A jumper is a small, plastic cover that contains metal contacts. Jumpers
are placed on small metal pins that protrude from a circuit board. Jumpers
and pins are grouped and labeled as jumper blocks.

The jumpers on the main logic board are set at the factory for your
computer model. However, if you install certain hardware options or choose
to enable or disable certain system features, you might need to change some
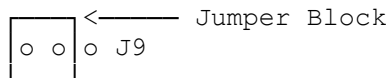jumper settings.

CAUTION: Incorrect jumper settings can cause a malfunction or a decrease in
         performance.

The following example show the settings for jumpers on the main logic board.
For example, "1-2" indicates that the jumper should be installed on Pins 1
and 2.
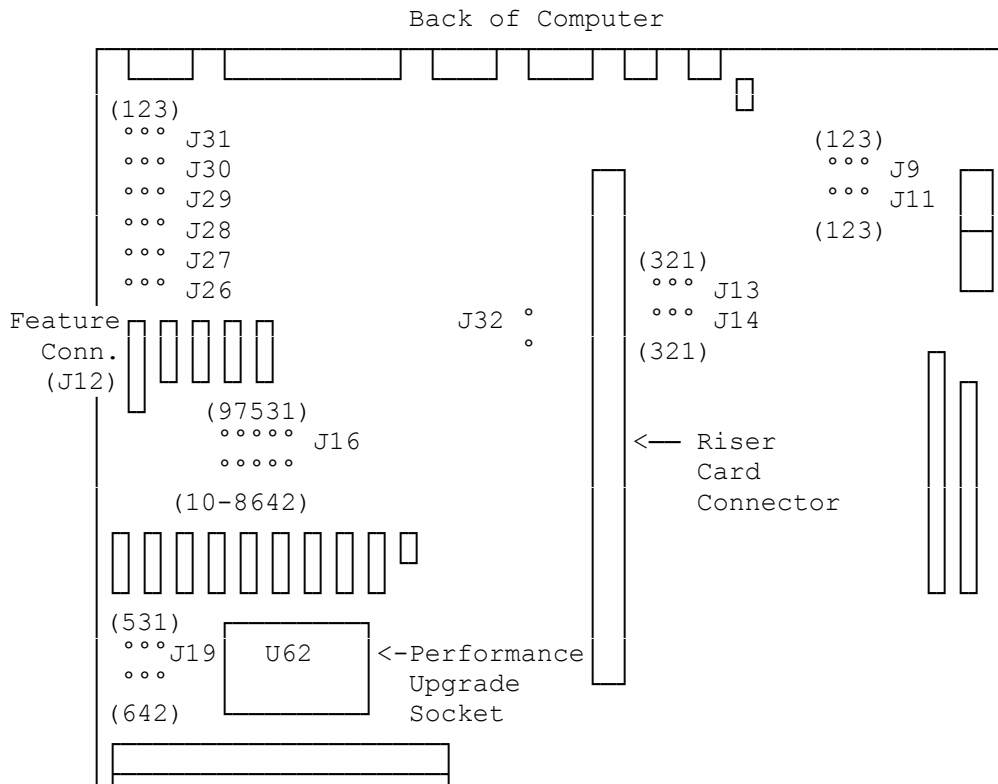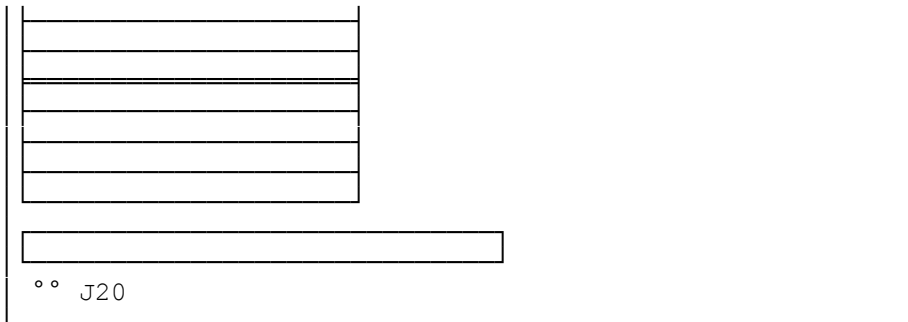
Example:
                   (123)   <- Numbers in parentheses indicate order of pins
                    °°° J9   <- Jumper Name - this is marked on main logic board
Would look like:
                         <——————— Jumper Block
                   ┌─────┐
                   │ o o │o J9
                   └─────┘

┌──────────────────────────┐
│ Main Logic Board Layout: │
└──────────────────────────┘

                          Back of Computer

        ┌────┐ ┌──────┐ ┌──┐ ┌──┐ ┌─┐ ┌─┐ ┌─┐ ┌────────────────────┐
        └────┘ └──────┘ └──┘ └──┘ └─┘ └─┘ └─┘   ┌─┐
          (123)   └─┘
           °°° J31   (123)
           °°° J30   °°° J9   ┌──┐
           °°° J29   °°° J11   │ │
           °°° J28   (123)   │ │
           °°° J27   ┌──┐   └──┘
           °°° J26   │ │ (321)
   Feature   ┌─┐┌─┐┌─┐┌─┐   J32 °│ │ °°° J13
   Conn.   │ ││ ││ ││ │   │ │ °°° J14
   (J12)   │ ││ ││ ││ │   ° │ │ (321)   ┌─┐
              │ │└─┘└─┘└─┘   │ │   │ │
              │ │ (97531)   │ │   │ │
              │ │ °°°°° J16   │ │ <—— Riser   │ │
              │ │ °°°°°   │ │   Card
              │ │   │ │   Connector
              │ │ (10-8642)   │ │
              │ │ ┌┐┌┐┌┐┌┐┌┐┌┐┌┐┌─┐ │ │
              │ │ ││││││││││││││││ │ │ │
              │ │ └┘└┘└┘└┘└┘└┘└┘└─┘ │ │
              │ │   │ │
              │ │ (531)   │ │
              │ │ °°°°J19 ┌───────┐ │ │
              │ │ °°°   │ U62 │ │ │ <-Performance
              │ │   └───────┘ │ │   Upgrade
              │ │ (642)   │ │   Socket
              │ │
              │ │ ┌──────────────┐
              └─┘ └──────────────┘

```
  ┌─────────────────────────┐
  │─────────────────────────│
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  │─────────────────────────│
  └─────────────────────────┘

  ┌───────────────────────┐
  │                       │
  └───────────────────────┘
   °°  J20
```

┌──────────────────────────────────────┐
│ Installing an Upgrade Processor: │
└──────────────────────────────────────┘

Note: The DX and DX2 style processors are functionally the same as the
      Overdrive and ODPR processors. An overdrive processor will be marked
      "Overdrive" a DX or DX2 style will be marked 486DX or 486DX2.

Your computer has an i486 SX microprocessor; you can install a 487 SX, 486
DX, 486 DX2, ODPR, or an OverDrive Processor (either 50MHZ or 66MHZ). The
487 SX and 486DX will add math coprocessor functions only. The DX2, ODPR,
and Overdrive processors will increase the internal clock speed of the CPU
in addition to providing the math coprocessor functions. The performance
upgrade socket (U62) on the main logic board allows easy installation of an
upgrade Processor.

CAUTION: Double check the jumper settings before installing the new chip.
         Incorrect installation of an upgrade processor can cause electrical
         damage to the main logic board or the component. If you choose not
         to perform this procedure, your computer dealer can do this for
         you.

425 SX CPU with:

25Mhz 487SX Math Coprocessor	25Mhz DX Processor	33Mhz DX Processor	50Mhz DX2 Processor	66Mhz DX2 and ODPR Processor
J19 1-3, 2-4 J26 1-2 J27 2-3	J19 3-5, 4-6 J26 1-2 J27 2-3	J19 3-5, 4-6 J26 1-2 J27 1-2	J19 3-5, 4-6 J26 1-2 J27 2-3	J19 3-5, 4-6 J26 1-2 J27 1-2

50Mhz ** Overdrive Processor	66Mhz ** Overdrive Processor
J19 1-3, 2-4 J26 1-2 J27 2-3	J19 1-3, 2-4 J26 1-2 J27 1-2

** The overdrive chip is currently the more
   accepted method of upgrading to 50 Mhz or
   66 Mhz speeds. The overdrive chip can be
   ordered from Third Party Products

Secondary Cache Memory (J16):

CACHE SIZE	J16 JUMPER SETTINGS

None	1-2,3-4,5-6,9-10 (factory settings)
64KB	No jumpers installed
128KB	1-2,5-6,7-8
256KB	1-2,3-4,5-6,9-10

See Faxback Document # 1777 for installation instructions for Cache memory.

Microprocessor Type (J19):

Microprocessor	J19 JUMPER SETTINGS
486SX, 487SX, or Overdrive for SX	1-3, 2-4 (factory setting) NOTE: OPD type chip
486DX, 486DX2, and ODPR	3-5, 4-6 NOTE: ODPR type chip

CMOS RAM and Power On Password Clear (J20):

CMOS RAM STATUS	J20 JUMPER SETTING
Not cleared	Jumper installed (factory setting)
Cleared	Jumper not installed

See Faxback Document # 1795 for specific instructions on clearing the CMOS ram.

Microprocessor Speed (J26 & J27):

Microprocessor Speed	J26 J27 Jumper Settings
25 or 50 Mhz	1-2 2-3 (factory default)
33 or 66 Mhz	1-2 1-2

On-Board Video (J28):

ON-BOARD VIDEO	J28 JUMPER SETTING
Enable	2-3 (factory setting)
Disable	1-2

Note: Disable only if another video card is used in the CPU.

Diskette Drive Write Protection (J30):

DISKETTE DRIVE WRITE PROTECTION	J30 JUMPER SETTING
Enable	1-2
Disable	2-3 (factory setting)

Note: Enable will make all floppy disk read only.

On-Board Video Zero Wait State (J32):

ZERO WAIT STATE	J32 JUMPER SETTING
Enabled Disabled	Jumper installed (factory setting) Jumper not installed

Note: Change this setting only to resolve a conflict with an ISA expansion
      adapter that also uses zero wait state operation.

Reserved Jumper Blocks:

The following jumper blocks are reserved for factory use. Use only the
factory settings.

Jumper Block	Factory Setting:
J9	1-2
J11	Jumper not installed
J13	1-2
J14	2-3
J29	Jumper not installed
J31	2-3

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