HPC/HPX Series Full Length Expansion Kit

Introduction

The PCI Full Length Expansion Kit allows the installation of full length (13.1") PCI cards into your HPC/HPX Series PowerStation.The expansion kit includes the full length expansion card housing, 4 screws, and an Electrostatic Discharge Kit.

Before You Start

You will need the following items to complete the installation of a full length expansion kit:

- • Installation instructions for the PCI Full Length Expansion Kit
- • Screwdriver
- • Electrostatic Discharge Kit

When you add modules to the PowerStation, keep the following information in mind.

Plug and Play

The HPC/HPX Series PowerStation supports Plug and Play features. When you select PCI cards, choose cards that either contain Plug and Play features or cards that allow you to enable the Plug and Play features.

Precautions:

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

Electrostatic Discharge Precautions

Modern integrated electronic devices, especially CPUs and memory chips, are extremely sensitive to electrostatic discharges (ESD) and fields. Before you disassemble the Power-Station, be sure to use the Electrostatic Discharge Kit to protect you and the PowerStation

from harm resulting from ESD.

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

Installation of the Expansion Kit

Important Notes

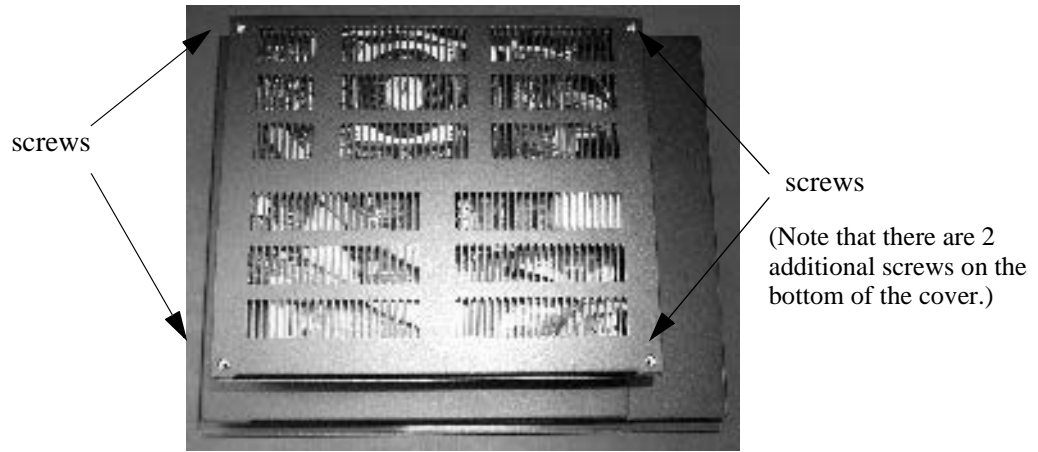**If possible, install the expansion kit while the unit is mounted in its enclosure.**

We recommend that you follow the order of instructions as they are listed below:

1. Remove the existing back cover.
2. If your unit is an HPX10 PowerStation, you MUST mount the unit in the enclosure BEFORE installing the full length expantion housing.
3. Install the full length expansion housing.
4. Mount the unit (if you have removed it from its enclosure).
5. Install the expansion cards.

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

screws

screws

(Note that there are 2 additional screws on the bottom of the cover.)

You now have access to the unit.

Installing the Full Length Expansion Card Housing

Important If your unit is an HPX10 PowerStation, you MUST mount the unit in the enclosure BEFORE installing the full length expansion housing in order to access the mounting clamps. Refer to the mounting instructions (next section) then return to this section to install the expansion housing.

To install the full length expansion card housing, complete the following steps:

1. Align the full-length expansion card housing as shown below and gently rock the new riser card into the riser card socket.

corner screw

expansion card housing

riser card

PCI holddown bracket

riser card socket

2. Attach the new expansion card housing using the 4 screws included in the kit.

   You can only access the corner screw through the opening at the edge of the expansion housing as shown above.

Mounting the Unit

If your unit is still in its enclosure, skip to the next section, *Installing the Expansion Cards***.**

Preparing to Mount the Unit

Complete the following steps to prepare for mounting:

1. Make your cutout.

   If your cutout is already made, ensure you have enough space in your enclosure for the extended cover. You will need at least two inches of clearance around the unit for cooling. You may need three or more inches of clearance to easily mount the unit.

   Important   The full length PCI supported PowerStation is **not** a drop-in replacement for the HPX10.
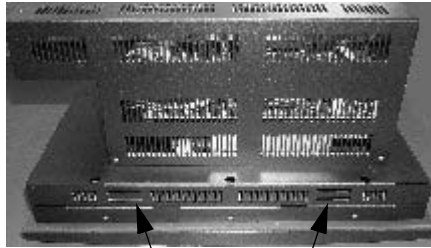
2. Angle the unit through the enclosure.

3. If the back cover is still removed, continue to the next step. If you replaced the back cover, remove it by removing the 6 screws that hold the cover in place.

Mounting Instructions

Complete the following steps to mount the unit:

1. Using the mounting clamps, mount all sides.

   - If you have a system with a 10.4" display, attach the 6 mounting clamps, with their screws, to the back of the unit in the spaces provided. You will place 2 clamps at the top and bottom of the unit and 1 on the side.
   - If you have a system with a 15" or 17" display, attach the 8 mounting clamps, with their screws, to the back of the unit in the spaces provided. You will place 2 clamps at the top and bottom of the unit and 2 on the side.
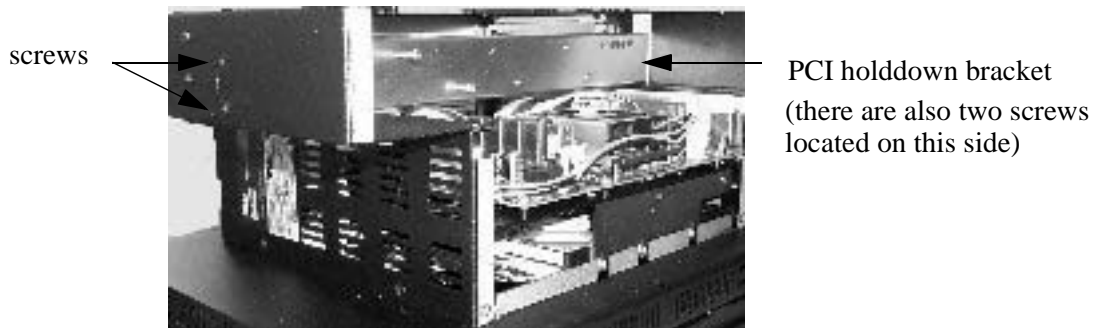
• The prongs at the bottom of each clamp should face backward, and they should hook into the slots in each space. The end of each screw should point toward the front of the enclosure.

mounting slots

Installing the Expansion Card

1. If the back cover is still removed, continue to the next step. If you replaced the back cover, remove it by removing the 6 screws that hold the cover in place.

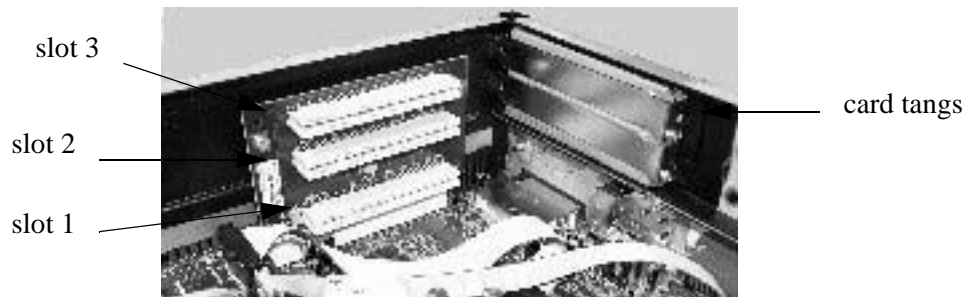2. Remove the PCI holddown bracket by removing the 4 screws that hold it in place, as shown below.

screws

PCI holddown bracket
(there are also two screws located on this side)

3. Remove the card tang of the slot in which you intend to place the card.:

⚠	**Warning**	Full length PCI cards are only supported in Slot 2 or Slot 3. A full length card cannot be placed in Slot 1. The slots are labeled in the picture below.

slot 3

slot 2

slot 1

card tangs

4. Slide the full length card into an available slot.

   The card must line up with the card cage on one side and the card guard on the other side.

5. Secure the card by screwing it into place.

6. Repeat steps 3 through 5 for each additional card you wish to install.

7. Place the PCI holddown bracket back in the unit and screw it into place.

8. Tighten the rubber-tipped screws that will hold the installed cards in place and reduce card vibration.

   Holes spaced along the PCI holddown bracket correspond to cards of various lengths in a particular slot (Slot 2 or 3). Ensure that each card has its matching rubber-tipped screw holding it in place.

9. Replace the back cover by securing it with the 6 screws you previously removed.

   The installation of your PCI Full Length Expansion Kit is complete.