

the ToneQuest Report

The Player's Guide to Ultimate Tone

REVIEW

RedPlate Amps

We told you this was coming.... Yes, when readers ask us to review something, we do our best to respond, and thanks to RedPlate founder Henry Heistand, we received two RedPlates for review. We'll start this episode by telling you that Henry Heistand appears to be a very clever fellow who is not working in the shadows of the past, which is to say that he builds feature-rich amplifiers that in no way pretend to be vintage knock-offs. Play a RedPlate and you're firmly treading in the present, rather than mining tone out of a dusty box built by a dead man (or woman—sorry Lily). And that's fine. There is certainly ample space in these pages for the living, and RedPlates are in fact very lively tools indeed. We asked Henry to give us a glimpse into his background and motivation, and our reviews of the TweedyVerb and BlackVerb follow....

TQR: How and when did you initially become involved in electronics and amplification?

HH: Starting around age 12 playing to the radio and jamming with friends, my first build attempt was a speaker cabinet made out of 1/2 plywood and covered with yellow carpeting. It had a leopard (spotted) grill cloth and contained 6 speakers recycled from various old TVs and stereos. My first real amp repair was replacing a screen resistor in a Fender Bassman in 1970. I went to college for a year and then played guitar full time until 1979 when I attended electronics school (they still taught tubes). To pay for school I got a part time job at a church organ repair shop that had a "combo" repair department and still played in club bands on weekends. Attending electronics school in the morning and repairing gear in the afternoons was a great way to instantly translate the classroom to the real world. Compared to the tube TVs and tube broadcast transmitters, the tube musical amplifiers were relatively simple. Besides Fender and Marshall, tube amps by Sunn, Ampeg, Gibson, West, Park, Hiwatt, Sound City and all the Supro/Kalamazoo/Dan Electro stuff. If I only had a nickel for every good tube I tossed in the trash back then. Many of those same companies had solid-state amps too along with companies like Acoustic, Kustom, Peavey, Randall, Lab, SG and Roland. It seems like the '70s was the golden era of guitar amp designers. Although most tube amps have a similar topology, the differences between brands in those days ranged from truly innovative to laughable. On a few occasions when a solid-state repair would come in that was totally *fubar*, one of the church organ repair guys would show me how to design a new circuit right over the top of the problem area, teaching me the value of having a few simple circuit designs at the ready for emergencies. In late '82 I got a career job in the computer field, and by '86 purchased the part of the church organ repair shop that repaired the "combo" gear. The new company was named Music Mechanix and kept the warranty contracts with all the majors for amps, keyboards and P.A.s.

TQR: As you became more familiar with various amp designs of the past, what were your favorites and why?

HH: Thinking back to the tonal memories accumulated during those years pent repairing amps, the most musical of all of them were probably the early '60s Fender tube amps. In addition to repairs, Music Mechanix did all the popular mods of the day (anyone remember the original Train Wreck Mod pages for Fenders?), many times we would redo almost everything inside but keeping



the exterior unchanged. Most of my playing back then was strictly radio cover songs so the quest was always to find the one amp that could imitate everything. Music Mechanix was continuing the warranty station status from the previous owner (established in the '50s) so every original manufacturer's amplifier schematic ever released was available as a reference

source, residing in 16 large file cabinets. On the side, I kept a little notebook of circuits and mods of interest to use as building blocks.

TQR: Can you describe the lasting impressions created by your study of the experiences with classic amps that have most affected your own design philosophy and preferences?

HH: As a service to friends and regular customers Music Mechanix would take a classic amp (at the time it was easy to get something like a used Bassman for \$100) and do Frankenstein amps that were Fender this, Marshall that, with a sprinkling of Vox and Ampeg thrown in depending on the customer's needs. On the weekends I was doing gigs using a pair of modified Ampeg VT-40s in stereo until somehow I ended up with a Mesa Boogie S.O.B. that had a really innovative phase inverter section controlled by a "LIMIT" knob. A bizarre variation of a PI section's constant current source, the circuit was not in the RCA manual or on any other schematic. It sparked something in me and from then on I started doing creative amp mods that were not copies of things I had seen on schematics.

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TQR: When did you first begin to sketch out the concept for RedPlate amps, and what did you want to accomplish that would be unique and different?

HH: I had always been fascinated with “sleeper” amps that looked

small but sounded big. After selling the repair business I used my free time to do a lot of experimentation on point-to-point builds in a Fender Champ sized chassis, eventually working out how to do a 7 tube, large transformer build in a Champ chassis without noise or oscillation. My favorite guitar tones were the recorded sounds of the Mesa Boogie/Dumble ODS type amps (even before I even knew what a Dumble amp was). A clean singing tone with a hint of character that sustains and blooms is my idea of the ultimate tone and the design goal of all the RedPlate models.

TQR: Can you briefly describe the unique features and differences among the current line of RedPlate models?

HH: RedPlate probably has too many models because we treat the sections as modular building blocks. We start with one of the 3 chassis sizes:



CH1. 15” width with four 9 pin sockets and two 8 pin sockets, transformers up to the 50 watt size.

CH2: 17” width with six 9 pin sockets and two 8 pin sockets,

transformers up to 80 watt size.

CH3: 19” width with five 9 pin sockets and four 8 pin sockets, transformers up to 160 watts.

Then we use different combinations of the building blocks with the only limitation being the number of controls (physical knob space) and the number of tube sockets available. Building blocks currently in use:

BB1. PREAMP1—Tweed—A single tone knob preamp (Tweed style).

BB2. PREAMP2—Blackface—A Treble, Middle, Bass Preamp (Blackface style).

BB3. DRIVE1—A three knob overdrive section (Gain, Drive, and Level).

BB4. DRIVE2—A six knob overdrive section (Gain, Drive, Level, Treble, Middle and Bass).

BB5. REVERB—A single knob tube reverb with medium decay

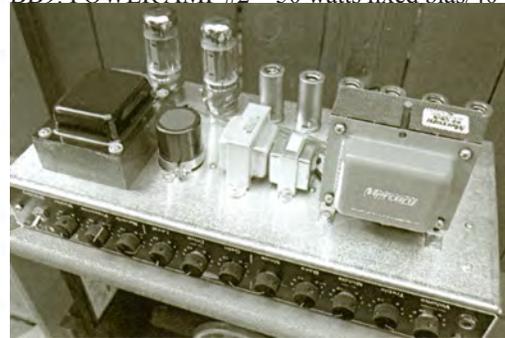
tank.

BB6. EFFECTS LOOP—A fully buffered serial loop, return level is the master volume.

BB7. PHASE INVERTER—Standard Long Tail pair, very similar to the early '60s designs.

BB8. POWER AMP #1—40 watts cathode bias (6L6GC).

BB9. POWER AMP #2—50 watts fixed bias/40 watts cathode bias (6V6GC)



BB10. POWER AMP #3—80 watts fixed bias (KT-88).

BB11. POWER AMP #4—45 watts fixed bias/18 watts cathode bias (6V6GTA).

BB12. POWER AMP #5—100 watts fixed/50 watts fixed (6L6GC).

TQR: Both of our review amps are loaded with Warehouse speakers from Kentucky, which we have reviewed before. How extensive are your evaluations of various speakers when creating a new model? Does the same process apply with transformers, tubes or other components?

HH: The current lineup is using WGS Retro 30, WGS British Lead 80 and Eminence Swamp Thang speakers in the combo amps. The decision to use these was based on side-by-side comparisons with other brands (an ongoing process).

Tube selection is mostly based on reliability (as long as the tone is still there). The current production amps use Svetlana 6L6GC, SovTek 12AX7LP (PI tube), and Electro Harmonix 6V6GTA and 12AX7s (preamp).

Selecting individual signal path components is more difficult because side-by-side comparisons can be misleading (no 2 amps are exactly alike). The signal path in current production amps use PS series Orange Drop capacitors and carbon film resistors based on low noise and musical warmth in the tone. RedPlate Amps has a good relationship with **Mercury Magnetics** and I like to use their transformers in most models.



TQR: How does the half power switch function in your amps, as well as the “mode” control and various voicing controls?

HH: Depending on the output section, 3 methods are used:

1. 6L6GC 100 watt/50 watt—The switch lifts two of the four tubes by 10K so they are effectively out of the circuit yet the



impedance selection is still valid.

2. 6V6GTA 45 watt/18 watt—Full power runs two of the tube in cathode bias and two in fixed bias, the switch lifts the fixed bias tubes by

10K to effectively remove them without changing the output impedance.

3. 17 Watt (Hi/Lower)—This switch just lowers the voltage to the phase inverter tube so the amp breaks up sooner. There are two different styles of mode switches. On the Tweed style preamps the 6 position mode regressively reduces midrange and preamp output to imitate a Blackface style amp. On the Blackface style preamp the 6 position mode switch progressively fattens the midrange to imitate a Tweed style amp. Most of the models also include a Humbucking/single coil switch to set the amount of bass gain in the input stage.



TQR: How much individual customization or voicing do you offer for specific models when working with an artist?

HH: Unlimited customization is available, although most of the professionals that use RedPlate Amps are content playing standard models.

TQR: We noticed that you include the owner's name on the back panel, correct? A nice touch....

HH: Yeah, the front and rear panels are done in-house, we could even put pictures of your dog on there.

TQR: What do you want to accomplish in the future? New models?

HH: "Amps that sing" being every guitar player! Going forward, curiosity and customer feedback will continue to drive the evolution of current designs and the development of new designs. For example, there will be a "shredder" amp in the near future (The ShredPlate) and possibly a bass amp. As RedPlate continues to gain name recognition with the music industry, models like the BlackVerb, MagicDust and TweedyVerb will hopefully be taken for granted as standard amplifier types.

www.RedPlateAmps.com

REVIEW

RedPlate Black Verb



The front and rear panels on the BlackVerb reveal an impressive array of controls, push/pull-knobs and switched pots. In fact, the printed operation guide includes a signal path diagram on the front page with a welcoming invitation to skip an in-depth review of the manual and

just set all the knobs at 12 noon and play, which we did, consulting the manual as needed as we spent more time with the amp. So, is the BlackVerb too complicated for you "plug & play" guys? Not really, but the control panel is best reviewed in sections. You're essentially working with a clean preamp circuit and a Drive section that includes Gain, Drive and Level controls for variable levels of distortion overdriven tones, but there are still many more additional tweakable features lurking within....

The first control adjacent to the single front input jack is the miniature Bright switch toggle with the center position OFF, Down producing the sound of "new strings" (an accurate description we might add), and Up rendering a brighter tone that will be familiar to those of you with a Fender Blackface amp with bright switch. We usually use the bright switch to put a little extra shimmer and spank on humbucking pickups, or neck pickups on single coils.

The Volume control includes a pull switch to engage a midrange boost that increases upper mids. The Middle control does what you'd expect, with a pull switch for a "Deep" setting that scoops mids and boosts bass frequencies—an excellent change-up for clean tones. The Bass control handles low end quite well, and it

can be clicked OFF to be removed from the tone stack. Try that with a neck pickup and it produces the odd and very different EQ found in some old Valco and Gibson amps.



The Mod Selector is a 6-position rotary EQ switch that gradually produces a fatter, thicker tone as you rotate left to right from the "Funk" setting, to "Normal" and "Fat" (tweed). All this pulling and turning may sound complicated, but you'll have it thoroughly digested in 5 minutes, and most importantly, these extra EQ controls expand the tonal capabilities of the BlackVerb in a clever and creative way that really is worth using and exploring. We have bitched about such bells and whistles on other amps having limited value, but no such questionable affectations plague the BlackVerb.



Like we said, Henry is a clever fellow. On the Drive section....

This is where you mine and manage overdriven tones and distortion. The Gain control can be bypassed by clicking fully left, otherwise, you're setting the amount of signal being sent to the first gain stage, which produces variable levels of smooth growl and grunt. The Drive control further ramps up distortion through two gain stages, and a pull switch on the knob serves as an afterburner for maximum burn and rip. At this point you will be channeling Metallica at full husky, so hide the dog. The Level control sets the output volume for this section, resulting in a progressively bigger, thicker, bolder voice. Of course, the big selling point for the BlackVerb is how all of your clean, moderately busted up and filthy dirty tones can be deftly tweaked and the volume managed with the Volume and Master volume controls. At the full power setting, you really can

get this thing to sound like a 100 watt high gain amp on "7" at low decibel levels suitable for home recording and friendlier sound pressure levels.



The reverb control is what it is, and you can turn it off fully left and it's out of the circuit. The

Presence control is described as using "global negative feedback to remove low frequencies which frees up bandwidth for more midrange and highs," and it can also be turned off when rotated fully left. Frankly, the appeal of this control escaped us, but we can imagine how it might be useful in a live situation where you may want to avoid too much low end muddying up the mix with bass and drums. The Master volume works very well without producing the dreaded master volume/low volume faux zizzz when you're trying to light a fire at low volume levels.



One of our favorite features is the 50 watt/40 watt switch on the back panel that changes the boas from fixed to cathode for a completely different feel. With the 40

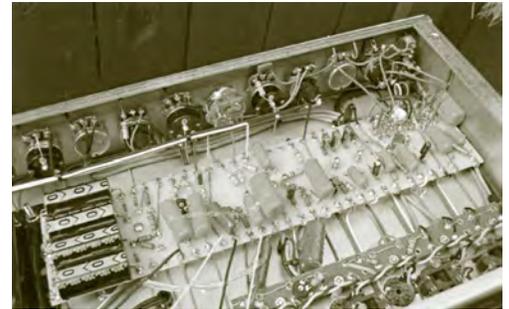
watt cathode biased setting you can also change the 6L6 output tubes to 6V6s, transforming the BlackVerb into an 18 watt cathode biased flame thrower, or bypassing the Gain section for a more tweedy character and voice. The Hi/Lo power switch changes the voltage on the input stage and the threshold for clean headroom.

The back panel Smooth switch is just that, adding slight

compression in the clean preamp, and the Humbucker/Single Coil setting sets the amount of bass gain in the input stage, relieving you of perhaps resetting EQ when switching from single coils to humbuckers.

Additional utilitarian features on the back panel include a handy bias adjustment and test point, speaker impedance selector, main and extension speaker jacks, FX send and return, and footswitch jack. The footswitch gives you the capability to get in and out of the Tweed, Drive and Boost circuits. Tweed boosts upper mids while lifting the midrange control on the front panel for maximum push in the frequencies where the guitar really lies on stage. Drive engages the Drive feature, bypassing it when off at the footswitch. Boost makes everything sound bigger with a partial tone stack lift.

And now for the bottom line.... It seems to us that the intention of the BlackVerb is to be as tonefully versatile as a



1x12 combo amp can possibly be whether you are playing small clubs, bigger rooms or wide open outdoor stages. You could play nothing but smooth, clean jazz through this amp without ever venturing into the gain stages and be perfectly happy. Or you could do nothing but feast off the considerable gain and distortion lurking in the heart of the BlackVerb and be equally happy. Most gigging musicians want to range between such extremes living somewhere in the middle, and you can do that, too. Like most feature-rich amplifiers, you'll find certain favorite settings that will be revisited with specific guitars, and after a few days you'll have no trouble quickly accessing those settings, although the control panel is a bit difficult to read until you no longer need to read it at all.

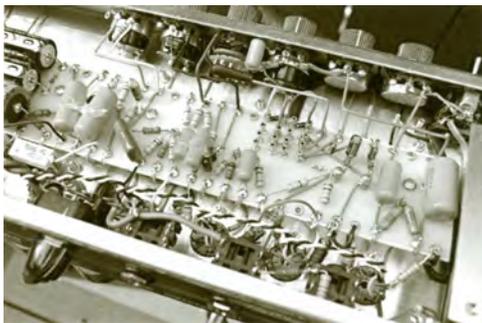
The standard Warehouse Retro 30 speaker is a brighter version of the Veteran 30 we have favorably reviewed in the past. Given the considerable range of overdrive and distortion available in the BlackVerb, the Retro 30's clear, articulate character and exceptional capacity to handle low frequencies makes it an excellent choice for this amplifier. Even at extreme gain and drive settings, the BlackVerb produces a rich and musical burn that does not mask or obscure essential overtones and harmonics. The clean tones are equally strong, powerful and clear, and the amp will nimbly spill into overdrive played clean at higher volume levels that can be managed with the volume on the guitar. The BlackVerb impressed with its ability to embody many different styles of amplifiers in one compact box, limited only by your capacity for experimentation and your imagination. Imagine that.

REVIEW

TweedyVerb

We were particularly anxious to experience the TweedyVerb because it seems to fit the power and volume requirements of so many players today, and it is a very straightforward and versatile 1x12 combo that is a breeze to hump to the next gig. Got your attention there, did we? We finally figured out why vintage blackface Pro Reverb amps have remained relatively underpriced... just pick one up.

The TweedyVerb is a cathode biased dual 6L6 amp with reverb, loaded with an 80 watt Warehouse British Lead 12" speaker. You won't find a bad tone in this amp, and the controls are very intuitive, delivering outstanding "blackface," "brown" and "tweed" tones via a 6-position Mode switch. The Bright switch is identical to the BlackVerb (you'll love the "new strings" setting), with a



single Volume control, simple Gain control, and a Tone control that can be clicked off fully left to bypass the tone stack for a very heavy and thick does of overdriven tones with excellent

dynamic feel and touch sensitivity. The spring reverb is good—delivered from an original new old stock Accutronics pan made by Cary, IL, and the Presence control is identical to the BlackVerb, using global negative feedback to remove low frequencies and emphasize mids and highs. It also seems to decrease volume and gain, best used in our opinion for clean tones.

The 40 watt/17 watt switch on the back panel changes the voltage on the phase inverter. We preferred the sound and girth of the 40 watt setting, which still allows plenty of room for managing volume and variable distortion with the Gain and Volume controls, but the 17 watt setting is fine, too for close



quarters. 6V6 power tubes can also be used at this setting without re-biasing for lower power output and volume. A footswitch is included to access both the fat Tweed setting on the Mode switch on the fly, and the Boost function, which acts as a tone stack bypass. Despite its compact size and relatively light weight, the TweedyVerb is a big-sounding amp that produces outstanding clean tones at usable stage volume, yet it can also be gradually pushed into the familiar sound of a Deluxe Reverb on "6" or even a vintage Marshall head at higher volume and gain settings. It's a right fair chameleon, this one.

The Warehouse 80 watt British Lead 12 gracefully handles the power output of the TweedyVerb with excellent clarity, solid bass, vivid mids and a sweet and chimy top end. Like the BlackVerb, the TweedyVerb offers the sound and feel of several distinctively different amps in one box via the Mode switch, and we liked them all, from the rough and tumble Tweed, the slightly less raucous, smooth upper mid voice of the Brow, and the more scooped, open and airy Black settings. Both RedPlate models reviewed here clearly share the same DNA, which is to say that they possess a remarkably rich and music character, whether you choose to stroke big clean tones through them or dial up a tone that would make Billy Gibbons proud. Douse that light, and *Quest* forth....



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