

SETTING UP YOUR 486-GL

Introduction

The 486-GL mainboard has a number of jumper switches which allow you to tailor the board to your particular hardware setup. For ease of access, the settings of these jumper switches should be made before the 486-GL has been installed in your case.

How to Set Jumper switch

A jumper switch consists of two or more pins and a plastic slider, called a jumper. With a two pin jumper, when the jumper is in position over the two pins, the switch is ON (this shorts the two pins together); when the jumper is removed from the two pins, the switch is OFF. If you wish to set a two pin jumper as OFF, and remove the jumper, you should push the jumper ONE pin in order to void losing it. A two pin jumper is only ON when the jumper is over both pins. With a three pin jumper, two

settings are possible. When the jumper is over pins 1 and 2 one setting is achieved; and when the jumper is over pins 2 and 3 another setting is achieved.

Pin "1"

A small figure "1" can be seen next to one pin of some jumper switches and connectors on your 486-GL. This indicates pin 1 of the jumper switch or connector. The other pins are not usually numbered but follow in sequential order. Where there might be confusion as to the numbering, all pins are numbered.

When connecting the jumpers attached to your case components to the jumper connectors, particular attention must be paid to the orientation of the jumper with regard to pin 1. Unfortunately there is no color standard for the leads attached to case components so we cannot specify which color lead should be attached to pin 1. In general, however, the lead to be connected to pin 1 is often colored red, or is of a different color from the other leads attached to the jumper.

486-GL Jumper Switch Setting

The illustration on the next pages shows the position of the jumper switches and jumper connectors on you 486-GL mainboard. Compare this illustration with your mainboard to locate the position of the jumper switches.

JUMPER SETTING:

J1: External Battery

J2: Keylock/Power LED:

- 1-3 Power LED Connector
- 4-5 Keylock Connector

S1: Rest

JP1: PQFP CPU select:

- Close PQFP CPU Disable
- Open PQFP CPU Enable

JP2: 5Volts/3.3Volts CPU select:

- 1-2, 4-5 5Volts CPU
- 2-3, 5-6 3.3Volts CPU

JP6,JP7: SX/DX CPU select:

- Close "DX" CPU
- Open "SX" CPU

JP16: Turbo Switch:

- Close Turbo
- Open Non-Turbo

JP17: Turbo LED

JP18: Speaker

JP21: Hardware Wake Up Switch

JP26: Discharge Battery:

- 2-3 Battery Enable
- 1-2 Discharge

JP30: Monitor Type:

- Close Color
- Open Mono

JP32: Monitor Power - Saving Control

JP45: Intel SMI CPU select:

- Close Intel SMI CPU
- Open Other CPU

JP3,JP5,JP8,JP9,JP12,JP22,JP23,JP50: CPU Type select:



CPU Type	JP3	JP5	JP8	JP9	JP12	JP22	JP23	JP50
486SX	Open	Open	2-3	Open	Open	1-2	Open	Open
487SX	2-3	2-3	1-2	Open	Open	1-2	Open	Open
486DX/DX2/DX4	1-2	2-3	1-2	Open	Open	1-2	Open	Open
AMD DX2-66/80	1-2	2-3	1-2	Open	Open	1-2	Open	2-3
AMD DX4-100	1-2	2-3	1-2	Open	Open	1-2	Open	1-2
P24T	1-2	2-3	1-2	2-3	Open	2-3	Open	Open
P24D				Open	Close		Close	1-2
CX486S M6	Open	Open	2-3	1-2	Open	1-2	Open	2-3
CX486DX M7	1-2	2-3	1-2	1-2	Open	1-2	Open	2-3

JP43,JP27: SMI CPU select:

CPU Type	JP43	JP27

Intel SLe CPU	Open	Open
AMD SMI CPU	Open	Open
DX4 P24C 3X	Open	Open
DX4 P24C 2X	1-2	Open
CX486DX M7 1X	Open	1-2
CX486DX M7 2X	Open	2-3
Other CPU	Open	Open

JP48,JP40,JP39,JP38,JJ2: CPU CLK select:

Clock	JP48	JP40	JP39	JP38	JJ2
20MHz	1-2	Open	Close	Open	1-2
25MHz	1-2	Open	Close	Close	1-2

33MHz(DX2-66,DX4-100 CPU)	1-2	Close	Open	Close	1-2
33MHz(DX4-100 CPU)	2-3	Open	Open	Close	1-2
40MHz(DX-40, DX2-80 CPU)	1-2	Close	Close	Open	1-2
50MHz	1-2	Close	Close	Close	1-2
50MHz(DX4-100 CPU)	2-3	Open	Close	Close	2-3

JP46: VL-Bus CLK speed select:

LCLK	JP46
>33MHz	1-2
<=33MHz	2-3

JP10,JP11,JP13,JP35: Cache RAM Size select:

Cache Size	JP10	JP11	JP13	JP35	U13	U5 - U8	U9 - U12
64KB	Open	Open	2-3	1-2	8KB*8	8KB*8	8KB*8
128KB	Open	Close	1-2	1-2	8KB*8	32KB*8	-----
256KB	Close	Close	2-3	1-2	32KB*8	32KB*8	32KB*8
				2-3	16KB*8		

JUMPER SWITCHES LOCATION:

INSERT GIF HERE

J1: External Battery

Your 486-GL comes with a battery build-in. This battery powers the real-time clock and ensures that the SETUP data stored in the CMOS RAM are not lost when your computer is turned off. The on-board battery is quite sufficient for normal use, but you may wish to install an external battery which may provide longer usage. If you wish to connect an external battery, you should connect it to J1 as illustrated above, and this battery will then provide the backup power for your 486GL. Note that one of the leads attached to the battery will be colored (usually red), and this lead must be attached to the pin marked "1".

J2: Keylock/Power LED

If the case into which you wish to install your 486-GL has a keylock and power-on LED, there will be a five-lead jumper connected to the panel in which the keylock and power-on LED are situated. You should plug this jumper directly onto J2. Take care that the jumper is correctly oriented with pin 1 of J2.

S1: Rest

Most cases are fitted with a reset button to allow you to reboot your machine in case it should "hang" during operation due to a faulty hardware or software configuration. Attach the jumper from the reset button to S1.

JP1: PQFP CPU select

Set these jumper as OFF (open) only if a 485 PQFP is installed. Set the jumper as ON (close) for all other type CPU.

JP16: Turbo Switch

Connect the jumper connected to the turbo switch on your system case directly to this jumper connector.

JP17: Turbo LED

If the case into which you wish to install your 486-GL has a turbo LED to indicate when the computer is running in the turbo mode, connect the jumper attached to this component to JP17. The Turbo LED will illuminate when you enter the turbo mode, and remain illuminated until you switch back to normal mode.

JP18: Speaker

Most cases have a small speaker build-in. Attach the jumper connected to the speaker over the pins on JP18, ensuring that the colored wire (often red) is over Pin 1. Though the speaker jumper is a four pin jumper, there are usually only two leads attached to the jumper.

JP26: Discharge Battery (Discharge CMOS RAM)

Installed on your 486-GL is a battery which ensures that the real-time clock keeps time and that SETUP information stored in the CMOS non-volatile RAM is not lost when you turn your computer off. The normal setting for

JP26 will be with the jumper over pins 1 and 2, which enable the on board battery. This is the default setting. It is possible to make an incorrect setting in the SETUP program stored in the CMOS, which will cause your computer to "hang" as soon as you turn on your computer. If this occurs you may find it impossible to run the SETUP program to correct the faulty setting. This is when you may need to set the jumper of JP26 over pins 1 and 2, which will discharge the battery, thus causing the information stored in the CMOS RAM, including the incorrect setting to be erased. You should place the jumper over pins 1 and 2 for about ten seconds to discharge the battery and then replace it over pins 2 and 3 before rebooting your system.

JP30: Monitor Type Select

Jumper JP30 should be set as OFF (open) for a monochrome monitor and ON (close) for a color or vga monitor.

JP48,JP40,JP39,JP38: CPU Clock Speed Select

These Jumpers are setting up for your CPU clock speed.

JP3,JP5,JP8,JP9,JP12,JP22,JP23,JP50: CPU Type Select

The setting of these jumper switches depends on whether a 486DX or 486SX CPU is installed.

JP10,JP11,JP13,JP35: Cache Size Select

The settings of these four jumper switches must be made according to the cache size installed. The table below details the correct setting.

CPU JUMPER SETTING CHICKING LIST:

CPU TYPE		Volt	JP3	JP5	JP8	JP9	JP12	JP22	JP23	JP27
Intel	PQFP	5	Open	Open	2-3	Open	Open	1-2	Open	Open

Intel DX2-50 SLe	PGA	5	1-2	2-3	1-2	Open	Open	1-2	Open	Open
Intel DX2-66 SLe	PGA	5	1-2	2-3	1-2	Open	Open	1-2	Open	Open
Intel DX2-66 P24D	PGA	5				Open	Close		Close	Open
Intel P24T OverDrive	PGA	5	1-2	2-3	1-2	2-3	Open	2-3	Open	Open
Intel DX4-75 P24C 3X	PGA	3.3	1-2	2-3	1-2	Open	Open	1-2	Open	Open
Intel DX4-100 P24C 3X	PGA	3.3	1-2	2-3	1-2	Open	Open	1-2	Open	Open
Intel	PGA	3.3	1-2	2-3	1-2	Open	Open	1-2	Open	Open

DX4-100 P24C 2X										
AMD 486DX-33	PGA	5	1-2	2-3	1-2	Open	Open	1-2	Open	Open
AMD 486DX-40	PGA	5	1-2	2-3	1-2	Open	Open	1-2	Open	Open
AMD DX2-50	PGA	5	1-2	2-3	1-2	Open	Open	1-2	Open	Open
AMD DX2-66	PGA	5	1-2	2-3	1-2	Open	Open	1-2	Open	Open
AMD DX2-66	PGA	3.3	1-2	2-3	1-2	Open	Open	1-2	Open	Open
AMD DX2-80	PGA	3.3	1-2	2-3	1-2	Open	Open	1-2	Open	Open
AMD DX4-100	PGA	3.3	1-2	2-3	1-2	Open	Open	1-2	Open	Open
Cyrix	PGA	5	Open	Open	2-3	1-2	Open	1-2	Open	Open

486S-33 M6										
Cyrix 486S2-66 M6	PGA	5	Open	Open	2-3	1-2	Open	1-2	Open	Open
Cyrix 486DX-40 M7	PGA	5	1-2	2-3	1-2	1-2	Open	1-2	Open	1-2
Cyrix 486DX-50 M7	PGA	5	1-2	2-3	1-2	1-2	Open	1-2	Open	1-2
Cyrix 486DX2- 66 M7	PGA	5	1-2	2-3	1-2	1-2	Open	1-2	Open	2-3

CPU JUMPER SETTING CHICKING LIST:

CPU		Volt	JP38	JP39	JP40	JP43	JP45	JP48	JP50	JJ2
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Intel DX2-66	PGA	5	Close	Open	Close	Open	Open	1-2	Open	1-2
Intel 486SX-25 SLe	PGA	5	Close	Close	Open	Open	Close	1-2	Open	1-2
Intel 486SX-33 SLe	PGA	5	Close	Open	Close	Open	Close	1-2	Open	1-2
Intel 486DX-25 SLe	PGA	5	Close	Close	Open	Open	Close	1-2	Open	1-2
Intel 486DX-33 SLe	PGA	5	Close	Open	Close	Open	Close	1-2	Open	1-2
Intel 486DX-40 SLe	PGA	5	Open	Close	Close	Open	Close	1-2	Open	1-2
Intel	PGA	5	Close	Close	Close	Open	Close	1-2	Open	1-

486DX-50 SLe										2
Intel DX2-50 SLe	PGA	5	Close	Close	Open	Open	Close	1-2	Open	1- 2
Intel DX2-66 SLe	PGA	5	Close	Open	Close	Open	Close	1-2	Open	1- 2
Intel DX2-66 P24D	PGA	5	Close	Close	Close	Open	Open	1-2	1-2	1- 2
Intel P24T OverDrive	PGA	5	Close	Close	Close	Open	Open	1-2	Open	1- 2
Intel DX4-75 P24C 3X	PGA	3.3	Close	Close	Open	Open	Open	2-3	Open	1- 2
Intel DX4-100	PGA	3.3	Close	Close	Open	Open	Open	2-3	Open	1- 2

P24C 3X										
Intel DX4-100 P24C 2X	PGA	3.3	Close	Close	Open	1-2	Open	2-3	Open	2-3
AMD 486DX-33	PGA	5	Close	Open	Close	Open	Open	1-2	Open	1-2
AMD 486DX-40	PGA	5	Open	Close	Close	Open	Open	1-2	Open	1-2
AMD DX2-50	PGA	5	Close	Close	Open	Open	Open	1-2	Open	1-2
AMD DX2-66	PGA	5	Close	Close	Open	Open	Open	1-2	Open	1-2
AMD DX2-66	PGA	3.3	Close	Open	Close	Open	Open	1-2	2-3	1-2
AMD DX2-80	PGA	3.3	Open	Close	Close	Open	Open	1-2	2-3	1-2
AMD	PGA	3.3	Close	Open	Close	Open	Open	1-2	1-2	1-

DX4-100										2
Cyrix 486S-33 M6	PGA	5	Close	Open	Close	Open	Open	1-2	2-3	1- 2
Cyrix 486S2-66 M6	PGA	5	Close	Open	Close	Open	Open	1-2	2-3	1- 2
Cyrix 486DX-40 M7	PGA	5	Open	Close	Close	Open	Open	1-2	2-3	1- 2
Cyrix 486DX-50 M7	PGA	5	Close	Close	Close	Open	Open	1-2	2-3	1- 2
Cyrix 486DX2- 66 M7	PGA	5	Close	Open	Close	Open	Open	1-2	2-3	1- 2

