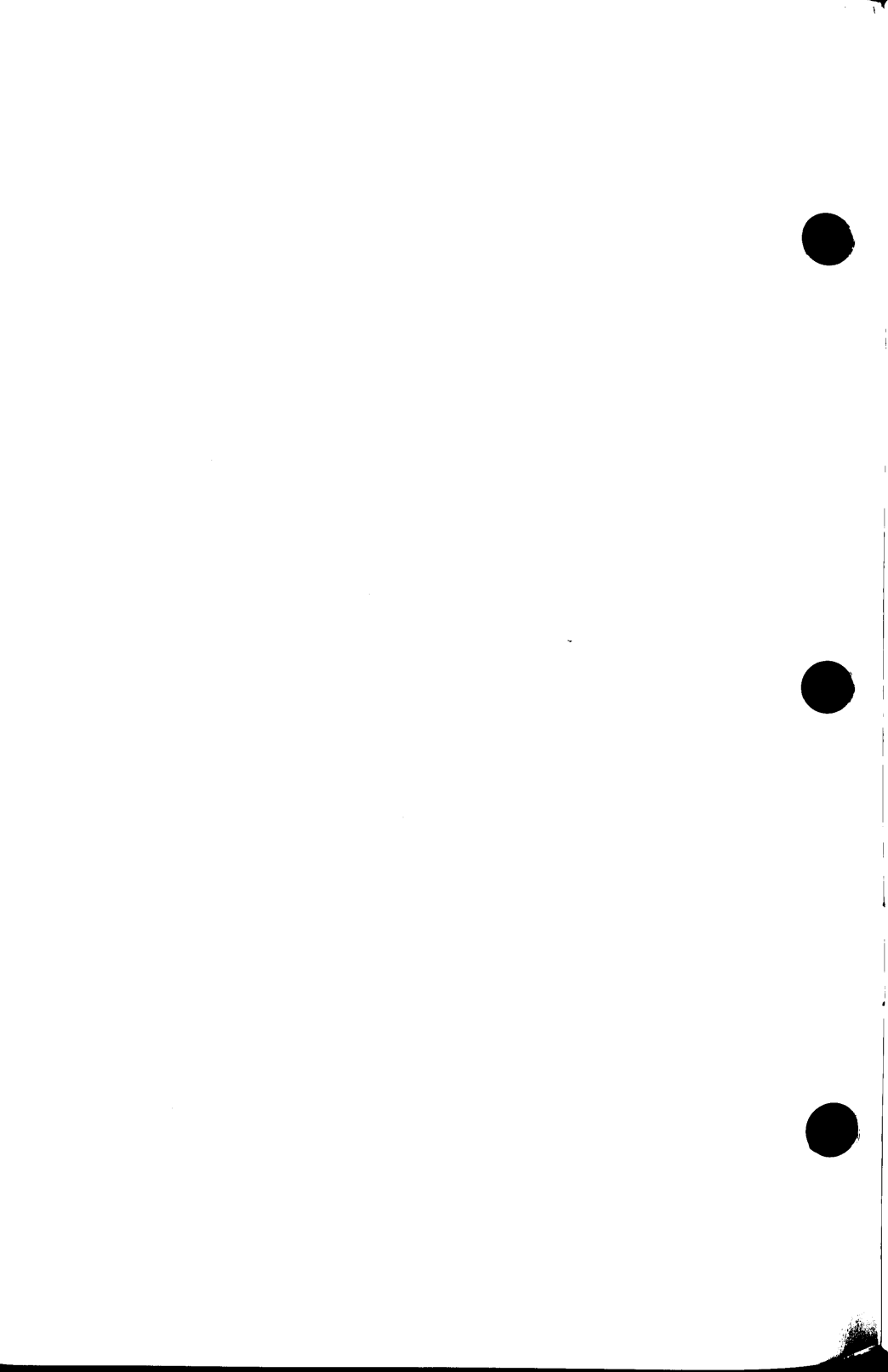


3270 Connection  
Quick Reference



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**IBM**

**3270 Connection  
Quick Reference**

G126-0190-02



**Third Edition (September 1988)**

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**This manual is divided into three major parts:**

- **The first part contains warranty information for the IBM 3270 Connection.**
- **The second part contains installation and operating procedures, hardware reference material, and information needed to diagnose problems with the IBM 3270 Connection.**
- **The third part contains translated safety notices.**

**STATEMENT OF LIMITED WARRANTY FOR THE IBM 3270 CONNECTION**  
(Product)

**International Business Machines Corporation (IBM) gives you the following limited warranty for this Product only if it was originally purchased for use and not resale, from IBM, an IBM Authorized Dealer for this Product or an IBM approved Reseller for this Product. This Statement refers to such a purchase as "Original Purchase."**

The Warranty Period is ONE YEAR. It starts on the date of Original Purchase as shown on the receipt which establishes the proof of Original Purchase.

IBM warrants that on the date of Original Purchase this Product will conform to IBM's official published specifications. IBM will make these specifications available to you upon request. During the Warranty Period, IBM or an IBM Authorized Dealer will provide warranty service at no additional charge. You will receive warranty service if this Product is (1) defective in material or workmanship or (2) otherwise not in good working order. This warranty service will be either repair or exchange, as determined by IBM. Warranty service does not apply to certain Product failures. These failures are those which result from accident, disaster, misuse, abuse, another product, non-IBM modification, or service of the Product by other than IBM or an IBM Authorized Dealer for this Product. Exchange service is not available to you if the Product you present for exchange is defaced.

If this Product is a feature, warranty applies only when the feature is used in a machine for which it was designed. To obtain warranty service for a feature, you may be required to present the feature with such a machine.

Before you present this Product for warranty service, remove all programs, data and removable storage media. Products and parts provided to you as a result of warranty service may not be new. However, they will be in good working order. These Products and parts become your property upon completion of warranty service. At the same time, the replaced Products or parts become the property of IBM or the IBM Authorized Dealer.

You may be required to present the proof of Original Purchase to IBM or an IBM Authorized Dealer when obtaining warranty service. To obtain service from an IBM Authorized Dealer you should contact the Dealer. To obtain service from IBM you should contact IBM by calling 1-800-IBM-2569. You may be able to ship this Product to an IBM designated location for warranty service. When shipping a Product to IBM, you are responsible to insure it or bear the risk of loss or damage in transit. You are also responsible to prepay shipping charges and to use the original shipping container or equivalent. IBM will prepay return shipping charges to an IBM-selected carrier, within the United States and Puerto Rico. In such case IBM will be responsible for risk of loss or damage to the Product while in transit from IBM. IBM is similarly responsible for the Product while it is in IBM's possession.

If this Product was purchased directly from IBM, the Date of Installation is considered the date of Original Purchase. To obtain warranty service from IBM you need not present proof of Original Purchase. However, to obtain warranty service from an IBM Authorized Dealer you should contact IBM for proof of Original Purchase.

If you transfer this Product to another user, warranty service under the terms and conditions of this Statement is available to that user. Warranty service is available to that user for the remainder of the Warranty Period. Therefore, you should transfer the proof of Original Purchase to that user.

If you have any question about this limited warranty, contact your IBM Authorized Dealer or IBM approved Reseller. You may also call IBM Direct at 1-800-IBM-2468.

This limited warranty will apply only to a Product purchased in the United States or Puerto Rico and located in the United States or Puerto Rico.

**ALL EXPRESS AND IMPLIED WARRANTIES FOR THIS PRODUCT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES, EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD.**

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

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The limit of IBM's liability for actual damages to you for an individual event based on any cause whatsoever shall be the greater of 1) \$5,000 or 2) the amount you paid for the Product which caused the damages. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property for which IBM is legally liable. In no event will IBM be liable to you for any damages caused by your failure to fulfill your responsibilities under this Statement of Limited Warranty. In no event is IBM liable for any lost profits, lost savings, or other economic consequential damages. This is true even if you advised IBM, an IBM Authorized Dealer or any other IBM approved Reseller for this Product of the possibility of such damages. IBM is not liable for any claim by you based on any third party claim.

Some states do not allow the exclusion or limitation of economic consequential damages. Therefore, the above limitation or exclusion may not apply to you.



The following information should be recorded and retained.

IBM Product Name	_____
IBM Model Number	_____
IBM Serial Number	_____
IBM Key Number	_____

- The product name is on the front of the product.
- The model number of this product is located on the outside of the product and will have a preface of:  
*"Type" or*  
*"Model."*
- The serial number of this product is located on the outside of the product, and will have a prefix of S/N.
- The serial number for the keys is located on the tag attached to the keys. Additional keys may be ordered from the address listed on the key tag.

The following statement applies to the IBM products covered in this manual, unless otherwise specified herein. The statement for other IBM products will appear in their accompanying materials.

When the IBM 3270 Connection is connected to an **FCC Class A** host as a peripheral using coaxial cable, the following warning applies:

### **Federal Communications Commission (FCC) Statement**

**Warning:** This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

**Instructions to User:** If this equipment does cause 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 the receiving antenna.
- Relocate the computer with respect to the receiver.
- Move the computer away from the receiver.
- Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

Properly shielded and grounded cables and connectors must be used for connection to peripherals in order to meet FCC emission limits. Proper cables are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused by using other than recommended cables or by unauthorized modifications to this equipment. It is the responsibility of the user to correct such interference.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

#### *How to Identify and Resolve Radio-TV Interference Problems*

This booklet is available from the following:

Consumer Assistance and  
Small Business Division  
Room 254  
1919 M St. NW  
Washington, DC 20554  
Tele (202) 632-7000

FOB Public Contact Branch  
Room 725  
1919 M St. NW  
Washington, DC 20554  
Tele (202) 634-1940

When the coaxial attachment to the host is not connected, this equipment complies with the **FCC Class B** limits and the following warning applies:

### **Federal Communications Commission (FCC) Statement**

**Warning:** This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this computer when this computer is operated in a residential environment. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

**Instructions to User:** This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna.
- Relocate the computer with respect to the receiver.
- Move the computer away from the receiver.
- Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

Properly shielded and grounded cables and connectors must be used for connection to peripherals in order to meet FCC emission limits. Proper cables are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused by using other than recommended cables or by unauthorized modifications to this equipment. It is the responsibility of the user to correct such interference.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

#### *How to Identify and Resolve Radio-TV Interference Problems*

This booklet is available from the following:

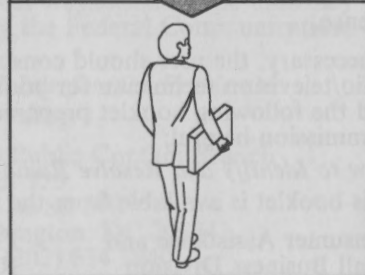
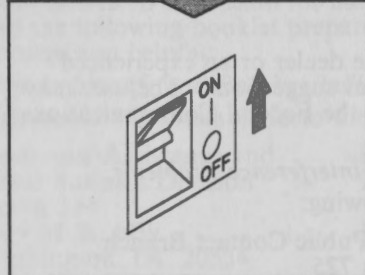
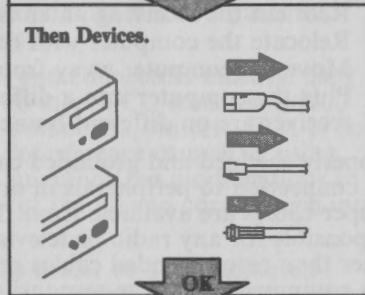
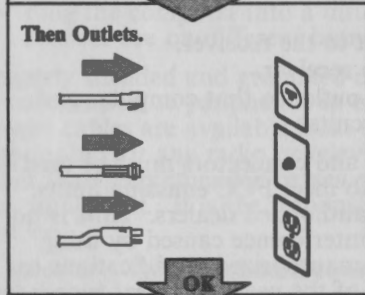
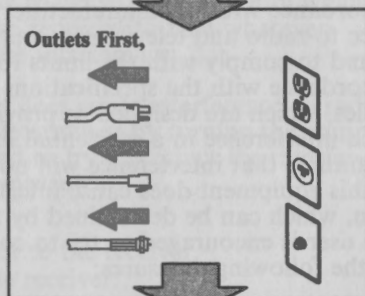
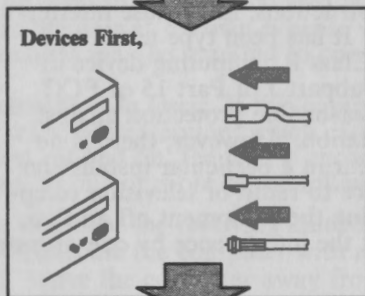
Consumer Assistance and  
Small Business Division  
Room 254  
1919 M St. NW  
Washington, DC 20554  
Tele (202) 632-7000

FOB Public Contact Branch  
Room 725  
1919 M St. NW  
Washington, DC 20554  
Tele (202) 634-1940

Electrical current from power, telephone, and communications cables is hazardous. Connect and disconnect cables as shown when installing, moving, or opening the covers of this product or attached devices.

To Connect

To Disconnect



The following notes apply to the electrical safety notice on the facing page:

1. In the UK, by law, the telephone line cable must be connected after the power cable.
2. In the UK, by law, the power cable must be disconnected after the telephone line cable.
3. See Appendix A for national language safety notices.

**CAUTION:**

**This product is equipped with a 3-wire power cord and plug for the user's safety. Use this power cord in conjunction with a properly grounded electrical outlet to avoid electrical shock. See Appendix A for national language safety notices.**



---

## Preface

This manual is your guide to the IBM 3270 Connection. It is divided into four sections:

- Section 1 contains information on installing and operating the IBM 3270 Connection.
- Section 2 contains hardware reference material, detailing the physical specifications of the adapter.
- Section 3 contains information needed to diagnose problems with the IBM 3270 Connection.
- The appendix contains translated safety notices.

---

### Required Publication

The *Quick Reference* that came with your IBM Personal System/2®.

---

### Additional Publication

*IBM 3270 Connection Technical Reference*, GA23-0339-01 (or a higher edition level)

See your IBM representative or Personal System/2 dealer for information on availability.

**Note:** The IBM 3270 Connection adapter may be installed on Personal System/2 Models 50, 60, 70, and 80.

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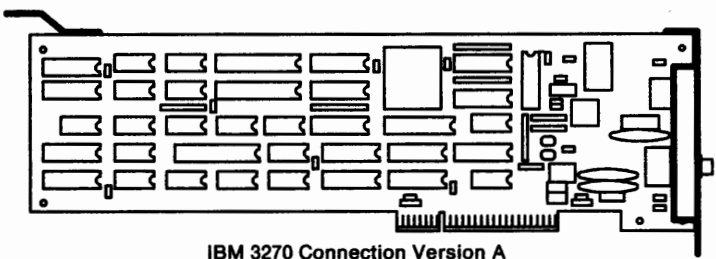
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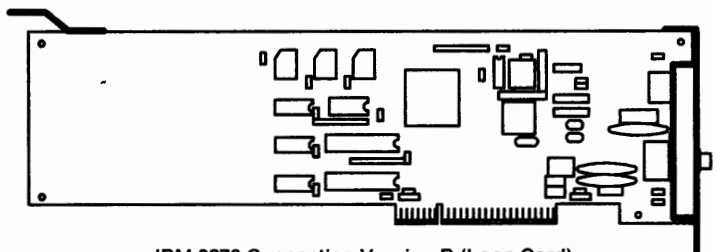
## Section 1. Installation and Operation

The 3270 Connection is an adapter that, with the appropriate software, provides 3278/79 emulation capabilities for the Personal System/2. There are two versions, A and B, with identical functions. Version B is available as a long or short card.

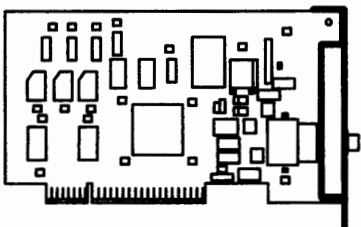
Identify the version by the shape of the adapter. See the following illustrations.



IBM 3270 Connection Version A



IBM 3270 Connection Version B (Long Card)



IBM 3270 Connection Version B (Short Card)

---

## Before You Install the Adapter

Your system control unit must be made ready (customized) for this application. Check with the person in your organization responsible for the control unit to see if this has been done.

To install the IBM 3270 Connection, you need an approved cable, which should be connected to the system control unit. See Table 1 on page 5 and Table 2 on page 6. You also need the diskette that is supplied with the adapter.

**Note:** You should make a copy of the IBM 3270 Connection adapter diskette, using the DOS DISKCOPY command, and store the original.

---

## How to Unpack the Adapter

**Warning:** This adapter can be damaged by static discharge. To prevent this damage, the adapters are wrapped in anti-static bags. Certain precautions must be taken when removing an adapter from this bag.

1. Hold the adapter (still wrapped in the anti-static bag) in one hand, and with your other hand hold the metal portion of a screwdriver or other metal object.
2. Touch the screwdriver or metal object to an unpainted metal part of your system unit briefly to discharge static.
3. Hold the adapter by the edges only and carefully remove the adapter from the bag.
4. Avoid touching the components or connections of the card.
5. Set the card in a safe place until you are ready to install it.

---

## Installation Instructions

The following instructions summarize the installation of an IBM option (adapter). For specific details, see "How to Install an Option" in the *Quick Reference* that came with your Personal System/2.

If you are installing a single 3270 Connection, go to "Installing a Single 3270 Connection in a Personal System/2." If you are installing more than one 3270 Connection in your Personal System/2, go to "Installing Multiple 3270 Connections in One Personal System/2" on page 4.

### DANGER

**During periods of lightning activity, do not connect or disconnect any cables, or perform installation, maintenance, or reconfiguration.**

**Note:** See Appendix A for national language safety notices.

### Installing a Single 3270 Connection in a Personal System/2

1. Copy the IBM 3270 Connection adapter diskette onto the backup copy of the Personal System/2 Reference diskette by doing the following:
  - a. Insert the backup copy of the Reference diskette into drive A and start the computer.
  - b. Select the item from the main menu that allows you to copy an option diskette, and follow the instructions on the screen. Diagnostic information is copied from the IBM 3270 Connection adapter diskette to the backup copy of the Reference diskette.
2. Install the IBM 3270 Connection adapter in the computer. The adapter can be installed in any available expansion slot.
3. Set configuration after installing the IBM 3270 Connection adapter by doing the following:
  - a. Insert the backup copy of the Reference diskette into drive A and start the computer.

- b. Follow the instructions on the screen to run automatic configuration. The computer automatically sets configuration when the backup copy of the Reference diskette is started or when *Run automatic configuration* is selected from the *Set configuration* menu.

## **Installing Multiple 3270 Connections in One Personal System/2**

The 3270 Connection Version B allows you to install more than one 3270 Connection in your Personal System/2. You can install multiple 3270 Connections in a Personal System/2 in one of two ways:

- Install one Version A adapter, and one or more Version B adapters
- Install one or more Version B adapters, and no Version A adapter.

**Note:** Do not install more than one Version A adapter in a Personal System/2.

To add a Version A adapter to a Personal System/2 that has been configured with one or more Version B adapters:

1. Remove the Version B adapter(s).
2. Install the Version A adapter.
3. Configure the Personal System/2 for the Version A adapter.
4. Reinstall the Version B adapter(s).

**Note:** Do not remove the Version A adapter.

5. Configure your Personal System/2 again.

To add an additional Version B adapter to a Personal System/2 that has been configured with either a Version A or Version B adapter:

1. Install the additional Version B adapter(s).
2. Configure your Personal System/2.

## Signal Cable Considerations

When the IBM 3270 Connection adapter is attached to a host system, consider the following:

- Installation
  - Cable runs (indoor and outdoor)
  - Types of signal cables and specifications (coaxial and twisted-pair)
  - Signal cable and power line separation
  - Cable labeling and testing.
- Cable accessories.

Outdoor runs require additional installation guidelines, including lightning protection. For more information, refer to the list of IBM signal cable publications on page 6.

## Cable Requirements

Table 1 shows the adapter requirements for various signal cable types and IBM products.

Table 1. Cable Requirements				
IBM Model	Coaxial RG62A/U	IBM Cabling System Type 1	IBM Cabling System Type 9	Telephone Twisted-Pair Type 3
IBM 3270 Connection Adapter	BNC	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes <sup>2</sup>
IBM 3299 Model 1 or 3274	BNC	Yes <sup>3</sup>	Yes <sup>3</sup>	Yes <sup>2</sup>
IBM 3299 Model 2 or 3174	BNC	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes <sup>2</sup>
IBM 3299 Model 3	NA	NA	NA	Yes <sup>4</sup>
NA = Not applicable <sup>1</sup> Dual purpose connector (DPC) <sup>2</sup> IBM/ROLM Coax-to-Twisted-Pair Adapter (CTPA) <sup>3</sup> IBM Cabling System balun <sup>4</sup> Modular jack connector				

## Cable Length Limits

Table 2 shows the length limits of signal cable.

Cable Type	Adapter Both Ends	Adapter One End	No Adapter	Minimum Length	Maximum Length
IBM Cabling System Type 1	610 m (2000 ft)	1000 m (3280 ft)	1500 m (4920 ft)	None	NA
IBM Cabling System Type 9	406 m (1333 ft)	667 m (2186 ft)	1015 m (3333 ft)	None	NA
Coaxial RG62A/U	NA <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>	None	1500 m (4920 ft)
Telephone Twisted-Pair Type 3	Yes <sup>2</sup>	NA <sup>2</sup>	NA <sup>2</sup>	30 m (100 ft) <sup>3</sup>	275 m (900 ft)

<sup>1</sup> The coaxial cable length cannot exceed the maximum limit.  
<sup>2</sup> The telephone twisted-pair type 3 cable length must be between the minimum and maximum lengths. IBM/ROLM 3270 coax-to-twisted-pair adapters must be used.  
<sup>3</sup> If used with the IBM 3299 Model 3, the minimum length is 0.

## IBM Signal Cable Publications

- *A Building Planning Guide for Communication Wiring*, G320-8059
- *IBM Cabling System Catalog*, G570-2040
- *IBM Cabling System Planning and Installation Guide*, GA27-3361
- *IBM/ROLM 3270 Coax-to-Twisted-Pair Adapter Planning and Installation Guide*, GA27-3722
- *IBM 3270 Information Display System: Installation Manual – Physical Planning*, GA27-2787
- *Installation and Assembly of Coaxial Cable and Accessories*, GA27-2805
- *Using the IBM Cabling System with Communication Products*, GA27-3620.



---

## Operation

How the IBM 3270 Connection adapter operates depends on the application software being used. Refer to the documentation that came with your application software for instructions on how to install and use the adapter. Keep the *IBM 3270 Connection Quick Reference* with the documentation supplied with your computer for future reference.

For information on available software for the IBM 3270 Connection adapter, see your local IBM representative or authorized Personal System/2 dealer.

**Note:** If you receive communication errors, ensure that your control unit and control unit configuration are compatible with your Personal System/2 software.

For example: Personal System/2 Entry Level Emulator software requires control unit terminal (CUT) mode of operation. (CUT mode is the default mode of operation for IBM control units.)

Other software packages may require distributed function terminal (DFT) mode of operation. DFT mode may necessitate reconfiguration of your control unit. (Not all IBM control units support DFT mode of operation.)



---

## Section 2. Hardware Maintenance Reference

This section describes the physical characteristics of the IBM 3270 Connection Versions A and B.

The IBM 3270 Connection adapter, together with the appropriate software, allows the Personal System/2 to emulate an IBM 3278/79 display station, an IBM 3287 printer, or a distributed function terminal. The adapter accepts, decodes, and executes commands issued from both the control unit and the Personal System/2 I/O bus.

The following features are part of the IBM 3270 Connection Versions A and B:

- A BNC coaxial connector. This allows the adapter to support control units using either coaxial cable or the IBM Cabling System. See "Signal Cable Considerations" on page 5 for further information on cabling and connectivity.
- An option card. The adapter can be installed in any slot of the Personal System/2.

---

### Operating Requirements

The following is a description of the operating requirements for the IBM 3270 Connection Versions A and B.

### Environmental Limits

The IBM 3270 Connection adapter operates under the same environmental limits as the Personal System/2. See the Environmental Specifications section of the Personal System/2 *Hardware Maintenance Reference* for the specific limiting values for temperature and humidity requirements.

## Measurements

<b>Long Card</b>	Length: 322 mm (12.67 in) Height: 106 mm ( 4.17 in)
<b>Short Card</b>	Length: 137 mm ( 5.40 in) Height: 106 mm ( 4.17 in)

## Power Requirements

<b>Voltage</b>	+5 volts $\pm 5\%$ (at card socket)
<b>Current</b>	1200 mA maximum at 5.25 volts (Version A) 300 mA maximum at 5.25 volts (Version B)

## Heat Output

18 BTU/hour

## Diagnostics

The IBM 3270 Connection adapter is not checked during the system unit power-on self-test (POST). Diagnostics are provided on the diskette packaged with the adapter. These diagnostics must be merged with the Personal System/2 diagnostics on a backup copy of the Reference diskette that came with the computer. See "Installation Instructions" on page 3 or the *Quick Reference* that came with your Personal System/2.

## Tools

No special tools are needed to install or replace the IBM 3270 Connection adapter.

---

## Section 3. IBM 3270 Connection Diagnostics

This section contains information about using the diagnostics provided with your IBM 3270 Connection adapter. The diagnostics are used to isolate failures in the IBM 3270 Connection adapter. These diagnostics are on the diskette that came with the IBM 3270 Connection adapter.

Make sure you have completed the procedure in "Installation Instructions" on page 3 before you run the diagnostics.

---

### Running the Diagnostics

You should begin the diagnostic procedures for the IBM 3270 Connection adapter by inserting the Personal System/2 Reference diskette and selecting the option that allows you to test the computer. If you are having problems running the diagnostic procedures, refer to the section on solving computer problems in the *Quick Reference* that came with your Personal System/2.

**Note:** If you encounter a message with the number 28xx (where xx may be any 2-digit number), replace your IBM 3270 Connection adapter and rerun the diagnostics.

---

### Removal and Replacement

Follow the procedure given in the *Quick Reference* that came with your Personal System/2 to remove or replace the IBM 3270 Connection adapter.



---

**Appendix A. National Language Safety  
Notices**

---

## **Algemene veiligheidsvoorschriften (Belgian Dutch)**

### **GEVAAR**

Tijdens een onweer is het verboden kabels aan te sluiten of los te koppelen, een machine te installeren, te onderhouden of te herconfigureren.

### **LET OP!**

**Dit apparaat is om veiligheidsredenen uitgerust met een 3-draadse elektrische kabel en stekker. Deze kabel mag alleen worden aangesloten op een stopcontact met randaarde, om elektrische schokken te voorkomen.**



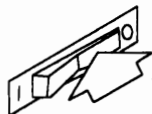
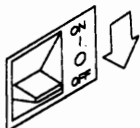
**Elektrische veiligheid**

Elektriciteit kan gevaarlijk zijn. Volg onderstaande afbeelding voor aansluiten en loskoppelen van kabels en snoeren alvorens de computer of randapparatuur te installeren, te verplaatsen of te openen.

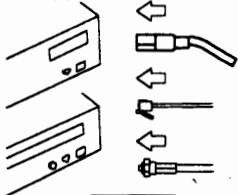
**Aansluiten**

**Loskoppelen**

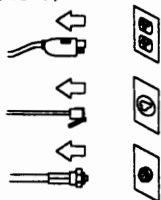
Zet alles UIT.



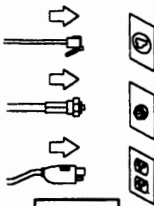
Eerst apparaten.



Eerst stekers.

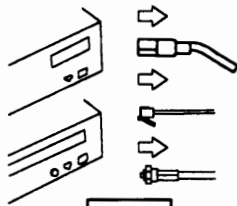


Dan stekers

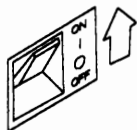


OK

Dan apparaten



OK



---

## **Consignes de sécurité générales (Belgian French)**

### **DANGER**

Pendant un orage, il est interdit de brancher ou de débrancher des câbles, de procéder à l'installation, la maintenance ou la reconfiguration.

### **ATTENTION :**

**Pour la sécurité de l'utilisateur, cet appareil est équipé d'un câble d'alimentation et d'une prise à trois fils. Afin d'éviter tout danger d'électrocution, veuillez brancher ce câble dans une prise électrique correctement mise à la terre.**

# Sécurité électrique

Le courant électrique provenant de l'alimentation, du téléphone et des câbles de transmission, peut présenter un danger. Connectez et déconnectez les câbles comme indiqué ci-dessous lorsque vous installez ou déplacez des ordinateurs personnels ou des périphériques, et lorsque vous soulevez un couvercle. Ne touchez pas aux câbles pendant un orage.

Pour connecter

Pour déconnecter

Mettez tout hors tension.

Branchez côté périphérique.

Débranchez côté prise murale.

puis côté prise murale.

puis côté périphérique.

OK

OK

---

## **Généralités (Canadian French)**

### **DANGER!**

Par temps d'orage, ne manipulez aucun câble et n'effectuez aucune opération d'installation, de maintenance ou de configuration.

### **ATTENTION :**

Pour la sécurité de l'utilisateur, cet appareil est équipé d'un câble d'alimentation et d'une prise à trois fils. Afin d'éviter tout danger d'électrocution, veuillez brancher ce câble sur une prise électrique correctement mise à la terre.

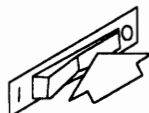
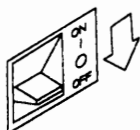
## Sécurité électrique

Le courant électrique provenant de l'alimentation, du téléphone et des câbles de transmission, peut présenter un danger. Connectez et déconnectez les câbles comme indiqué ci-dessous lorsque vous installez ou déplacez des ordinateurs personnels ou des périphériques, et lorsque vous soulevez un couvercle. Ne touchez pas aux câbles pendant un orage.

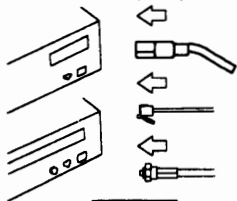
Pour connecter

Pour déconnecter

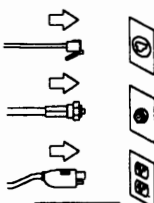
Mettez tout hors tension.



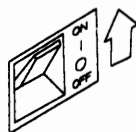
Branchez côté périphérique,



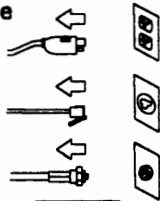
puis côté prise murale.



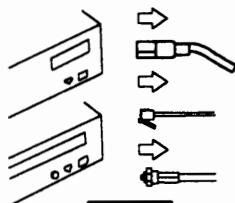
OK



Débranchez côté prise murale,



puis côté périphérique.



OK



---

## **Almindelige sikkerhedsforanstaltninger (Danish)**

### **FARE|**

I tilfælde af tordenvejr undlad at samle eller afmontere kabler. Ligeledes skal enhver form for installering, vedligeholdelse eller omkonfigurering indstilles.

### **NB|**

**Af sikkerhedshensyn er dette produkt udstyret med netledning og stik. Netledningen og en jordforbundet stikkontakt beskytter mod elektrisk stød.**

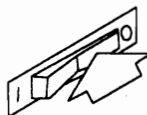
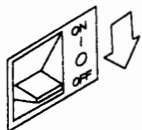
Vigtigt

Elektrisk strøm fra el-, telefon- og kommunikationskabler er farlig. Monter og afmonter kabler som vist nedenfor, når PC'ere og ekstraudstyr skal installeres eller flyttes. Kabler bør ikke monteres eller afmonteres i tordenvejr.

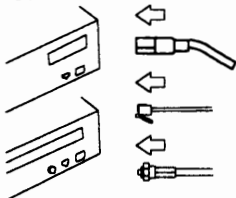
Ved montering

Ved afmontering

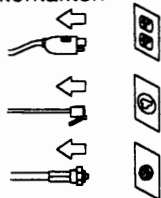
Sluk for alt udstyr.



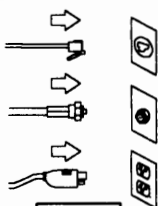
Først maskinen



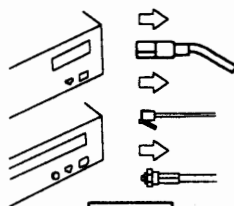
Først stikkontakten



derefter stikkontakten

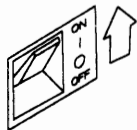


derefter maskinen



OK

OK



---

## **Algemene opmerkingen betreffende veiligheid (Dutch)**

### **WAARSCHUWING**

U wordt geadviseerd tijdens onweer geen kabels aan te sluiten of te ontkoppelen. U wordt ook ontraden tijdens onweer apparatuur te installeren of opnieuw te configureren of onderhoud uit te voeren.

### **LET OP!**

**Dit apparaat is om veiligheidsredenen uitgerust met een 3-draadse elektrische kabel en stekker. Deze kabel mag alleen worden aangesloten op een stopcontact met randaarde, om elektrische schokken te voorkomen.**



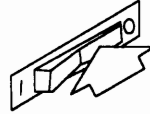
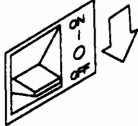
**Elektrische veiligheid**

Elektriciteit kan gevaarlijk zijn. Volg onderstaande afbeelding voor aansluiten en loskoppelen van kabels en snoeren, alvorens de computer of randapparatuur te installeren, te verplaatsen of te openen.

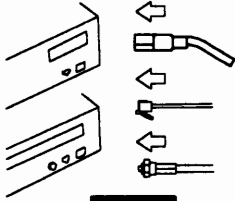
**Aansluiten**

**Loskoppelen**

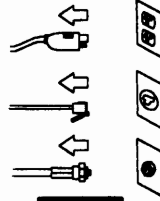
**Zet alles UIT**



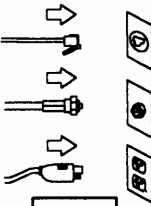
**Eerst apparaten.**



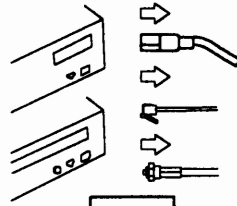
**Eerst stekkers.**



**Dan stekkers**

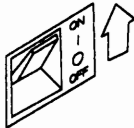


**Dan apparaten**



**OK**

**OK**



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## **Yleisiä turvakysymyksiä (Finnish)**

### **VAARA**

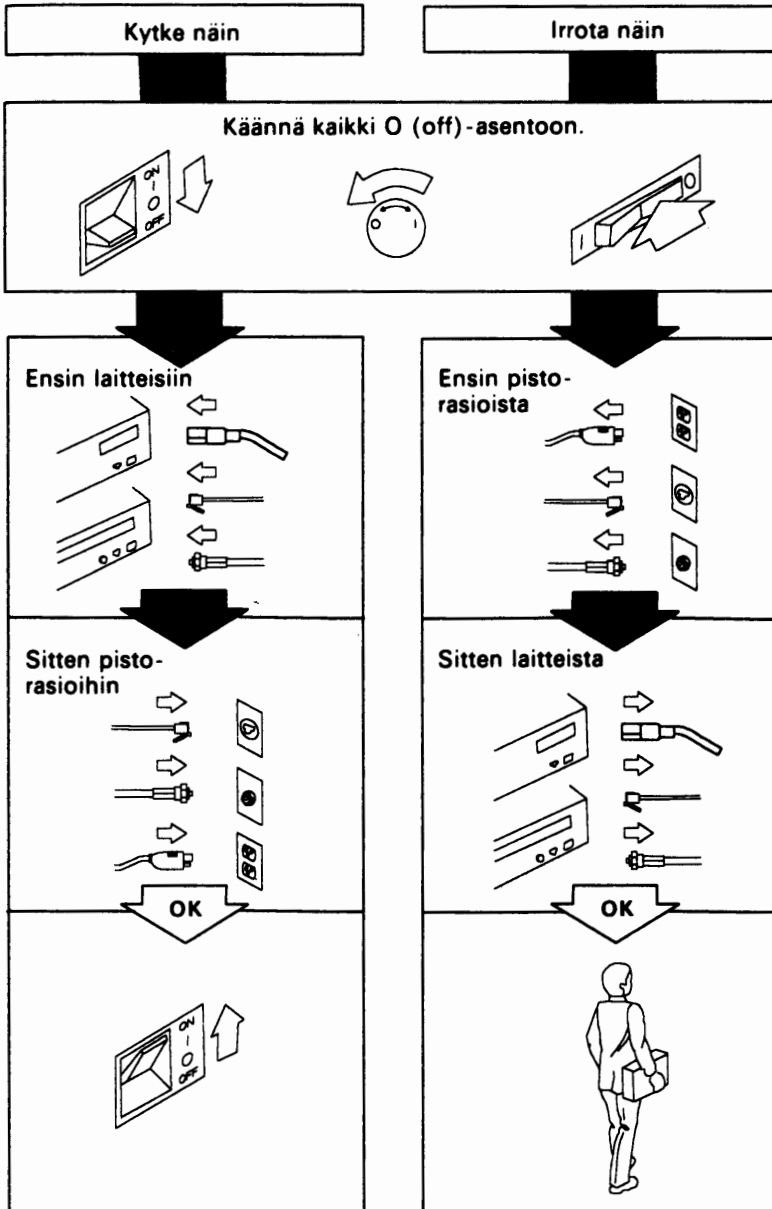
Älä tee mitään kaapelien kytkentöjä, asennuksia eikä huoltoa ukonilman aikana.

### **VARO!**

Tämä tuote on varustettu 3-johtimisella verkkojohdolla ja pistokkeella käyttäjän turvallisuuden takaamiseksi. Käytä tätä verkkojohtoa asianmukaisesti maatetun pistorasian kanssa sähköiskun välttämiseksi.

**Varoitus:** Sähkö-, puhelin- ja tietoliikennekaapeleissa voi esiintyä vaarallisia jännitteitä.

**Älä käsittele kaapeleita ukonilman aikana.**



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## **Généralités sur la sécurité (French)**

### **DANGER**

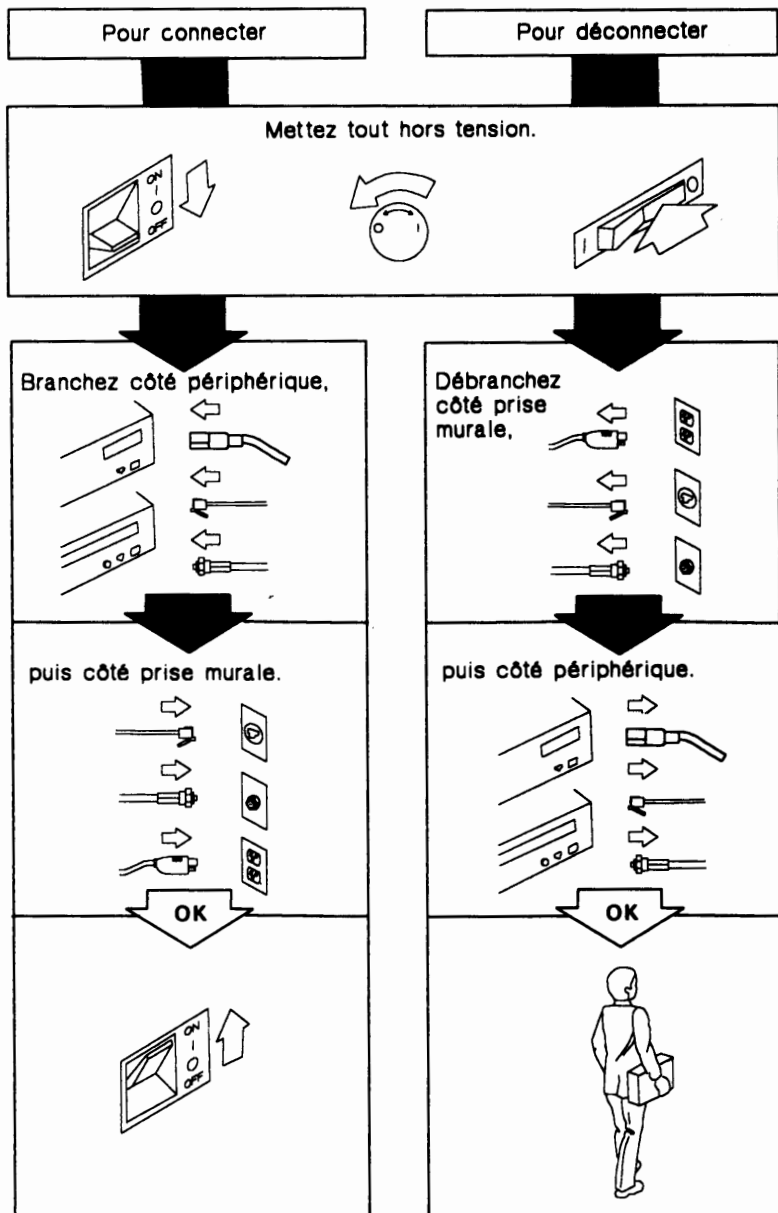
Par temps d'orage, ne manipulez aucun câble et n'effectuez aucune opération d'installation, de maintenance ou de configuration.

### **ATTENTION :**

**Pour la sécurité de l'utilisateur, cet appareil est équipé d'un câble d'alimentation et d'une prise à trois fils. Afin d'éviter tout danger d'électrocution, veuillez brancher ce câble dans une prise électrique correctement mise à la terre.**

## Sécurité électrique

Le courant électrique provenant de l'alimentation, du téléphone et des câbles de transmission, peut présenter un danger. Connectez et déconnectez les câbles comme indiqué ci-dessous lorsque vous installez ou déplacez des ordinateurs personnels ou des périphériques, et lorsque vous soulevez un couvercle. Ne touchez pas aux câbles pendant un orage.



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## **Allgemeine Sicherheitshinweise (German)**

### **ACHTUNG**

Bei Gewittern dürfen keine Kabel angeschlossen oder gelöst und keine Installation, Wartung oder Neukonfigurierung durchgeführt werden.

### **ACHTUNG**

**Netzanschlußleitung und Netzstecker dieses Gerätes entsprechen den einschlägigen Sicherheitsbestimmungen. Dieses Gerät darf nur an eine Schutzkontaktsteckdose mit ordnungsgemäßer Schutzleiterverbindung angeschlossen werden.**

## Sicherheitsmaßnahmen

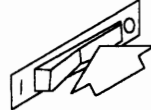
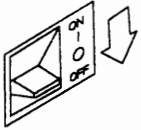
Der Benutzer sollte beim Installieren der Systemeinheit oder weiterer Einheiten die Kabel in der unten dargestellten Reihenfolge anschließen bzw. lösen.

Bei Gewitter sollten die Kabel weder angeschlossen noch gelöst werden.

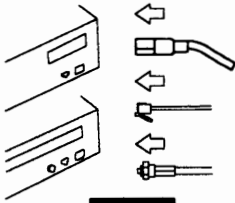
### Anschließen

### Lösen

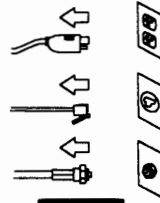
Alle Netzschalter ausschalten



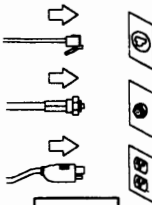
#### Einheiten



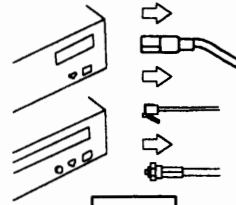
#### Wandsteckdosen



#### Wandsteckdosen

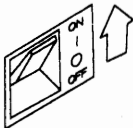


#### Einheiten



OK

OK



## **Norme generali di sicurezza (Italian)**

### **PERICOLO**

Durante periodi di attività temporalesca (fulmini) non collegate o staccate cavi o effettuate l'installazione, la manutenzione o la riconfigurazione.

### **ATTENZIONE**

Il prodotto è fornito di cavo di alimentazione trifilare e di una spina con spinotto di terra. Per evitare pericolose scosse elettriche utilizzare tale cavo con una presa di corrente munita di alveolo correttamente collegato alla terra di sicurezza.

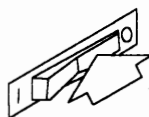
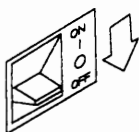


Sicurezza elettrica

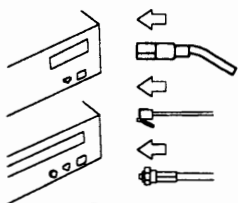
Per collegare

Per scollegare

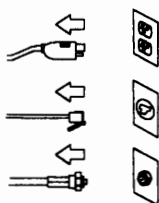
Spegnere tutte le unita'



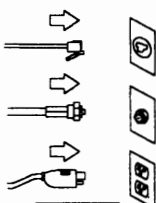
Prima le unita'



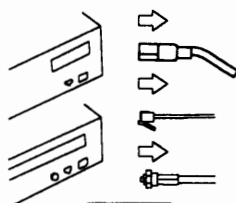
Prima le prese



Quindi le prese

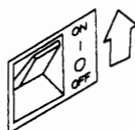


Quindi le unita'



OK

OK



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## 一般的な注意事項

### 危険

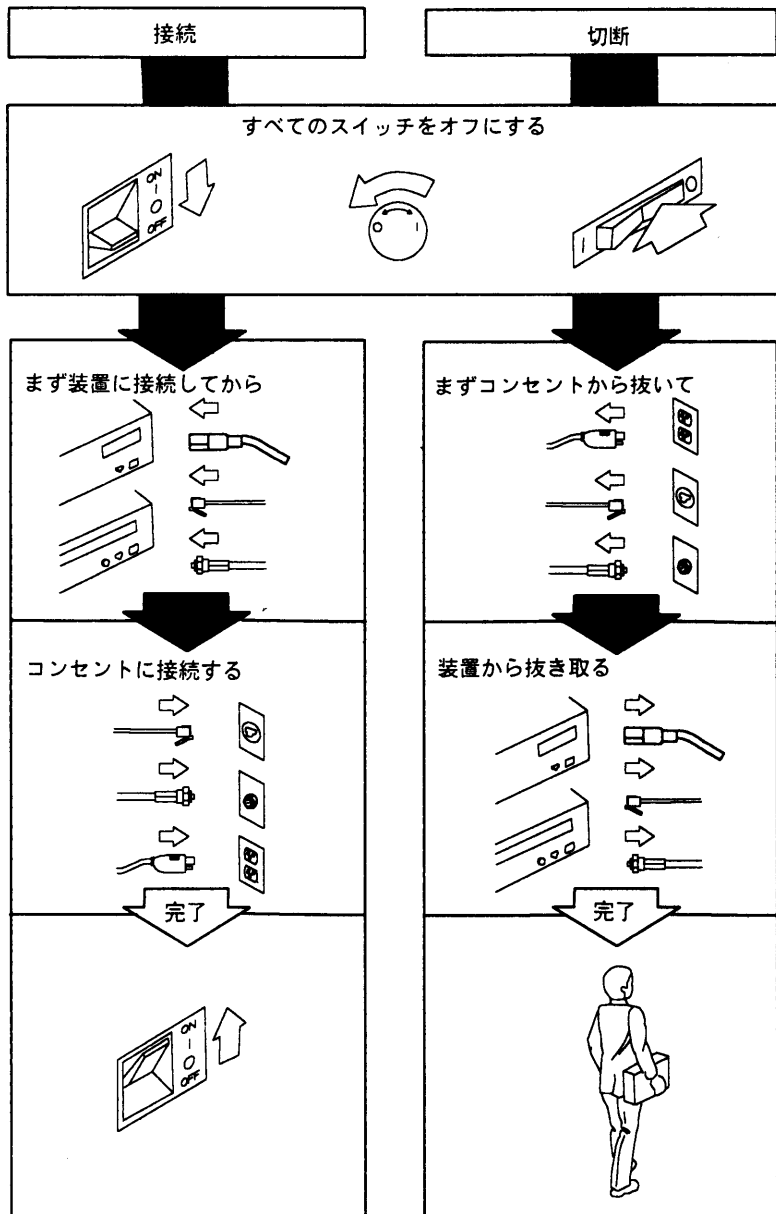
雷が鳴っているときは、ケーブルの接続や切離しを行なわないでください。  
また、導入、保守、再構成なども行なわないでください。

### 注意

この製品には、使用者の安全のために3芯の電源コードとプラグが取り付けられています。電気的ショックを避けるために、この電源コードは、適切に接地された電源コンセントに接続してご使用ください。

## 電氣的安全に関する注意事項

電源コード、電話回線、および通信ケーブルに流れている電流は危険です。この製品またはそれに接続されている装置の設置、移動、またはカバーの取外しを行なう場合には、必ず以下に示す方法でケーブルの取外しおよび取付けを行なってください。



---

## Generelle sikkerhetshensyn (Norwegian)

### FARE

Du må ikke koble kabler fra eller til i tordenvær. Du må heller ikke foreta installeringer, vedlikehold eller omkonfigurering.

### VIGTIG:

Maskinen er forsynet med en tretråd-kraftledning og stik for at beskytte brukeren. Benyt denne kraftledning sammen med en jordforbundet stikkontakt for at unngå elektrisk stød.

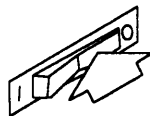
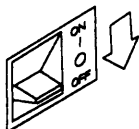
## Sikkerhet ved oppkøpling

Elektrisk strøm fra nettet, og fra telefon- og kommunikasjonskabler er farlig. Kablene må koples til og fra slik det er vist på tegningen når du installerer, flytter eller åpner deksler på maskinen eller på enheter som er knyttet til den. Ikke rør noen av kablene i tordenvær.

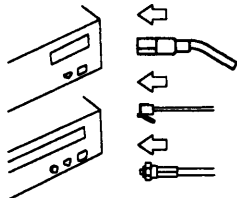
### Tilkøpling

### Frakøpling

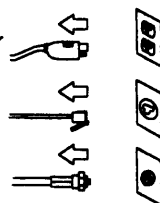
Slå alle brytere AV (O)



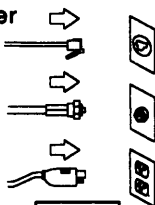
#### Først enheter



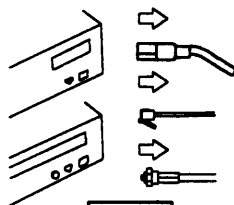
#### Først stikk-kontakter



#### Deretter stikk-kontakter

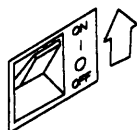


#### Deretter enheter



OK

OK



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## **Recomendações Gerais Sobre Segurança (Portuguese)**

### **PERIGO**

Sempre que haja possibilidade de trovoada não ligue nem desligue cabos, nem efectue trabalhos de instalação, assistência técnica ou reconfiguração.

### **CUIDADO**

Este produto está equipado com um cabo elétrico trifilar e um plugue para segurança do usuário. Use este cabo em conjunto com uma tomada elétrica corretamente aterrada para evitar choque elétrico.

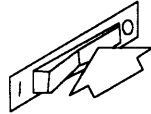
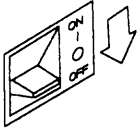
## Segurança Eléctrica

Corrente eléctrica proveniente de cabos de energia, telefone e comunicações pode ser perigosa. Quando instalar, mover, ou abrir a cobertura deste produto, ou de dispositivos a ele ligados, siga as instruções para ligar e desligar os cabos.

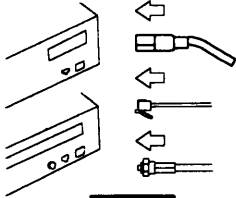
### Para Ligar

### Para Desligar

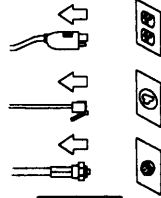
Desligue Tudo.



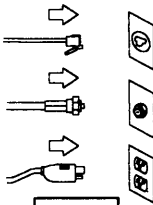
Primeiro Dispositivos.



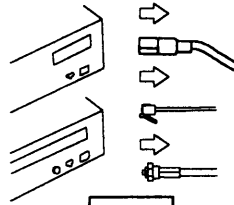
Primeiro Tomadas,



Depois Tomadas.

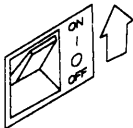


Depois Dispositivos.



OK

OK



---

## **Consideraciones Generales sobre Seguridad (Spanish)**

### **PELIGRO**

Durante períodos de tormenta eléctrica, no conecte ni desconecte ningún cable ni efectúe instalación, mantenimiento ni reconfiguración.

### **ATENCION**

Este producto está equipado con un enchufe y cable de alimentación trifilar para seguridad del usuario. Para evitar descargas eléctricas, utilice este cable de alimentación junto con una toma de corriente eléctrica con la adecuada toma de tierra.



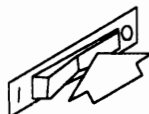
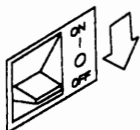
Seguridad Eléctrica

La corriente eléctrica de alimentación, teléfono y cables de comunicación es peligrosa. Conecte y desconecte los cables como se muestra para instalar, mover o abrir las tapas de este producto o dispositivos conectados.

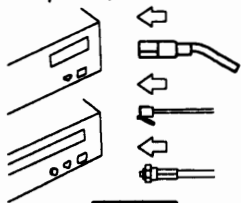
Para Conectar

Para Desconectar

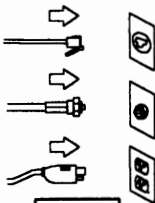
Desconéctelo todo.



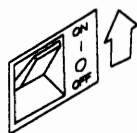
1o. Disposit.,



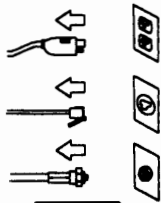
2o. Enchufes.



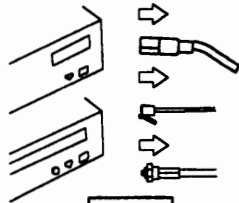
OK



1o. Enchufes,



2o. Disposit.



OK



---

## Allmänt om säkerhet (Swedish)

### **FARA**

Vid åskväder ska du inte utföra installations- eller underhållsarbete. Du ska inte heller ansluta eller lossa utrustningens kablar.

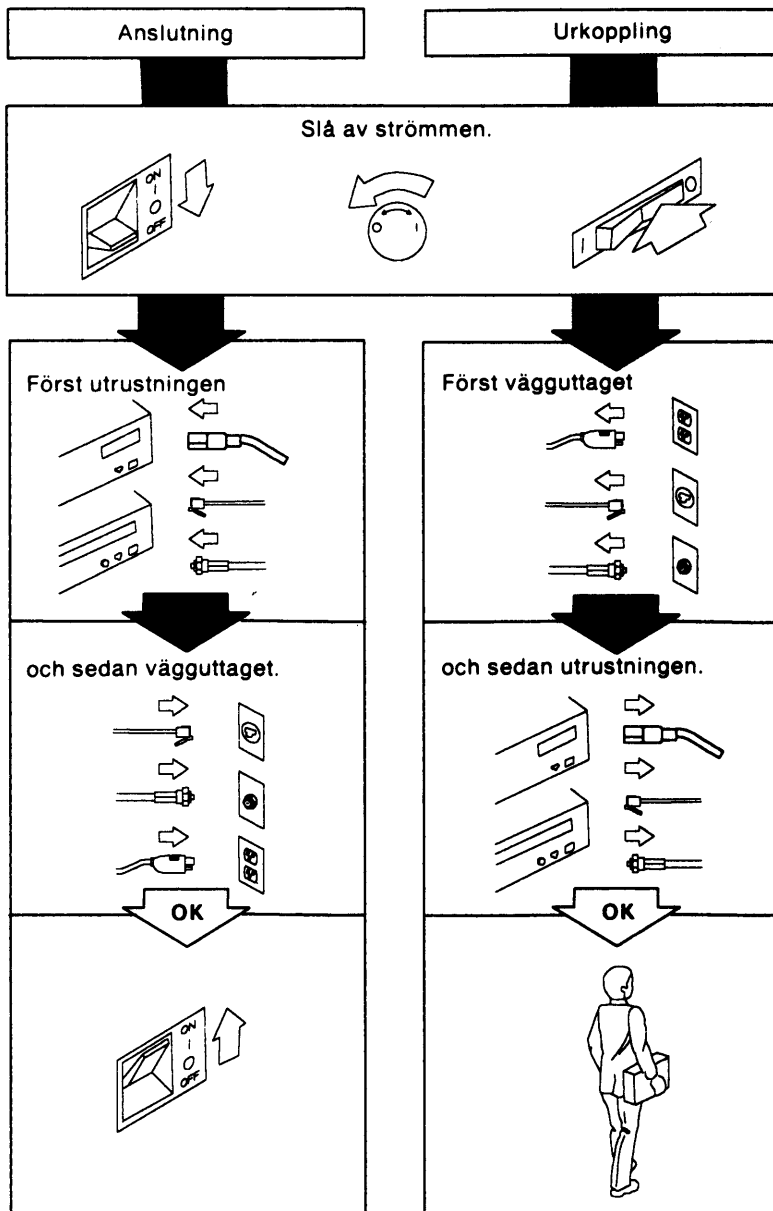
### **VARNING:**

Av säkerhetsskäl är denna apparat försedd med en treledarnätkabel och stickkontakt. Använd denna nätkabel tillsammans med ett jordat elektriskt uttag för att undvika elektrisk stöt.

## Säkerhetsanvisningar

Koppla i och ur kablarna till maskinen och utrustningen enligt nedan.

Rör inga kabelkontakter vid åskväder.







## **Reader's Comment Form**

**3270 Connection  
Quick Reference**

**G126-0190-02**

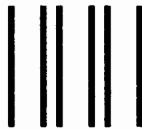
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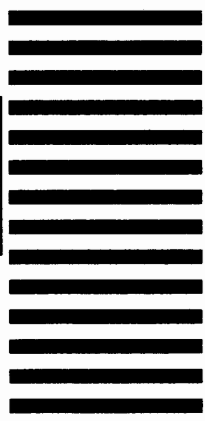
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