

# Millennia TD-1

It's a box that combines a variety of preamps and input possibilities with EQ and a variety of output possibilities. **GEORGE SHILLING** is confronted with the multitool of the recording channel genre.



**A**CCORDING TO THE DISTRIBUTOR, this is an updated design of Millennia's already sophisticated TD-1 Twin Direct DI box. The headlines are the inclusion of advanced ReAmp technology for sending recorded DI guitars to amplifiers, and the inclusion of the previously optional HV-3 hybrid solid state microphone preamplifier as standard — as I understand it, few TD-1s were sold without this option.

Millennia has long specialised in Twin Topology designs, and the TD-1 (UK£945 +VAT) is no exception, with a magic TT button that flips the input stages from a high voltage vacuum tube circuit to a discrete transistor J-FET amplifier. Other notable features are speaker soak and two bands of NSEQ-2 parametric EQ.

The box itself is about the size of a breeze block, and seems to weigh the equivalent amount if not more. It is extremely well built, sturdy, and seemingly over-engineered with a very thick front panel and industrial machined knobs. The front panel is half 2U, and there is a rackmount option for a pair of these. Alternatively you can bolt the supplied handle onto the top, and screw enormous rubber feet onto the base, for a 'portable' solution (*Thuss notwithstanding. Ed*).

On the front are two recessed inputs, a jack for instrument or connection of an amplifier's speaker output, and an XLR for line level. On the rear is an XLR mic input, along with no less than nine jack and XLR outputs, which will all work simultaneously. These comprise jack and XLRs for balanced and unbalanced output, a transformer balanced XLR for a fully 'galvanically isolated' mic level out, direct output jack (paralleled with DI input, a jumper can select active buffering), a headphone output TRS

wired for mono, with accompanying trim pot (even optimised for a particular Sennheiser model!) and two ReAmp outputs. Type I emulates single coil Stratocaster-type pickup matching, while Type II offers a Les Paul humbucker-style output. There are even further variations in development for different types of bass guitar.

Input gain is controlled by a small knob. The HV-3 microphone preamp sounds stunning with more clarity and detail than anything I compared it to and a sweetly charming character. Esses sound more pleasant and less raspy when recording vocals, the midrange sounds accurate, and there is plenty of top and bottom juiciness.

As a DI there are three different impedances to choose from to enable differing tones. With a Les Paul type guitar with plenty of output, there was little to choose between the TD-1 and the compared Neve-style box, although they both sounded much nicer than a simple passive DI box, even with that plugged back into the HV-3 mic preamp input. However, with a single-coil pickup instrument the TD-1 was able to deliver a little more sparkle and life than the competition. It is really only with such an instrument that the differing impedance selections are noticeable, although these are subtle changes of tone compared to even fairly small EQ tweaks. Similarly, the TT mode is very subtle and almost redundant when recording from humbucking pickups. Even with a Strat, the circuits are both extremely well engineered; they both sound rich, clear, bright and detailed, and it is never the case that the valve path is dramatically better sounding than the FET, or vice versa.

ReAmping my Les Paul and Strat was successful — there was a subtle variation of tone using the two different ReAmp outputs and, indeed, a more authentic signal was obtained by using the appropriate of the two different Type outputs.

Using the input in Speaker Soak mode enables direct recording of a speaker output from an amplifier. This can yield interesting results, and here there were plenty of high-end harmonics not heard through a speaker — this can be especially good when blended with a miked cab.

Flipping between the tube and transistor circuits yields remarkably similar results, given that they use entirely different circuitry. Perhaps surprisingly, I found the transistor circuit sounded the very slightly 'warmer' of the two paths. Some users have criticised the cleanliness of Millennia's tube circuits, expecting some crunch, and in response the company has exhaustively tested a wide variety of different tubes of different vintage to come up with a list of more 'colourful' alternatives to the modern Chinese and Russian 12AU7s mainly used by Millennia.

There are a variety of earth lift and ground isolate buttons with further options available using internal jumpers, so just about any grounding issues should be easily solvable.

The parametric EQ features two bands that cover the entire audio spectrum, with plenty of clean gain and surgical precision. Each band features a pleasingly large, gently stepped 21-position gain knob with continuous Q and Frequency knobs — the Frequency knobs feature x10 pushbuttons to double their range. This is excellent for shaping the signal on the way in, sounding crisp and extended with deep warm bass.

Millennia's publicity states that the engineer no longer has to choose between valve and solid state, but it seems to me that, on the contrary, with one of these units you might always be flipping between the two and comparing! I was bowled over by the HV-3 mic preamp, and the ReAmp feature is excellent. All kinds of options and connections are available, and a lot of thought and research has obviously gone into the design of this excellent product. ■

## PROS

Incredible mic preamp — one of the very best; useful ReAmp features; bold surgical EQ.

## CONS

Power button on the back of a rackmountable unit; signal mutes briefly on most button pushes.

## EXTRAS

The Millennia HV-3D is a four or eight channel, fully matched mic preamp with circuitry identical to its HV-3C series high voltage preamp. With +23dBu native input headroom

the HV-3D requires no input pads or switch points and generates +32dBu of output headroom.

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