



VOX COOLTRON PEDALS

TESTED BY TERRY BUDDINGH

There's no denying the irresistible allure of tubes. While most of the electronics industry abandoned tube technology decades ago, we guitar players stubbornly cling to our precious tone bottles. This obsession with tubes seems to defy rational analysis. Solid-state technology is smaller, lighter, more efficient, and safer (primarily because it can operate at much lower voltages than tubes). Solid-state products are also easier to mass-produce, and therefore cheaper to manufacture. So why then do we have this seemingly irrational obsession with tubes? Perhaps the best reason is that tubes impart their own unique musical character—a character that

guitar players (and other tone connoisseurs) find irresistibly compelling and difficult to forsake for mere convenience and budgetary concerns.

Vox obviously understands our insatiable lust for tubes and tube tone, and how that passion can extend to stompboxes as well as amps. That's why each new CoolTron pedal proudly sports a 12AU7A—which is highlighted in dramatic fashion by the cool glow of a blue LED.

Tube-loaded stompboxes have been around for decades, and while some have featured conventional high-voltage tube circuitry, and others operated the tubes under

INSTANT GRATIFICATION BIG BEN OVERDRIVE

WHO'S IT FOR?
Old-schoolers seeking natural-sounding overdrive with touch-sensitive response.

KUDOS
Covers the full range of authentic amp-toned overdrive, from subtle to dimed-out sear.

CONCERNS
None.

PRICE
\$200 retail
Street price N/A

BRIT BOOST

WHO'S IT FOR?
Those seeking vintage British treble-booster tones.

KUDOS
Tube-enhanced, classic treble-booster tones with added gain and tone-control. Footswitchable Full Range option.

CONCERNS
None.

PRICE
\$225 retail
Street price N/A

BULLDOG DISTORTION

WHO'S IT FOR?
Rockers seeking a two-channel pedal that covers both soft-clipped and hard-clipped distortion textures.

KUDOS
Vintage and modern channels with global Bass and Treble controls. The second channel's Voice control provides additional midrange scooping for wicked modern metal tones.

CONCERNS
None.

PRICE
\$225 retail
Street price N/A

CONTACT
Vox,
(516) 333-9100
voxamps.co.uk

very low voltage “starved plate” conditions, their designs have always been tethered by the need for some form of AC power. But thanks to some clever design work—including a special low-current filament/heater “chopper” power supply—the CoolTrons can operate for about 15 hours powered by four AA batteries.

The CoolTron concept began with a circuit developed by Fumio Mieda, designer of the legendary Univox Uni-Vibe. Mieda had been experimenting with an innovative “servo bias” scheme that extracted more performance from a tube running at low voltages, and a more refined version of that circuit now forms the keystone of the CoolTron design. Veteran amp designer Steve Grindrod—who now heads the R&D team at Vox—designed the CoolTrons around this unique, battery-friendly, performance-enhancing approach. With the combined talents of two of the most experi-

enced designers in the history of musical electronics, it’s natural to expect the CoolTrons to be something special. Indeed, the three pedals represent a significant advancement in the evolving art of stompbox design.

Made in Japan, the CoolTrons emanate a boutique pedal vibe with their chrome-plated steel enclosures and cool silk-screened graphics. They feel quite substantial, too, weighing about 2.25 lbs each. Measuring approximately 6" x 6½", however, they don’t hog as much space on your pedalboard as some tube-equipped stompboxes. Inside, the construction is crisp, clean, and modern, with three securely mounted PC boards that are peppered with an abundance of surface-mount components.

The Cooltrons’ 12AU7A dual-triode tube is better suited for low-voltage operation than the more familiar, though closely related, 12AX7. The tube’s two triode sections are

WEAR YOUR HEART ON YOUR CHEST!

Join the staff of *Guitar Player* in helping the young victims of the tsunami disaster. Our limited-edition G.T.R. (Guitarists for Tsunami Relief) t-shirt not only proclaims your global consciousness, **but 100% of the profits from the sales of GP’s G.T.R. shirt go directly to UNICEF. So fly your colors!** Let’s band together to bring some joy into the lives of children who have little reason to smile.

Guitar Player’s G.T.R. shirt is just \$15.00 plus \$9.95 postage and handling.

There are two ways to order. You can fill out this coupon, tear it out, and send it with your check (U.S. dollars only, please) to: **Guitar Player, G.T.R. Program, 2800 Campus Drive, San Mateo, CA 94403**. Or, if you’re like us and hate tearing up your fine issues of GP, you can simply send a note with the required info and your check, and we’ll send the shirt your way.

Name: _____

Street/City/State/Zip Code: _____

E-mail (optional): _____

Size: M L XL XXL

Color: You get one choice—black!



tied together, so it functions as a single tone-enhancing gain stage. (For prolonged battery life, the tube's plates, as well as its heaters, run at approximately 3 volts DC.) This tube stage "building block" is essentially identical in all three pedals, while the rest of the circuitry—which is a mixture of op amp ICs and discrete transistors—is completely different in each design.

BIG BEN OVERDRIVE

With Gain, Volume, and Tone controls, and a single footswitch, the Big Ben is the simplest of the CoolTron designs. Op amps are used for the Gain control and soft clipping stages, which are followed by the tube stage. Following the tube stage, discrete transistors buffer and isolate the passive Tone and Volume controls. This simple circuit gives Big Ben an organic and natural tube-flavored tone that never sounds buzzy, as well as a lively dynamic

response that never sounds squashed or overly compressed.

With the Gain knob fully counter-clockwise and the Tone pot wide open, Big Ben sounds virtually indistinguishable from its bypass tone. This provides a perfect starting point for those who want to sneak in just a taste of overdriven texture by slowly increasing the Gain setting, while preserving their amp's natural tone and dynamic response. On the other hand, wide-open gain settings still sound convincingly amp-like, and the simple, yet surprisingly effective Tone control keeps the higher frequencies smooth and mellow. The Big Ben is a great choice for old-school tone hounds who want to wrench a little more tube goodness from their vintage-style amps—especially when playing at lower volume levels. It even sounds great when used as a direct-recording device (as it conveys authentic tube-seasoned warmth and color

SPECS

- Electro-Harmonix 12AU7AEH preamp tube
- Powered by four AA batteries or optional AC adapter
- 15-hour battery life
- Tube circuitry optimized for low-voltage operation
- Unique "servo bias" circuitry enhances tube performance
- Special current-reducing power supply for tube heaters
- Chrome-plated steel housing
- Vox-style chicken-head knobs
- Rugged mechanical footswitches
- True bypass

without an amp), and it can be used as a clean boost pedal/preamp, as well. The Big Ben Overdrive is the CoolTron most likely to cause a stir with more traditional players who enjoy browsing the latest boutique pedal offerings.

BRIT BOOST

With its Gain, Volume, and Tone controls, the Brit Boost may appear to be similar to the Big Ben Overdrive, but it actually has more in common with the classic British-made treble boosters from the '60s and '70s. Like the legendary Dallas Rangemaster and the Hornby Skewes and Vox treble boosters, the Brit Boost's first stage is built around a single transistor. (While some early boosters used germanium transistors, the Brit Boost uses a silicon type.) The Brit Boost actually has two of these circuits: one voiced with the classic "upward tilt," and

the other providing a more balanced full-range response. (The Treble-Boost/Full-Range footswitch selects between these two independent circuits.) Following the selected one-transistor boost stage, an op amp controls the Gain that's fed to the tube, and the circuit finishes with another op amp driving the active Tone control, which is followed by a passive Volume control.

Even with the Gain knob set very low and the Full-Range mode selected, the Brit Boost exhibits a more aggressive voice than the Big Ben Overdrive. It also has a more distinctive and prominent midrange voice, and more grind and grit to its texture. Switch to Treble Boost mode, plug it into a Vox AC30's Normal channel, and you'll immediately relive Brian May's glory years with Queen. This combination provides a tone bigger than Wembley Stadium, with a taut and percussive pick response, and tons

of exciting top-end sizzle and ringing presence. The well-voiced Tone control is effective in both modes, but I found it especially useful for taming the Treble Boost mode's highest frequencies. As this is one important feature that the vintage treble boosters lacked, why search eBay for an overpriced

relic when you can get more tonal flexibility—and an overall smoother tube-enhanced sound—from the Brit Boost?

BULLDOG DISTORTION

The most versatile, and also the most modern of the CoolTrons, the Bulldog Distortion offers two contrasting channels with independent Gain and Volume controls, shared Bass and Treble knobs, and an additional Voice control for the second channel. The first channel uses op amps in a soft-clip circuit that's reminiscent of the Big Ben's (though tailored for more distinctly modern tones), and the second channel also uses op amps, but in a circuit designed for more aggressive and hard-edged clipping. The output of the selected channel drives the tube stage, which drives a unique Treble and Bass tone control design that's a combination of passive and active topologies. The second channel's Voice control follows the tone controls. It features a passive tone-sculpting network, which is followed by separate passive Volume controls that are electronically engaged when the appropriate channel is selected.

The Bulldog's first channel sounds more aggressive than the Big Ben, with more upper-midrange sizzle, and the potential for more penetrating top-end sting. The Bass control can add some impressive low-end girth for wallowing low-voiced riffing, and reduced Treble control settings can eliminate the cheesy-sounding top-end fizz that so frequently accompanies and plagues higher-gain tones. This channel also imparts its own distinctive character to the tone, which is clearly more modern than vintage. With its gravelly midrange grit and crushed-glass crunch, the Bulldog's second channel provides the most modern tones of the CoolTron trio. The time-warping range of its mid-scooping Voice control is particularly impressive, as it can take you from Link Wray to Metallica with the twist of a knob. Covering an impressive range of tones, the Bulldog Distortion represents an astounding value for those seeking more modern distortion tones from a truly cool pedal. 🐾