

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.

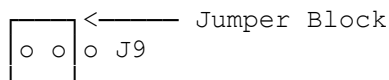
CAUTION: Incorrect jumper settings can cause a malfunction or a decrease in performance.

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.

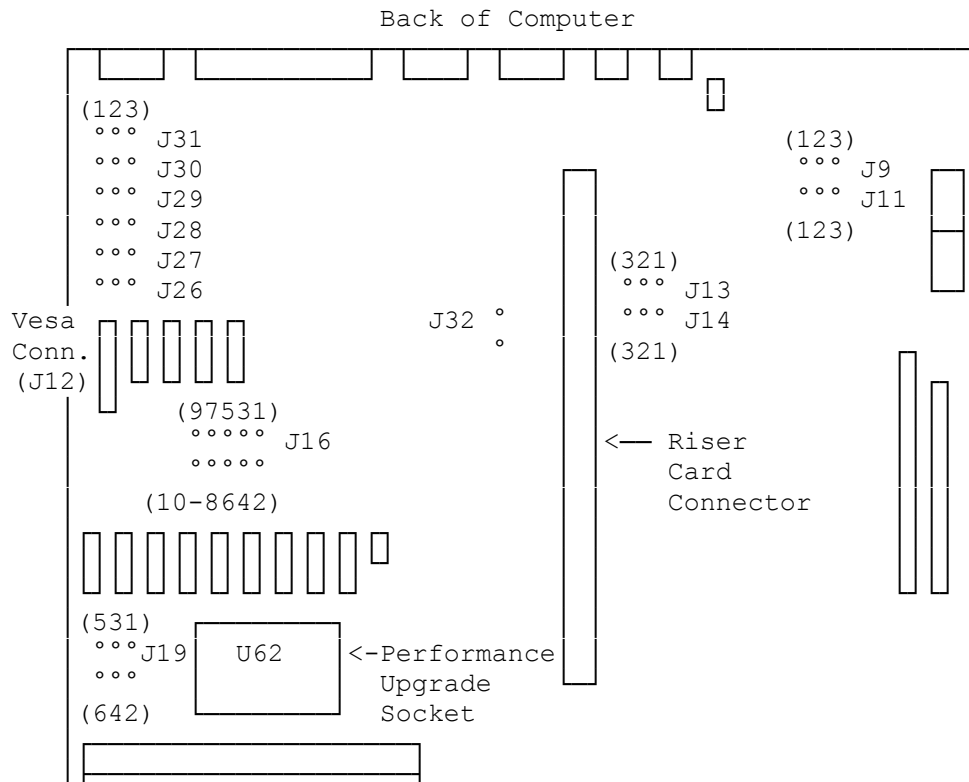
Example:

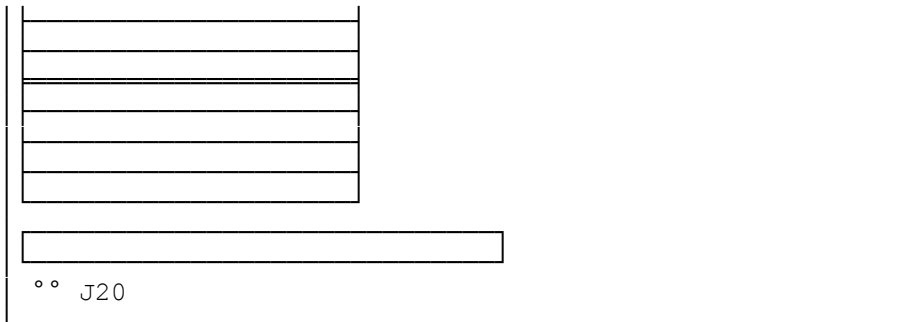
(123)     <- Numbers in parentheses indicate order of pins  
   °°° J9   <- Jumper Name - this is marked on main logic board

Would look like:



Main Logic Board Layout:





**Installing an Upgrade Processor:**

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

Your computer has an i486 DX microprocessor; you can install a DX2 style processor or an OverDrive Processor (either 50MHZ or 66MHZ). The DX2, and Overdrive processors will increase the internal clock speed of the CPU. 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.

433 DX CPU with:

50Mhz DX2 Processor	66Mhz DX2 Processor
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 (remove factory jumpers)
128KB	1-2, 5-6, 7-8
256KB	1-2, 3-4, 5-6, 9-10

See Faxback Document # 1937 for installation instructions for Cache memory.

Microprocessor Type (J19):

Microprocessor	J19 JUMPER SETTINGS
486SX, 487SX or Overdrive for SX	1-3, 2-4
486DX, 486DX2 or	3-5, 4-6 (factory setting)

NOTE: OPD Chip

NOTE: OPDR 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 # 1911 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	
33 or 66 Mhz	1-2	1-2	(factory setting)

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
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Enabled	Jumper installed (factory setting)
Disabled	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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(smm 08/24/93)