

# Copperhead Audio Engineering

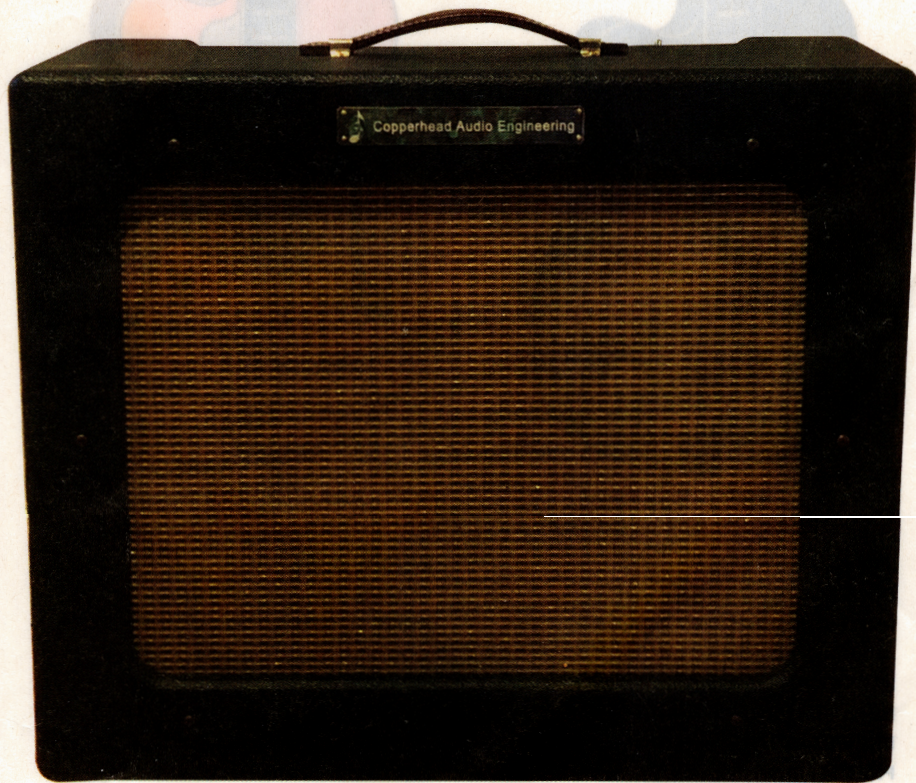
## MODEL 1950

TESTED BY ART THOMPSON

**COPPERHEAD AUDIO ENGINEERING** is one of the relatively few boutique amp makers to stake their entire tonal reputation on octal-base tubes for preamp duties, instead of the much more common nine-pin types. The company's new Model 1950 is equipped with a trio of 6SL7 tubes that drive a pair of 6L6 power tubes running in class A push-pull cathode bias with a new-old-stock 5R4 tube for rectification. This configuration gives the Model 1950 a maximum output of about 25 watts. If desired, you can get 30 watts out of it by swapping in a 5AR4 rectifier tube (not included).

This is only part of the story, however, as the control set differs significantly from the norm by virtue of having high-, low- and mid-frequency controls as well as a pair of three-position switches for global gain and low-frequency gain. The back panel has a switch for 30-watt/12-watt operation (the lower setting puts the power tubes into triode mode), and another two-position switch labeled 1950/1959 that configures the circuit for "tweed" or "blackface" responses, respectively.

The Model 1950 has a nice look with its green covering, gold grille cloth and piping, and an aged-copper treatment on the top panel and knobs that's the work of Juan Suarez of Copper Art Designs in Virginia Beach, Virginia. Housed in the solid-pine cabinet is an aluminum chassis with neat hand-wired circuitry and top-shelf components that include custom audiophile-grade caps (film, foil and electrolytic types designed by Copperhead founder and builder Doug Weisbrod), ceramic tube sockets and a custom output transformer. Reportedly two years in development, the WGS-made Mystic speaker is assembled from carefully selected components to be, as Weisbrod puts it, "The



best match for the clear and versatile response that I was looking for." As such, it's available in a 30-watt rating only, but can be had in 4 $\Omega$ , 8 $\Omega$  (as tested) and 16 $\Omega$  versions.

I found the Model 1950 easy enough to set up, as I tended to land on the 1950 setting with the global gain switch set to the high position and the low-frequency switch on the low setting. From there, it was easy to get a big, stringy overdriven tone from a Reverend Gristlemaster T-style guitar [see review in GP's May 2019 issue], with only slight EQ adjustments needed when switching to a Les

Paul or an LP Junior with a single P-90. The grind starts to come on at around 10 o'clock on the volume knob and becomes progressively more distorted from there. The amp is ultra-responsive to changes in guitar volume and is very much a turn-it-up-and-go kind of affair. The fun really begins when the revved-up power tubes are contributing their characteristics to the sound.

Switching to the 30-watt setting and using a low global-gain setting didn't make the 1950 sound dramatically cleaner. There was still a good level of grind from noon and



beyond, but the amp was definitely louder and took on a more aggressive attitude as the 6L6s started running harder in pentode mode. The 1959 setting was far more effective at cleaning things up, as it reduced the overall gain dramatically and was cool for jazzier playing with a Kay Barney Kessel K1700V archtop [see review on page 96]. Here too, the

global gain and low-frequency gain switches play a huge role in adjusting the amp for the kind of response you want. For example, using the low settings on those switches results in a very clean sound, even with the volume fully cranked. I preferred the medium or high settings on the global gain switch to get a little more "hair" on the tones for solos.

#### SPECIFICATIONS

**Model 1950**

**CONTACT** copperheadaudioengineering.com

**PRICE** \$4,500 direct

#### CHANNELS 1

**CONTROLS** Volume, high frequency, low frequency, mid frequency. Global gain switch (low, medium, high), low-frequency gain switch (low, medium, high) Rear panel: 25/8 wattage switch, 1950/1959 mode switch

**POWER** 25 watts/8 watts

**TUBES** Three Russian Tung-Sol 6SL7 preamp tubes, two Russian Tung-Sol 6L6 output tubes N.O.S. 5R4 rectifier

**SPEAKER** 12" Mystic 30 watt, 8Ω (made by WGS)

**WEIGHT** 41.5 lbs

**BUILT USA**

**KUDOS** Outstanding clarity and detail. Very effective tone-shaping functions

**CONCERNS** None, though the price dictates that only the well-heeled will likely experience what it can do

The EQ controls are a powerful feature of this amp, and the high-frequency and mid-frequency knobs have abundant range and interact beautifully to impart just the right blend of fatness and sheen, whether you're using humbuckers or single-coils. The low-frequency gain switch can greatly increase the sensitivity and effectiveness of the low-frequency control, but the Model 1950 has such good low-end authority to begin with that I rarely moved it from the low position when playing with a rocked-up alt-country band and an instrumental group. This amp is very amenable to different styles and tastes, however, and depending on the style and instrument, it may behoove some players to bump up the low-frequency gain and use a lower setting on the LF control.

The clarity and presentation of the Model 1950 is very impressive, as is its ability to deliver tones from dead-clean to heavy enough overdrive for hard rock—and with tons of tone-shaping power along the way. Those wanting to use a reverb pedal with it might wish for an effects loop, but the objectives of the Model 1950 center on tonal purity and versatility, and you have to applaud the efforts in design and construction that Weisbrod has put in to achieve those things from this retro-style tube combo. ■