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3000 HD  (250-4010/4011)    Memory            Faxback Doc. # 1383

Memory Chip Kits:

There are two different versions of the main logic board for this cpu.  The
   Gate Array version has 5 large, black, 2-inch square chips with the word
   "Chips" printed on them.  If these chips do not exist, it is a Discrete
   version of the Main Logic Board.

128K Chip Kits -
     **25-5162 consists of eighteen 64K X 1 DRAM at 150 nanoseconds  The
         product can be obtained from Tandy National Parts under
         cat# 25-4001, part # AXX-7142

256K DRAM Kits -
      25-1079 consists of eight 256K X 1 DRAMS at 150 nanoseconds.
      RSU # 10542140
     **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..
         RSU # 10707848

Memory Boards -
     **25-4030 is a 16-bit, 0 K Memory Expansion Board.  This product can be
         obtained from Tandy National Parts under cat # 25-4030,
         part # AX-0104.  The AX-0104 has 512K of RAM already installed.

      Third Party - Memory expansion can also be accomplished by using third
         party 16- bit memory board.

** = Discontinued Radio Shack product

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| Tandy 3000 HD (25-4010/4011) - Expand from 512K:                  |
|------------------------------------------------------------------|
| There are two different versions of the main logic board for this cpu. |
| The Gate Array version has 5 large, black, 2-inch square chips with the |
| word "Chips" printed on them.  If these chips do not exist, it is a |
| Discrete version of the Main Logic Board.                         |
|------------------------------------------------------------------|
|        |           Gate Array Main      ||        Discrete Main       |
|        |           Logic Board          ||        Logic Board         |
|--------|--------------------------------||----------------------------|
| 640K   |           AXX-7142             ||        AXX-7142            |
|--------|--------------------------------||----------------------------|
| 1MB    |           (2) 25-1079 &        ||        Not available      |
|        |           (2) MX-6796          ||                            |
|--------|------------------------------------------------------------|
|        | Memory can be increased in 512K increments by using a AX-0104 |
|        | memory expansion adapter which has 512K of memory on-board.  |
| Beyond | To increase further in 512K increments, use a 25-1079 chip   |
|  1MB   | kit and one MX-6796.  The memory expansion adapter will hold up|
|        | to a total of (3) of the 25-1079/MX-6796 combinations.  This  |
|        | will total 2MB of memory for one expansion adapter.  Further  |
|        | expansion requires additional AX-0104 memory expansion adapter.|
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On a Gate Array Main Logic board, when the memory is increased from 512K to
1MB, you do not get any more Base Memory (Conventional Memory).  The
computer cannot take 128K of a 256K bank of memory and devote it to base
memory and then the other 128K to extended.  It will designate 512K as
base memory and the additional 512K as extended memory.

To go from 512K to 640K requires one AXX-7142 128K memory chip kit. (While
it is possible to increase Extended RAM without increasing to 640K on the
Main Logic Board first, it is not recommended for DOS.)

Maximum Extended RAM is 14 MB if a hard drive controller is NOT included in
the system.  If there is a hard drive controller, the maximum memory will
be 12MB.

 Jumper Settings:
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Memory Size - Discrete Version Main Logic Board:

    E13-E14   Removed selects 512K onboard memory (standard).
    E13-E14   Installed selects 640K onboard memory.

Memory Size - Gate-Array Main Logic Board:
    ------------------------
    | E7-E8 | E9-E10 | RAM. |
    |-------|--------|------|
    | OFF   | ON     | 512K |
    | ON    | OFF    | 640K |
    | OFF   | OFF    | 1MEG |
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