



Tape Op

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()MIC PREAMPS (/REVIEWS/CATEGORY/MIC-PREAMPS)

UnderTone Audio (<http://www.undertoneaudio.com/>): MPDI-4 mic preamp/DI

REVIEWED BY DANA GUMBINER (/REVIEWS/BY/DANA-GUMBINER)

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UnderTone Audio (UTA) is a relative newcomer to the world of boutique gear, the brainchild of producer/engineer [Eric Valentine](/interviews/45/eric-valentine/) and electronic designer Larry Jasper, both mad geniuses in their own right. Eric has made a variety of amazing-sounding records (for Queens of the Stone Age, Slash, Persephone's Bees, Nickel Creek, and many others), and Larry (who has worked for Quad Eight and GML) has helped maintain and modify Eric's vast collection of vintage gear over the years. Full disclosure: Eric has been a friend for years, having recorded a couple of albums for my band Deathray. His passionately detailed approach to music, engineering, and production really carries over into the design philosophy behind this four-channel mic preamp. The pair started out when they decided to build a new, "no compromises" large-format analog console from scratch. After four years of design, fabrication, and obsessive testing, they landed on an amazing custom console that had some really innovative technology, but was priced well beyond the reach of most home or project studio recordists. Now they are working to integrate the Class A circuitry used in the UTA consoles in more affordable applications.

The *MPDI-4* is a 1RU-height, four-channel, do-it-all-and- do-it-right beast. Each mic preamp/DI circuit has bypassable input and output transformers, adjustable output headroom, and variable harmonic distortion characteristics. The four inputs are accessible from the front and rear, with XLR I/O on the back and Neutrik Combo jack inputs on the front panel. Each channel has an input pad (-20 dB), a rotary switch for gain (-60 to -10 dB in 5 dB increments), and three fantastically flexible options to help shape your signal.

First is a 600 Ω output load switch; when enabled, it drives the mic preamp into a harmonic distortion range similar to vintage preamps. I found this particularly nice with drum overhead mics; it gave the highs a smoothness which was emphasized even further when pushing the preamp into distortion.

Speaking of distortion, the second factor that sets this unit apart from my other outboard preamps is a convenient (some would say necessary) output pad (-10 dB). Without a fader or line trim on the preamp, this is the only way to really drive the bejeezus out of it and not clip the input on your ADC of choice. In most instances, my penchant for (or addiction to) distortion (subtle or not) demanded that I leave this output pad switch engaged.

The third tone-shaping element that I haven't seen elsewhere is the ability to bypass both the input *and* output transformers on the *MPDI-4*. Apparently, on the other side of the THD spectrum, is a place I rarely go — a place where sounds are detailed and clean, with hardly any audible distortion. The *MPDI-4* will take you there if you want to go; the manual claims that, with both transformers bypassed and no load applied, the mic preamp will pass +27 dBu with only 0.003% THD. That is a crazy low spec for distortion. In my experience, using the preamp in this mode yielded clean, accurate, insanely precise captures of sources like grand piano, vocals, and acoustic guitar. Zero coloration. If anything, it exposed some of the shortcomings of my mic cabinet and even helped me uncover a subtle difference between a pair of AKG C 414 mics that I had always assumed were functionally the same, but in practice were found to deliver slightly different frequency responses. (I suspect that may be the result of a wild drummer nicking one of them a couple of times when close mic'ing the toms.)

I did test the DI circuit with bass and analog synth, as well. The unit switches over automatically when you plug into the 1/4" jack of the front-panel Combo input, and (as I learned from the joyfully meticulous manual) an active Class A JFET stage is automatically inserted to effectively lower the output impedance, which is then fed directly to the input of the mic preamp stage. I dunno, whatever — it works, man! I tended to again give in to my fuzz habit, and pile on the transformers and 600 Ω load to these sources, which sounded freaking great, but the DI would also be convenient for capturing bass or guitar for later re-amping, in which case, I would likely clean up my act a bit and go transformerless. Just the idea that I can do all of this with a single-rackspace preamp has me in my happy place.

Now, all of these tone-shaping options come at a small ergonomic price: There are a ton of switches on the front face of the *MPDI-4* (seven per channel, plus a gain pot). In fact, there's room for only one output meter (which you switch between channels). However, everything is clearly labeled, and I had no problem checking settings at a glance. I'm not hugely fond of the somewhat stiff feel of the rotary switch, particularly when paired with UTA's knob of choice, which isn't terribly "grippy." Nonetheless, the switch is clearly well-built, like everything on this unit, and it functions just fine — I just have big bass player fingers, I guess. Also, as expected, this unit gets super hot, so take care to leave a space above and below it in your rack.

Overall, I absolutely loved this thing, and it's exciting to see smaller gear manufacturers take on the challenges of a "no compromises" attitude towards gear design. An audio-nerd tip of the hat to UTA.



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ISA 220 Channel Strip ([/Reviews/Gear/32/Isa-220-Channel-Strip/](#))

BY DAVE TRUMFIO ([/REVIEWS/BY/DAVE-TRUMFIO](#))

The 220 is my first choice for anything I want or need to sound transparent. It has that ultra clean character that sounds great on acoustic guitars, shakers, hi-fi vocals etc. Functionally, this unit...

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BY GEOFF STANFIELD ([/REVIEWS/BY/GEOFF-STANFIELD](#))

Gregory Scott of Kush Audio is not your run-of-the-mill, audio-gear-making man. Everything he builds seems to be conceived out of a need to satisfy some aspiration that he himself is chasing. Sure,...

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BY DAVID BARBE ([/REVIEWS/BY/DAVID-BARBE](#))

I have way too many mic preamps. The problem is that I like lots of different flavors. We have Neve, API, Chandler, Daking, Hardy, Summit, UREI, Sony, Amek - in some cases several different ones of...

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SC-1 Mk500 Mic Preamp Kit ([/Reviews/Gear/72/Sc-1-Mk500-Mic-Preamp-Kit/](#))

BY GARRETT HAINES ([/REVIEWS/BY/GARRETT-HAINES](#))

FiveFish Studios is a Tennessee-based company that offers pre-packaged DIY audio kits. For this review, I'm covering the SC-1 mk500, a preamp designed to fit in 500-series racks and lunchboxes. The...

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J33 Phono Preamp DI (/Reviews/Gear/50/J33-Phono-Preamp-Di/)

BY ANDY HONG (/REVIEWS/BY/ANDY-HONG)

It seems like I'm always raving about Radial's product line. So far, I've purchased and reviewed Radial's Reamping Pack, JDI passive DI, J48 Mk2 phantom-powered DI (Tape Op #49); X-Amp active...

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DigiMAX FS 8-Channel Preamp (/Reviews/Gear/57/Digimax-Fs-8-Channel-Preamp/)

BY ANDY HONG (/REVIEWS/BY/ANDY-HONG)

When this unit arrived in my studio, my first assumption was that it was a "remix" of the DigiMAX 96 or LT, both of which are fine units and sound pretty good, especially for their price. But...

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Elixir Mic Preamp (/Reviews/Gear/65/Elixir-Mic-Preamp/)

BY CHRIS GARGES (/REVIEWS/BY/CHRIS-GARGES)

About two years ago, I received a Buzz Audio MA-2.2 preamp to review for Tape Op (#57). After a while of using this preamp for the review, I fell in love with it, but by the time I had to return it, I...

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BY ANDY HONG (/REVIEWS/BY/ANDY-HONG)

A few months ago, I picked up a Tascam MX-2424 hard disk recorder to supplement my analog multitrack decks. Three reasons convinced me to finally buy a digital recorder. 1. On a number of recent...

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ISA 828 8-Channel Mic Preamp (/Reviews/Gear/107/Isa-828-8-Channel-Mic-Preamp/)

BY DANA GUMBINER (/REVIEWS/BY/DANA-GUMBINER)

Sometimes you need a hammer. Sometimes you need a Leatherman. Then again, maybe you need eight hammers with a folding torque-wrench attachment plus bottle openers on each. Um. What I'm trying to say...

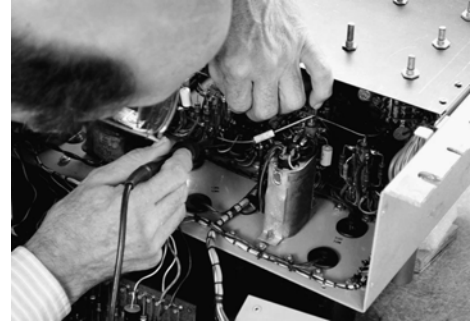
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Restoring The "Holy Grail Of Compressors": Behind The Scenes At The Vintage King Tech Shop (/Interviews/Bonus/Vintage-King-Restoration-Series-Part-1-Outboard/)

BY

Vintage King co-founder Michael Nehra shares some of his love, knowledge, and practical advice for diving into the world of vintage audio gear, and then takes us behind the scenes for a walk through...



(/interviews/bonus/vintage-king-restoration-series-part-1-outboard/)

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Jim Williams: Behind The Gear With Audio Upgrades (/Interviews/Btg/90/Jim-Williams/)

BY MIKE JASPER (/ARTICLES/BY/MIKE-JASPER)

Jim Williams has spent much of his 56 years working with some of the biggest names in the music business, including Frank Zappa, John McLaughlin and Stevie Wonder. He's the owner of Audio Upgrades,...

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BY JOHN BACCIGALUPPI (/ARTICLES/BY/JOHN-BACCIGALUPPI), LARRY CRANE
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Bill Cheney and Jim Romney are the men responsible for keeping the amazing legacy of Spectra Sonics, a legendary, if criminally unheralded, pro-audio company alive.



(/interviews/btg/102/bill-cheney/)

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Rich Williams: Behind The Gear With Burl Audio (/Interviews/105/Rich-Williams/)

BY LARRY CRANE (/ARTICLES/BY/LARRY-CRANE)

Burl Audio, under the direction of owner/designer Rich Williams, has developed some of the best new recording equipment over the last eight years. Their mic preamps, summing amps, and control room...



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