**KEYBOARD**How Computer Keyboards Work

by Jeff Tyson

The part of the computer that we come into most contact with is probably the piece that we think about the least. But the keyboard is an amazing piece of technology. For instance, did you know that the keyboard on a typical computer system is actually a computer itself?

Your basic Windows keyboard

At its essence, a keyboard is a series of switches connected to a microprocessor that monitors the state of each switch and initiates a specific response to a change in that state. In this edition of How Stuff Works, you will learn more about this switching action, and about the different types of keyboards, how they connect and talk to your computer, and what the components of a keyboard are.

Types of Keyboards

Keyboards have changed very little in layout since their introduction. In fact, the most common change has simply been the natural evolution of adding more keys that provide additional functionality

The most common keyboards are:

101-key Enhanced keyboard

104-key Windows keyboard

82-key Apple standard keyboard

108-key Apple Extended keyboard

Portable computers such as laptops quite often have custom keyboards that have slightly different key arrangements than a standard keyboard. Also, many system manufacturers add specialty buttons to the standard layout.

A typical keyboard has four basic types of keys:

Typing keys

Numeric keypad

Function keys

Control keys

The typing keys are the section of the keyboard that contain the letter keys, generally laid out in the same style that was common for typewriters. This layout, known as QWERTY for the first six letters in the layout, was originally designed to slow down fast typists by making the arrangement of the keys somewhat awkward! The reason that typewriter manufacturers did this was because the mechanical arms that imprinted each character on the paper could jam together if the keys were pressed too rapidly. Because it has been long established as a standard, and people have become accustomed to the QWERTY configuration, manufacturers developed keyboards for computers using the same layout, even though jamming is no longer an issue. Critics of the QWERTY layout have adopted another layout, Dvorak, that places the most commonly used letters in the most convenient arrangement