LOW PROFILE DRAM INSTALLATION

Introduction

The PS Series PowerStation can accommodate up to a maximum of 256MB of DRAM (Dynamic Random Access Memory), which includes the 32MB already soldered onto the CPU board. These instructions explain how to install or replace the additional Low Profile DRAM modules.

Note	A minimum of 128MB of memory is recommended for systems running Windows 2000. For additional information about the PowerStation PS Series' memory, see Physical Specifications section in the *PowerStation PS Series User Guide*.

The DRAM kit includes a low profile DRAM in an anti-static bag and an ESD kit.

Before You Start

You will need the following items:

- DRAM kit, one of
  - Model LPD-0032 (for Low Profile DRAM 32 MB)
  - Model LPD-0064 (for Low Profile DRAM 64 MB)
  - Model LPD-0128 (for Low Profile DRAM 128 MB)
  - Model LPD-0256 (for Low Profile DRAM 256 MB)
- Low Profile DRAM Installation instructions
- Screwdriver

Precautions

The following precautions are essential during the installation of sensitive components:

⚠	**Warning**	For safety reasons, the PowerStation should be opened only by qualified service personnel.
⚠	**Warning**	Be sure to observe electrostatic discharge (ESD) precautions while handling DRAM and working inside the unit.

Electrostatic Discharge Precautions Preparation

Important	Open the Electrostatic Discharge Kit and follow the directions for attaching the wrist strap and handling sensitive electronic components.

Removing the Back Cover

Follow these steps to open the unit:

1. Turn off the unit.

2. Disconnect the unit from the power source.

3. Disconnect all cables attached to the unit.

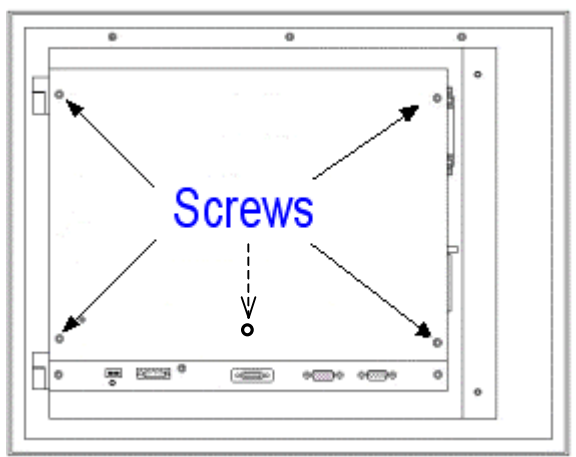| **Caution**	Before you complete the next step, you must wear an ESD wrist strap connected to a good, known, earth ground to avoid damaging the unit and the DRAM.

4. Remove the fastening screws from the back cover of the unit. Set screws aside.

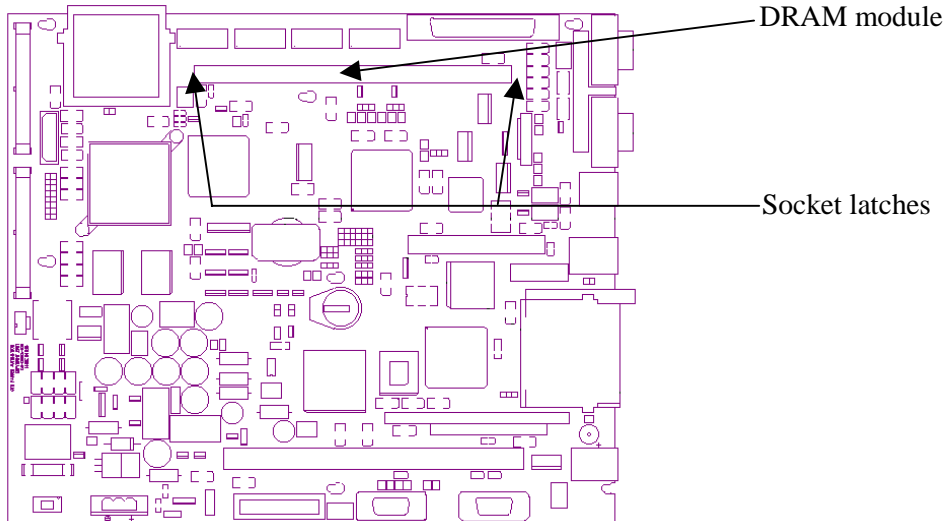| **Note**	The unit illustrated below is a PS15-2. However, the 4 corner screws are located in the same place for all units within the PowerStation PS series regardless of the model number. The PXXX–3 (ISA majority backplate expansion) and PXXX-4 (PCI majority backplate expansion) have an additional fifth screw, indicated below by the dashed arrow.

You now have access to the CPU board.

Remove Existing DRAM

If you do not have any existing DRAM, skip to the section *Installing a DRAM Module*.

If you have existing DRAM, remove it by following these steps:

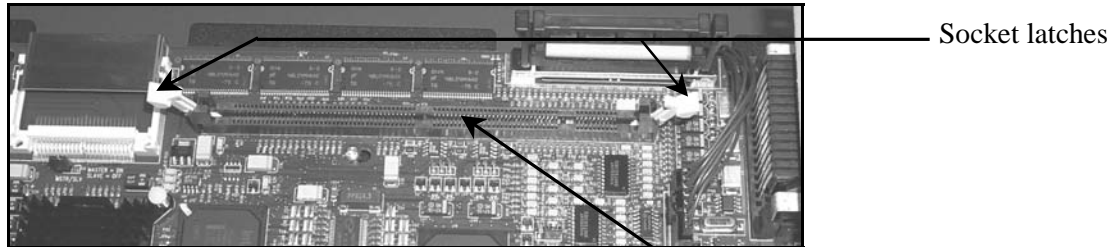1. Locate the existing DRAM module on the CPU board as shown below.

2. Push outward on the socket latches holding the module in its socket. As you push on the latches, the module will move outward.

3. Lift the module out of its socket.

4. Place the module in an anti-static bag for storage if you do not plan to reinstall it at this time.
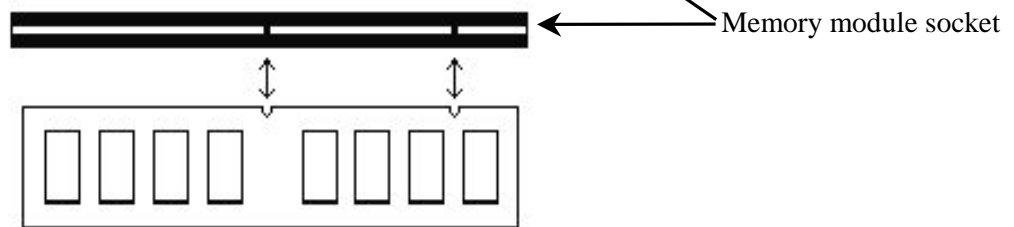
Installing a DRAM module

To install a DRAM module, follow these steps:

1. Locate the memory module socket (also called SODIMM socket).

Socket latches

2. Line up the two notches in the side of the module with the tabs inside the socket.

Memory module socket

3. Press the module into the socket until the socket latches snap into place.

Important	Make sure that the DRAM modules are firmly seated in their sockets and that the socket latches are fully engaged. Otherwise, the PowerStation will not start, or the RAM listed in the display at boot will not match the total memory of the PowerStation (32MB plus what you installed, or the maximum memory 256MB).
Note	The maximum total DRAM in a PS Series PowerStation cannot exceed 256MB. Therefore, if you have installed a 256MB DRAM stick in addition to the 32MB DRAM soldered onto the CPU board, your total memory listed at boot will be 256MB, **not** 288MB.

Reassembling the Unit

To reassemble the unit, follow these steps:

1. Place the back cover on the unit.

2. Reattach the back cover using the screws removed earlier.

3. Reconnect the power cable and any other disconnected cables to the unit.

4. Reconnect the unit to the power source.

Your DRAM installation is complete. The PowerStation will automatically recognize the installed memory the next time you power it up.

Important	If the PowerStation does not recognize the additional memory you installed, make sure that the DRAM modules are firmly seated in their sockets and that the socket latches are fully engaged.
Note	The maximum total DRAM in a PS Series PowerStation cannot exceed 256MB. Therefore, if you have installed a 256MB DRAM stick in addition to the 32MB DRAM soldered onto the CPU board, your total memory listed at boot will be 256MB, **not** 288MB.