

Microphones



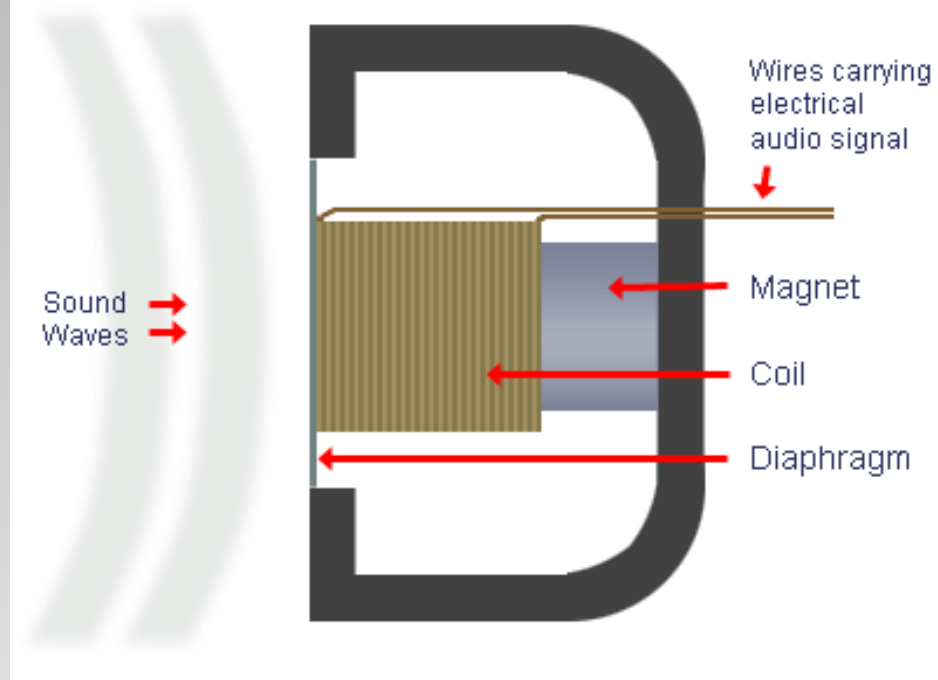
Level 3 Btec
Music Technology

Dynamic Microphones

- Dynamic microphones are common, versatile and ideal for general-purpose use. They are hardwearing and they don't distort easily which makes them ideal for live use. They have a simple design with few moving parts. They are relatively sturdy and resilient to rough handling. They are also better suited to handling high volume levels, such as guitar and bass amps. They have no internal amplifier and do not require batteries or external power.
- Shure SM57, Shure SM58, Electrovoice RE20, Sennheiser MD421, AKG D112



Cross-Section of Dynamic Microphone



How a dynamic microphone works

- An excellent studio mic as they are sensitive and produce an accurate even sound. They are good to capture vocals, acoustic instruments, percussion and are used for overheads. They require phantom power to work.
- There are two common types:
- Small Diaphragm Condensor – AKG C1000s, Rode NT5, Neumann KM184, DPA 4006
- Large Diaphragm Condensor – Audio Technica AT3035, Rode NT1-A, Neumann U87, AKG C414,

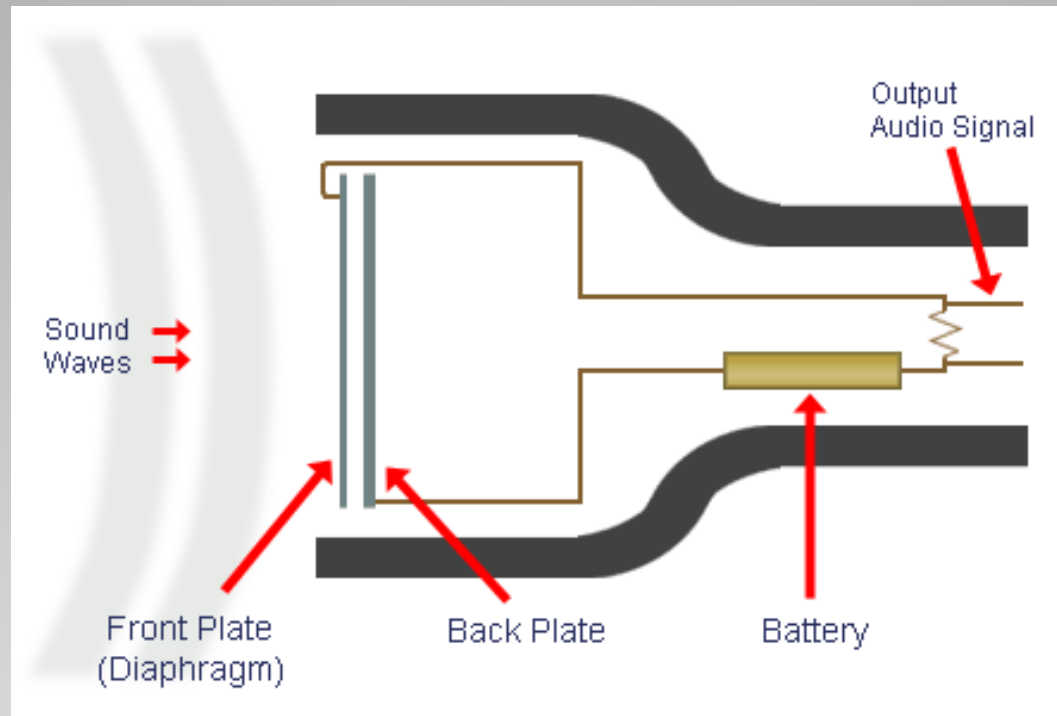


Condenser Microphone

Ribbon Microphone

- Ribbon mics are a delicate kind of dynamic mic. They produce a warm, smooth sound and are good for acoustic instruments, brass instruments and are often used on electric guitar amps.
- Some Ribbons Mics require phantom power and others do not. They are very fragile and easily damaged. They are usually a Fig-8 polar pattern.
- Examples: Royer R121/R122, Coles 4038, Beyerdynamic M160





How a Condenser Microphone works