

EVENTIDE H7600 ULTRA HARMONIZER

When you're after superlative effects processing, outboard gear from Eventide is still very hard to beat.

Text: Brad Watts



► Eventide began life in the mid '70s, designing and manufacturing delay units for the broadcast industry; or, more specifically, 'profanity delays' for the broadcast industry. What's a profanity delay you may well ask? A profanity delay is simply a long time delay used by a radio station to delay the broadcast by 20 or 30 seconds. If the station has to deal with a caller or a guest that can't help themselves but swear and cuss, the presenter can quickly interject the 'live' interview with a promo or jingle before any colourful language can make it to air. Previous to digital delays, the task was done with two tape machines, one for record and the other for playback. The problem with these contraptions was getting the two tape machines far enough apart to cause a reasonable delay time, usually around seven seconds, while still being able to shuttle a loop of tape safely between them. It's still a great business to be in for Eventide. Recently the America's Federal Communications Commission increased the fines for broadcasting obscenities to unprecedented figures, prompting broadcasters America-wide to invest heavily in profanity delay devices.

Offshoots of Eventide's DSP processing systems have resulted in classic broadcast devices, such as the 'H' range of harmonisers, beginning with the renowned H3000, introduced to the world in 1988. (The previous H9k series pales in comparison to the 3000-plus series but was at the time the cutting edge in pitch shifting.) Besides being a stalwart of the broadcast industry, the H3000 remains an unofficial studio harmoniser standard to this day – sure it may be 18 years old, but such is its continuing popularity it is a tribute to the sophistication of the Eventide design philosophy. An H3000, like the entire H line, can be upgraded to include more recent operating systems and effect algorithms – a rare asset indeed.

The most recent hardware incarnation of the lineage is the H7600, a stereo version of the company's flagship, multi-channel H8000FW. According to Eventide, the H7600 is the 'most powerful stereo DSP processor available to date, bar none'. With a passing glance you could quickly mistake the H7600 for any Eventide harmoniser. The super kitsch (and annoying) telephone layout keypad and jog wheel have been central components of the Harmonizer interface since '88, but lurking underneath are mammoth gobs of cutting-edge grunt. Now, just because these machines are billed as 'harmonisers' doesn't imply that pitch shifting is their only trick. Dealing with any time-based effect creation

is the Harmonizer's forté, but it also boasts filtering, compression, distortion and mouth-watering reverb as well. In fact, any effect you're likely to need is possible with the H7600.

ALL THE I/O

Like Eventide's Orville and the DSP7000 before it, the H7600 is completely 96k-compatible with ample provision for digital I/O – wordclock in and out, coax S/PDIF in and out and AES/EBU I/O. Older Harmonizer machines could run at drop-frame sample rates such as 44.056, while recent models, such as the 7600, have the facility to replace the internal clock with custom clock chips. (Real-time sample-rate conversion is possible if you find yourself in a clocking mismatch scenario.) Analogue I/O is via XLR with combo XLR inputs; the jack inputs will happily accept high-impedance signals for direct instrument input. Dynamic range and S/N ratio are a respectable 105dB (A-weighted) throughout. This is a vast improvement on the specs of every Harmonizer to date, save for the no-expense-spared Orville (which boasts a 110dB S/N and dynamic range). Midi In, Out & Thru exists with the input being configured in seven-pin In+Out format. There's a nine-pin serial port configurable as either RS232 or RS422, and ethernet connection for connection to Eventide's proprietary EVE/NET external controller. Aside from that there are two jack inputs for pedal controllers. These will accept foot-switches, variable pedals or control voltage sources and can trigger or control anything, including program changes. A final stereo jack input allows connection of up to two relay-driven devices and build quality is of the military standard you'd expect from a machine in this price bracket.

Out the front-side, driving the 7600 is business as usual if you're used to the Eventide operation regime. If not, it should take about five minutes to get up to speed on the operating system. Four soft keys accompany the large display, combined with four navigation or cursor keys. The keypad can, of course, be used to input values directly or you can adjust values via the jog wheel. Incidentally, the jog wheel speed can be adjusted in the setup area for various responses – a long awaited feature for Eventide old-timers. Dedicated buttons exist for levels control of all I/O (including digital ports) with metering ballistics adjustment for both peak hold and decay timing. ►►

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PRESET PLETHORA

The 7600 arrives with 1000 presets and a search function to curtail complete disorientation. Presets can be arranged in either number, name or effect type. The bypass button can be configured in various ways. Relay mode will hardwire each input to its corresponding output for true bypassing; Electronic mode retains level settings and gain trim settings but kills any effect algorithm; and Mute mode simply mutes all audio output. A swag of new presets grace the 7600 and reside under the heading 'Midi Virtual Racks'. These are specialist algorithms designed especially to allow real-time changes via Midi controller info. Aimed at real-time performance needs, Midi Virtual Racks alleviate the latency experienced when switching between presets. With up to five processes built into each 'rack' these programs revolve mainly around vocal, guitar and percussion treatments. Sampling duties are well within the unit's repertoire with 174 seconds of sampling time and multiple looping and editing facilities. The tap-tempo looping function makes looping samples child's play.

PERFECT HARMONY?

It's a difficult task to sum up the H7600, such is the breadth of its capabilities. I used the unit for several tasks and all came through with flying colours. The first thing you notice about the unit is its professional sound quality. It really does sound like a million bucks. For example, I was having particular difficulty retuning a vocal take with Auto-Tune, primarily because the take had been recorded poorly and certain artefacts were interfering with the results. The H7600, with its own auto-tuning algorithm had the take retuned in a single pass with nowhere near the twerpy noises the Antares product produced. For adding harmony content this is the bee's knees of processors. Additionally, while reverb may not be billed as the H7600's speciality, I'd be going to this unit for reverb before most other boxes. I ran the unit alongside some equally exclusive (read: 'expensive') dedicated reverb units and I preferred Eventide's rich and pillowy space creation on almost every occasion. Admittedly, this isn't a device that's within everyone's budget, but if you're planning on investing in one multi-effect unit to last you the next decade, the H7600 is definitely one of the finer choices. ■

NEED TO KNOW

Price
\$6749

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Pros
Superior pitch-shifting/harmonising.
The reverb is a thing of beauty.
Midi Virtual Racks a great asset.
Full complement of I/O.

Cons
Push-button 'telephone' interface getting a bit antiquated.
Price is out of the reach of most people.

Summary
A beautifully built device packed with top-notch effects. This is not something that will be obsolete in a few years. Thanks to the H7600 upgradeability and already-formidable qualities it'll be a 'go to' effects unit for many years to come. Worth it, if you can afford it.