

## HP Documentation

HP 9000 T-Class Systems Add-On Memory Card (A3839A) Installation Guide

## System Shutdown

Perform an orderly shutdown of the HP-UX operating system. Reference the Owner's Guide for detailed instructions.

## Power Down

Turn off the system power after the console indicates that the system has been halted. Disconnect the system power cable and the power cord of any peripheral devices from the ac wall outlets.

## Personal Grounding

To avoid electrostatic damage, ground yourself to the server by wearing the ESD wrist strap connected to a metal portion of the chassis. Set up a grounded work area by using a static dissipating mat grounded to the server chassis.

## Opening the Cabinet Doors

Insert the hexagonal key into the hole on the cabinet door. Turn the key counterclockwise. Pull the door open.

## Remove PMB Card Cage Cover Plates

A single metal cover plate encloses the front card cage. To remove the front cover plate, loosen the four thumbscrews that hold it in place. Lift the front cover plate out of the system. Multiple individual metal cover plates enclose the PMB slots in the rear card cage. To remove the individual cover plates, loosen the two thumbscrews that hold it in place. Pull the cover plate out of the system.

## Remove the Memory Carrier(s)

If you are adding memory to an 8 GB memory carrier that is already installed in the system, then you will need to remove the memory carrier from the card cage. Locate the PMB slot. Pull outward on the two metal extractor handles. Slide the memory carrier out of the system. Place the memory carrier on a static mat.

## DIMM Installation Sequence

Each memory carrier board contains 32 DIMM slots. The slots are grouped into 4 banks of 8 DIMM slots. The banks are labeled A, B, C, and D. The DIMM slots are labeled 1, 2, 3, 4, 5, 6, 7, and 8. The silkscreen on the card combines the bank letter and the slot number. For example, bank A slot 3 is shown as "A3". The 1 GB set (A3832A) consists of four DIMMs. To install a 1GB set in a memory carrier, a DIMM must be installed in each bank with the same slot number. The recommended slot number installation sequence is 1 through 8. For example, the first set should be installed in A1, B1, C1, and D1.

## Installing DIMMs into a Memory Carrier

Install the sets (4 DIMMs) using the DIMM sequence guidelines. Notice these slots are not consecutive slots. After you have located the correct slots, open the ejector levers on each DIMM connector (press the ejector lever into the down position). In order to install the DIMM correctly, the DIMM must be oriented such that the two notches at the bottom of the DIMM line up with the raised section of the DIMM connector. There are two possible ways to position the DIMM in the connector but only one of the ways will allow you to seat the DIMM. After you get the DIMM position correctly, **firmly and evenly** press or seat the DIMM into the connector. **Do not "rocker" the DIMM into the connector!** This may damage the DIMM or the connector. When the DIMM is correctly seated, it will "snap" into the connector and the ejector levers will move into the up position.

## Verify DIMMs are Seated Correctly

After all the DIMMs have been installed, check to ensure that they are seated evenly and that all the DIMMs are the same height. An incorrectly seated DIMM may stick out above the other.

## Newport Digital

## **Install Memory Carrier**

If you removed the memory carrier from the system, then place the memory carrier back into the corresponding PMB slot. Otherwise, you need to determine the correct PMB slot in which to install the memory carrier. The 8 GB memory carrier (A3839A) can only be installed in PMB card slots 4, 6, 8, 9, 10, and 12. In addition, the 8 GB cards must be installed in a special sequence. The first 8 GB card should be installed in PMB slot 8, then slot 12, then slot 9, then slot 10, then slot 6, then slot 4. If the slot is occupied with a processor (or a bus converter) then skip to the next slot in the special sequence. If the slot is occupied with a smaller memory card (768 MB or less) then remove the smaller memory card. After all the 8 GB cards are installed then reinstall the smaller memory cards in the following sequence 4, 6, 8, 9, 10, 11, 12, 13, 14, 7, 5, 3, 2, and 1.

## **System Reassembly**

Attach the card cage metal covers. Closed the cabinet doors. Reconnect the power cords.

## **Verify the New System Memory**

Power up the system and set the "Standby-Ready" switch at the top front of the computer to "Ready". When the prompt "Press ANY key within 10 SECONDS to cancel boot with this configuration", press any key. At the SP prompt, type HC. This will cause a Hardware Configuration Table to be displayed. If the memory carrier is displayed in the table then the memory carrier is recognized by the system. Then enter the slot number of the memory carrier that was added to the system or upgraded. This will cause a Memory Carrier Configuration Table to be displayed. The table will not contain configuration information. Press the carriage return (CR) key to exit the MCC Table. Press the carriage return (CR) key to exit HC Table. At the SP prompt, type go. When you see the message, "Memory test starting", type CTRL-B. Type SP and press the Enter key twice. At the SP prompt, type HC. Type the slot number of the memory carrier. A new Memory Carrier Configuration Table will be displayed showing the status of each DIMM.