IBM Keyboard Technology

Typewriter

Keypunch

Hall Effect

Hall effect keyboards use magnets and Hall effect sensors instead of an actual switch. When a key is depressed, it moves a magnet, which is detected by the solid-state sensor. These keyboards are extremely reliable, and are able to accept millions of keystrokes before failing. They are used for ultra-high reliability applications, in locations like nuclear powerplants or aircraft cockpits. They are also sometimes used in industrial environments. These keyboards can be easily made totally waterproof. They also resist large amounts of dust and contaminants. Because a magnet and sensor are required for each key, as well as custom control electronics, they are very expensive.

Keyboard E

Model E keyboards used a buckling spring design, where pressing the key caused a pad to move into contact with the circuit board. The height of the keyboard made it less comfortable for typing, and the end came when EU regulations demanded much slimmer keyboard design.

Keyboard F

Model F keyboards were the first buckling spring devices in the slimmer format. Pressing a key caused a pad in contact with the printed circuit board to spring upwards. Main production ran from 1981 to 1985.

Keyboard M

The Model M was designed to be a more cost effective keyboard than the Model F keyboards it replaced. Production for the original Model M began in 1985, and the keyboards were often bundled with new IBM computers in the 1980s. These keyboards were produced by IBM in their plants in Lexington, Greenock and Guadalajara. The most common Model M variant is the part number 1391401, which was the keyboard of the IBM PS/2. Until 1987, the keyboards featured a detachable AT cable; after that, they were bundled with a detachable PS/2 cable. Cables came in both 5- and 10-foot lengths (1.5 and 3 metres). From about 1994 onwards, the majority of Model Ms were manufactured with non-detachable cables to cut down manufacturing costs, as well as the Microsoft Windows keys for the then-upcoming MS Windows 95 operating system.