ELECTRO-VOICE RE320

The voiceover king is now the king of kick.

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NEED TO KNOW

Price \$399

Contact

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Pros

Great on instrument or voice. Rugged construction. Two distinct frequency responses. Three-year warranty.

Cons

I really can't think of any negatives with this mic.

Summary

If you suspect you need a quality dynamic mic in your cupboard, the RE320 would be a very good choice. It's legendary for voiceover work, works particularly well on kick drums thanks to its tonal shaping and directionality, and is versatile on a wide range of instruments. My first real experience with the Electro-Voice RE20 was way back in the late '70s when I toured with Blood Sweat & Tears and used it on kick drum. Back then it was *the* mic of choice for bass drum – it was always on my production rider – and these days I own two of them. They're still in production today, of course, and EV must have sold countless thousands of them over the decades. Now the 320 has arrived, building on its parent's reputation as a genuine classic.

The original RE20 is a bit of an icon as far as dynamic mics are concerned. In particular, the mic has become synonymous with voiceover work and radio DJ'ing, so much so that it's prominent on at least two TV shows that include a radio station in the story line. There's a good reason for this, of course: it may well be the most commonly used announcer mic in radio stations the world over – it's looks, sound and shape are now literally inseparable from the role it seems! Here in Australia the RE20 sits pride of place at 2CH, MMM, 2DayFM and countless others.

AN ICON RE-BORN

The Electro-Voice RE20 and RE320 are the biggest largediaphragm dynamic mics money can buy, the RE320 being the newest generation of voiceover classic made by the longstanding US manufacturer. It's a little lighter, shorter and brighter than the RE20, and owing to its neodymium magnet, puts out a little more signal (a whopping 1mV/ Pascal). It's also black nowadays and comes with a switch on the body that tailors the frequency response of the microphone specifically for kick drums by giving it a considerable (if you'll pardon the pun) kick in the bottomend response. For so many years the RE20 has been used to mic up kick drums even though I'm pretty sure EV never anticipated its use in this role – now the new Chinese manufactured RE320 caters to the bass drum specifically.

Essentially flat from 100Hz to 4kHz, with a little dip at 4.2k rising +4dB at 5k, dipping down again at 7.2k and then rising again at 10k, the unadjusted frequency response of the RE320 is primarily tailored for voice pickup. When the 'kick switch' is engaged a different response curve is applied, which sees a rise at 125Hz, a dip of 4.5dB at 380Hz (à la your average engineer's kick drum EQ low-end shaping) with additional peaks at 2.8, 4.2 and 7.2kHz. This 'kick switch' effectively gives you two mics for the price of one (although it can't be in two places at once for obvious reasons). The polar response is also very even up to around 8k, which is very handy when you have less than ideal mic technique.

THE VARIABLE-D

Electro-Voice secured patents for 'Variable-D' technology way back in 1963 when it first introduced a range of mics featuring the technology and trademarked the name. Other mics in the range back then also included the RE664, the RE16 (hyper-cardioid dynamic), the RE15 (cardioid dynamic) and a couple of cheaper cousins (the RE10 and RE11). But the flagship model that has sustained throughout the years was the RE20, followed on years later by the RE27ND.

So what is 'Variable-D' exactly? Basically, by careful design of the rear entry ports on the body of the mic, EV was able to greatly reduce proximity effect common to directional

PROXIMITY EFFECT: FAULT OR FEATURE?

What happens with most directional mics is that there's a natural tendency for the sound to go around the mic and in the 'back door' ports that are there to aid control of the polar pattern – especially lower frequencies. The closer the source is to the mic, the more prominent this phenomenon becomes.

This is neither a good nor bad thing per se, although, technically speaking, this proximity effect distorts the source with added bass. Omni mics don't react like this of course, and in the end, the phenomenon just becomes another tool in an engineer's kit-bag.

A good sound engineer will take these (and other) factors into account when selecting a mic for a specific application. Some singers insist on having a mic that offers proximity effect as they can use it to form part of their sound. Proximityprone mics can be used to draw out the warmth on a thin guitar, fatten up bass amps and snares, even make a smaller kick drum sound bigger. Horn players dig them because they can use them just like the singer and if they need that little extra punch in the guts they can lean into the mic and bellow.

But broadcast audio engineers need a directional mic that has the least amount of proximity effect possible so that radio station DJs sound natural no matter where they work the mic. Voiceover artists generally have a natural beauty in their low-end registers anyway that doesn't require colouration.

microphones and provide a balanced and uniform frequency response up to 180° off-axis. This impressive capacity not only made the RE20 great for voiceover work, where DJs tended to move around a bit, in a rock 'n' roll setting where vocals were recorded live in a room full of loud instruments, the resulting off-axis spill into the vocal mic sounded natural, not horrible.

RE20 VS RE320

Now, onto to the inevitable comparison between these two mics. Even after all these years, I still regularly break out my RE20 to do corporate voiceover work. One of the main reasons for this is that my voiceover booth has a nasty standing wave in it at about 422Hz, and certain voices and vowels seem to exacerbate this annoying resonance. Consequently, I really need a voice to work the mic quite closely, and this is where the RE20 fits this bill perfectly thanks to its immunity to proximity effect. If I use a directional mic *with* proximity effect in the booth, I get an unnatural buildup of the low end, which obviously doesn't suit the mission at hand. I also often use the RE20 for tracking individual backing vocals for much the same reason.

I put up my trusty RE20 (which was re-conditioned by EV two years ago) and the new RE320 side by side and recorded several different sources. In all cases, I found the signal from the RE320 to be about 5dB hotter (as expected). On a simple voiceover, after adjusting for the gain differential, I listened to both mics in turn. The RE320 was much warmer and very pleasant to listen to. There was very little colouration at 90° off axis and it also seemed to handle transients a little better. The 'presence peaks' worked a treat too; offering more clarity than the RE20, while still retaining that signature 'RE' balance.

I also recorded a band using the 320 on the kick drum (surprise surprise) with the new 'kick switch' engaged. Wow! Normally, I'd be reaching for the input EQ during a tracking session and pulling and pushing frequencies here and there. With the RE320, however, it started out flat and stayed there. It wasn't until I got to mixdown that I need to make some tonal adjustments, and only then to make the kick and the bass fit together.

CONCLUSION

Microphones are very personal objects of audio desire, and like shoes, you can never have enough of them. Any working mic will deliver a unique sound that may (or may not) enhance a project, and unless you have several to choose from, you'll never know that 'Microphone X' was perfect for Johnny's tuba solo even though it cost 20 bucks and was deemed good for nothing. Choosing the right mic, placing it in a good space and having a great musician is the secret to delivering great results. Having said all that, if I only had two mics in my cupboard, the RE320 would be one of them.

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