

Audio Connections - Mics and Patterns



Dynamic Microphone

This type of microphone works via electromagnetic induction. Inside the microphone is a diaphragm connected to a small coil. This coil moves inside the magnetic field of a permanent magnet. In turn a small electric signal is generated. This small signal is then amplified using a sound board or other amplifier to a usable level.



Lavaliere Microphone

This type of microphone is typically attached to the tie or shirt of the person using the mic. Lavalier mics are small and are used by people on TV because they are easily overlooked. They produce good sound quality without a large microphone being shown.



Cardioid Pickup Pattern

This type of pickup pattern is heart shaped. Audio is heard from the front and close to the sides. Very little sound is picked up from behind the microphone.



Condenser Microphone

This type of microphone uses changes in an electric current to produce a very strong clear signal. These microphones must have an outside power source also known as Phantom Power. The mic shown uses an internal 9-volt battery as its phantom power. The high quality signal produced by these microphones is the reason they are used in studios everywhere.



Omnidirectional Pickup Pattern

This type of pickup pattern captures sound from all directions. These microphones are very useful to capture audio from all parts of a room. Consumer video cameras typically use this type of pickup pattern.



Shotgun Microphone

This type of microphone is very sensitive and is used to capture audio at great distances. Its pickup pattern is narrow and long picking up very little sound from the sides.



Shotgun Pickup Pattern

This type of pickup pattern captures sound from a very narrow area. It also captures sound from a great distance. Very little or very poor audio is picked up from the sides or behind the mic.