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Subject: OT - AKAI AX73 Keyboard

Posted by [Stephen Stecyk](#) on Tue, 06 Jan 2009 02:40:48 GMT

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Just curious if anybody knows of a soft synth out there that emulates this particular keyboard. There's a patch that I would like to use, but the volume slider is dirty, and no matter how much I've attempted to clean it, it adds a "scratchy" background sound, which I obviously do not want.

Thanks a bunch!

Stephen

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Subject: Re: OT - AKAI AX73 Keyboard

Posted by [audioguy\\_editout\\_](#) on Tue, 06 Jan 2009 03:33:55 GMT

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You could always open it up and hard-bypass the volume control by removing the slider and adding a jumper (if a replacement part can't be found). Just jumper it full out.

David.

Stephen Stecyk wrote:

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> this particular keyboard. There's a patch that I would like to use,  
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> Thanks a bunch!

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> Stephen

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Subject: Re: OT - AKAI AX73 Keyboard

Posted by [Jamie K](#) on Tue, 06 Jan 2009 05:56:16 GMT

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Based on the description at [sonicstate](#), it seems like it uses a fairly simple subtractive synth architecture:

From [http://www.sonicstate.com/synth/akai\\_ax73.cfm](http://www.sonicstate.com/synth/akai_ax73.cfm)

"The Akai AX73 is practically a MX73 master keyboard (minus some controller features) added with 6 voice polyphonic analog synth. I

believe VX90 has exactly the same sound generating circuitry, which is based on Curtis CEM3394 chips (the same as in Sequential's Six-Trak and Max).

The voice is pretty basic, we have 1 VCO, VCF, 2 ADSR's 1 LFO and 1 VCA per voice. There are some interesting parts, though. The VCO's have triangle, sawtooth, variable pulse (with PWM) and a composite waveform of saw & triangle. The PWM actually works with any of the waveforms, not just pulse, which provides a little more sonic variability. The VCF is a 24dB/octave resonant lowpass and self-oscillates quite nicely. Keyboard tracking goes well beyond 100%. The VCO can modulate VCF which is great for ring-mod effects and suchlike. VCF cutoff can be modulated by bender and keyboard velocity, which is one of the best features in the synth. There's also a non-time-variable highpass filter in series with the lowpass filter, which is nice. The two envelopes can modulate VCF, VCA and/or VCO pitch. The lone global LFO is shared by all voices, but has plenty of waveforms, including triangle, up/down saw, pulse and random (sample&hold). There's also a built-in 2-position chorus effect, which is pretty noisy.

Keyboard assing modes include poly, dual and unison, with 1, 3, and 6 oscillators per note, respectively. Adjustable portamento is available in any of these, but it's always monophonic."

End quote

So you could probably create a similar patch with any soft synths that include a suitable subtractive synth architecture, such as Zebra, Pro53, Reaktor, Massive, ES2, ESX24, the Arturia synths, etc. All these and more, while not directly emulating the AX73, offer a superset of what the AX73 does.

Cheers,  
-Jamie  
[www.JamieKruz.com](http://www.JamieKruz.com)

Stephen Stecyk wrote:

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