

## What the Tech?!: Plugs by Joe McCormick

You've probably looked at the back of your computer at some point and see all of those crazy looking plugs. These plugs make up a huge part of the computer's ability to operate as they not only power the system, but also allow for the entry and display of information. Appearing on the left of the back of your computer, the plugs are directly attached to the motherboard of your computer; each motherboard will have different plugs. However, there are some very common ones that have made it through the years. Knowing what these plugs are for will give you a better idea of what your computer is capable of.

At the top, we begin with PS/2 ports, quite possibly the oldest and most well known of all them all. These traditionally color coded ports show where the keyboard and mouse plug in: purple for keyboards and green for mice. They were introduced in Intel's Personal System/2 (PS/2) in 1987. The one thing to remember about these is that each plug only has six pins of support; there is a small rectangular piece within the plug to help insert it correctly.

Next typically come the video plugs. Your computer may have one of two: a blue VGA outlet, or a white DVI one. The difference between VGA and DVI is that of analog and digital. VGA was also introduced in Intel's 1987 computer, but DVI has come much more recently in 1999. If your computer and monitor have a DVI port, use it. If not, don't worry about it; the video quality will be the same for most people. VGA will be shaped like a trapezoid to help you insert it correctly. DVI will have a single flat pin on either side to help you align it into place.

Universal Serial Bus (USB) ports make up the next major group on your motherboard. Released by a conglomerate of seven companies in 1996, USB completely replaced serial and parallel ports; these were once used to connect printers, modems, etc. Now, USB is the premier method of physical data transfer and also acts as a power supply. We can now plug in anything from keyboards to flash drives to *coffee machines*. They are rectangular and come in a group of four to eight on most computers, so you can have multiple gadgets plugged in. They can only be plugged in one way, shown by the electric chip found within.

Below or to the side of the USBs, you'll probably see an enlarged version of a phone cable. This is the Ethernet port. Somewhat like USB, but not quite, Ethernet has replaced the typical phone cord in the computer world. Although the two worked side by side since 1980, modem technologies have come to utilize Ethernet, and not a 56k phone line. However, throughout this time, Ethernet has been and continues to be a staple of the office-type network. If a business has to network two or more computers together, they're probably going to do it through Ethernet. These are very easy to plug in as they work just like a phone jack.

Next up are the audio ports. These come color coded, as do the audio jacks we use for them. There are three of them, Audio In (blue), Audio Out (green), and Microphone (pink). These are all straightforwardly used: if you have a sound or mixing board for audio production, blue port; headphones and speakers, green port; microphones or other musical equipment, pink port. These are by far the easiest to connect, just plug the audio jack straight in.

Lastly, I want to make mention of the power supply outlet. This could be anywhere on the back of your computer, but you'll know what it is by the nearby fan that occupies its housing and the three prong power outlet. As with everything electrical, you want to be as safe as can be. The main switch has a line and a circle on it; the line means power's on, circle means it's off. Do not flip any red flat switches on the power supply, these change the voltage of the unit to be used in other parts of the world; the US uses 115v products. If you switch this, especially while the computer is on, you risk ruining the whole system. To be safe, the power supply is the first thing I unplug and the last thing I plug in, when working on my computer.