ATX Motherboard Installation

1. Remove cover from the case in which you plan to install the motherboard. Inspect it carefully to determine if it is the correct type of case for your motherboard.

   Note: *ATX cases will always have a 20-pin connector coming from the power supply and a plate (usually removable) or a square hole where a plate will go through which the I/O ports of the motherboard are accessed. There should also be a power switch on the front of the case, which will be wired to a 2-pin connector. There is usually a reset switch and one or more LED connectors which you should familiarize yourself with before actually installing the motherboard. Locate and identify each of the connectors coming from the front panel. Most of the time they are labeled but sometimes you have to follow their wires to determine their origin. Colors can also be helpful when trying to identify which wires belong to which front panel item. For instance Red/White is usually the Hard Disk LED, Green/white is usually Power LED but there are exceptions to the rule. Also the white wire in the combination is usually the ground wire.*

2. Locate and configure all jumper settings and verify the location of the front panel connectors. This information may be in the documentation that came with the motherboard. Another source for this information (sometimes even the whole manual) is on the vendor or manufacturer's web page. If all else fails you can often get what you need from the silk-screened information on the motherboard itself. Common settings include (but are not limited to): Bus Frequency, CPU/bus speed ratio, core voltage and the CMOS battery jumper. Check these settings twice before proceeding. There is very little hope of your system working if you skip this step!

3. Install the CPU, memory and cache (if applicable). Makes sure they are seated completely in their respective sockets! This is the cause of many configuration problems.

4. Some cases allow the interior side panel that the motherboard sits on to be removed to make the installation of the motherboard easier. Usually this would be done by removing screws or opening some type of latch that holds it in place. If this can be done I recommend removing it. If not continue to the next step.

5. Carefully place the motherboard over the side panel to determine which mounting holes in the motherboard line up with the mounting holes in the side panel. This may take more than one time to correctly identify which holes to use.

   Note: There are a few types of connectors commonly used in cases. There are the plastic types that clip into the motherboard and slide into a notch in the side panel. There are also brass standoffs that screw directly into the side panel and accept a screw that is put through a washer and then through the motherboard (not too tight of course!). Some cases already have some type of standoff installed in the side panel that the motherboard sits on. The thing to remember is that the purpose of these connectors is to keep the motherboard away from the metal plate, which can cause you system to malfunction or even damage it permanently.

6. Attach all the brass standoffs and/or plastic tabs to the motherboard/mounting plate and secure the motherboard to the mounting plate. Be sure to attach the I/O shield to either the ports or the case before mounting the motherboard.

7. Attach all front panel connectors. This may or may not include: Power switch, Reset switch, Power LED, HD LED and PC SPEAKER.

8. Press video card firmly in the appropriate slot and screw in the expansion slot bracket. Verify that the card is seated completely! This is another common configuration error.

9. Before installing any other components, turn on the system. The system should complete the Power On Self Test (or POST). Verify that the CPU is recognized correctly and that the correct amount of memory is recognized. Turn off the system.

10. Install the Floppy drive, Hard Drive and CDROM.

11. Power on the system and enter the BIOS utility, or SETUP. Navigate to the STANDARD CMOS SETUP and verify that the floppy drive type(s) is set correctly then go back to the main menu. Then go to the AUTO DETECT IDE HD section of the BIOS and allow the system to detect the Hard Drive and CDROM. Don't panic if the CDROM is not recognized at this point, some systems detect it on boot up.

12. The motherboard is now installed. The next step will be to install an Operating System and your favorite applications on the hard drive if that has not already been done.