invent EK–EGMEM–UP. B01

ALPHASERVER ES47/ES80/GS1280 MEMORY OPTION INSTALLATION CARD

Use this card as a quick reference to install, remove, or replace RIMM memory modules in an AlphaServer ES47/ES80/GS1280 system. Additional information can be found in the *AlphaServer ES47/ES80/GS1280 User Information*

Before you Begin

Keep these points in mind when installing a memory option or replacing a RIMM:

1. Each CPU can have one or two groups of four RIMM modules connected.
2. An optional fifth RIMM (RAID option) may be selected for redundancy. One RAID option must be selected for each four RIMM memory options on one CPU, but RAID options do not have to be selected for all CPUs.
3. All the RIMM modules connected to one CPU must be the same size (e.g. 256 MB) and speed specification (e.g. 800 MHz)
4. Given CPUs are only compatible with the memory part numbers shown below:

CPU Speed	Compatible Memory
1.3 GHz	3X-MS7AC-xx (1066MHz)
1.15 or 1.0 GHz	3X-MS7AB-xx (800 MHz)

WARNING: *To prevent injury, access is limited to persons who have appropriate technical training and experience. Such persons are expected to understand the hazards of working within this equipment and take measures to minimize danger to themselves or others.*

WARNING: *CPU modules and memory modules have parts that operate at high temperatures. Wait 2 minutes after power is removed before touching any module.*

WARNING: *To reduce the risk of electrical shock or damage to the equipment: Do not disable the power cord grounding plug. The grounding plug is an important safety feature. Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.*

CAUTION: *Wear an antistatic wrist strap when working on this system.*

Open the Cabinet

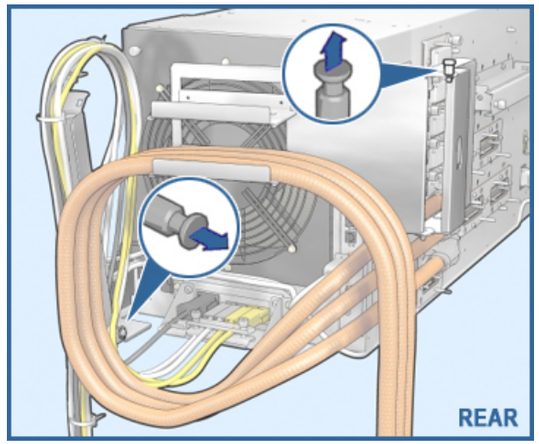
1. Back up all important data, systematically shut down your applications, and perform an orderly shut down of the operating system.
2. Once the operating system is shut down, you may either:
   a. Power off the system using the switch on the cabinet door, or
   b. Execute the **p off** MBM console command. For a system with partitioned CPUs, you can power down the CPU partition associated with the memory option(s) you are going to install or remove by typing in the following MBM console command:

      ```
      p off -hp <partition_name>
      ```

      or
   c. Execute the **power off** command using the OCP pushbuttons on the drawer that contains the target CPU/memory.
3. Wait for the orderly shutdown to complete.
4. Unlock and open the front door.

Access the CPU Drawer (GS1280 Systems)

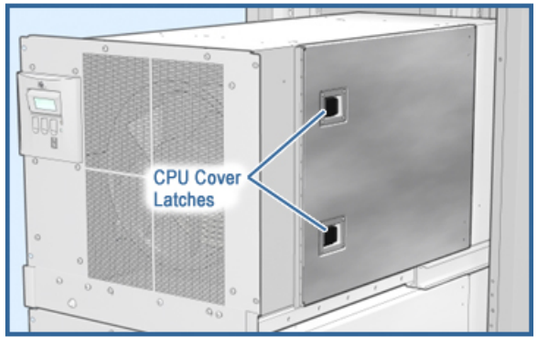
1. Identify the 8P drawer that contains the CPU module into which the RIMMs will be installed.
2. At the rear of the cabinet, make sure that the cable supports are unlatched and free to move.



CAUTION: *If the cabinet has more than two 8P drawers, pull out and secure the stabilizer bar.*

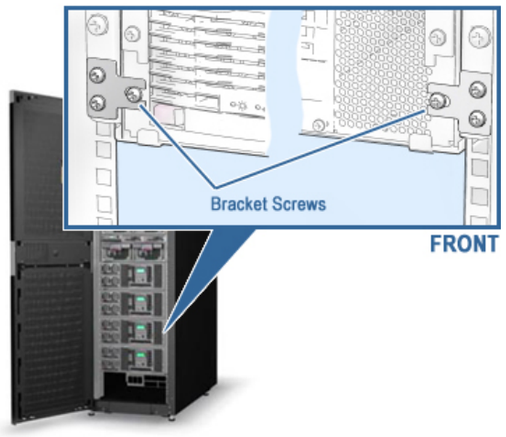
3. Unlock the key latch holding all the drawers to the cabinet frame and pull all drawers from the cabinet.

4. On the right side of the drawer, use the CPU cover latches to open the door to the CPU compartment.



Access the CPU Drawer (ES47 and ES80 Systems)

1. Identify the 2P drawer that contains the CPU module into which the RIMMs will be installed.
2. On the right and left rails, there is a drawer hold-in bracket with three screws. From each bracket, remove the screw holding the bracket to the drawer.



3. Open the rear door of the cabinet.

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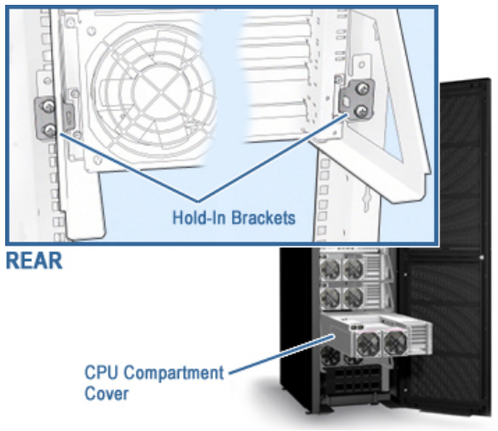
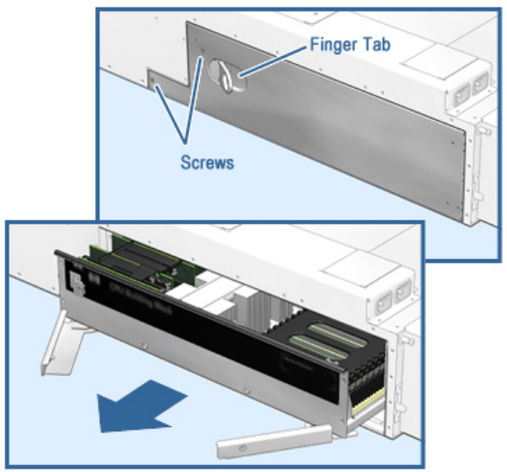
4. Remove the two brackets that prevent the drawer from sliding out of the cabinet.

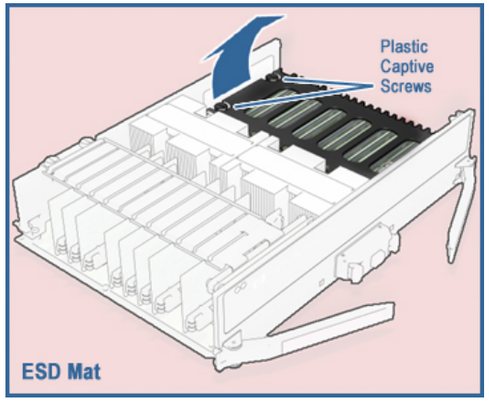


5. Slide the drawer all the way out. (It comes out surprisingly far.)
6. At the left side of the drawer, remove the CPU compartment cover by removing the two screws on the cover face.
7. Pull the finger tab, releasing the cover from the drawer, and remove it.

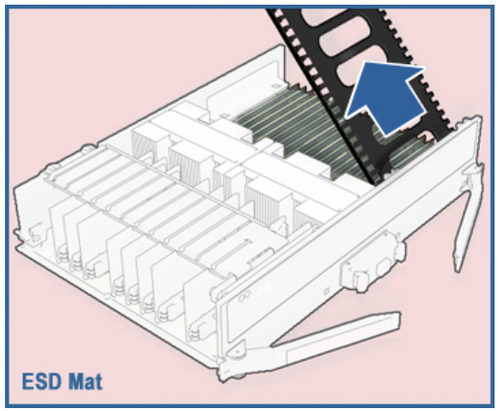


Access the CPU Module

1. Remove the dual-processor CPU module containing the target memory.
2. Place the CPU on an ESD mat.

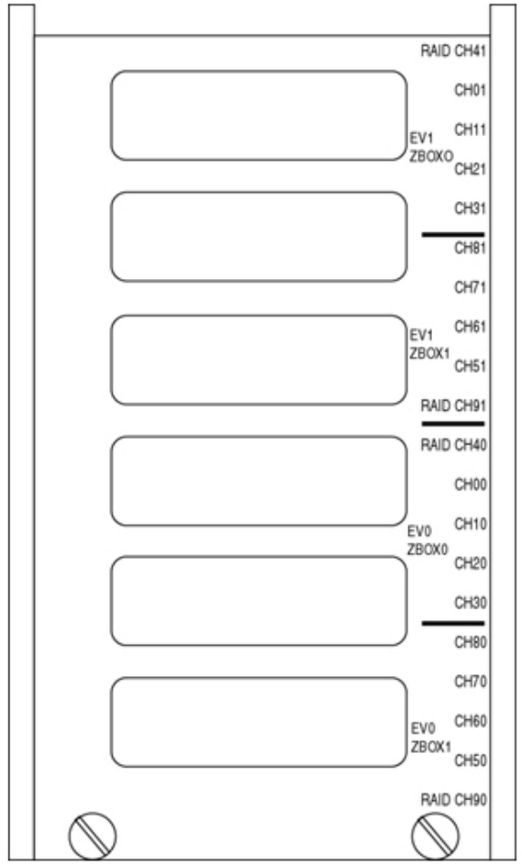


3. Get the RIMM hold-down bracket out of the way by loosening the two plastic captive screws that release the far end of the bracket. Then, swing the free end up and pull the other end off its plastic stanchions.



4. Identify which RIMM(s) you intend to remove and/or the RIMM slot(s) into which you are going to install the memory option(s). The recommended

order of RIMM installation is to fill the ZBOX0 slots first and then the ZBOX1 slots.



Install the Memory Modules

1. There are locking levers on the end of each RIMM connector. In the case of a RIMM removal, open the levers and gently pull the RIMM from the connector.
2. When replacing a RIMM in an array, make sure that the size of the RIMM matches the other RIMMs in the array.

3. To install a RIMM, insert the RIMM and evenly press both sides into the connector. The two locking levers on the sides of the connector should close at the same time; locking one side and then the other may damage the connector.
4. Secure the hold-down bracket.
5. Replace the dual-processor CPU module in the system cabinet.

Verify the Installation

1. Power up the system.
2. If you have a system with partitioned CPUs, power up the CPU partition associated with the memory option(s) you just installed or removed by typing in the following command from the MBM console:

```
p on -hp <partition_name>
```

3. Type in the show memory command from the SRM console to display the status of the system memory.

Part numbers for the memory options can be found in the appropriate Quick Specs, found through the use of the following URL:

http://h18002.www1.hp.com/alphaserver/technology/index.html

Troubleshooting information can be found in the *AlphaServer ES47/ES80/GS1280 Service Information*.