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Radio World

Aphex 230 Makes 'Big Radio' Voice

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LOS ANGELES I have worked with Michael Reagan for almost 10 years, first at an independent station in San Diego, moving to Premiere Radio in Sherman Oaks, Calif., and now at his own facility in Encino, Calif. During that time I have experimented with a number of microphones and mic processing approaches to help give Michael's voice a bigger "radio" sound.

I was immediately impressed with how open, warm and transparent the unit sounded. The tube mic preamp uses the Aphex patented Reflected Plate Amplifier technology and with its excellent headroom and audio fidelity, it exceeds the performance of most mic preamps found in mic processors or mixing consoles, as well as most of the standalone mic preamps available in the broadcast market.

The Logic Assisted Gate works so well that it seems that it is not on—until you realize that the normal background noise of the studio is essentially gone. And because it is so effective, the mic can be worked from farther away, thus making it easier for the voice talent to work the mic.

Michael's voice is not very sibilant, so the de-esser is not an important feature for him. Using the 230 on another voice that has sibilance, I found it to be effective in taking the edge off the ess's.

There is a separate section on the front panel for the Big Bottom, Aural Exciter and parametric EQ. The Big Bottom adds greater resonance, deeper lows and bass presence without adding muddiness. The Aural Exciter adds clarity, depth and mid- and high-frequency



This has not been easy, as his voice can be thin. He has a habit of working too hard to achieve that bigger sound, which can eventually cause his voice to be strained and become even thinner. In addition, the typical talk show host has lots of material spread across the desk along with several computer monitors. Reading from a monitor or reaching for a paper makes it difficult to work a stationary mic with any consistency.

After trying several different mic options we settled on a high quality headset mic to give Michael the freedom to move around his desk without worrying about having to work the mic. We combined that with the Aphex 1100 Mic Preamp and the Aphex 661 Expressor, which sounded quite good. But that combination is \$3,300 retail (without the mic); and it still did not answer all the processing that was needed to improve the sound of Michael's voice.

Donn Can Help

I am a big fan of the all the Aphex products and Donn Werrbach, the company's chief engineer. When I saw many of its technologies plus some new twists all in one package, I was anxious to try out the 230. I leaned on them pretty hard and was able to get one of the first production units.

The 230 is a combination of a tube mic preamp, Easyrider automatic compressor, Logic Assisted Gate, split band de-esser, Big Bottom, parametric EQ, and Aural Exciter. It has an XLR input and has five outputs, all of which are active — +4dBu analog output on XLR; -10dBV analog output on TRS; digital AES on XLR; SPDIF on RCA and optical on TOSLINK. It also has an insert I/O on TRS for additional processing and word clock I/O on BNCs.

There is a 1/4" TS connector for the cough switch soft mute. The power supply utilizes a switch mode that will work from 80 to 280VAC at just about any frequency. All of this in a single space 19 inch rack mounted unit.

"The 230 incorporates the features of five or six standalone audio devices that would cost many times the price if you were to purchase them separately — and they still would not work as well as this feature packed, easy-to-interface mic processor."

One of the biggest problems that I have found with other mic processors is the clip level of the mic preamps most processors utilize.

Even without further processing, voices appear cleaner and bigger with this mic pre. The phase rotator is properly located in the mic preamp stage. If a particular voice has lots of asymmetry the phase rotator can be engaged from the front panel and disengaged if the voice or other source does not have asymmetry.

I have often had to disengage this type of circuit in final processors as it can result in unpleasant artifacts with music and other symmetrical audio sources. In my opinion, the proper location of a phase rotator is in the mic channel and not all voices need to utilize it.

The Easyrider compressor controls levels without pumping, breathing or dulling. It does not choke or pinch off the leading edges of the signal. The release time can be slower for a more open sound or can be sped up for a fatter, more "in your face" sound. The threshold of the compressor is fixed so the way to increase the amount of compression is increase the input gain into the preamp. Once the 230 is properly set up, it is almost impossible to clip or overload itself or following audio stages.

presence. I use the EQ and Aural Exciter on Michael's voice to add some mid and low bass fullness.

The 230 processes the audio so that downstream limiters are not forced to work hard. I have used other mic processors that can have lots of DC offset, creating pops and clicks on air. I have not heard this at all from the 230.

Consistent Presence

Altogether, the unit gives Michael that big radio voice he has been searching for without changing his vocal character. And, most important for him, he can concentrate on what he is saying rather than worrying about how he sounds. Michael now has a consistent, big presence on the air.

Before I had the 230 I had to run unbalanced audio lines in and out of the insert point of the console to do a cough switch, in order not to interrupt the phantom power of the headset mic. The cough switch on the 230 is a simple contact closure to ground and works well without adding noise to the audio.

Because the 230 has multiple simultaneous analog and digital outputs, it is suited for applications such as remotes where the ISDN codec could be fed digitally directly from the mic preamp. It also can be used directly into an off-air telephone-recording device with no extra hardware; or direct into a digital audio workstation. While I have not yet used the digital outputs, it is good to know that I would be able to connect to any system without any additional interfaces.

The 230 incorporates the features of five or six standalone audio devices that would cost many times the price if you were to purchase them separately — and they still would not work as well as this feature packed, easy-to-interface mic processor.

The Aphex 230 retails for \$799.

For more information, contact Aphex in California at (818) 767-2929 or visit www.aphex.com.