

## **Different Types of Microphones**

There are many different types of microphones out there and choosing the right one for the job can be a bit confusing. Hopefully this article will help clear things up a little.

There are many choices available when it comes to choosing a microphone and different microphones can be used for various situations like podcasting, DJing, recording vocals and instruments in a studio, game streaming, and live performance, for example. Microphones are usually connected using an XLR cable or USB cable, or a combination of both. These are the 3 main types of microphones that are widely used these days:

1. Dynamic
2. Condenser
3. Ribbon

### **Dynamic Microphones**

Dynamic microphones can handle high volumes and are more resistant to feedback which makes them great for recording instruments like bass, guitar and live vocals. Dynamic microphones mainly accept sound coming at them from the front and do not easily pickup sounds coming at them from other directions, which is why they are so common for live vocals, as you would be singing directly into the front of the mic. This is referred to as a cardioid polar pattern. If you plan on singing live for a band or being a DJ then this type of microphone is your best choice.

### **Condenser Microphones**

Condenser microphones are very sensitive and pickup even very low sounds with great clarity. These microphones require a power source which is normally referred to as '48v Phantom Power'. This power source is provided on most audio interfaces that bridge the connection of musical equipment to computers. I personally use the Steinberg UR22 MKII for this. It is important to note that a condenser microphone that connects via a USB port does not require Phantom Power as it gets its power directly from the USB port. This type of microphone is ideal for capturing vocals in a studio setting and can be used for activities like podcasting, recording vocals and game streaming just to name a few.

## **Ribbon**

Ribbon microphones are not as popular as dynamic and condenser microphones but they are making a comeback. This type of microphone uses a light metal ribbon to pick up the velocity of the air passing through it. Ribbon microphones are typically bidirectional and pick up sounds from both sides. These microphones are great for producing warm low and mid range sounds which makes them ideal for the speaking voice and were the favorite type for radio broadcasting back in the early years of that industry.

The main thing that differentiates all these microphones is the polar pattern, which is basically the direction the microphone accepts the sound, or more specifically the sound pressure produced by the source of the sound. The actual internal electronic make up also varies between the different types of microphones which is why the sound reproduced by them has different qualities such as brighter highs or warmer lows.

Let's take a look at more specific uses of the different microphones. These are the preferred mic for various situations but remember there are always exceptions.

**Live vocals:** Dynamic cardioid microphone

**Studio Vocals:** For singing - Condenser microphone, for speaking – ribbon microphone

**Drums:** Dynamic cardioid microphones for snare, bass and toms, and small diaphragm condenser microphones for the hi hat, ride and other cymbals. These can actually be purchased as a drum mic package or kit which would include all the preferred mic types for recording the different parts of drums.

**Electric Guitar/bass:** Cardioid or hyper cardioid dynamic microphone

**Acoustic Guitar:** Large diaphragm condenser microphone

The Sound Hub carries a full line of Blue Microphones. We chose to feature these microphones because of their great quality, multitude of options for various recording or streaming situations and beautiful design.

I hope you have found this article to be informative and that it will help you decide which type of microphone to use for your various recording or performing situations.