## Terry Lawless

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**Merging Music and Math to Program for U2**

Behind every supergroup are great techs and programmers like Terry Lawless, who supports U2 from the studio to the stage. Lawless laid his foundation in Iowa, studying performance, music education and mathematics in college while playing single and double reeds in both academic bands and combos. He soon started pursuing piano as well, drawing on his mathematical background to master the synths and effects of the day. This firm grounding in electronic music technology gives him tremendous appreciation for today's powerful virtual instruments.

**What projects are you working on?**

Right now I'm in the middle of working with U2 and company on the newest CD release. When I am off the road and not gigging locally, I can always be found in my production studio in Santa Maria. I write for two music production libraries, one in London and one in Philadelphia. Of course, I have also been adding session work in the studios around the Central Coast and, more recently, vintage keyboard sessions over the Internet.

**How did you get started as a touring keyboard tech?**

I got to Los Angeles with degrees in music and math in 1983, the year that the Yamaha DX7 hit. Programming with relationships of numbers made perfect sense to me and I started to get a lot of programming work. A good friend of mine, Todd Grace, was moving from a technical position with Barry Manilow to a playing position in the band and got me the job as the technician. I got my hands on every synthesizer I could and read every scrap of paper about programming. The rest is just application and honing. The jobs started to become very steady.

**What M-Audio gear are you using on the road with U2?**

I use M-Audio USB keyboards for extra keys. In the show, two of the U2 principals can be seen using an Oxygen8 on stage to play some parts with MIDI wireless to my rig. For special TV appearances and hotel room work, I use a laptop with the FireWire 410 interface. I also use the BX8 monitors when editing.

**You also use the KikAxxe and TimewARP 2600 virtual instruments by Way Out Ware. What are your impressions?**

Both of these emulations are as exact as I have ever heard. The oscillators on both have absolutely no aliasing and extra garbage when you play extremely low or extremely high. They are the best. The addition of the step sequencer into the KikAxxe was a stroke of genius. I mostly use it to add step filtering into a sound, but the arpeggiating and retriggering makes a great palette from which I "paint."

**How do the Way Out Ware software instruments compare to their vintage counterparts?**

I own both an ARP 2600 and an ARP Axxe. I can assure you that these emulations are absolutely perfect! Every knob, every function seems to react exactly the same as the original instruments (except, of course, for the additional features). I am back in the '70s all over again!

ProKeys Sono Series
A Closer Look

MX Core DSP technology
A Closer Look