Subject: Condenser & Dynamic Mics

Posted by Nymeria on Tue, 13 Mar 2012 20:56:09 GMT

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What do you like to use condenser mics for, and when do you prefer dynamic mics? Do you use one type more than the other and why?

Subject: Re: Condenser & Dynamic Mics

Posted by audioaudio90 on Fri, 16 Mar 2012 13:23:48 GMT

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It really depends on the situation. For example, I usually record vocals with a condenser mic, but if it's live sound reinforcement or depending on the particular vocalist, I may use a dynamic mic instead.

Subject: Re: Condenser & Dynamic Mics

Posted by Thermionic on Wed, 04 Apr 2012 05:15:34 GMT

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CONDENSER MICS:

Small diaphragm condenser - Overhead cymbal mics/drum ambience, recording acoustic guitar as the mic used over the 12th fret in a two-mic pair.

Large diaphragm condenser - Recording of vocals, acoustic stringed instruments, horns, and as the ambience mic when recording a guitar amp.

DYNAMIC MICS:

Diaphragm-type - Live vocals, live and recorded drums, live micing of guitar amps, horns, and acoustic stringed instruments.

Ribbon-type: Pretty much studio-only; certain very high soprano vocals, and direct micing of guitar amps. Also works great for recording mandolin and acoustic guitar in conjunction with a cardioid pattern large diaphragm condenser, in a stereo micing setup called a "mid-side pair." That is, if the room acoustics are really top-notch.

The right tool for the particular job depends on what you're needing to achieve with what you're micing. Small diaphragm condensers are very sensitive, fast, and uncolored, hence they're extremely detailed and accurate. But, that also means they tend to sound harsh and spikey when recording very bright or brash sounds. OTOH, large diaphragm condensers are smoother and warmer sounding than small diaphragm condensers, but also less detailed and airy sounding.

The low sensitivity and high off-axis rejection of unwanted sound sources makes dynamic mics the undisputed kings of live sound duty. For the same reasons (plus others), they also rule for micing drums in the studio.

Ribbon mics are slow and colored sounding, and they don't reproduce the microdynamics and complex higher harmonics of many instruments nearly as well as condenser mics. However, they sound very warm and liquidy smooth, which greatly reduces the brittle, glassy "edginess" of harsh and/or bright instruments like the trumpet, soprano sax, violin, certain guitar/amplifier combinations, very high soprano register female vocals, etc.

Thermionic

Subject: Re: Condenser & Dynamic Mics

Posted by Bill Wassilak on Wed, 04 Apr 2012 21:05:56 GMT

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I agree much of what Thermonic said, Ribbon-type: Pretty much studio-only, I'd only use them in a studio.

But I've blown them in live sound doing bright instruments like the trumpet, soprano sax, certain guitar/amplifier combinations, as well as some vocalists.

I'll never use a ribbon mic for live sound again in my book, I've even had some ribbon mic's if you drop them they wouldn't work anymore. That's how sensitive the ribbon diaphragm was in them. I hate ribbon mics.

Subject: Re: Condenser & Dynamic Mics

Posted by Thermionic on Sun, 08 Apr 2012 03:15:08 GMT

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Bill Wassilak wrote on Wed, 04 April 2012 16:05

I'll never use a ribbon mic for live sound again in my book, I've even had some ribbon mic's if you drop them they wouldn't work anymore.

Bill hit upon a true gold nugget of wisdom here, for anyone who may ever use a ribbon mic. Whatever you do, DO NOT DROP IT! Many times, it won't survive.

Another thing to remember is to make double, triple, quadruple, quintuple sure (then check 3 or 4 more times) that your phantom power is off before you plug the mic in. Phantom power will toast a ribbon mic.

Thermionic