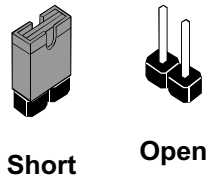


## Check the Jumper Settings

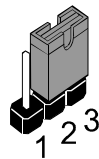
Check the mainboard jumpers to ensure that the board is configured correctly.

### *How to Set Jumpers*

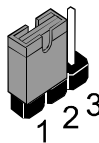
A jumper consists of two or more pins mounted on the mainboard. Some jumpers might be arranged in a series with each pair of pins numbered differently. Jumpers are used to change the electronic circuits on the mainboard. When a jumper cap (or shunt) is placed on two jumper pins, the pins are **SHORT**. If the jumper cap is removed (or placed on just a single pin), the pins are **OPEN**.



This illustration shows a 2-pin jumper. When the jumper cap is placed on both pins, the jumper is **SHORT**. If you remove the jumper cap, or place the jumper cap on just a single pin, the jumper is **OPEN**.

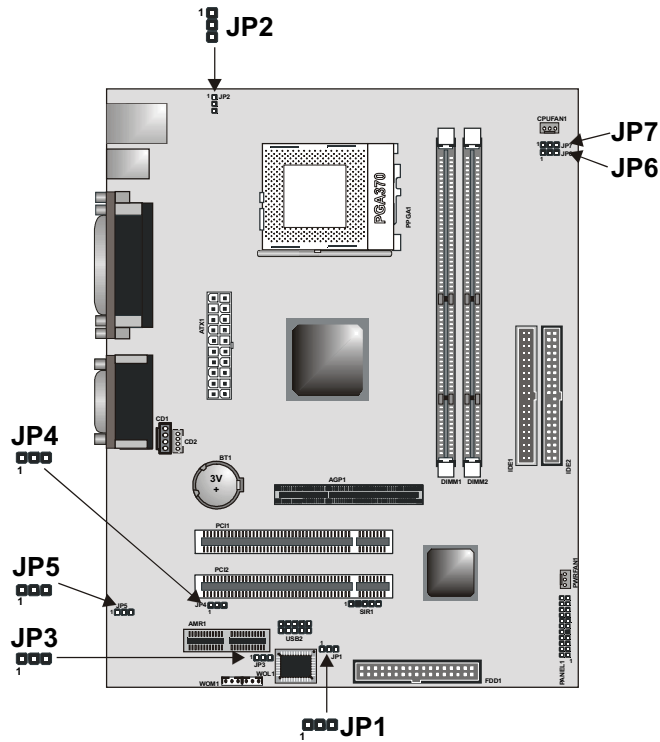


This illustration shows a 3-pin jumper. The jumper cap is placed on pins 2 and 3, so this jumper setting is **SHORT PINS 2-3**.



This illustration shows the same 3-pin jumper. The jumper cap is placed on pins 1 and 2, so this jumper setting is **SHORT PINS 1-2**.

In this manual, all the jumper illustrations clearly show the pin numbers. When you are setting the jumpers, make sure that the jumper caps are placed on the correct pins to select the function or feature that you want to enable or disable.



**JP1: Clear CMOS jumper**

Use this jumper to clear the contents of the CMOS memory. You may need to clear the CMOS memory if the settings in the BIOS Setup Utility are incorrect and are preventing your mainboard from operating. To clear the CMOS memory, disconnect all the power cables from the mainboard and then move the jumper cap into the Clear CMOS memory setting for a few seconds. CMOS is cleared.

Return the jumper cap to the Normal operation setting. Reconnect the power cables and start the system. When the POST starts, press the delete key to start the BIOS Setup Utility and reload BIOS optimal settings. Refer to Chapter 3 for information on BIOS.

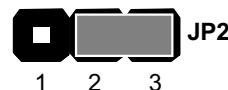
Function	Jumper Setting
Normal operation	Short pins 1-2
Clear CMOS	Short pins 2-3



**JP2: Keyboard wake up jumper**

Use this jumper to enable keyboard activity to wake up the system from power saving mode.

Function	Jumper Setting
Disable	Short pins 1-2
Enable	Short pins 2-3



**JP3: BIOS flash protect jumper**

Use this jumper to enable or disable the BIOS flash protection on the mainboard. Disable this jumper when to flash the BIOS.

Function	Jumper Setting
Disable	Short pins 1-2
Enable	Short pins 2-3



**JP4: Onboard codec select jumper**

Use this jumper to disable the onboard codec, or to enable the onboard codec to work with an AMR card in slave mode. When pins 2 and 3 are short, the onboard codec is disabled.

Function	Jumper Setting
Onboard codec enabled (master mode)	Short pins 1-2
Onboard codec disabled (AMR slot is in master mode)	Short pins 2-3



**JP5: Test jumper**

This jumper is for testing purposes only. Do not make any changes to this jumper.

**JP6: CPU frequency select jumper**

This jumper enables you to force the CPU to clock at a higher frequency than it is rated. Short pins 2 and 3 to force the CPU to run at a 100 MHz FSB instead of a 66 MHz FSB. We recommend that you leave the jumper on the normal operation setting.

Function	Jumper Setting
Auto	Short pins 1-2
Force 66 MHz FSB to run at 100 MHz FSB.	Short pins 2-3



**JP7: CPU frequency select jumper**

This jumper enables you to force the CPU to clock at a higher frequency than it is rated. Short pins 2 and 3 to force the CPU to run at a 133 MHz FSB instead of a 100 MHz FSB. We recommend that you leave the jumper on the normal operation setting.

Function	Jumper Setting
Auto	Short pins 1-2
Force 100 MHz FSB to run at 133 MHz FSB	Short pins 2-3



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**Note:** The CPU speed is determined by the CPU Host/PCI Clock speed multiplied by the CPU Clock Ratio. Refer to the Frequency Control Option in Chapter 3 for more information.

Forcing the CPU to run at a higher clock speed than it was rated for is called overlocking and is not recommended.

## Installing the Mainboard in a Case

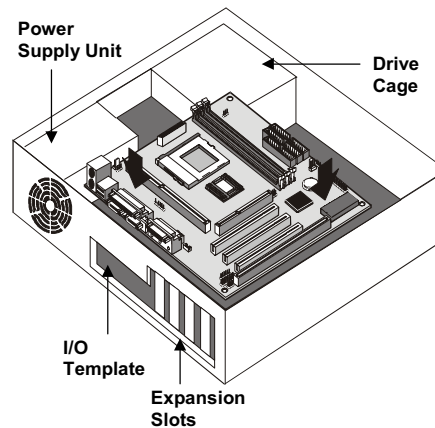
Most system cases have mounting brackets installed in the case, which correspond to the holes in the mainboard. Place the mainboard over the mounting brackets and secure the mainboard into the mounting brackets with screws.

Most cases have a choice of I/O templates in the rear panel. Make sure that the I/O template in the case matches the I/O ports installed on the rear edge of the mainboard.

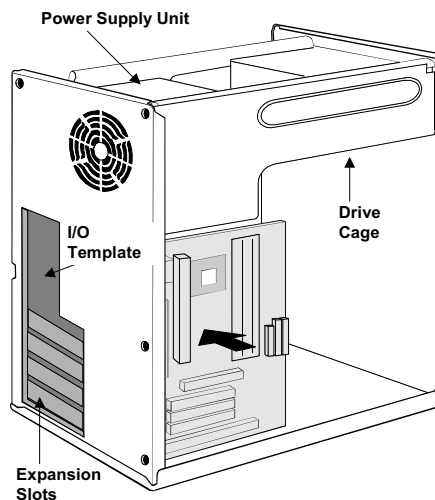
This illustration shows a mainboard installed in a standard desktop case.

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**Note:** Do not over-tighten the screws as this can stress the mainboard.



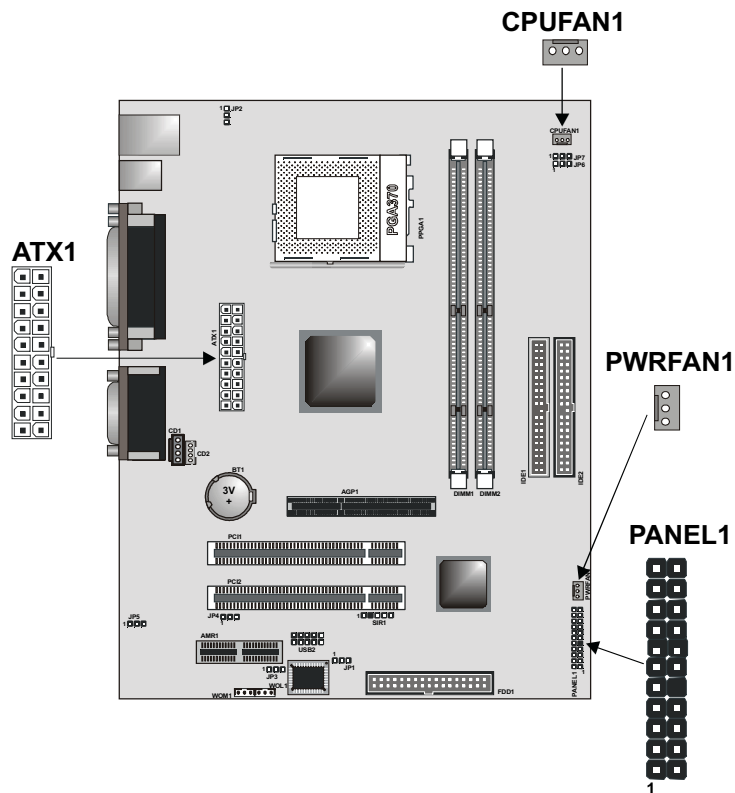
This illustration shows a mainboard installed in a tower-type case.



## Connecting Internal Components

After you have installed the mainboard into the system case, connect the power cable from the case power supply unit to the mainboard power connector ATX1.

Your case and CPU might have cooling fans attached to provide adequate ventilation to the system. Connect the CPU fan to the 12-volt connector CPUFAN1. Connect the case fan to the 12-volt power supply connector PWRFAN1. After you have connected the power supply and the cooling fans, connect the case switches and indicators to the PANEL1 connectors.

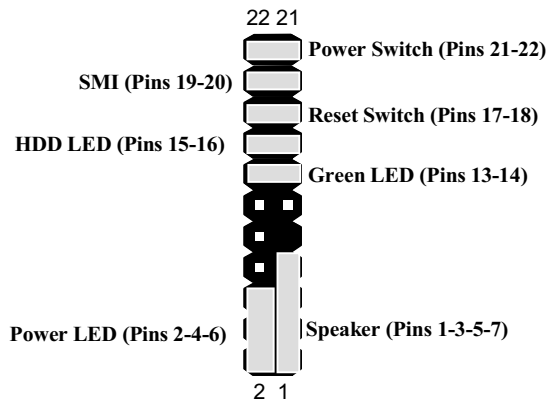


## Panel Connector

The mainboard PANEL connector has a standard set of switch and indicator connectors that are commonly found on microATX system cases. Use the illustration below to make the correct connections to the case switches and indicators.

### Panel connectors for switches and indicators

Function	Pins
Power ON/OFF	21, -22
Sleep Switch (SMI) Indicator	19, -20
Reset Switch	17, -18
Hard Disk LED Indicator	+15, -16
Green LED Indicator	+13, -14
Power LED Indicator	+2, 4, -6
Speaker	+1, 3, 5, 7



**Note:** The plus sign (+) indicates a pin which must be connected to a positive voltage.