

## SONODORE RCM-402 REVIEW

Review of Barry Hufker (a audio professional for more than 30 years)

A little known microphone is the Sonodore RCM-402. It is a small diaphragm pre-polarized omnidirectional condenser made in the Netherlands. I learned of the microphone several years ago when someone mentioned it in an audio forum. Trying to find out more brought me to Bert van der Wolf, the owner of North Star Consulting. Bert is an excellent recording engineer and equipment representative for many fine brands. Although he does not manufacture the mic., he had a hand in its development and continues to use a pair of them as the main mics for his recordings.

Manufactured in Holland by Rens Heijnes Audio Electronics, the RCM-402 comes in either silver or black. A special Mogami cable connects each microphone to a dedicated power supply providing 60v to the electronics. A High-Pressure version is available delivering 120v. The microphone clamp (RCM-402) is quite nicely made. Its rubber supports hold the microphone firmly while the clamp and angle are easily adjusted.

In addition to the standard "neutral grid," there are two optional ones. The standard grid can be unscrewed to be replaced by either the PG-78 with a frequency boost peaking at 17kHz, or the PG-88 which peaks at 20kHz. As with other omnidirectional microphones with interchangeable grids, each Sonodore grid has its own unique sound and application.

Since purchasing a pair of these microphones, I have used them with success in various circumstances. A Gordon Model 5 is my preferred microphone preamp and the Sonodores sound wonderful through it. I am confident the mics would sound great through any preamp although Sonodore's preamplifier (MPA-502) is a specially designed choice.

The first time I powered up the mic. pair, I was immediately struck by the cleanliness of the sound. They had no real noise of their own. The Gordon preamp is neutral and quiet. It reveals the true character of each microphone connected to it. When miking a chorus in a local church, I found I needed to move the 402s closer than I was used to with a pair of Schoeps MK2S. The 402s are truly omnidirectional, more so than any other microphone I use, including the DPA 4006. I used A-B stereo (spaced) microphones obtaining a rich, full choral sound with a great sense of space.

Although the sound was good, I quickly substituted the PG-88 grid for added treble response. When recording classical music, microphones are often placed at a distance greater than one would for jazz or rock so there is sometimes a loss in treble from the source due to air friction. The PG-88 helped make up for that loss. The long and the short is that I was extremely happy with the sound. The bass was full, the highs were crisp and the sound was clean. In comparison, the Schoeps MK2S was a little fuzzy and a little too warm in the bass. The 4006 was brittle in the highs having a midrange boost.

Acoustic guitar was the next test. John McClellan is a world-class guitarist. He was working on a CD dedicated to the late Chet Atkins, so the style of music and playing were in that vein. In fact, John was playing one of Chet's guitars. Applying the A-B technique, the microphones were about 2' away from the instrument. Listening to the Gordon's output, the sound was all I could hope for. It was clean, balanced, neutral (in the best sense), letting the character of the guitar shine through. As John played, I noticed each note had an extra "something." Not an edge or a grain but rather a fast response to each transient. The mic never exaggerated that quality, but captured it in such a way as to bring an added excitement.

As the session progressed, a bassist and rhythm guitarist were added. John switched to an electric guitar. I didn't want a "direct" electronic sound but something more in the tradition of the Atkin's recordings. I mic'd the amplifier with a Brauner VM1 KHE to create the tone. As he was the featured player, John was panned center with bass and rhythm on either side. I wanted a firm center image for him and a more spacious contribution from the other two players. I mic'd the bass and rhythm guitar in stereo, placing a pair of AKG C12As on the double bass with the 402s on acoustic guitar.

During the first run-through it became obvious the Sonodore's neutrality was now a detriment. The sound was so natural it wasn't cutting through on the track. The solution was equally obvious -- either get another microphone or EQ the 402s. A brighter microphone was a choice but it wouldn't have the 402s' great transient response. So I put a bit of frequency boost on the 402s. They took the EQ extremely well and sounded great! In retrospect if I had owned the PG-78 grid, that might have been a perfect solution. To avoid that problem in the future, I recently ordered it.

Whether piano, acoustic guitar, drums, percussion, harp, etc., the Sonodore RCM-402 is a "first choice". I believe it can sound great on anything whether you want the true sound of that instrument or want to process it into something new and different. To improve the 402 further, you might purchase the optional Siltech cable. Even with the Mogami cable, the 402 is easily one of the best purchases I've ever made. I believe it to be a must for anyone using omnidirectional mics. Just announced is the Sonodore CCM65 omnidirectional microphone, a compact version of the RCM-402.

There is no U.S. distribution.

To obtain more information and current prices, contact Bert van der Wolf at [www.northstarconsult.nl](http://www.northstarconsult.nl).

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Barry Hufker has been an audio professional for 35 years and a teacher for 27. He is an associate professor of Audio Production at Webster University, St. Louis, Missouri where he heads a four-year undergraduate degree program in Audio Production. He is also the principal of Hufker Recording.