

## Warm Audio WA-84, WA-251

### *Modern Recreations of Vintage Studio Microphones*

**R**ecognizing the need for affordable high-quality studio components in today's pro audio marketplace, Warm Audio has set out to replicate some of the world's most iconic recording gear. Among its many budget-priced offerings, the company recently has unveiled the WA-84 and WA-251 microphones—inspired by the Neumann KM84 condenser and the Telefunken ELA M 251E tube mic.

Warm Audio is not a “clone” manufacturer—since true clones are much more expensive to build—but they do use some of the same internal components. To keep costs down, the company assembles its products in China but imports boutique components that offer a higher quality than their Chinese equivalents.

Unboxing the two microphones, which look and feel nearly identical to their vintage counterparts, I was impressed with their quality. The build is first-rate and each is packaged with a sturdy metal shock mount. The WA-84 came as a matched stereo pair with two shock mounts and everything packed into a protective hard case, suitable for travel. The stereo pair sells for a \$749, with a single mic package available for \$399. The WA-251 comes with a shock mount, and the mic is encased in an attractive wooden box. The WA-251 also includes its external power supply box and all necessary cables for operation.

I first tested the WA-84, and since I am fortunate enough to own a set of vintage Neumann KM84s, a side-by-side comparison was in order. The original KM84, a 48-volt phantom-powered small diaphragm fixed cardioid pattern condenser released in 1966, was revered for its warm and detailed tone and was widely used on acoustic instruments, drum overheads and even amp cabinets. After careful comparison, I discovered the WA-84 to be nearly identical to the Neumann in both its tone and gain characteristics. I sampled the mic on mandolin, guitar, banjo and dobro and absolutely loved the results. It has a clear, yet flat, frequency response that produces a warm sound without adding undesirable color or harshness. Although I felt the vintage Neumann had a slight edge over the WA-84, they are impressively close in performance. Under the hood, a U.S.-manufactured Cinemag transformer and custom designed vintage-style capsule really add to this mic's magic.

The original 1960s Telefunken 251 ELA-M was manufactured via a

partnership between Telefunken and AKG, and it utilized the legendary CK12 brass capsule, which first appeared in the iconic AKG C12 microphone. Like the original, the WA 251 recreation (pictured) is a tube-driven multi-pattern large diaphragm condenser housed in a sturdy metal enclosure. To achieve the nuance of the original Telefunken, Warm utilizes a custom WA-12-B-60V brass capsule and a Slovak Republic JJ 12AY7 vacuum tube. Even the Gotham Audio power cable has been specifically chosen for its superior performance.

Tracking both female and male vocals, the WA-251 was absolutely wonderful, with smooth, lush and accurate results. It also shines on acoustic instruments and drums, adding some pleasing tube-driven color to the mix. Priced at \$799, the WA-251 is a truly versatile microphone that works great on vocals, acoustic instruments, brass and woodwinds, cabinets and even drums and percussion.

The WA-84 and WA-251 microphones would be valuable additions to any studio setup, whether you're a home-recording hobbyist or a seasoned professional. Warm Audio has done an amazing job of capturing the subtle nuances of classic pieces that are highly coveted but far too expensive for most musicians' budgets. Considering that an original KM84 will set you back about \$1,000, and a vintage 251 closer to \$30,000, you simply can't go wrong here.

—Keith Baumann



## WTS Artistry Series Drum Sets

### *Effortless Tuning, Resonant Tone*

**W**elch Tuning Systems has introduced an approach to tuning your drums that offers so many advantages over traditional tuning, you'll wonder how you ever got by before without it.

The Welch Tuning System is basically a cabled pulley system where the top and bottom heads are pulled against each other and are anchored by a big tuning peg on the drum (you don't need to use a drum key). When turning the peg (to tighten or loosen), both heads are affected at the same rate, meaning they both have equal tuning throughout the entire process. While the two heads are not at exactly the same pitch, they are pretty close, and each head changes pitch evenly with each turn.

Tuning your kit through wide ranges, quickly, is now possible without ever getting off your drum throne. And by “quickly,” I mean you can go up

or down an entire octave in about 10 turns of the tuner. So, tuning your kit for individual songs on the fly now is possible.

Once you have a chance to play WTS drums, a few benefits become clear. The first is initial tuning. Since the heads stay in tune with each other, and there is 90 percent less hardware bolted on to a WTS drum compared to a normal drum, the shells resonate easily and over a wide range. With this system, I found I could go way beyond any range I had tuned before (in either direction) and find multiple sweet, resonant spots. And all of this is possible in real-time. There is no criss-cross tuning of the drum, then turning it upside down to repeat. You literally play the drum, turn the tuning peg and decide what you want your sound to be.

Being able to tune between songs to match the style of the upcoming

song is another obvious benefit. You can crank the heads up for some funk, then bring them back down for some thicker backbeats on the next tune. In fact, tuning is so easy you can tune during a song if you have a free hand. This concept can add an entirely new layer to drum soloing.

A few different configurations of WTS drum sets are available, all with six-ply maple shells (made in the United States). I play-tested the bop-style kit from the company's Artistry Series, and while I usually like a 20-inch kick, the wide range of tuning options on the 18-inch kick made this a non-issue. For the 14-inch floor tom, I tuned it as low as it could go and it sounded like a cannon. This tuning system provides a wider range of sound than you currently have access to with traditional lugged tuning. And it's far easier to deal with, which will lead to new avenues of creativity.

One snare size is currently available, a 14- by 8-inch. It's a somewhat unusual size for a single snare offering, but I loved it. According to CEO Samuel Welch, "We felt the 8-inch shell really showed off the full range and versatility of WTS. It's amazing how many drums it can be: from high, tight and funky to low, fat and swampy. I've seen players from every genre find a sound they like out of that drum."

The Welch Tuning Systems concept is something you'll want to keep on your radar when considering your next drum purchase.

—Matt Kern

[welchtuningsystems.com](http://welchtuningsystems.com)



## Wyatt Wilkie Cento Archtop

### *Jazzy Feel With Gypsy Appeal*

As advancing technology continues to influence how we produce instruments, there are still those select luthiers who choose to stick with tradition, individually hand-carving each and every guitar they create. Wyatt Wilkie is one of those luthiers, and his obsession with the craft has driven him to build some truly stunning archtop guitars during the past two decades. His latest creation, the Cento model, pays tribute to the Selmer/Maccaferri guitars favored by gypsy-jazz players.

Wyatt offers several standard archtop models, and spends a large portion of his time creating one-of-a-kind custom builds. Each instrument is hand-built without the use of any automated machinery or laser cutting techniques. Even Wilkie's design are hand-drawn.

Wilkie loves putting his archtops in the hands of great musicians; however, he noticed that they were underused by guitarists in the gypsy-jazz idiom, a style that requires a guitar with a specific look and feel. That set him on a mission to build a gypsy-inspired archtop, and the Cento was born. With its name taken from the birthplace of Mario Maccaferri, who originally designed the guitars played by Django Reinhardt, this archtop exudes a distinct gypsy vibe while retaining a classic archtop feel and playability.

Much of the guitar utilizes standard archtop design and construction, and according to its maker, "It's really more of a vibe than anything else." The body features a 16-inch bout with a venetian-style cutaway and spruce top with flamed maple sides and back. The two-piece maple neck features a 14-fret, 25-inch scale and ebony fingerboard with an attractive inlay on the headstock. The binding is highly flamed maple and the guitar has an ebony nut, ebony bridge and solid brass tailpiece.

What gives the guitar its gypsy soul is the elongated oval soundhole, reminiscent of the D-hole Maccaferri guitars. The bracing also is a unique feature, with Wilkie's own "V" style pattern supporting the top. The pickup is a Kent Armstrong floating "Jazzy Joe" Johnny Smith-style humbucker with a basic volume and tone control mounted into the top.

Playing the Cento is a joy, and in my book, there is nothing like a hand-built instrument. The neck is comfortable and the Kent Armstrong pickup is smooth and clear. The guitar plays and feels very much like a standard archtop, but the large oval soundhole does offer up a slightly more open sound compared to a standard f-hole guitar. I tried the Cento with both

flat-wound and round-wound strings, and it sounded great with both. The acoustic tone is naturally wonderful on this guitar, and it could definitely hold its own playing through a microphone and strung with acoustic strings. Not only is this a beautiful instrument, but at \$8,500 it is extremely reasonable for a master-built guitar of this quality.

—Keith Baumann

[wilkiestringedinstruments.com](http://wilkiestringedinstruments.com)

