256K SIMMS

 $\sqrt{25-5135}$ consists of two 256K X 9 SIMM chips at 80 nanoseconds. $\sqrt{25-5031}$ consists of four 256K x 9 SIMM chips at 100 nanoseconds. The individual chips can be ordered from Tandy National Parts under cat# 25-5120, part# MX-0384.

1MB SIMMS

25-5137 consists of two 1 MB x 9 SIMM chips at 60 nanoseconds. $\sqrt{25-5134}$ consists of two 1 MB x 9 SIMM chips at 80 nanoseconds. $\sqrt{25-5033}$ consists of two 1 MB x 9 SIMM chips at 100 nanoseconds.

Memory Boards

- $\sqrt{25-6030}$ is a specialized 32-bit access memory expansion board for the 4020LX. This product can be ordered from Tandy National Parts.
- Third Party Memory expansion can also be accomplished using a third party, 16-bit memory adapter. These types of adapter boards do not take advantage of the on-board 32-bit memory slots of the 4020LX.

Tandy 4020LX - Expand from 1MB to:						
Add to Memory Adapter		Memory Adapter	Add to Adapter			
2МВ	(4) 256K SIMMS Third Party Product	N/A	N/A			
4MB	(4) 256K SIMMS Third Party Product	25-6030	(8) 256K SIMMS Third Party Product			
4MB	(2) 25-5137 (replace four 256K chips)	N/A	N/A			
8MB	(4) 25-5137 (replace four 256K chips)	N/A	N/A			
10MB	(4) 256K SIMMS Third Party Product	25-6030	(4) 25-5137			
16MB	(4) 25-5137 (replace four 256K chips)	25-6030	(4) 25-5137			
Third Party Products is a department of Radio Shack and you may be to obtain these products from them.						

 $\sqrt{}$ = Discontinued Radio Shack product

Installing Additional Memory:

Your computer has a 32-bit memory expansion adapter installed in Slot 2. By snapping optional SIMMs into the sockets on this adapter, you can increase the computer's memory to as much as 8MB. By installing a second 32-bit memory expansion adapter (cat# 25-6030) in Slot 1, you can increase it to

16MB. See "Memory Configurations" for possible memory arrangements.

Installing a Second 32-Bit Memory Adapter (cat # 25-6030)

The main logic board has a special bracket for the installation of a second 32-bit memory expansion adapter. Follow these steps to attach this bracket to the adapter and install the adapter in the computer:

- 1. If the adapter comes with a long mounting bracket, detach this bracket by removing the two screws that secure it to the adapter. You will not need this bracket.
- The bracket on the main logic board has two screws--one attaching the bracket to the main logic board, the other for attaching the adapter to the bracket. Remove the screw that attaches the bracket to the main logic board.
- 3. Remove the other screw. Then, use it to attach the bracket to the SIMM side of the adapter.
- 4. Slide the end of the adapter with the newly attached mounting bracket into the plastic guide slot at the front of the computer. Carefully slide the adapter down into the guide and into the memory expansion slot. Be sure that the adapter is fully seated and that the tab on the mounting bracket has entered the corresponding hole in the main logic board.
- 5. Secure the mounting bracket to the main logic board, using the screw you removed previously.

Memory Configuration:

The memory bank assignments, SIMM types, and number of SIMMs for each adapter memory configuration are shown in the following table. Your computer is shipped with the 1M configuration indicated in the table.

TOTAL MEMORY	MEMORY BANK ASSIGNMENTS	SIMM TYPES	TOTAL NUMBER OF SIMMs			
First 1						
1MB	0	256KB x 9*	4			
2MB	0,1	256KB x 9	8			
4MB	0	1MB x 9	4			
8MB	0,1	1MB x 9	8			
First and Second 32-bit Memory Expansion Adapters Installed						
4MB	0,1,2,3	256KB x 9	16			
10MB	0,1,2,3	1MB x 9 on first adapter 256KB x 9 on	8 @ 1MB 8 @ 256KB			

		second adapter			
16MB	0,1,2,3	1MB x 9	16		
* The notation "x 9" indicates that each byte of the SIMM has eight data bits and one parity bit.					

NOTES:

- ° Use 32-bit Memory Expansion Slot 2 for the first memory expansion adapter and 32-bit Memory Expansion Slot 1 for the second memory expansion adapter.
- ° This computer requires 100ns SIMMs or faster..
- ° Add the new SIMMs using the configuration listed in the previous table.
- ° Refer to your SIMM kit installation manual for more information, including instructions on removing SIMMs if necessary.
- * Run the Setup program on the Utilities Diskette to complete the installation. Faxback Document # 1585 will provide specific instructions for using the SETUPL20 utility.

32-Bit Memory VS 16-Bit Memory:

The 16-bit standard expansion adapter slots can also be used for add-on memory, but the 32-bit memory expansion slots are preferred for three reasons:

- ° They provide much higher performance at a lower cost.
- ° Using the 32-bit slots leaves the six 16-bit slots open for a modem, a second video adapter, a hard drive controller, and so on.
- [•] If you have any memory installed in the 16-bit slots and you add a second 32-bit memory expansion adapter, the computer will no longer recognize the memory in the 16-bit slots unless you change the addresses on the 16-bit memory expansion adapter. See the adapter documentation for more information.

If you install standard 16-bit memory expansion adapters, be sure they have 150-nanosecond (150ns) or faster DRAM memory.

NOTE: You do not have to set any jumpers or DIP switches on the computer for standard 16-bit memory expansion adapters.