

DIALED IN

Zildjian

Gen 16 AE Cymbals

By Norman Weinberg

Several years ago, I wrote an article stating that I was a little worried about the current state of percussion technology. My point was that if percussionists didn't adopt new technological advances, companies wouldn't be motivated to move forward and create new gear. With all the great advances in this field that have emerged in the last year or two (and some that are coming down the pike right now), my fears have been cast away.

Even acoustic juggernauts

are now starting to flex their technological muscles. Zildjian, whose roots date back to 1623, is jumping into the 21st century with both feet. We recently reviewed the company's Gen 16 sound library, and its new AE (Acoustic Electric) Cymbal System is totally unique in the market. It sets a new era for both Zildjian and cymbal technology.

THE SHORT STORY

In a nutshell, the AE system consists of a set of real cymbals that have been altered so that they make very little acoustic sound on their own. When played, their sound is picked up by special microphone sensors and processed electronically, essentially turning acoustic cymbals into electronic instruments. Read on to see more details about the system, how it works, and how it sounds.

THE NITTY GRITTY

The plates themselves are actual cymbals. There's no rubber, no plastic, no Plexiglas, no foam. What makes these plates so very special (and so very cool looking) is that they are perforated with what must be thousands of tiny holes in a special, highly organized pattern. By breaking up the continuous metal with all those holes, the acoustic volume of these cymbals is reduced substantially. Without

any amplification or connection to the brain, the cymbals could be a nice addition to a practice pad kit. If you're using the AE system the way in which it was intended — as a companion to an electronic drum kit—the acoustic sound is perhaps slightly more than mesh pads and about the same as rubber pads. In other words, these cymbals are not likely to wake the neighbors or your housemates.

The set I received for review included a pair of 13" hi-hats, a 16" crash cymbal, and an 18" crash/ride cymbal. Along with the plates, the system includes everything you'll need to make it all happen, including the special sensor pickups, the necessary cabling, and the special processor.

Each cymbal has a custom-built, dual-element microphone that sits on the cymbal stand, just below the plate. There's one for the ride/crash, one for the crash, and one for the hi-hats. The custom microphones pick up the acoustic vibrations of the cymbals and send the signal to the DCP (Digital Cymbal Processor) brain. According to the information provided, these dual-element microphones are not to be used with normal acoustic cymbals, and will "only work when connected to the AE Digital Cymbal Processor using Gen16AE System cables." If you're a tinkerer, you may want to try using these mikes in other ways, but I stayed between the lines and didn't try to do anything that might damage the mikes.

HOW IT WORKS

Once the plates are connected to the DCP, the magic begins. The DCP treats the acoustic signals to specialized processing that can make the cymbals sound smaller or larger, brighter or darker, more aggressive or more subdued, etc. While the processor changes the color of the sounds, there's no

question that the original character is pure and natural cymbals. Each cymbal has 20 different preset sounds.

The DCP is simple to use and should be totally obvious even to the novice user. On top of the box are five "tone shape preset control" buttons that correspond to the five available inputs. When you want to switch between presets, you press the up/down buttons. That's pretty darn straightforward. Each channel also has its own channel volume and R/L pan control. That's it. Three controls for each input.

In addition to the individual channel adjustments, there are four master level adjustments. These are used to control the headphone level, the master reverb level, the blend between your electronic kit and the AE system, and the master audio-output level. Again, simple as pie.

At the back of the processor are most of the inputs and outputs. Five cymbal inputs means there is room to grow your rig as you feel necessary. If you need more than five, you can even gang two or more units together. There are additional inputs (L/R phone jack) called "drums." The idea is that you can plug your electronic kit into the AE unit and blend the balance between the two systems before sending out the final mixed signal through a stereo output (also L/R phone jack). The front of the processor has an aux input, and a headphones output (both mini-jack). The simplicity of the unit and the ergonomics are well planned and executed.

I KNOW WHAT YOU'RE THINKING ...

Do they trigger accurately? Well, since the instrument's sound is based on the actual acoustic sound of the vibrating metal, they don't actually "trigger" anything.

Do they respond to soft dynamics? Yes. No matter how soft you play, the microphone

DETAILS

LIST PRICE \$1,249

INCLUDED

13" hi-hats, 16" crash, 18" ride, power supply, mounting bracket, cables, cymbal sleeves, cymbal felts (foam), hi-hat clutch.

FEATURES

MICROPHONES: 3 Dual-element

DCP INPUTS: Five cymbal inputs, Stereo Drum inputs, Stereo Aux input

DCP OUTPUTS: Stereo output, Stereo headphone output

DCP INDIVIDUAL CONTROLS: Preset up/down, Pan, Volume

DCP MASTER CONTROLS: main volume, mix volume, reverb amount, headphone volume



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gen-16.com

A GIANT LEAP FORWARD



system will "hear" the stroke and send it to the processor.

Can you hear the differences between playing on the edge, bow, and bell? Absolutely! In fact, the system catches nearly all the subtle changes that are produced by altering your playing position.

Can you play with brushes? Yes. Changing the striking implement does actually alter the sound of the cymbals. Brushes are actually pretty soft and you may get a better result by using rods. Soft mallets work just fine.

Can I use these electronic cymbals to trigger sound effects and other samples? No. The AE system doesn't generate or output MIDI messages. It only generates and outputs audio.


Can I create lots of special effects with these cymbals? Not really. Don't expect out-of-this-world, crazy effects. In every preset, the cymbals will sound like cymbals. However, you certainly could add enough additional outboard processing to create some totally unique sounds.

PROS

There is simply nothing else like it on the market. The blend between acoustic and electronic is something special, and potential advantages for both recording and live performance are numerous. The instruments play and respond like real cymbals because they are real cymbals. Having 20 presets per cymbal means there is a boatload of different combinations of colors you can create. A very hip, soft blue light glows on each of the microphones. I love this. If you don't want the

light, the unit can be used without it, but why would you not want the light?

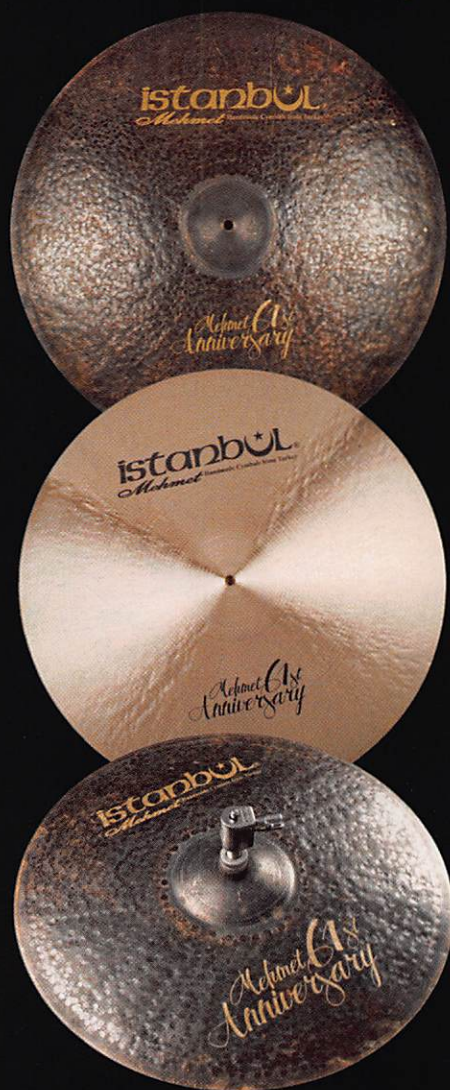
CONS

Since the system uses microphones, there can be a little bit of bleed from other sound sources. You'll have to try them out on your own to see if this is bad enough to cause problems. For me, it wasn't much of an issue. Certainly, the amount of bleed would be substantially more with "normal" microphones. The cables supplied with the AE system are special. They look like a typical stereo mini-plug, but they actually have three connectors rather than two. I worry that if a cable should break, it might be difficult to replace one on short notice. 

VERDICT

The unit sounds really good. I would be surprised if you absolutely loved each of the 20 presets on every input, but I'd be equally surprised if you didn't like most of them. An instrument's tone — especially a cymbal — is a uniquely individual judgment. The character of an artist's cymbals is arguably the most important aspect of his/her musical identity. There's no question that the AE system responds and functions well. To hear if it's going to fit your identity, you'll need to audition a system at your local music store. If you use an electronic kit, or play in large venues where you normally add microphones for your cymbals, you must audition this system. It may be just the ticket.

Mehmet 61st Anniversary



61st Classic Ride

Small very smooth bell bridge, dark and limited overtones, woody stick definition.

61st Vintage Ride

Small very smooth bell bridge like a classic model, but this unlathed cymbal has a darker, warmer and drier sound.

61st Vintage Hi-Hat

Very dark, warm, vintage sound like the old Turkish cymbals.



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