

IBM Personal System/2

Communications Cartridge I
Installation and Operating Instructions



First Edition (November 1991)

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Before you present this Machine for warranty service, remove all programs, data and removable storage media. A Machine or part provided to you as a result of warranty service may not be new but will be in good working order. Such Machine or part becomes your property. The replaced Machine or part becomes the property of IBM or the Dealer.

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IBM	Personal System/2
PS/2	AT.

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DANGER

To avoid a shock hazard, do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.



DANGER

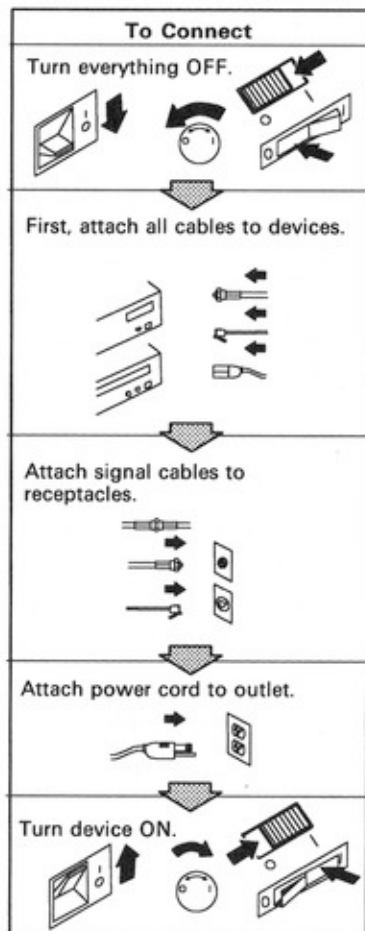
To avoid shock hazard:

- The power cord must be connected to a properly wired and grounded receptacle.
- Any equipment to which this product will be attached must also be connected to properly wired receptacles.

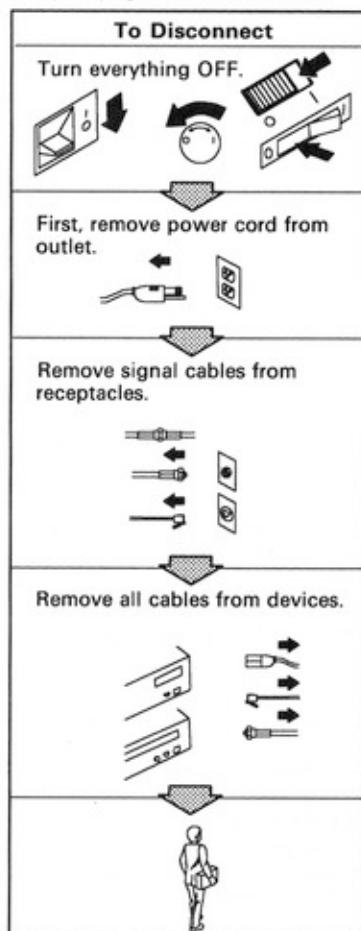


DANGER:

Electrical current from power, telephone, and communication cables is hazardous. To avoid shock hazard, connect and disconnect cables as shown below when installing, moving or opening the covers of this product or attached devices. The power cord must be used with a properly-grounded outlet.



Note: In the U.K., by law, the telephone line cable must be connected after the power cord.



Note: In the U.K., by law, the power cord must be disconnected after the telephone line cable.

Federal Communications Commission (FCC) Statement

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

Properly shielded and grounded cables and connectors (IBM part number 06G8062 or its equivalent) must be used in order to meet FCC emission limits. 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.

Canadian Department of Communications Compliance Statement

This equipment does not exceed Class A limits per radio noise emissions for digital apparatus, set out in the Radio Interference Regulation of the Canadian Department of Communications. Operation in a residential area may cause unacceptable interference to radio and TV reception requiring the owner or operator to take whatever steps are necessary to correct the interference.

Avis de conformité aux normes du ministère des Communications du Canada

Cet équipement ne dépasse pas les limites de Classe A d'émission de bruits radioélectriques pour les appareils numériques, telles que prescrites par le Règlement sur le brouillage radioélectrique établi par le ministère des Communications du Canada. L'exploitation faite en milieu résidentiel peut entraîner le brouillage des réceptions radio et télé, ce qui obligerait le propriétaire ou l'opérateur à prendre les dispositions nécessaires pour en éliminer les causes.

Before Installing a Communication Adapter

This manual describes how to install a communication adapter into the IBM^{*} Communications Cartridge I (hereafter referred to as the *cartridge*) and to connect the cartridge to the IBM PS/2^{*} Model L40 SX or N33 SX.

After the installation of the adapter into the cartridge and connecting it to the PS/2, you can use your PS/2 as a 3270 emulator, a 5250 emulator, or a LAN workstation.

You can install one of the following communication adapters into the cartridge depending on your system configuration:

- IBM 3278/79 Emulation Adapter
- IBM Enhanced 5250 Emulation Adapter Kit
- IBM Token-Ring Network 16/4 Adapter.

The operational information for each adapter is supplied with the adapter.

Important

When any problems occur after attaching the cartridge to the PS/2, send the following items to IBM for service.

- The PS/2 (including the AC Adapter and the power cord)
- The cartridge (including the power cord, the external bus cable, and the adapter).

Warning: When you replace an adapter in the cartridge, turn off the PS/2, and then disconnect the power cord and communication cable from the cartridge.

Note: The illustrations in this publication might look slightly different from your hardware.

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Warning to Model L40 SX Users

When you connect the cartridge to L40 SX, do the following:

- **Use only the AC Adapter to operate L40 SX.**

L40 SX does not enter suspend mode when the cartridge is connected to L40 SX. If you use the battery to operate L40 SX with the cartridge, the battery life may become shorter.

- **Install the power management device drivers and the utility programs before connecting the cartridge to L40 SX.**

These device drivers have some other required functions in addition to the suspend/resume functions.

For installation, see the Quick Reference provided with the Reference Diskette you are going to use.

- **Use the latest version Reference Diskette.**

Check the version of the Reference Diskette supplied with the cartridge and the one supplied with L40 SX. Use the latest version Reference Diskette to install the programs.

- **Set the system speed of L40 SX to 20 MHz and set the Economy Switch position of L40 SX to *Manual*.**

See the Quick Reference supplied with the cartridge.

Note: Do not change the Economy Switch position when you are communicating with the host system or other computers. Otherwise L40 SX may stop.

- **Set the interrupt level of the IBM Token-Ring Network 16/4 Adapter to 3.**

When you use the IBM Local Area Network under the OS/2^{*} operating system, set the interrupt level of the IBM Token-Ring Network 16/4 Adapter to 3 before installing the adapter into the cartridge.

See the manual supplied with the adapter for details.

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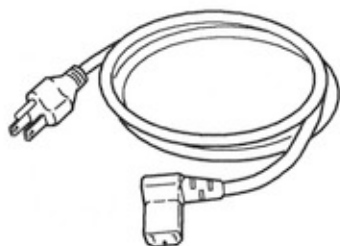
1 Check that you have the following items in the shipping kit.

If any of the items are missing or damaged, contact your place of purchase.

☐ Communications Cartridge I

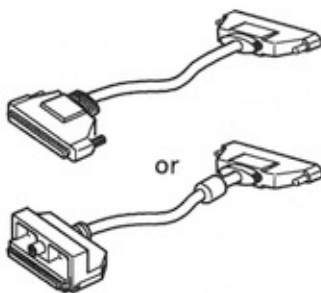


☐ Power Cord



(Example)

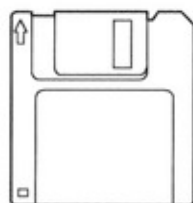
☐ External Bus Cable



☐ This Manual



☐ Reference Diskette
(For PS/2 Model L40 SX only)

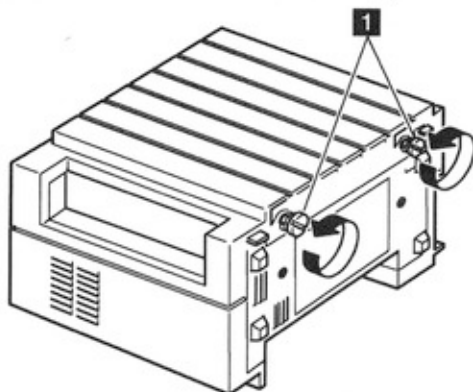


☐ Quick Reference
(For PS/2 Model L40 SX only)

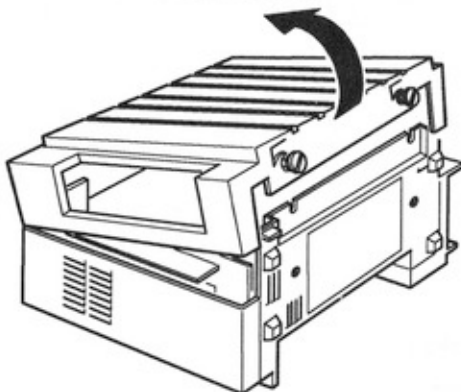


2 Install an Adapter.

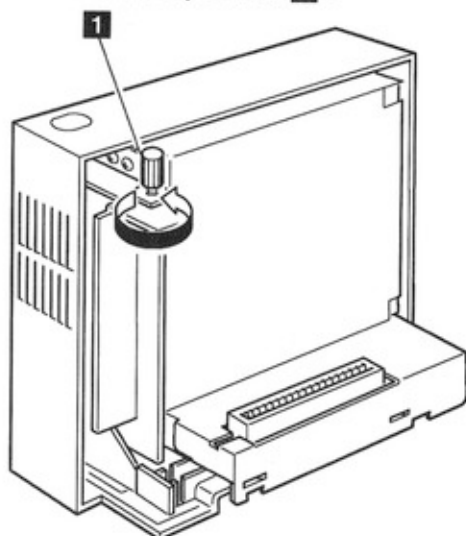
a Loosen the two cover screws **1**.



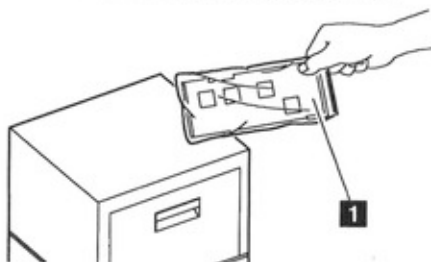
b Lift and remove the cover.



C Remove the top screw **1**.

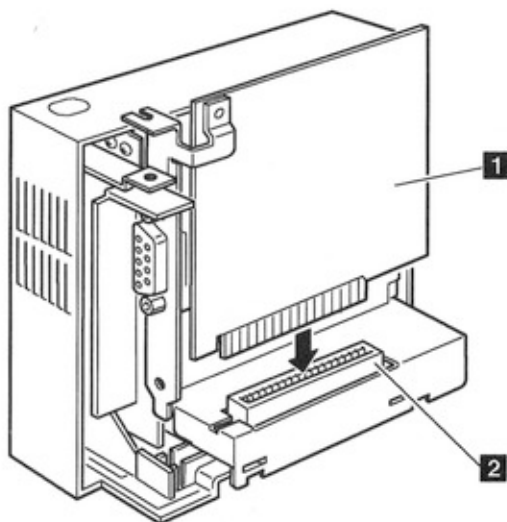


d Touch the static-protective bag **1** that contains the adapter to any metal table or metal grounded cabinet before removing it from the bag.

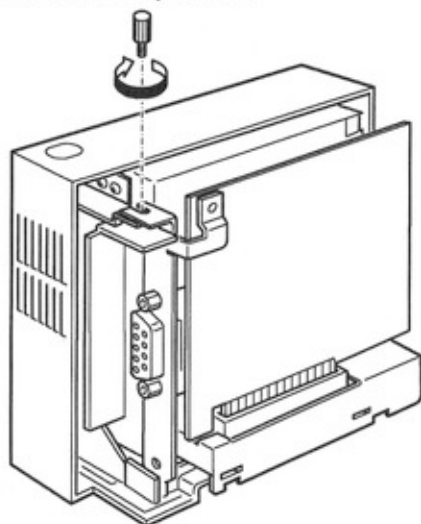


e Insert the adapter **1** into the cartridge connector **2**.

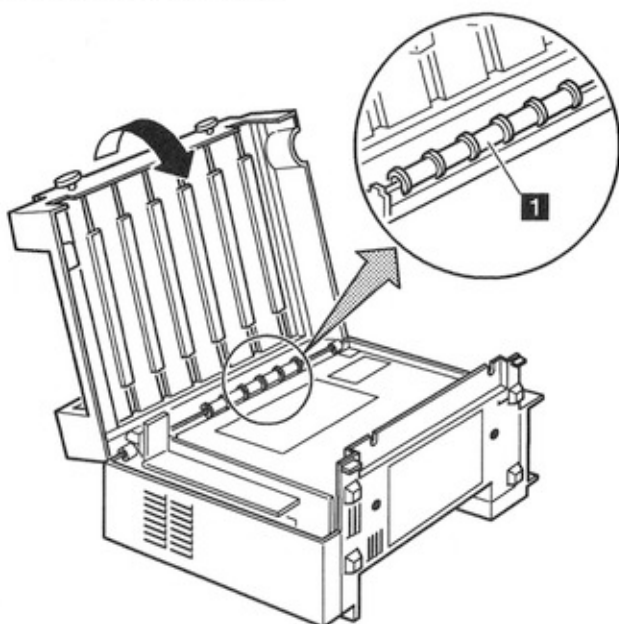
Note: The following example shows the IBM Token-Ring Network 16/4 Adapter being inserted.



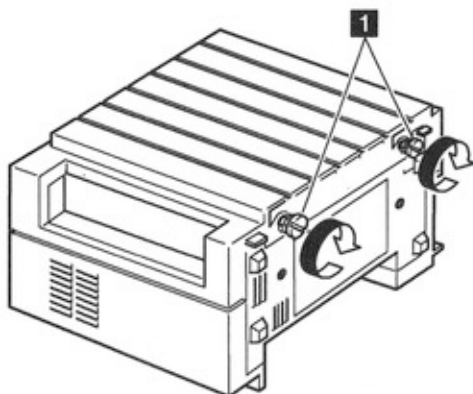
f Install the top screw.



- g** Set the cover hinges **1** on the cartridge edge and close the cover until it clicks.



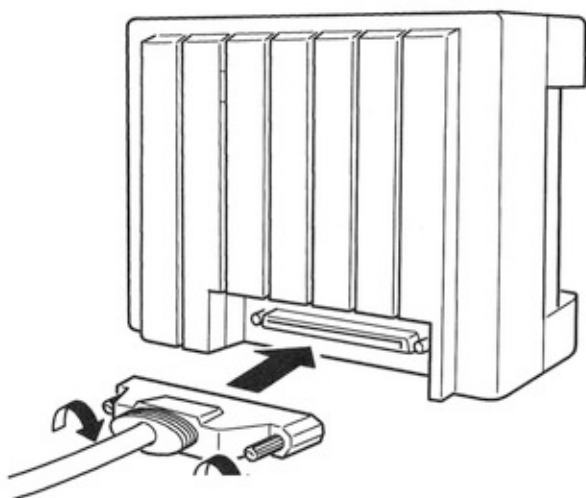
- h** Tighten the cover screws **1**.



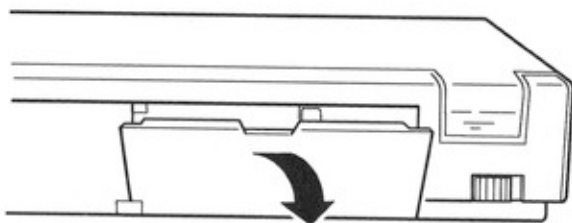
You have completed the adapter installation.

3 Connect to the PS/2.

- a** Connect the external bus cable to the cartridge and tighten the screws.

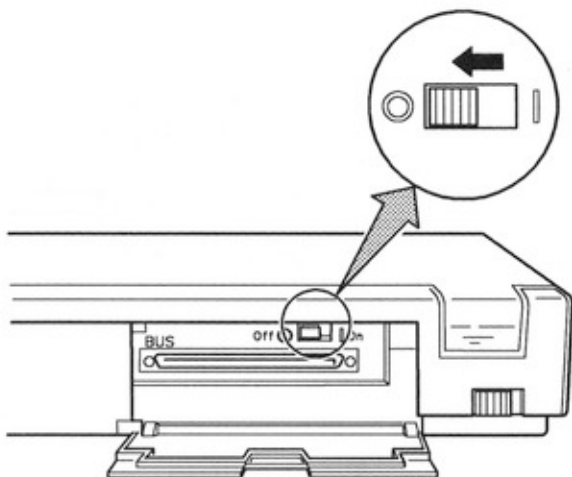


- b** Open the cover at the right rear of the PS/2.



C Turn off the power.

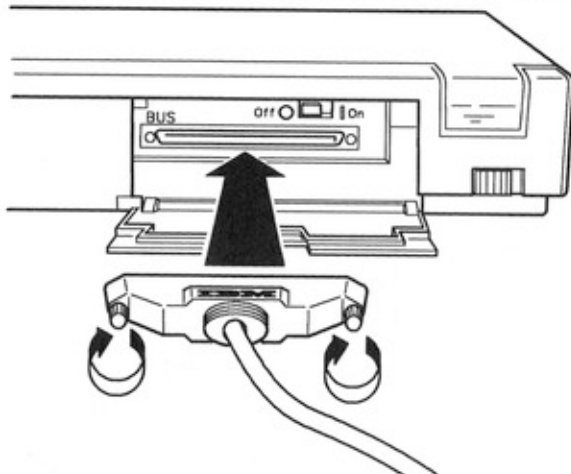
Note: The following example shows the power switch of the IBM PS/2 Model N33 SX.



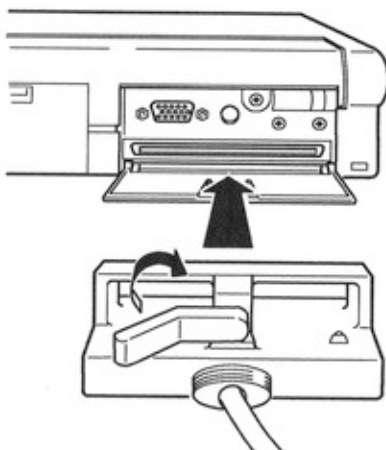
Note: The power switch of the IBM PS/2 Model L40 SX is on the right of the front.

d Connect and tighten the other end of the external bus cable to the System Expansion Connector.

- For the IBM PS/2 Model N33 SX, tighten the screws.



- For the IBM PS/2 Model L40 SX, turn the locking lever to the right.

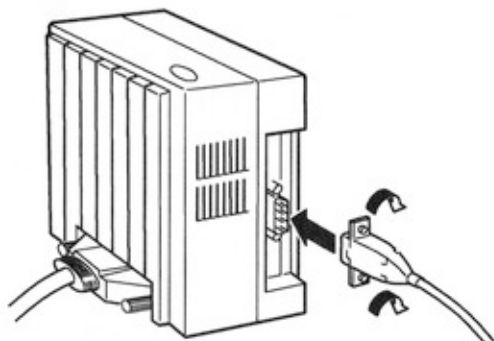


You have completed the cartridge connection to the PS/2.

4 Connect the Cable and the Cord.

- a** Connect the communication cable to the cartridge and tighten it.

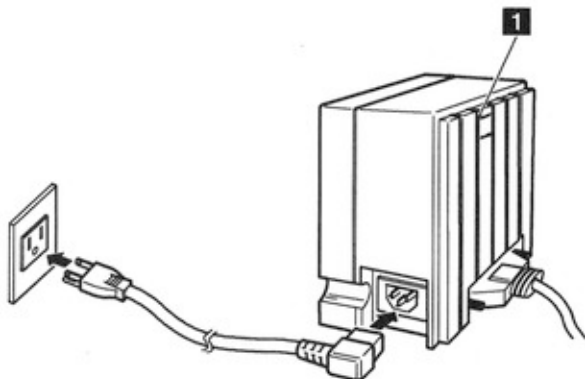
Note: The following example shows the cartridge with the IBM Token-Ring Network 16/4 Adapter.



- b** Connect one end of the power cord to the cartridge and the other to an electrical outlet. The Power-on light **1** (upper light) turns on automatically.

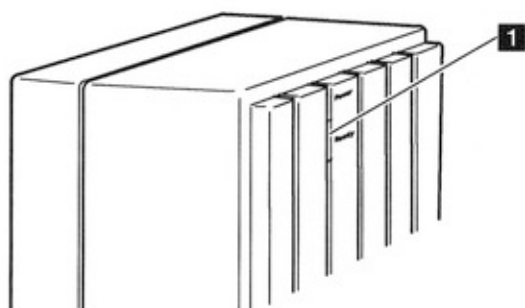
Notes:

- 1) If the Power-on light does not turn on, have the cartridge and the PS/2 serviced.
- 2) The figure shows the U.S. power cord.



C Turn on the PS/2. The Ready light **1** (lower light) on the cartridge turns on.

Note: If the Ready light does not turn on, have the cartridge and the PS/2 serviced.



You have completed the communication cable and the power cord connection to the cartridge.

You can use your PS/2 as a 3270 emulator, a 5250 emulator, or a LAN workstation.

Specifications for the cartridge

Electrical Characteristics

Input	100 to 240 V ac, 50/60 Hz
Output	+5 V dc +12 V dc −5 V dc +15 V dc (for PS/2 Model N33 SX only)



Part Number: 10G5990

Printed in the United States of America



S10G-5990-00



P10G5990