manufacturers not in the table, contact your IBM reseller.

Manufacturer	Telephone	BBS	Fax	Internet Address
IBM Corporation (U.S.A.)	1-800-772-2227	1-919-517-0001	800-426-3395	http://www.pc.ibm.com http://www.ibm.com
Maxtor Corporation (U.S.A.)	1-800-2MAXTOR	1-303-678-2222 (2400 baud)	1-800-2MAXTOR 1-303-678-2260	http://www.maxtor.com
Quantum Peripherals (U.S.A.)	1-800-826-8022	1-408-894-3214	1-800-434-7532	http://www.quantum.com
Seagate Technology, Inc.	1-800-SEAGATE	1-408-434-1080	1-800-SEAGATE 1-408-456-4496	http://www.seagate.com
Western Digital Corporation (U.S.A.)	1-714-932-4900 1-507-286-7900	1-714-753-1234	1-714-932-4900 1-507-286-7900	http://www.wdc.com
Exabyte (U.S.A.)	1-800-445-7736	1-303-417-7100	1-800-445-7736	http://www.exabyte.com

Appendix C. Product Warranty and Notices

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

International Business Machines Corporation

Armonk, New York, 10504

Statement of Limited Warranty

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

Machine: External Half-High SCSI Storage Enclosure

Warranty Period*: Three Years

**Contact your place of purchase for warranty service information.*

Production Status

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

The IBM Warranty for Machines

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

During the warranty period IBM or your reseller, if authorized by IBM, will provide warranty service under the type of service designated for the Machine and will manage and install engineering changes that apply to the Machine.

For IBM or your reseller to provide warranty service for a feature, conversion, or upgrade, IBM or your reseller may require that the Machine on which it is installed be 1) for certain Machines, the designated, serial-numbered Machine and 2) at an engineering-change level compatible with the feature, conversion, or upgrade. Many of these transactions involve the removal of parts and their return to IBM. You represent that all removed parts are genuine and unaltered. A part that replaces a removed part will assume the warranty service status of the replaced part.

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

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

Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM. In the United States, call IBM at **1-800-772-2227**. In Canada, call IBM at **1-800-565-3344**. You may be required to present proof of purchase.

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

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

You agree to:

1. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and
2. where applicable, before service is provided —
 - a. follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provide,
 - b. secure all programs, data, and funds contained in a Machine, and
 - c. inform IBM or your reseller of changes in a Machine's location.

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

Extent of Warranty

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

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

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

Limitation of Liability

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

1. damages for bodily injury (including death) and damage to real property and tangible personal property; and
2. the amount of any other actual direct damages or loss, up to the greater of U.S. \$100,000 or the charges (if recurring, 12 months' charges apply) for the Machine that is the subject of the claim.

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

Notices

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. 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. Subject to IBM's valid intellectual property or other legally protectable rights, any functionally equivalent product, program, or service may be used instead of the IBM product, program, or service. The evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, are the responsibility of the user.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
500 Columbus Avenue
Thornwood, NY 10594
U.S.A.

Trademarks

The following terms are trademarks of the IBM Corporation in the United States or other countries or both:

HelpCenter IBM Intellistation
Netfinity

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

Electronic Emissions Notices

External Half-High SCSI Storage Enclosure

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

Industry Canada Class B Emission Compliance Statement

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

Avis de conformité à la réglementation d'Industrie Canada

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

Deutsche EMV-Direktive (electromagnetische Verträglichkeit)

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

Der Aussteller der Konformitätserklärung ist die IBM UK, Greenock.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse B.

European Union - Emission Directive

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

IBM can not accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

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

Union Européenne - Directive Conformité électromagnétique

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

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

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

Unione Europea - Direttiva EMC (Conformidad electromagnética)

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

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

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

Union Eurpea - Normativa EMC

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

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

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

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

IBM

Part Number: 05L1662

Printed in U.S.A.

5L1662

