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Nashville's Blackbird Studio B

Dave Hill Designs Titan Compressor/Limiter

Dave Hill, the creator of the Flamingo and HEDD 192, does it again with a compressor offering features you've never seen or heard before.

Dave Hill, the genius behind Cranesong, has now started a new company, Dave Hill Designs, which introduced its first product last year, the Europa preamp. Dave is known for incorporating features in his designs that no one has ever before implemented. Dave's designs, like the HEDD-192 Digital Converter which offers Triode, Pentode and Tape controls for dialing in "character" to the sound, often surprise and frequently delight listeners.

Features

The Titan, a single-channel digitally-controlled analog compressor/limiter, offers controls and a measure of sonic variability that I've never heard before. The 1RU front panel includes a bright, color LCD screen that displays numeric values for the adjacent five "Cranesong green" knobs: Threshold, Attack, Release, Shape and Gain. They are not pots but instead are stepped digital encoders (alpha knobs) and therefore have no end stops at all, meaning each knob turns continuously. Next are three, red 16-step knobs controlling VCA Color, Parallel Mix and Dynamic Color. Values range from 0 to 15, but since they're encoders, the user can switch from 15 (full value) to 0 in one click, allowing quick comparisons between full process and no process. Then there are three toggle switches. First is a Link/In/Out switch for Stereo Linking/Mono-engaged/Bypass, respectively. The second is a meter switch for Gain Reduction or Output metering and at the bottom is a Fat/Normal/Air switch. Then there is a bright LED meter, one of Dave's trademarks, displaying GR or Output with values from -21 to +24. The back panel is very simple with XLR I/O and IEC power input (50-60 Hz, 100-240V) and a Stereo Link D-sub connector for linking two units.

All the values in the LCD readout are numerical steps from 0 to 99, instead of in time values. I expected that to bother me but, in practical use, it did not. Lower values are shorter and, if you're using your ears to set it, you just twist the knob until it sounds right. Then the value can be jotted down for recalls. The shortest/longest attack time values are 50 μS and 400 mS, respectively. The release time varies from 50 mS at its fastest to more than 5 seconds. The Shape control varies the ratio of the soft knee compression from 1.1:1 to 10:1. And the makeup gain is in .5 dB steps, up to 11.5 dB. The Parallel Mix control allows you to dial in

Selected Audio Clips: Dave Hill Titan

Visit the link below to hear audioclips from Lynn's Dave Hill Titan evaluations, as noted in the review. — Ed.
prosoundnetwork.com/davehilltitan

The Titan is a digitally controlled analog compressor/limiter with truly unique sonic variability.

ALL DAVE HILL TITAN AND ALTA MODA HIPPO PHOTOGRAPHY: KEONI KEUR (KEONIK.COM)

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the ratio of the original signal to the compressed signal in 16 steps. At 0 the output is all direct (uncompressed) and at 15, the compressed signal is 100% of the output. Maximum input/output level is +25 dBu and frequency response is 3 Hz to 175 kHz.

Observations

Let me start off by saying that Dave Hill hit a home run again. The degree of sonic flexibility built into this compressor is unparalleled in any other compressor I've ever encountered before. And that's quite a few. Sure, it will compress and limit like everything else out there but if you are looking for sonic sculpting and creativity, this unit is without equal.

So what makes it so different and powerful? Well, the green knobs work like every other compressor. But it's the red knobs that set it apart. The ability to mix Direct and Compressed signals is not a new idea but it's a welcome feature. The real power in tone comes from the Color duo: VCA Color and Dynamic Color. These two are the real magic in this unit.

The 1U front panel includes a bright, color LCD screen that displays numeric values for five adjacent "Cranesong green" knobs: Threshold, Attack, Release, Shape and Gain.

The Titan's VCA Color control varies from PWM (Pulse Width Modulation) to Vintage. In PWM, the Titan works like an EMI 156 or the old Pi compressor according to Hill. In Vintage mode (a "diode-type" circuit) by contrast, it is similar to older EMI or Neve compressors and tends to soften things and round off peaks. Rocking the knob between PWM and Vintage changes the sound dramatically as you can hear in the sound clips offered (see sidebar). The PWM setting is super clean (.018% THD at +24 dBu) while the Vintage setting is decidedly not, with up to 13% THD at max output, and it's darker and softer (not only in tone but also in volume frequently, so you will likely need to compensate for that).

The Dynamic Color control works by "expanding the transients while compressing the envelope" according to Dave Hill. Hmm. OK. In layman's terms "it makes peaks peakier, by exaggerating the transients." Fascinating. But what does that sound like? Not what I expected. For one, it is adding third harmonic distortion, although I noticed even harmonic components added in as well. Secondly, it adds a bit of noise, 3 dB by Hill's measure, though that's indiscernible on top of the low initial noise floor. You can tell visually when it's switched in because the LED pointer in the GR meter indicator widens with more LEDs being lit. It is not a subtle effect and I found it very useful. Since it works as part of the compressor, you will hear only it as the signal is compressed.

Another wonderful feature is the Fat/Air switch. Doing what you'd expect, the Fat setting adds low end and the Air setting adds high end. The docs show +3 at the frequency extremes (20 Hz and 20 kHz for Fat and Air, respectively) and sloping back to 0 from there. But these aren't just tone controls. They work in conjunction with the compression and are most pronounced as you hit the compressor harder.

By altering the A, R, S controls and utilizing the VCA and Dynamic Color controls, the changes were so drastic that it sounded almost like I was physically moving the microphone in proximity to the source, sometimes even sounding like I had changed to a different microphone.

In my testing, I found I compressed far more than I typically would, since I was using my ear and not the GR meter. I was surprised when I noticed on the meter that I was routinely using 8-14 dB of compression. That's a lot for me.

In Use

The Titan can sound like no other compressor I've used before. With a drum kit, I was able to shape the sound from very forward and present, to a smoother deader sound (almost as if I had hung shag carpeting on the walls of the drum room), all while working with a mono composite mix. I could make the sound snappy or loose. It was almost like steering the focus, highlighting either the kick or the snare or the hats. I could make it fuzzy or cloudy. The sonic options were shocking. On the full drum kit, listen and compare the online sample clip [see box] Drum Kit_00, which is flat, to the smash and room on Drum Kit_05 or the lean taut sound of Drum Kit_09. All started with the same mix and the settings are noted in the file name.

On solo'd kick, changing the attack and release had the anticipated effect, but add in the Color duo and the sonic change was as drastic as changing mics. Punch or snap were immediately available with the Fat/Air switch. And mixing the compressed signal with the direct via the Parallel mix was easy and great. On snare drum, using the Vintage setting at 15 made it sound like the drummer had actually physically dampened the snare head (akin to the age old technique of the drummer laying his wallet on the snare). And there are 13 steps in between 15 and 0. Flexibility? To say the least. Compare the original, Snare_0, to the liveness of _2 or the pop of _3 or the bigness of _4. One word of advice though, if you find a sound you like while experimenting with it, write down the settings. With this many

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DHD Titan

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variables (8 by my count), you may never be able to get back to that sound unless you do.

On electric bass, I overstepped the boundary of what you can reasonably ask the Titan to do. Because of the extreme power of the Color duo, you can definitely go too far. There are certain combinations of hot input level and low threshold, when combined with the upper settings of these controls that will result in extreme distortion, almost like a fuzz box. I asked Dave Hill about this and he was aware of it. If he had put a "governor" on the controls, then the user would give up the flexibility that comes when using it at other times, so the decision was made to leave the control in the user's hands. But just know that you CAN push it too far and it's not pretty. Too much of a good thing isn't always better.

On electric and acoustic guitar, I was able to add beef or cut just with the flip of a switch. I could control the presence and punch of either with lots of versatility. Again, there were so many variable sounds, it was almost like changing mics from a dynamic to a ribbon. On the acoustic guitar, you can compare the original AcGtr_0 sample clip to the tight and jangly AcGtr_1 or the choked, darker AcGtr_3. This is quite a collection of tools like I've never experienced before in a compressor.

On a full mix, the Color knobs offer what you'd expect. The Dynamic Color can add punch to a mix and the Vintage setting can make things sound retro, but using too much of either can be detrimental and muddy things up quickly.

I tried the Titan on vocals with success and loved the flexibility. Having the Air switch to add a bit of clarity was wonderful. I could squeeze a vocal in a rock track by 8-12 dB and it just sat perfectly in the track. While I typically prefer the transparency of an opto compressor, such as a Tubetech CL1 or UA LA2A, the coloration of the Titan delivered what I needed for the song I was mixing.

Summary

The bottom line is that the Titan will do most of what you can coax out of any other compressor, plus lots more. And this unit is extremely affordable for a Dave Hill design:$1,699 street. The only real problem that I see with owning one is that you'll want two. Or more.

Price: $1,890 list
Contact: Dave Hill Designs | davehilldesigns.com