

Waves Vintage Aphex Aural Exciter

Aural excitement has been part of ordinary folks' sound palette since the 80s and plug-ins have followed. In typical fashion, Waves has found a rarer and more special original to excite **GEORGE SHILLING** with.

When Curt Knoppel invented the Aural Exciter and went into business with Marvin Caesar, they founded Aphex and set about a rather unusual marketing model. It was 1975, and the Massachusetts firm decided that rather than selling outboard units, they would save themselves the bother of mass-production by making units available on a strictly rental-only basis. The charge for rental was \$30 per minute of finished recorded time. Whether this strategy was chosen to protect their design secrets, or to advance the air of mystery surrounding the processing, or to maximise profits [*All the above. Ed.*], I don't know. Secrecy was certainly part of it — components were potted. But it probably succeeded in all those areas to a certain degree, and made legendary a product that is still highly regarded and widely used today. The Aural Exciter was so popular with the LA recording scene that the company relocated to Hollywood. John Paul Jones of Led Zeppelin is quoted as having used a 602A model with his Steinway grand piano in those early few years, and Trevor Horn was pictured with a unit in his Buggles days. With the session fees paid, credits appeared for the unit on the record sleeves of albums by Jackson Browne, James Taylor, and Linda



Ronstadt whose 1976 *Hasten Down The Wind* album stated 'Mixed with the Aphex Aural Exciter'.

It is rumoured that the Aural Exciter's psycho-acoustic treble enhancement was invented when the designer chanced upon a faulty chip on one side of the mix bus, which caused the effect when monoed. He then reverse-engineered the circuitry to find what was happening. The effect is seemingly achieved by frequency-dependent phase shifting, i.e. controlled distortion of certain frequencies to generate harmonics. The popular 602 models were 2U black rackmounted boxes with large VU meters; the earlier 402 even had valve circuitry. In 1981 the Aphex II was available to buy, and broadcast models also

became available. In the 1980s the Type B and Type C models were launched as rather more compact and affordable 1U models which were simpler to operate. The concept continues to this day, with Aphex now combining the circuitry with other processes such as its Big Bottom bass enhancer in hardware devices. A long-available Digidesign plug-in replicated the effect in TDM format, and various other manufacturers have licensed the circuit, including Yamaha and E-mu. The process has even been used to increase intelligibility for emergency PA transmissions over bandwidth-limited systems for those with hearing loss.

This new Waves Aphex Vintage Aural Exciter licensed from Aphex is rather different from the earlier plug-in, in that it goes back to the earliest examples of the Aural Exciter, modelling the rare 402 prototype valve unit. The plug-in is available in TDM (US\$500) and Native (\$250) formats. Ongoing Waves Update Plan charges apply as usual. Of course, Mercury bundle owners get this free. All formats provide mono and stereo versions of the plug-in. Installation and authorisation is similar to other Waves plug-ins, iLok authorisation involving logging into your Waves account to deposit the asset.

The plug-in opens in a large window, with the familiar Waves bar at the top. The front panel recreation is superbly done, with the black finish lightened to a dark grey which is rather easier on the eyes.

There are relatively few controls, but it's not entirely obvious from the labelling exactly what is happening, so some manual reading is required. The first thing to understand is the Mode switch. BP is bypass, modelling the original unit's bypass behaviour. Even with no aural excitement, Bypass mode is a bit of a secret weapon, as it enhances with a touch of analogue valve gain stage emulation. It's very subtle, but there is a little bit of 'glow' added when this is inserted. In combination with the continuously variable AX Mix control, other modes provide a couple of different possible scenarios. These have been provided due to the idiosyncrasies of the phase behaviour of the original unit. The unit's own bypassed signal has its own phase response, which although not fully reversed, has a distinct effect on the signal, affecting the sound when used on a send and return. However, DAW users will commonly place the unit on an insert.

To simplify operation and provide insert and send modes of operation without rerouting, Mix 1 mode emulates the sound of the original unit's behaviour when set up on a send and return on a console, while Mix 2 provides the original's insert mix (wet/dry) behaviour. The AX Mix control is labelled 0 to 10, but when adjusting, a digital display pops up enabling accurate setting to two decimal places. In Mix 2 mode, there is barely any audible treble enhancement at all from settings of 0 to 4.5, between 4.5 and 7.2 there



is a dip in high frequencies, at the upper end of this there is what sounds like a telephony mid-boost, sweeping up to a very high frequency boost at 10. Mix 1 mode acts a bit more predictably; a gradual increasing enhancement of upper frequencies occurs along with a perceived element of frequency sweep as the AX Mix knob is turned up. A fourth mode labelled AX isolates the enhancer part of the signal for use in a traditional send-and-return arrangement. This disables the AX Mix knob. However, it provides a much more dramatically thin sounding signal than either of the mix modes with the knob up full, suggesting that the AX Mix knob adds enhancer to the signal rather than acting as a true wet/dry control.

Input and Output gain knobs, each with +/-18dB gain provide a wide generous leeway for valve circuitry driving and output trimming. Waves has also modelled the unit's noise (hiss) and mains hum, with an overall level control and the option to switch hum to 50Hz, 60Hz or Off. I'm not convinced this is useful

or desirable in any plug-in, although I confess there was something nice about the Hiss knob on the (analogue) AnaMod ATS-1.

For lead vocals, this process has a magical effect in lifting the singer out over the mix, even when used fairly subtly. I used to also enjoy using a Type B or C to enhance a lacklustre bass guitar, turning the Tune knob to the lower end of its frequency range for some nice mid-range vitality, presence and honk. I still do this with the Digidesign plug-in, and here the subtle drive of the valve effect along with a tiny touch of excitement certainly lent a slightly papery plectrum bass guitar recording a nice touch of rich warm glow, and a welcome bit of extra clickiness. These were subtle effects, but all helped to make things sound a bit more 'analogue' and open.

Irritatingly, the mouse pointer disappears when you click and hold a control, and this makes it difficult to judge the amount of scrolling required to operate the rotary switches in particular. But other than that the plug-in was problem-free and great fun to use, with fabulous results instantly achieved. ■

PROS

Thoroughly analogue-sounding enhancement; sometimes magical enrichment for lifeless signals.

CONS

One must budget for WUP; needs to be used sparingly.

Contact

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