



Dynamic Loudspeaker

loudspeaker

- * A loudspeaker (or loudspeaker or speaker) is an electroacoustic transducer; a device which converts an electrical <u>audio signal</u> into a corresponding <u>sound</u>.
- * The most widely used type of speaker in the 2010s is the dynamic speaker, invented in 1925 by Edward W. Kellogg and Chester W. Rice.
- * The dynamic speaker operates on the same basic principle as a <u>dynamic microphone</u>, but in reverse, to produce sound from an electrical signal.
 Loudspeaker for home use

Loudspeaker for home use with three types of dynamic driversMid-range

- 1.driver
- 2.Tweeter
- 3.Woofers

The hole below the lowest woofer is a port for a bass reflex system.

* When an alternating current electrical audio signal is applied to its voice coil, a coil of wire suspended in a circular gap between the poles of a permanent magnet, the coil is forced to move rapidly back and forth due toFaraday's law of induction, which causes a <u>diaphragm</u> (usually conically shaped) attached to the coil to move back and forth, pushing on the air to create sound waves.



Speakers are typically housed in a speaker enclosure or speaker cabinet which is often a rectangular or square box made of wood or sometimes plastic. The enclosure's materials and design play an important role in the quality of the sound.

- * Where high fidelity reproduction of sound is required, multiple loudspeaker transducers are often mounted in the same enclosure, each reprodu
- * In this case the individual speakers are referred to as "drivers" and the entire unit is called a loudspeaker. Drivers made for reproducing high audio frequencies are called <u>tweeters</u>, those for middle frequencies are called <u>mid-range</u> drivers, and those for low frequencies are called <u>woofers</u>.

Micro phones



