IBM

SIMM Memory

User's Guide

First Edition (April 1996)

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Part 1: Quick Installation Guide

Quick Installation

This guide contains the SIMM Memory
installation instructions in abbreviated form.
For detailed information about how to
install and use the SIMM Memory, see
"Part 2: Installation Guide" on page 2-1.

Memory is sensitive to static electricity
discharge. Before opening the
static-protective bag containing the memory,
touch the bag to an unpainted metal surface
on the computer for at least two seconds to
neutralize static electricity.

Before opening your computer, disconnect
attached devices and ac power cords.

Installing Memory

Refer to the illustration to install one or
more SIMMs.
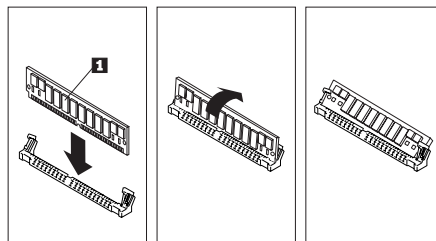
1. Hold the SIMM module **1** by the
    edges that do not have electrical
    contacts and slide it into the socket.

2. Tilt the SIMM to the vertical position and lock it into position.

   On some computers, the SIMM is installed vertically and locked at a slight angle.

Updating the Configuration

Replace the computer cover and reattach all devices and cables.

Your computer might automatically reconfigure the new memory or you might have to run the configuration program found on the setup diskette that comes with your computer.

Part 2: Installation Guide

Introduction

Be sure to retain your proof of purchase. It might be required to receive warranty service.

Information about the location of the Single Inline Memory Module (SIMM) is found in the option installation instructions in the hardware manuals that come with your computer.

Read the following information before you remove your SIMM modules from their protective packing material.

Handling Static-Sensitive Devices

> **Attention:** Do not take the SIMM out of the static-protective bag until you are ready to install it. Static electricity can damage the memory and your computer.

When you handle memory or other components, take these precautions to avoid static electricity damage:

- Limit your movement. Movement can cause static electricity to build up around you.

- When possible, remove the memory from the static-protective bag and install it into the computer without putting it down.

- If you must put the memory module down, place the static-protective bag on a level padded surface, such as a book binder, and place the memory on the bag.

Identifying Your Memory

The following list contains general information about identifying the memory in your computer.

- Make sure your computer allows memory upgrades. Some computers do not.

- The SIMM modules are installed on the system board or on a memory expansion adapter in your computer.

- A SIMM has contact-card-edge connectors on the bottom edge. Your computer might require Single Inline Package (SIP) memory which has pin connectors.

- A SIMM memory module can have 30, 72, 144, or 168 contact-card-edge connectors. Your memory must match the connectors in your computer.

- Different computers have different memory requirements. Many require you to install a group of SIMM modules at the same time. Others require you to install a specific amount of memory. For information about your computer requirements, see the documentation that comes with your computer.

- Some computers do not allow you to mix memory modules of different speeds. Make sure your computer supports the operating speed suggested by the manufacturer for the SIMMs you are installing.

- Laptop computers often require specific memory upgrade packages. They do not accept standard memory upgrades. Refer to the documentation that comes with your computer for information about the installation of upgrades for your particular model.

- Some computers support only parity or ECC memory modules. These systems do *not* work with mixed combinations. The memory modules must be *all parity* or *all ECC*.

Installing SIMM Memory

For detailed instructions about installing SIMM modules in your computer, refer to the documentation that comes with your computer.

Use the following procedures to remove old SIMM modules and install new modules.

Step 1: Opening the Computer

1. Turn off the computer power and disconnect all ac power cords.

2. Remove the computer cover. For information about opening your computer, see the documentation that comes with your computer.

Step 2: Removing Memory

If (because of your computer's requirements) you need to remove SIMM memory already in the memory slots, refer to the illustration and use the following procedure.
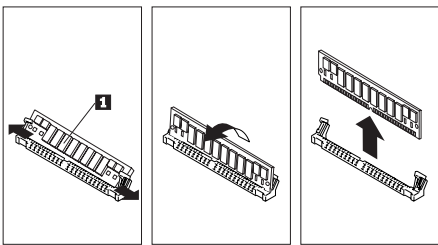
1. To neutralize static electricity, touch the static-protective bag containing the new SIMM to an unpainted metal surface on the computer frame for at least two seconds.

2. Place the bag containing the new memory on a flat padded surface such as a book binder. Do not place it on the computer cover or other metal surface.

   To reduce the chance of static electricity buildup, touch your hand to an unpainted metal surface on the computer frame while unlocking and removing the SIMM.

3. Locate the SIMM you want to remove and open the locking tabs at the sides of the connector.

4. Tilt the SIMM **1** forward and lift up as shown in the illustration.

5. Place the SIMM on top of the bag that contains the new SIMM memory.

Step 3: Installing Memory

Refer to the illustration and use the
following procedure to install one or more
SIMMs.
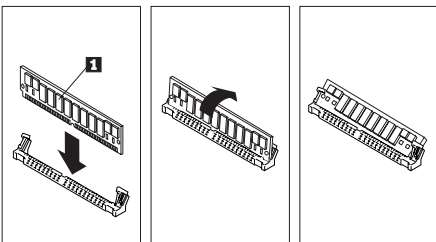
1. Remove any old SIMM memory from
    the top of the static-protective bag and
    remove the new SIMM memory from
    the bag.

2. Install the new SIMM without putting
    it down. Hold the SIMM module by
    the side edges. Do not touch the row
    of metal contacts on the bottom edge.

3. Align the notch in the SIMM **1** with
    the notch in the socket.

4. While touching your hand to an
    unpainted metal surface on the
    computer frame, slide the SIMM into
    the socket as shown in the illustration.

5. Align the holes at either outside edge
    of the SIMM with the plastic pins on
    the locking tab. The SIMM will be at
    a slight angle.

6. Tilt the SIMM to the vertical position and lock it into the locking tab. The holes on the edges of the SIMM fit over the pins on the locking tab.

   In some computers, you must install the SIMM in the vertical position and lock it into position at a slight angle.

7. You might need to adjust one or both of the locking tabs located at each end of the SIMM connector to make sure that the SIMM holes fit over the pins and the SIMM is securely in place.

Step 4: Updating the Configuration

Replace the computer cover, reattach all devices and power cords, and turn on the computer power switch.

Depending on the model, your computer might automatically reconfigure the new memory or it might display an error requiring you to run the configuration program on the setup diskette that comes with your computer.

Part 3: Appendixes

Appendix A.
Safety Information

To Disconnect:

DO NOT print this page—replace with
National Safety Information.

Appendix B.
Help and Service Information

In the United States, Canada, and Puerto Rico, during the warranty period, toll-free technical support is available 24 hours a day, 7 days a week (except certain holidays), to answer any questions about your new IBM option. If you need warranty service, return or exchange 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.

For service outside the United States and Canada, contact your IBM HelpWare center, your place of purchase, or your local branch office.

Before calling, please prepare for your call by following these steps.

Step 1: Troubleshooting

Before calling IBM, you might want to try some or all of the following procedures.

1. Remove and reseat the memory.
2. If possible, place the memory in a different slot.
3. Inspect the memory for damage, such as bent pins.
4. Check the computer manual for instructions about the installation of upgrades and look for topics about system setup or configuration. Follow all procedures.

Step 2: Preparing for the Call

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

1. Option name and description
2. Proof of purchase
3. Computer manufacturer, model, and manual
4. Exact wording of any error messages
5. Description of the problem
6. Hardware and software configuration information for your computer

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

Use one of the following numbers:

- Within the United States, call the Options by IBM HelpCenter at 1-800-426-7299.
- Within Canada
  - For support, call HelpPC at 1-800-565-3344.
  - For more information or to place an order, call 1-800-465-7999.
- Outside the United States and Canada, contact your IBM HelpWare center, your place of purchase, or your local branch office.

Appendix C. *Warranty Information*

The following warranty information applies to products purchased in the United States, Canada, and Puerto Rico.

The warranty terms and conditions applicable in the country of purchase are available from IBM or your reseller.

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: SIMM Memory

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 **1-800-426-7299**. 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.

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2. where applicable, before service is provided —

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

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