# Memory (DRAM DIMM) Replacement Instructions

Be sure to follow the instructions in this sheet carefully. Failure to follow these instructions could result in damage to your equipment and may void your warranty.

Replacing memory in your computer requires five basic steps:
• Turn off the computer.
• Remove the computer core from the enclosure.
• Remove the DRAM DIMM you are replacing.
• Install the replacement DRAM DIMM in its slot.
• Replace the computer core in the enclosure.

**Note:** A video version of the replacement instructions is available at http://www.info.apple.com/installparts

## Tools Required

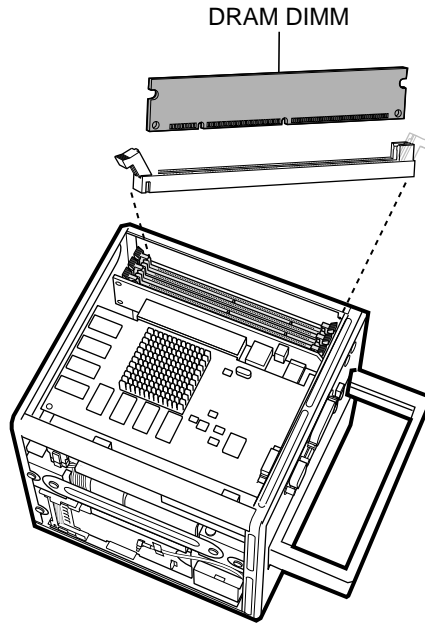No tools are required for this procedure.

## Electrostatic Discharge (ESD)

Static electricity, a normal and natural phenomenon, builds up on your body as you walk around. You experience an electrostatic discharge (ESD) when you touch an object and feel a spark. ESD can cause damage to the internal components of your computer.

To avoid ESD damage, read and follow all instructions. If a grounding wrist strap is included with your replacement memory, refer to the instructions included for how to ground and use the strap.

## About Memory

Memory cards called Dual Inline Memory Modules (DIMMs) provide dynamic random-access memory (DRAM) to your computer. The DIMMs are installed in three memory slots on the logic board.

DRAM DIMM

Your computer uses synchronous DRAM (SDRAM) DIMMs that must be compatible with the computer's specifications. Replace the DIMM in your computer with the replacement DIMM provided in this package. Do not use DRAM DIMMs from older computers, even if they fit into the DIMM slots.

**Note:** Different size DRAM DIMMs can be installed in any order in any DIMM slot. You also do not have to install DIMMs in pairs, as in some older Macintosh computers.
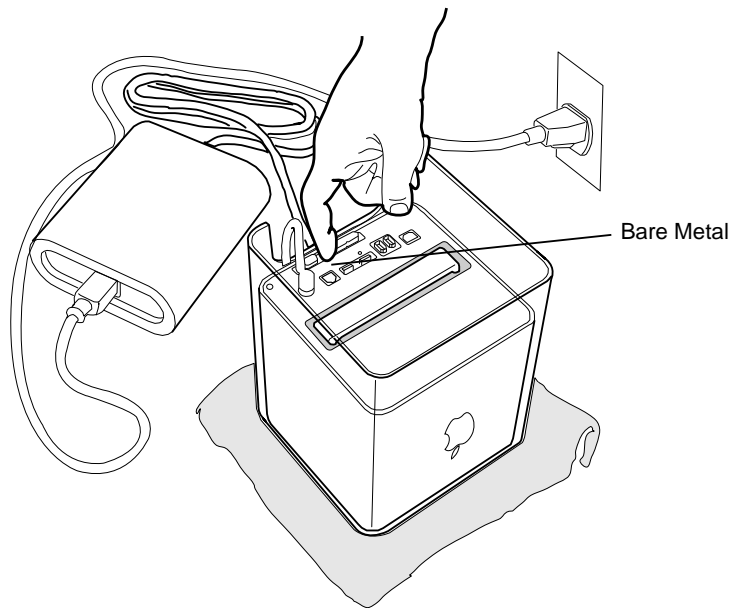
## Removing the Computer Core from the Enclosure

**Warning: Always turn off your computer before opening it to avoid damaging its internal components.**

1   Place your computer on a clean, flat surface.

2   Shut down your computer by opening the Special menu and choosing Shut Down. Then wait five minutes for the computer's internal components to cool down.

3   Unplug all cables from the computer except the power cord.

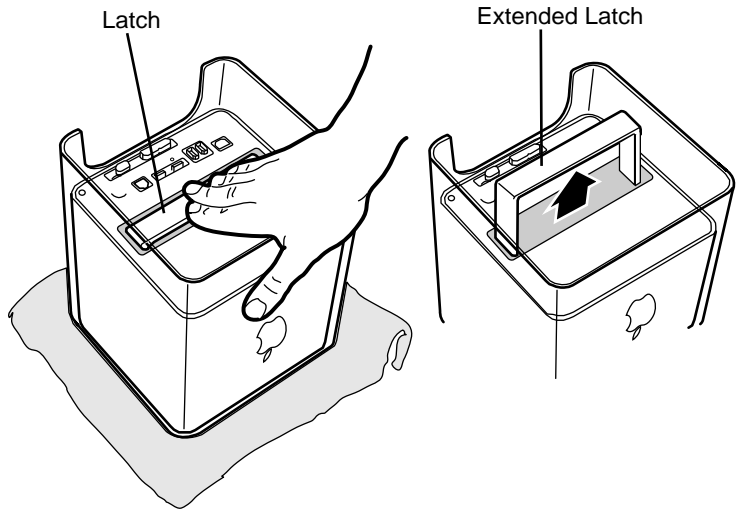    **Note:** If you have never plugged in your computer, connect the computer's power cord and plug it in.

4   Turn your computer upside down on a soft, clean cloth.

5   Touch the bare metal at the port access covers on the back of the computer.



Bare Metal

    **Important:** To avoid electrostatic discharge, always ground yourself by touching the port access covers before you touch any parts or install any components inside the computer. To avoid static electricity building back up in your body, do not walk around the room until you have completed the installation and closed the computer.
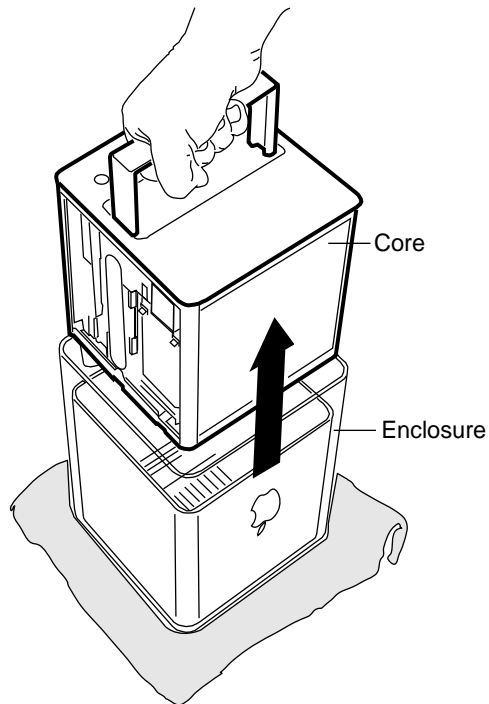
6   Unplug the power cord.

7   Push down on the latch to release it.

Latch                    Extended Latch

Allow the latch to extend completely.

8   Gently pull the core from the computer enclosure and place the core on a soft cloth.
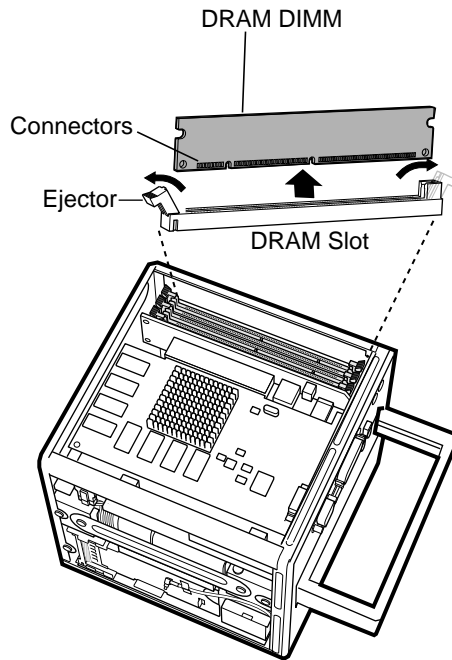
Core

Enclosure

## Removing the Installed DIMM

1   If provided, attach the grounding wrist strap included with your replacement memory. Refer to the instructions on the wrist strap for how to ground and use the strap.

2   Push down the ejectors on the slot of the DIMM you want to replace.

    **Note:** The slot might have one or two ejectors.

3   Lift the DIMM out of the computer.

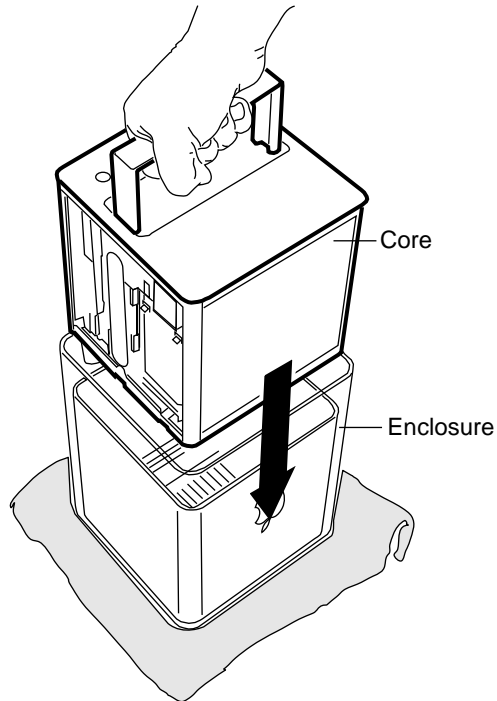    **Warning: When removing or installing the DIMM, do not touch its connectors. Handle the DIMM only by the edges.**



## Installing the Replacement DIMM

1   Remove the replacement DIMM from its static-proof bag, taking care not to touch the connectors or chips.

2   Align the replacement DIMM in the DIMM slot. Press the DIMM down firmly until you feel it securely attach to the slot, and the ejectors lock it into place.
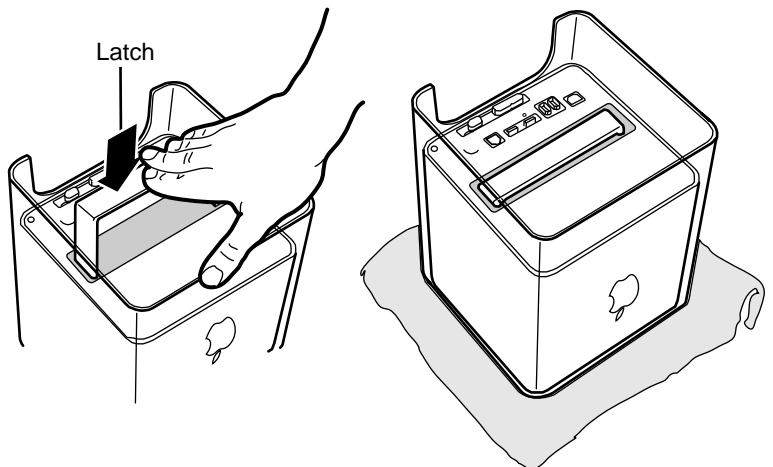
## Replacing the Computer Core in the Enclosure

1  Holding the core by the latch, insert the core into the enclosure.

**Note:**  The core fits into the enclosure only one way. Position the core so the ports are toward the back of the enclosure.

Core

Enclosure

2  With a flat hand, press down on the latch until it locks into place. Firmly press the core to ensure it is fully secured within the enclosure.

**Important:**  Do not lift or carry your computer by the core latch. The enclosure could fall off the core and be damaged.

Latch

3    Turn your computer upright and reconnect all cables.

4    Restart your computer.

**Warning: Never turn on your computer unless all of its internal and external parts are in place and it is closed. Operating the computer when it is open or missing parts can damage your computer or cause injury.**

## Repackaging the DIMM

Repackage the DIMM you removed from the computer in the static-proof bag and box that you received with the replacement DIMM. Seal the box with the tape included, and affix the return label.