



IZ SUPPORT

Motherboard Memory Upgrade

Applies to: RADAR I

Contact iZ Support: (800) 776-1356

Memo Date: November 14, 2000

RADAR “Galaxy 3” Motherboard Memory Upgrade

RADAR Memory Usage

The RADAR system with the Galaxy 3 motherboard shipped with 4 MB of memory on the motherboard. This memory is used to store both the operating system as well as the data for the file system and data for the playlists of the current project. The operating system takes about 1.5 MB, and the file system takes about 1.2 MB (about 0.4 MB per disk drive), leaving about 1.3 MB for playlist data.

Why Install More Memory?

You may need more memory in your RADAR system if you want to use more than 3 drives at a time or if you are editing a complicated project and receive an "OUT OF MEMORY" message.

What Type Of Memory Can Be Installed?

The “Galaxy 3” RADAR motherboard uses 72-pin non-parity (32 bit) fastpage SIMM (Single Inline Memory Module) technology. Most memory stores on the web will have these available. Here are the configuration details:

Pin Count:	72-pin
Access Speed:	60 nanosecond
Memory Size:	4 MB x 32 bit SIMM
	8 MB x 32 bit SIMM
	16 MB x 32 bit SIMM

What Are The Possible Memory Configurations?

There are 4 slots for the 72 pin SIMMs on the Galaxy 3 motherboard. However, it is only necessary to use the first 2 slots. These are the possible configurations:

Slot-1	Slot-2	Total Memory
4MB (standard)	- (standard)	4MB (standard)
4MB	4MB	8MB
8MB	8MB	16MB
16MB	16MB	32MB



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To install extra memory, follow these steps:

1. **Power off RADAR.**
2. **Remove the case lid.**
3. **Locate the memory slots (Slots 1 through 4) on the motherboard.** They are on the outer edge of the motherboard.
4. **Remove any cables in the way.** You probably will only need to disconnect the cable connecting the SCSI drives to the CM24.
5. **Install the extra SIMMs.** The new SIMMs should face the same direction as that currently installed. Keep in mind that Slot 1 and 2 are the only slots necessary. Insert each SIMM into its socket by a) sliding the bottom SIMM edge into the slot at an angle, so that the top edge can pivot freely and b) rotate the SIMM until it is completely vertical and the top edge snaps into the holes and the metal clasps lock the SIMM in place.
6. **Reattach any cables removed in step 4.**
7. **Install a VGA card (if not already present), VGA monitor, and a PC keyboard.** Any VGA card will do, and it can be installed in the empty motherboard slot next to the MF3. The PC keyboard attaches on the back panel of RADAR.
8. **Power On RADAR.** The VGA monitor will display the normal PC boot sequence. It should show that the new RAM was installed correctly as it tests all available memory. It will stop with a "Memory Mismatch" or "Bad memory size" message. **This message is expected and does not indicate an error.** (The message is stupid, misleading, and unnecessary, but unfortunately it will appear. ARGH!)
9. **After the "mismatch" message press F1** to enter the BIOS setup screen.
10. **From the main BIOS setup menu, select "Standard CMOS setup" and press ENTER.**
11. **Don't change anything here. Just press ESC to get back to the main menu.**
12. **From the main BIOS setup menu, press F10 to Save & Exit.** Press Y to confirm the save operation. This operation will record the new memory size into the battery-backed configuration memory.
13. **The RADAR system will now reboot.** This time, no "mismatch" message will occur and the RADAR system should now boot off the SCSI drives.
14. **From the RADAR "DIAGNOSTICS MENU" select "SHOW FREE RAM".** Verify that the new RAM has been recognized by the RADAR operating system. If you upgraded from 4 MB to 8 MB, the system should now be reporting more the 4MB of free ram (it will probably report around 5000 KB free).
15. **Power off RADAR.**



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16. Remove the VGA card (only if it wasn't previously installed) and keyboard.
17. Close the case lid, power on RADAR and get back to that Platinum record you're working on.