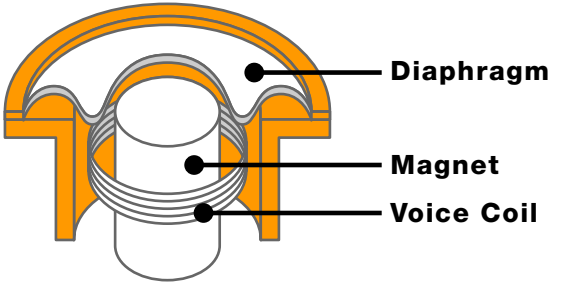
Dynamic Mic

Condenser Mic

The Shure SM58 is a dynamic mic

In a ***dynamic mic,*** a coil of wire is mounted on a diaphragm, and suspended in a magnetic field.



When the diaphragm is moved by the sound source the resulting fluctuations in the magnetic field create an electric current that travels from the mic to other devices in the audio chain.

Practical Considerations

The simple design is a cost-effective way of creating an audio signal, so mics tend to be less expensive. Dynamic mics are also more resistant to rough handling, humidity and temperature change. They can handle loud sounds and are nearly impossible to overload.

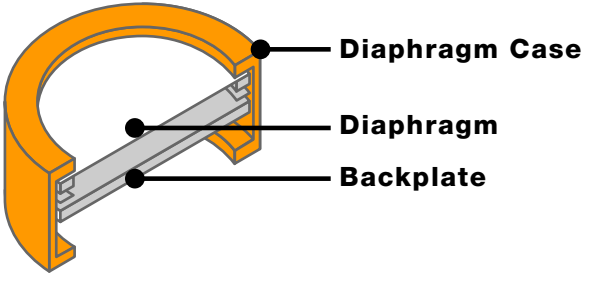
For more information about dynamic mics, click here.

Dynamic Mic

Condenser Mic

The Shure SM86 is a condenser mic

A ***condenser mic*** uses a very thin diaphragm that is placed one-thousandth of an inch from an electrically-charged backplate. When sound waves move the diaphragm it changes the spacing between them enough to create an electrical signal that corresponds to the acoustic sound wave.



Because condenser diaphragms have less mass, which requires less energy to move, condenser mics are typically more sensitive than dynamic mics.

Practical Considerations

While their more complex design makes them more expensive, these mics have a real advantage in theater because they can be made much smaller. They're easily hid onstage or in costuming. They also have a better frequency response and higher sensitivity, making them better for critical sound reinforcement applications and overhead or boundary miking techniques where microphones are placed further from the performers.

For more information about condenser mics, click here.