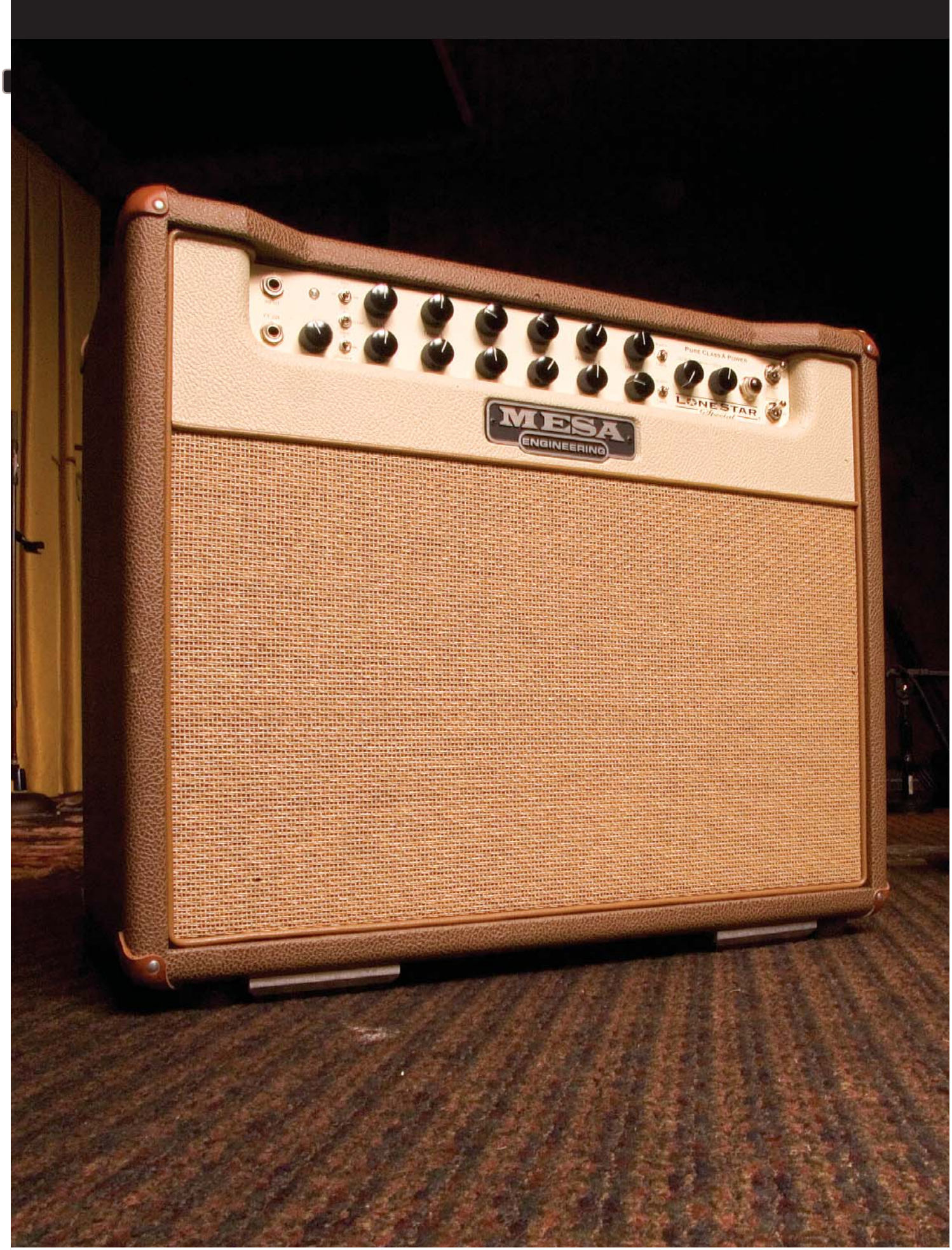

MESA
ENGINEERING
LONESTAR

EDITORS' GuitarPlayer PICK

MESA/BOOGIE LONESTAR SPECIAL

TESTED BY ART THOMPSON

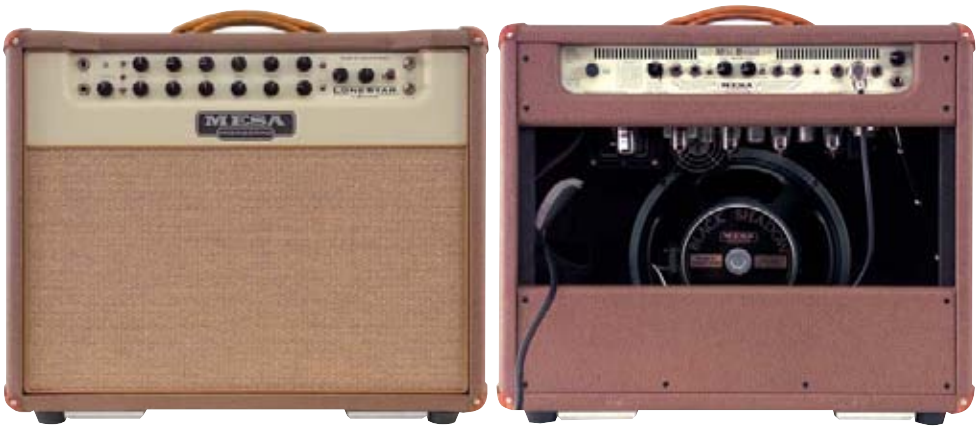
IT'S NOT EASY TO DEVISE ENTIRELY NEW circuit concepts for tube amps these days, but if someone is going to do it, it's likely to be Mesa/Boogie founder Randall Smith. Smith can claim a lot of "firsts" in this business—including tube/solid-state rectifier switching and Simul-Class circuitry—so it's not surprising that he came up with a couple of radically new moves for the Lonestar Special: Channel Assignable Power Switching and a unique power stage that can be switched between push-pull and single-ended operation while using a common output transformer. These elements are described in more detail in the accompanying sidebar, but the upshot is that you can independently assign the Lonestar's channels to operate at 15 or 30 watts in push-pull mode, or at 5 watts in single-ended (single tube) mode. Besides providing low-power operation, the single-ended setting preserves the second harmonic (an octave above the notes played), resulting in richer, thicker, vintage-flavored tone.

Of course, being able to run different power settings on both channels is a big advantage as you can, say, use the 15- or 30-watt positions to maintain a tight, crisp rhythm tone, and then switch to the 5-watt setting for a lead tone that has the sound and feel of a small, cranked-up tube amp. For situations that require more volume, the 15-watt setting works beautifully for lead playing—particularly with the softer dynamic characteristics elicited by the tube rectifier—while switching to the 30-watt setting automatically engages a solid-state rectifier for enhanced tightness and headroom.

'STAR FEATURES

The Special's preamp section sports a Drive function on Channel 2, which, when activated, brings another 12AX7 into play—the gain of which is controlled by the Drive knob. This is not a footswitchable function, but it does allow you to configure Channel 2 for very high levels of sustain. There's also a 3-position voicing switch (Normal, Thick, Thicker) that works on either channel like a variable bright switch to select the frequency range the Treble control enhances. The Normal setting provides the crispiest overall response, and the Thicker setting lowers the treble frequency and adds considerable gain in that range to further saturate the overdrive tones. Another cool function is the Solo control, which is essentially a footswitchable second volume control wired in parallel with the Output knob. The idea is for you to set the Solo knob higher than the Output control, and then toggle it on via a footswitch to obtain the increase in level you need to make your solos jump out.

The Lonestar Special is loaded with functions, some of which are located on the rear



The Lonestar Special's controls can be a little hard to identify unless you're looking straight at the front panel. The tubes are easily accessed without having to remove anything.

PHOTO: PAUL HAGGARD

SPECS

- Two channels
- Independent Gain, Treble, Mid, Bass, Presence, Reverb, and Master controls
- Switchable Drive function for Channel 2
- Channel Assignable Power Switching (30, 15, 5 watts)
- Single-ended (one tube) operation in 5-watt setting
- 3-position voicing switch
- Effects loop with variable send-level control and Bypass switch
- Slave out with level control
- Four EL84 output tubes, 5Y3 rectifier, five 12AX7 preamp tubes
- Automatically switches to diode rectifier in 30-watt setting
- Cooling fan with on/off switch
- 58 lbs

INSTANT GRATIFICATION
MESA/BOOGIE LONESTAR SPECIAL

WHO'S IT FOR?
Players who yearn for more features and flexibility than most EL84-powered combos deliver.

KUDOS
Ability to assign different power levels to each channel. Switchable push-pull/single-ended output stage. Unparalleled ability to optimize rhythm and lead tones.

CONCERNS
Control panel labels are difficult to read when standing above the amp. Rear-mounted reverb controls are inconvenient.

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panel. Here we find a pair of Reverb controls and a Warm/Bright switch for voicing the reverb sound. It's a little hard to reach these knobs, and easy to grab the *wrong* one when you do, but given the crowded front panel, you can see why Mesa opted to locate them there. Three speaker jacks are provided—two Main (4 ohms) and one Optional (8 ohms). The latter is intended primarily for use with the 30-watt setting, where it will deliver approximately 35 watts into an 8-ohm load.

The well-written and very informative manual encourages you to experiment with different impedance matches (or mismatches) between the amp and its supplied 8-ohm Black Shadow speaker, as well as with any extension cabinets you choose. It also states that using the Optional output in combination with the 5-watt or 15-watt settings will cause an impedance mismatch—which may be desirable from a tonal standpoint, as it adds punch in the midrange frequencies.

LONE TONES

One of the beauties of the Lonestar Special—besides its sweet looking tan covering and riveted leather corners—is how readily it offers up its sounds. The tone controls don't have to be nudged much from their straight-up settings to obtain balanced tones, and while different guitars may require a flick of the voicing switch to optimize their response, the Normal and Thick positions proved very suitable for clean to moderate levels of overdrive. The Thicker setting is cool for higher- gain tones—especially with single-coils—but the Lonestar Special is a meaty sounding amp, and further beefing of its tones are often unnecessary. For example, the 5-watt setting is so harmonically rich that I had to use the Normal position on the voicing switch in order to get enough detail and articulation with some humbucker guitars.

The generous cabinet also bolsters low-end girth while enhancing the sense of midrange openness and dimension. It makes the Special heavier and less compact than some 1x12 rigs, but there's no arguing with the sonic rewards gained by giving the speaker some room to breathe.

The Lonestar Special has plenty of volume for most gigs, and its Master and Output (global volume) controls let you control the loudness effectively without killing the tone. You'll need to call on these controls if wailing at whisper levels is the goal, keeping in mind that the 5-watt setting with the Master wide open may be small-amp loud, but that's still *way* loud for living-room shredding.

A STAR IS BORN

Answering the call for a channel-switching combo that can handle a wide range of playing styles, the Lonestar Special is a very hip amp that offers superb build quality, smart features, and excellent tonal range. You get your money's worth and then some here, and considering that workhorse EL84s have never been deployed in such a cutting-edge design, a lot of credit goes to Randall Smith for creating something that rises above the myriad guitar amplifiers that employ this popular power tube. Mesa/Boogie pioneered the compact high-gain combo in the early '70s, but it has taken decades to get all the pieces in place to offer something like the Lonestar Special. So if you've been holding out for a medium-power combo that pushes the envelope of forward-thinking design, your wait is now over.

SEE SIDEBAR ON PAGE 150

RANDALL SMITH'S UNIQUE TWEAKS

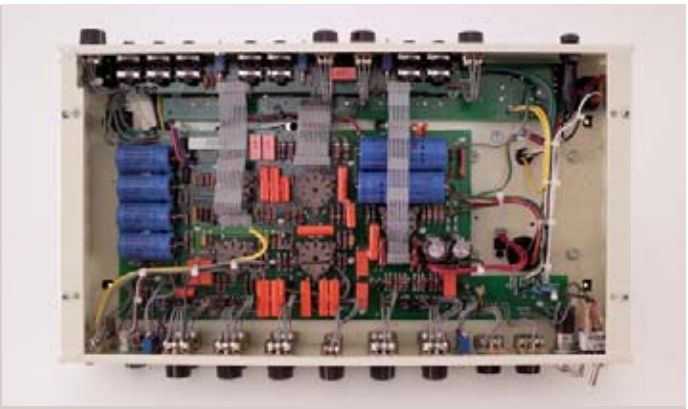
"I couldn't have come up with the Lonestar Special right out of the gate," admits Mesa/Boogie founder Randall Smith. "This new amp pays homage to the original Mark I in having cascadable gain stages, but the Lonestar Special's Channel Assignable Power Switching, which allows you to select a different output wattage—30, 15, or 5 watts—for both channels, has taken me more than 35 years to develop."

Smith actually has two power-amp patents pending for the Lonestar Special—one for the Channel Assignable Power Switching, and another for the single-ended (single power tube) to push-pull (two or more power tubes) switching scheme that's a key feature of the new amp.

"The technical issue that has always existed in trying to get push-pull and single-ended from the same circuit is the output transformer—specifically, its iron core," explains Smith. "For single-ended operation, the transformer needs to have a gapped core that's open on one end—like a horseshoe magnet. This keeps the DC current going through the primary windings in only one direction from saturating the magnetic core. And if the core is saturated, then it can't handle the signal, which is AC. With a push-pull circuit, the transformer doesn't need the gap, because the DC goes into the center tap and then comes out the two push-pull sides in opposite directions. This creates two opposite magnetic fields that cancel each other, sort of like a humbucking pickup—thus preventing core saturation."

The problem of how to switch a push-pull circuit to single-ended operation without also switching to a different output transformer remained unsolved until the answer flashed in Smith's head one day.

"I was swimming in my pool when I suddenly realized that I could use one of the other output tubes to trick the output transformer into thinking it was operating push-pull all the time. I jumped out of the pool, went straight to my workshop to test the theory, and on the scope I could see that it worked.



"In the 5-watt setting, the Lonestar Special is sort of operating with two tubes—except only one is on for audio, and the other is being used for DC offset on the transformer. What this does to the impedance I have no idea. It's probably all wrong, but it's wrong in a good way. Of course, the cool thing isn't just the reduction in power, it's the ability to get that second harmonic in there, which is cancelled in a push-pull circuit. It puts that halo on the sound, which is one of the main reasons why amps with single-ended output stages—such as the Fender Champ—have long been so popular with guitarists." —*AT*

PHOTO: PAUL HAGGARD