

Leapwing RootOne

NIGEL JOPSON loves that low end



All right, I admit it, the first time I fired this plug-in up I was addicted. First, an admission: I was the sort of engineer who thought 'tightening up the bass' meant selecting bell rather than shelf on an EQ. It was only after watching production pros whose background owed more to the turntable and dance floor rather than drums and guitar that I began to realise I needed to up my game. The problem is, the very granular process of laboriously combining minuscule elements of audio and layering low-end sample on sample is a rather opaque process to someone who thought a dbx 160 might do the job. Anyway... I've tried them all, those subharmonic synthesisers.

As most of us have discovered, no 'magic box' will overcome the laws of audio physics. Some plug-ins generate sounds an octave lower than the input, others try to trick your mind into thinking lower pitches exist. Apart from a few felicitous accidents with such devices, I've always ended up with mud in my mix. After that initial euphoria of feeling the key has been found, there's the tedious realisation that it's more a case of a trade-off. The problem is, most of the controls and processing on bass-enhancing plug-ins are far too coarse.

Leapwing have something of a track record of taking the ordinary and making it extraordinary. "You will not find us creating analogue imitations", the Belgian developers wrote on their website when they release CenterOne, a parallel centre image processor to shade typical 'spatial' plug-ins (review *Resolution V17.3* by Bill Lacey). They went on to work similar magic with multiband compressor DynOne, and stereo enhancer StageOne (reviewed *Resolution V17.5* and *V18.1* respectively, by Piper Payne).

All your base are belong to us

Now it's my turn! I dove in to heft-up my pathetically deficient recordings, using the clean and logical UI Leapwing have made their trademark. There are three faders (Sub, Thump, Punch) with adjustable crossover frequencies (32-56Hz, 62-104Hz, 110-196Hz). Perhaps the most important aspect of sub-synths is actually understanding how you are fuzzing up your audio, and the RootOne has solo buttons underneath each fader to help



/ RootOne lowers bass-anxiety and stress

with this. Alt-clicking on a solo button resets every solo button, but I found myself occasionally wishing for a mute button above each fader so I could hear small adjustments in context.

Underneath each fader are Drive, Dynamics and Decay adjustments. With a short decay and transient material, the sub frequency will decay faster and won't get in the way of musical dynamics: a nice UI touch is that clicking on the values beneath the faders makes a popup with a slider open, which allows faster adjustment. Dynamics is based on the amplitude tracking of the original signal, offering some element of extra control over the new low frequencies in each band. Drive is perhaps the most interesting extra control, as it acts as a post-fade send to the fourth fader, Harmonics Saturation.

Instead of generating new sub frequencies, the Saturation channel generates new harmonics above the root tones of the input signal. The 'sends' from the other three Drive controls are mixed-in to the Saturation channel. RootOne is going to be used by some producers with just the Saturation fader up! It really adds something extra to some instruments, and there's a low pass filter, adjustable from 100Hz-1kHz to tame the Saturation output if it gets a bit 'buzzy'. I found myself using just the Harmonics fader on a rather plain Fender Rhodes. Cranking the Drive and Color, and setting the Low Pass to 450Hz transformed the e-piano into more of a 'Rhodes suitcase' vibe, without going the whole hog and putting the channel through an amp-sim.

Harmonics above as well as below

The Harmonics channel can also play a really important role in conveying the 'impression' of burgeoning bass on small speakers, particularly with kick

drums and the like. Anything more than 50 on the Drive control really brings-on the 'my boom-box speakers are blowing up' effect of cone distortion, whereas single-digit drive adds a more subtle thickness — but still vibey even on the smallest of computer speakers. Next to the Leapwing logo there's a very handy full bypass switch that maintains the plug-in latency, vital for checking in the mix.

A and B memories automatically store settings as you adjust, and undo/redo buttons are welcome in a plug-in with so many variables. RootOne comes with a selection of presets which provide good starting points, and 'Electric bass thick' became one of my favourites. I found RootOne most valuable on instruments which either had no bass at all (like a thin Stratocaster) or recordings with plentiful bass...but which really required different colour. The plug-in was very clever at bringing out those 'overhanging' drum skin tones from natural drums, and really excellent at enhancing the heft of electronic drums.

With some subharmonic bass plug-ins, there's definitely the feeling that you're somehow upsetting the phase relationships of your audio to get a cheap boom, but RootOne remained phase coherent as I experimented on a variety of different music. Just don't get lazy and slap it across the stereo bus with the 'Beef Up Mix' preset. Because that would be cheating...wouldn't it?!

RootOne is going to be worth every penny of its £179 to audio pros who (like me) have always had a bit of bother with their bottom end. Thanks to Leapwing, we can now be experts, even if our baseball caps have bendy brims. I found it particularly useful with electronic drum loops and basses, an area where too much processing with EQ and saturation often results in a floppy mush. As with CenterOne and StageOne, Leapwing have taken a process which is often relegated to the status of gimmick, and transformed subharmonic synthesis into a useful and very professional tool with RootOne. **T**

resolution/VERDICT

PROS We finally have a professional subharmonic generator, versatile enough to be used with any genre, which preserves phase coherence.

CONS I'd like mute as well as solo buttons on the faders. Next version?

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