## MS7AA MEMORY INSTALLATION CARD

Use this card as a quick reference to install MS7AA memory modules in DEC 7000 AXP™ and VAX 7000 systems. Refer to the appropriate *System Service Manual* (EK–7002B–SV for DEC and VAX 7000 systems or EK–1002A–SV for DEC and VAX 10000 systems) for more information.

INSTALLATION GUIDELINES

1. Determine in which LSB centerplane slots to install the additional MS7AA memory modules. The first memory module is installed in slot 7. Additional memory modules are installed in slots 6 through 4 and 1 through 3.
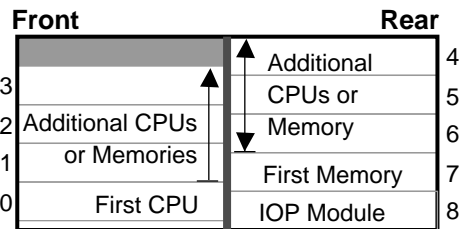
Centerplane   BXB-0094B-92

2. Since CPU and memory modules can be installed in common slots, install memory modules next to filled slots. Alternate memory modules between the front and back of the system cabinet. Refer to the *System Service Manual* for more information.

INSTALLING AN MS7AA MEMORY MODULE

1. Perform an orderly shutdown of the system.

2. Turn the keyswitch on the front control panel to the Disable position and wait for the control panel yellow Fault LED to stop flashing. When the fault LED stops flashing, power has been removed from the LSB backplane and you may safely proceed.

3. Open the cabinet door by holding the recessed handhold and pulling the door out toward you.

4. Put on the antistatic wrist strap. You must wear a wrist strap when you handle any modules.

5. Release the plate covering the LSB card cage by loosening the two screws on the end of the plate. The plate is connected to the card cage by a cable; push the plate to one side, allowing the plate to be held by the cable.

6. Remove the filler modules from the slots where you will install additional memory modules.

7. If you need to remove a module, use your thumbs to pull the two black restraining clips out and to the right. The clips snap when they open.

8. Pull both levers out at the same time until they are perpendicular to the front of the module. This frees the module from the backplane.

9. Holding the levers, pull on the module until it is out far enough to hold it underneath as you remove it.

10. When the module becomes free of the card cage, hold it with both hands, and place the module on an ESD pad in a safe area. If the module is being replaced, pack the module in the box from the new module.

11. On the module to be installed, pull out the two black restraining clips to the right and pull the two levers out until they are perpendicular to the front edge of the module.

12. Pick up the module to be installed. Align the bottom tracks of the module with the tracks in the card cage slot. Align the top ridge of the module with the track at the top of the card cage slot.
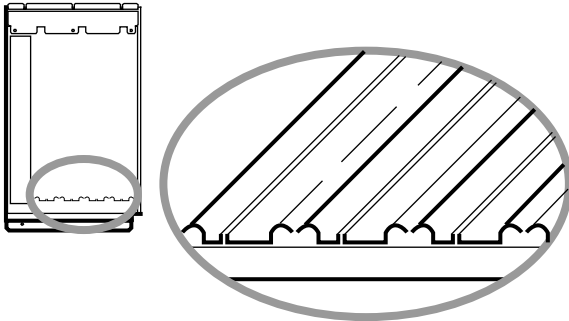
BXB-0091B-92

13. Holding the module level, gently guide it into the card cage. If you encounter any resistance, check the alignment of the tracks and reinsert the module. When the module is fully inserted, the front of the module will be flush with the card cage. The module does not click when it is fully inserted.

14. Holding the two metal tabs, push both of them toward the edges of the module simultaneously. Check that the ends of the metal tabs are fitting into the guides of the cage slot. Push the levers toward the module case.

15. Snap the black restraining clips across the levers to secure the module.

16. Install filler modules in all unused slots.

17. Replace the plate covering the card cage by tightening the two screws.

18. Close the cabinet doors.

VERIFYING THE SYSTEM

Power up the system by turning the keyswitch from Disable to either the Enable or Restart position. Power sequencing begins, and the system runs self-test.

Check the self-test display to make sure that the system recognizes the new memory modules. The self-test display shows a system in which one processor and one memory module were added, at nodes 1 and 6, respectively.

```
E   D   C   B   A   9   8   7   6   5   4   3   2   1   0   NODE #
                        A   M   M   .   .   .   .   P   P   TYP   ❶
                        o   +   +   .   .   .   .   +   +   ST1   ❷
                        .   .   .   .   .   .   .   E   B   BPD
                        o   +   +   .   .   .   .   +   +   ST2   ❷
                        .   .   .   .   .   .   .   E   B   BPD
                        +   +   +   .   .   .   .   +   +   ST3   ❷
                        .   .   .   .   .   .   .   E   B   BPD

.   .   +   .   .   .   +   .   +   .   +   .   .   +       C0 XMI +
+   .   .   +   .   .   +   .   .   +   .   -   .   +       C1 XMI +
.   .   .   .   .   .   .   .   .   .   .   .   .   .       C2
.   .   .   .   .   .   .   .   .   .   .   .   .   .       C3

                        .   A1  A0  .   .   .   .   .   .   ILV   ❸
                        .128 128  .   .   .   .   .   .   256Mb

 Firmware Rev=V1.0-1625 SROM Rev=V1.0-0   SYS SN=GAO1234567
 P00>>>
```

BXB-0087F-92

❶ On the TYP line the **P** indicates that processors are at nodes 0 and 1. The **M** indicates that memory modules are at nodes 6 and 7.

❷ The **+** signs on the ST lines indicate that the modules passed.

❸ These two lines show the memory interleave set and size.

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