

The keyboard is the most widely used input device and is used to enter data or commands to the computer. It has a set of alphabet keys, a set of digit keys, and various function keys and is divided into four main areas:

Function keys across the top

Letter keys in the main section

A numeric keypad on the right

Cursor movement and editing keys between the main section and the numeric keypad.

The layout of the letters on a keyboard is standard across many countries and is called a QWERTY keyboard. The name comes from the first six keys on the top row of the alphabetic characters.

Some keyboards come with added keys for using the Internet and others have an integrated wrist support. Ergonomic keyboards have been developed to reduce the risk of repetitive strain injury to workers who use keyboards for long periods of time.

The computer's processor scans the keyboard hundreds of times per second to see if a key has been pressed. When a key is pressed, a digital code is sent to the Central Processing Unit (CPU). This digital code is translated into ASCII code (American Standard Code of Information Interchange).

For example, pressing the 'A' key produces the binary code 01100001 representing the lower case letter 'a'. Holding down the shift key at the same time produces the binary code 01000001 representing the upper case letter 'A'.

Advantages:

Most computers have this device attached to it

It is a reliable method for data input of text and numbers

A skilled typist can enter data very quickly.

Specialist keyboards are available

Disadvantages:

It is very easy to make mistakes when typing data in

It can be very time consuming to enter data using a keyboard, especially if you are not a skilled typist.

It is very difficult to enter some data, for example, details of diagrams and pictures.

It is very slow to access menus and not flexible when you want to move objects around the screen

Difficult for people unable to use keyboards through paralysis or muscular disorder.

Mouse

A mouse is the most common pointing device that you will come across. It enables you to control the movement and position of the on-screen cursor by moving it around on the desk.

Buttons on the mouse let you select options from menus and drag objects around the screen. Pressing a mouse button produces a 'mouse click'. You might have heard the expressions 'double click', 'click and drag' and 'drag and drop'.

Most mice use a small ball located underneath them to calculate the direction that you are moving the mouse in. The movement of the ball causes two rollers to rotate inside the mouse; one records the movement in a north-south direction and the other records the east-west movement. The mouse monitors how far the

ball turns and in what direction and sends this information to the computer to move the pointer.

Advantages: Ideal for use with desktop computers.

Usually supplied with a computer so no additional cost.

All computer users tend to be familiar with using them.

Disadvantages

They need a flat space close to the computer.

The mouse cannot easily be used with laptop, notebook or palmtop computers. (These need a tracker ball or a touch sensitive pad called a touch pad).

Trackball

A tracker ball, is like an upside down mouse with the ball on top. Turning the ball with your hand moves the pointer on the screen. It has buttons like a standard mouse, but requires very little space to operate and is often used in conjunction with computer aided design. You will often find a small tracker ball built into laptop computers in place of the conventional mouse.

Advantages Ideal for use where flat space close to the computer is limited.

Can be useful with laptops as they can be built into the computer keyboard or clipped on.

Disadvantages Not supplied as standard so an additional cost and users have to learn how to use them

a joy stick is simalar to the mouse but turns at the sides

a joy stick is used to play computer games it turns in 8 dirction and is used for controlling things like cars

advantge there is an idmete feel of dirction due to the movement of the stick

disavantges its hard to controlthey can break ealisy