

Refer to Faxback Doc. # 1172 for Main Logic Board Layout for Memory locations.

#### 128K Chip Kits -

√25-4082 consists of four 64K X 4 DRAMS at 150 nanoseconds and two 64K X 1 DRAMS at 150 nanoseconds. The product can be obtained from Tandy National Parts under CPU cat# 25-4072, part # AX2504082

#### 256K DRAM Kits -

25-1079 consists of eight 256K X 1 DRAMS at 150 nanoseconds.  
 √25-3062 consists of eight 256K X 1 DRAMS at 150 nanoseconds and one parity chip. The individual chips can be ordered from Tandy National parts under cat # 25-4030, part # MX-6796 (order 9 for a complete 25-3062 or one to complete a 25-1079..

#### 256K SIMMS

√25-4028 consists of two 256K X 9 SIMMS at 150 nanoseconds.  
 √25-5135 consists of two 256K X 9 SIMMS at 100 nanoseconds. The individual chips can be ordered from Tandy National Parts under CPU cat # 25-4072, part # MX-0384.

#### 1MB SIMMS

25-5137 consists of two 1MB X 9 SIMMS at 60 nanoseconds.  
 √25-5134 consists of two 1MB X 9 SIMMS at 80 nanoseconds.  
 √25-5033 consists of two 1MB X 9 SIMMS at 100 nanoseconds.

#### Memory Boards

√25-4027 is a Zero K Memory Expansion board. Uses SIMMS. This board can be ordered from Tandy National parts under CPU cat # 25-4072, part # AX2504027.  
 √25-4030 is a 2MB Memory Adapter with no memory on the board. This board can be ordered from Tandy National Parts under cat # 25-4030. Use MX-6796, 256K DRAM kits.  
 Third Party - Memory expansion can also be accomplished by using a third party 16-bit memory board.

√ = Discontinued Radio Shack product

Tandy 3000NL (25-4072) Expand from 512K to:			
	Main Logic Board	Memory Adapter	Add to Adapter
640K	AX2504082	N/A	N/A
1MB	(move 256K chips) (to adapter)	AX2504027	(2) MX-0384 (+512K from main logic bd)
1.64MB	AX2504082 (move 256K SIMMS) (to adapter)	AX2504027	(4) MX-0384 (+512K from main logic bd)
2MB	(move 256K SIMMS) (to adapter)	AX2504027	(6) MX-0384 (+512K from main logic bd)

4.64MB	AX2504082 (move 256K SIMMS) (to adapter)	AX2504027	(2) 25-5137 (+512K from main logic bd)
5MB	(move 256K SIMMS) (to adapter)	AX2504027	(2) 25-5137 and (2) MX-0384 (+512K from main logic bd)
8MB	(remove 256K) (SIMMS)	AX2504027	(4) 25-5137
beyond 8MB	(remove 256K) (SIMMS)	AX2504027 & Third Party	(4) 25-5137 see vendor instructions
10MB	(remove 256K) (SIMMS)	AX2504027 & 25-4030	(4) 25-5137 (9) 25-1079
12MB	(remove 256K) (SIMMS)	AX2504027 & (2) 25-4030	(4) 25-5137 (18) 25-1079
14MB	(remove 256K) (SIMMS)	AX2504027 & (3) 25-4030	(4) 25-5137 (27) 25-1079
16MB	(remove 256K) (SIMMS)	AX2504027 & (4) 25-4030	(4) 25-5137 (36) 25-1079

The 3000NL has a dedicated memory board slot, the 0K Memory Expansion Board (part # AXX2504027) is the only device made for this slot. Memory expansion up to 8MB can be done in a dedicated memory slot that interleaves memory at .7 wait state to achieve an estimated 30% faster memory access over a 16-bit Memory Expansion adapter in a standard AT bus slot.

Always install memory according to the following table. For example, if you are upgrading to 1, 1.64, 2, 4.64, or 5 megabytes, remove the SIMMs from Bank 0 on the main logic board and use them on the expansion board. If you are upgrading to 8 megabytes, remove the SIMMs from the main logic board and save them for future use. The table lists all supported memory configurations.

Configurations:

Notes: MBd = Main Logic Board                      ExBd = Expansion board  
 --- = A dash indicates that a bank is not usable even if it contains memory.

Total Memory	Bank 0		Bank 1		Bank 2		Bank 3		Jumper Settings
	MBd	ExBd	MBd	ExBd	MBd	ExBd	MBd	ExBd	
512K Default	512K	---	---	---	---	---	---	---	E23-E24 E21-E22
640K	512K	---	128K	---	---	---	---	---	E23-E24 E21-E22
1MB	---	512K	---	512K	---	---	---	---	E24-E25

	(2 X 256K)	(2 X 256K)			E20-E21
1.64MB	--- 512K (2 X 256K)	128K --- AXX-2504082	--- 512K (2 X 256K)	--- 512K (2 X 256K)	E24-E25 E21-E22
2MB	--- 512K (2 X 256K)	--- 512K (2 X 256K)	--- 512K (2 X 256K)	--- 512K (2 X 256K)	E24-E25 E20-E21
4.64MB	--- 512K (2 X 256K)	128K --- AXX-2504082	--- 2MB (2 X 1MB)	--- 2MB (2 X 1MB)	E24-E25 E21-E22
5MB	--- 512K (2 X 256K)	--- 512K (2 X 256K)	--- 2MB (2 X 1MB)	--- 2MB (2 X 1MB)	E24-E25 E20-E21
8MB	--- 2MB (2 X 1MB)	--- 2MB (2 X 1MB)	--- 2MB (2 X 1MB)	--- 2MB (2 X 1MB)	E24-E25 E20-E21

On the main logic board:

- \* Bank 0 contains the computer's standard 512K of RAM ( 2 X 256K Simms)
- \* Bank 1 is reserved for a 128K RAM Upgrade Kit (AX-2504082) National Parts.

Installation:

If you have any doubts about your ability to perform any part of the installation, have the service technicians at your Radio Shack Service Center upgrade the memory for you. Installation by service technicians not only ensures expert work but also enables the technicians to check to be sure all equipment functions properly.

If you decide to upgrade the memory yourself, follow all instructions carefully.

Removing the SIMMs from the Main Logic Board:

1. Exercise caution in low humidity environments to prevent damage to electronic parts by static electricity. (Discharge any built-up static electricity by touching a grounded metal object before proceeding.
2. Turn off all equipment. Be sure to turn off the power and disconnect the power cord from the back of the computer.
3. Remove the screws from the back panel and remove the computer's cover.
4. Locate Bank 0 on the main logic board.
5. a) Use both thumbs to spread the retaining latches that clamp the front SIMM (the SIMM that is farther from the keyboard connector) to the chip mount.  
b) Move the SIMM forward toward the vertical position.  
c) Then, use your index fingers to pull the SIMM away from the brackets.
6. Remove the back SIMM in the same manner.

Helpful Hints:

- ° Remember that the banks on the expansion board are not in numerical order.
- ° Because the SIMM sockets are at an acute angle, you need to work from left to right.

To install a SIMM, grasp it at both ends and insert it into the socket as

shown in the SIMM owners manual. Be sure the SIMM's connector is fully seated. Then, press backward and down on the SIMM until it snaps into place.

Installing the Expansion Board in the Computer:

The Zero K Memory Adapter has its own expansion slot on the main logic board. The slot is near the keyboard connector, at the back of the computer.

Notice that expansion boards metal bracket is designed to slide down the narrow groove to the left of the keyboard connector and that you will secure the board with the screw from the neighboring option board (or panel, if no board is yet installed).

To install the memory board:

1. Remove the screw that is securing the neighboring option board (or panel). Leave the board or panel in place.
2. With the memory expansion board's sockets facing toward the power supply (away from the other expansion slots), slide the bracket into the groove. Push the board's edge connector firmly into the expansion slot socket to be sure the board is fully seated.

CAUTION: Installing the expansion board backward can damage the main logic board as well as the expansion board.

3. Thread the screw through both brackets, and tighten it to secure the board(s).

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