

There are two versions of this cpu:

- The 25-4902 comes standard with 2MB of high-speed RAM.
- The 25-4903 comes standard with 1MB of high-speed RAM.

Memory Chip Kits -

256K SIMMS

- √25-5135 consists of two 256K X 9 SIMM chips at 80 nanoseconds.  
Contact Third Party Products for a replacement part.

1MB SIMMS

- 25-5137 consists of two 1 MB x 9 SIMM chips at 60 nanoseconds.
- √25-5134 consists of two 1 MB x 9 SIMM chips at 80 nanoseconds.

Memory Boards

Third Party - Memory expansion can be accomplished by using a 16-bit third party memory boards. See vendor instructions for chips to add. Contact Third Party Products.

√ = Discontinued Radio Shack product

Tandy 4020 SX				Expand from 2MB (25-4902)			
				Expand from 1MB (25-4903)			
		Add to Main Logic Board		Add a Memory Adapter		Add to the Adapter	
2MB	(4) 256K SIMMS Third Party Products	(25-4903)		N/A		N/A	
3MB	25-5137	(25-4903)		N/A		N/A	
	25-5137 (replace four 256K chips)	(25-4902)		N/A		N/A	
5MB	(2) 25-5137	(25-4903)		N/A		N/A	
	(2) 25-5137 (replace four 256K chips)	(25-4902)		N/A		N/A	
Expansion beyond 5MB				Third Party Products		see vendor instructions	
Third Party Products is a department of Radio Shack and you may be able to obtain these products from them.							

INSTALLING ADDITIONAL MEMORY

The main logic board of the computer has four banks of memory. Banks 0 and 1 consist of 1MB of permanently installed memory. If you have a 25-4902 that came with 2MB of RAM, banks 2 and 3 each consist of two SIMM

sockets with two 256KB SIMMs installed. Together the four banks provide a total of 2MB of memory. If you have a 25-4903, then banks 2 and 3 are empty.

To upgrade memory, you can install SIMMs in Banks 2 and 3 and/or on optional memory expansion adapters. You must use 1MB, 80ns (or faster) CMOS fast page-mode, DRAM SIMMs.

If you currently have 2MB of RAM, remove all four 256KB SIMMs from Banks 2 and 3 before installing new SIMMs in either of those banks. See "Memory Configuration" for a list of memory arrangements possible on the main logic board.

Add memory according to the configurations listed in this table. The 1MB of memory in Banks 0 and 1 is permanent and is not affected by the SIMMs you install.

Memory Configuration:

The SIMM types, number of SIMMs, SIMM banks used and SIMM sockets used are shown in the following table. Remember, your computer may have come with either 1MB or 2MB configuration from the factory.

Total Memory	Total Number of SIMMs	Type of SIMM	SIMM Bank(s) Used in Upgrade	SIMM Sockets Used
2MB	4	256KB	2, 3	J4, J8, J9, J10
3MB	2	1MB	2	J9, J10
5MB	4	1MB	2, 3	J4, J8, J9, J10

Insert the new SIMMs into the sockets as described in your SIMM kit installation guide. Use the preceding table to upgrade memory to 3MB or 5MB. For the 3MB configuration, you must install the SIMMs in Sockets J9 and J10. These sockets are labeled as Bank 2 in the preceding illustration. Be sure to use 80ns or faster 1MB CMOS fast page-code SIMMs.

Run the Setup utility on the Utilities Diskette to complete the installation. Faxback Document # 1603 will provide specific instructions on running the SETUPS20 utility.

INSTALLING ADDITIONAL VIDEO MEMORY

Your computer is shipped with 256KB of video memory permanently installed on the main logic board. This memory is separate from the 2MB of system memory on the main logic board. This memory enables you to emulate the video modes of many popular standards as described in the "VGA-Compatible Video" section.

The Extended VGA video standard features enhanced, high-resolution video modes. You will need 512kb of video memory to use the following Extended VGA modes:

- \* 640 x 480, 256-color graphics mode
- \* 1024 x 768, 16-color graphics mode

Two video memory chip sockets on the main logic board enable you to increase the memory from 256KB to 512KB by installing a 256KB Video Memory Upgrade Kit (Cat. No. MX-3750). The kit consists of two 40-pin video memory chips (integrated circuits) and is available at Radio Shack Stores. If you choose not to install the kit yourself, trained technicians at a Radio Shack Service Center will install it for you.

**CAUTION:** Incorrect installation of the video memory chips can damage the chips, your computer, or both. Be sure to install the chips carefully.

Install the video memory upgrade kit as described in the following procedure:

1. Refer to the "Main Logic Board Layout" section to locate the two video memory chip sockets on the main logic board.
2. Remove one of the chips from the antistatic packaging.
3. Orient the memory chip so that the dot on the notched corner of the chip aligns with the corner of the socket that is labeled 1.
4. Carefully press the memory chip into the socket. Be sure that the pins of the chip do not bend.

Repeat the installation procedure for the second memory chip. When you restart the computer, your system will have 512KB of video memory, enabling you to use two additional extended VGA modes.