

The RetroKing 18 Watt



Fresh on the heels of our admittedly over-the-top

and totally deserved gusher on the Two Fifty Nine tweed Deluxe, what could be better than pointing you to a Marshall-inspired 18 watt 2x12 that outperforms every other 18 watt amp we've played and reviewed – new and vintage? Yes, we're on a heady roll on your behalf, and if a low-power dual EL-84 Marshall style combo might be in your future, nirvana awaits in the RetroKing 18 watt. Granted, we were forced to take a break from the 18 watt thing for a little while... We had been in on the cusp of what turned into an obsession in the custom amp community with this circuit and sound during the past decade, having first bought a vintage 1969 Marshall PA20 head when you could score them for \$900. Nice little dual EL-84 amp with smooth sustain on '7', but that's pretty much all it could do – one tone, one sound, albeit a good one. We also had the rare opportunity to buy an original late '60s Marshall Lead & Bass head and tall 1x12 cabinet loaded with a vintage Celestion greenback – another low-power classic that shared the PA20's limited capabilities. That's also about the time we met Danny Gork, founder of Balls Amplification, who had carefully studied and prototyped his version of the



18 watt circuit using premium components and specific values that were selected to produce a more robust amp with enhanced clarity and harmonic depth. Balls amps were built as 1x12, 2x10 and 2x12

combos and separate heads, and having also reviewed the new hand-wired 18 watt and 20 watt Marshalls, DST and Gabriel 18 watt combos, we felt that Danny had successfully set the standard for having optimized and defined the modern 18 watt Marshall circuit. More 18 watt models continued to appear from other small builders, but we had heard enough to completely 'get' what the design could do, until we recently played Chuck Dean's RetroKing 18 watt 2x12. We asked Chuck to explain his approach to building amps with the per-

spective of both a former touring musician, and a vintage amp enthusiast with a degree in electronics. Our review follows.

TQR: How did you become involved in repairing, modifying and building amps?



I was a touring musician for a long time in California, and I originally came to upstate New York to

play with some people here. I had always been interested in electronics, and to supplement my income I decided to get a degree in electronics and began working on amps in the Syracuse area. There weren't many people here doing that – one or two older guys who had worked in TV and radio repair, and I worked in one of those shops for a while after I graduated. I got pretty good at doing amp repairs and mods and more and more people began bringing their amps in for repair. I worked on Kim Simmons' amps from Savoy Brown and still do, and I was contacted by a local guy who wanted to start a company building small amplifiers called Spirit amps. I worked on that project for a couple of years, and then started RetroKing amps focusing on the early Plexi circuits. Those original Marshall amps had always been my favorite when I was playing. The problem is, maybe one in ten would be exceptional, a couple would sound OK, but there were a lot of them that really didn't sound very good at all. I really liked the '67-'68 Plexi panel amps, but my favorites are the early '69 metal panel amps. I also like the '66 JTM50s when they first went to the solid state rectifier, and I have actually built that amp. I'll build the '69 50W circuit, the 50W '67 amp or the rare '66 JTM50. I don't offer a rectifier switch on the 50 watt amps because to do that you have to add filtering and it messes with the tone.

TQR: Another common misconception about the '60s Marshall amps seems to be that they have much more gain and distortion than was actually the case. It went up incrementally from the late '60s through the '70s and '80s...



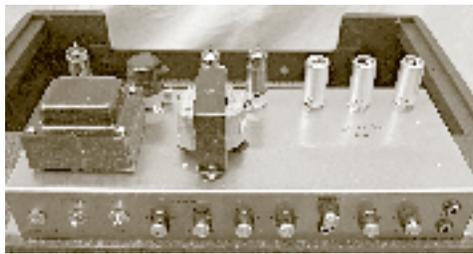
The gain and the treble were increased. The real big difference between

the late '60s amps and those that followed was when they divided the first stage up, sharing the cathode and lowering

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the values on the bright channel caps. The bright channel was brighter and the normal channel was more dull sounding. That, and the components were very inconsistent, including the transformers. A lot of them would blow up, and the workmanship on those amps was very inconsistent as well. But like I said, every once in a while you would get one that was just magical, and I was lucky enough to have a few of those, and that's how I wanted my amps to sound. The difference is, I wanted all of them to sound that good. I wanted consistency, but I also wanted my customers to be able to specify little things they might need, like more high end or more gain on this channel... I don't just follow a schematic and build one version of an amp. I'm a custom builder.

TQR: So you might even consider what type of guitar and pickups someone plays most often.



That's why I developed the Sensitivity Control in the 18 watt amp, because it really enables you to dial in the sweet spot with all types of guitars and pickups. That 18 watt circuit is all power tube – that's where the magic happens in that circuit. The Sensitivity Control controls how hard the power tubes are being hit after the pre-amp section, because most of the gain in the 18 watt circuit comes from the power tubes. It's not like a typical master volume. If you hit EL-84s too hard they tend to get a little harsh and grainy, and this control enables you to smooth things out and manage different input gains such as a Tele versus a Les Paul or the use of a Tube Screamer, etc. With the bigger amps without extra gain stages like a stock Plexi, you have more gain in the preamp section when you include the driver tube, so the post-phase inverter master volume works really well when you incorporate that driver tube and the preamp gain stages. There is always a trade-off with any kind of master volume, I don't care what anybody says... nothing sounds as good as a cranked tube amp. If you're a bedroom player, you don't need a 50 watt amp anyway. When it comes to gain stages, I do recommend the pre-phase inverter master volume because then you can control the gain of extra gain stages before it gets to the driver. I have built amps with both a pre and post master volume circuit in the same amp, which I'm not sure anyone has done other than as a mod.

TQR: I've always wondered why someone didn't build a 30 watt Marshall-style amp to hit that middle ground between an 18W and a 50W amp.

Yeah, well you could do that with four EL-84s and build a

36 watt amp, and I've been thinking about doing that. If you want a 50 watt amp with the versatility of being able to play in smaller clubs, the post-phase inverter master volume is the way to go.

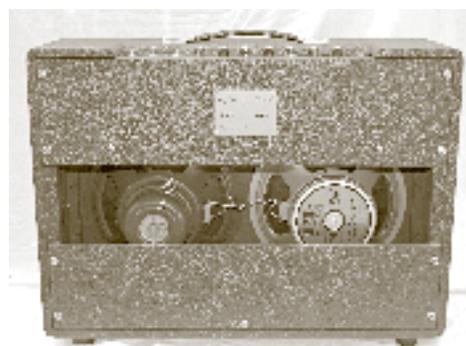
TQR: You also build a 2-stage tremolo in the 18 watt amp...

It's basically the Marshall tremolo circuit, but a little smoother and deeper, and wherever you set the control, it will slow it down by half when you step on the foot pedal.

TQR: You've been around long enough to have played the original amps with the great old tubes that were shipped in them. How do you handle tube selection now?

The JJ preamp tubes seem to be very reliable and consistent. Nothing sounds like the old Mullard or Brimar tubes, but some of them varied as well. So I use JJ, but I'll also hunt down NOS tubes for customers when requested. Regarding power tubes, I really like the TAD (Tube Amp Doctor) EL-84s for the 18 watt amps. It is a thick glass tube, and it has the tone that's more like a cross between an EL-84 and a 6V6 with more headroom and it handles more plate current. As for current production EL34s, the Svetlanas and JJs are really good.

TQR: In the 18 watt we received you also used a very popular combination of a Celestion G12H 30 70th Anniversary and a Celestion G12 Alnico blue.



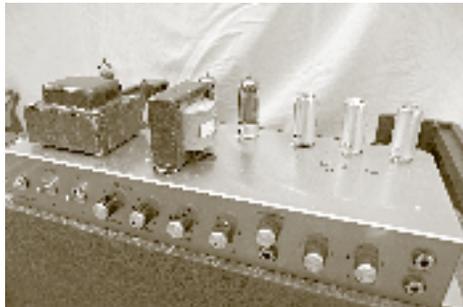
Yeah, the important thing when mixing different speakers is to make sure the sensitivity rating for each is

relatively the same, where one speaker isn't louder than the other. I also prefer using 2x12s wired at 16 ohms, because then you are using more windings on the output transformer, which smooths out the high end and creates a more harmonically rich tone. You'll have a little more high end and clarity with a 4 ohm load, but I prefer the sound of 16 ohms.

TQR: The sound of your 18 watt amp wasn't typical of a 'new' amp. It sounded broken in – richer, warmer and more dimensional than a typical new amp that sounds harder, stiffer and crisp on the top. Is that in part due to the transformers?

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Well, you have a choice between Heyboer and Mercury, and in the 18 watt amp I like the Heyboer. It has a little less high end and it's a little warmer sounding in that circuit. That's only one small part of what you're describing, however. The speaker combination and the Baltic Birch cab make a difference, and the carbon comp resistors are a big part of it. They



are inherently warmer sounding, but some of them are also noisy, so I'll screen them when I build the amp. I'll

also change up cap values depending on what I hear. Some of the original cap values I don't agree with when they add too much low or high end, so I'll tune the circuit when I'm building an amp. What you don't want in an amp is efficiency – you want the opposite, because it's the drift that makes those great old amps sound so good. It adds to the harmonic richness of the sound. If you were to build an amp with all the components exactly to spec, it will be very loud and clean, but it will also be very sterile sounding. When they were building these classic amps, they were using the specific parts because they were inexpensive, but that was a good thing, ultimately, because it wasn't so linear. This was all by mistake, but it is the combination of those inexpensive parts and cheap transformers that produced that tone we all love when we hear it.

TQR: Are you still doing repairs and mods on production amps, and how does the ordering process work, Chuck?



Yes. Building amps is taking up a lot more of my time now, but I still get amps shipped to me from all over the country. There are a lot of standard modifications I do all the time, as well as restoration work and repairs. I

require a 50% deposit and right now the lead time for delivery is about eight weeks.

TQR: Do you have anything new in the works?

I'm thinking about building my version of the JCM800 that actually sounds like that amp should have sounded in the first



place, with really nice gain, but warmer without that ice pick treble. I'm also thinking about building my version of a low-power Twin. I've played enough of them to know what I want, but the parts will be a challenge. I don't like using orange drop caps, and I'll have to research what's available that is similar to the old blue Mallory caps. The caps that

they used in the early blackface amps were my favorites, so to do it right we'll need to find something similar, and of course, I'd use the original tweed with the shellac... I also have a lot of people wanting a little bass combo like the Ampeg B15, but perhaps with a little more headroom.

TQR: And Billy Gibbons has six of the 18 watt amps?

Yeah. I brought the first one to Las Vegas when I was on my way out to California and he just seems to love 'em. He plugged into the first one, looked at me and said, "Wicked."

Review – The RetroKing 18



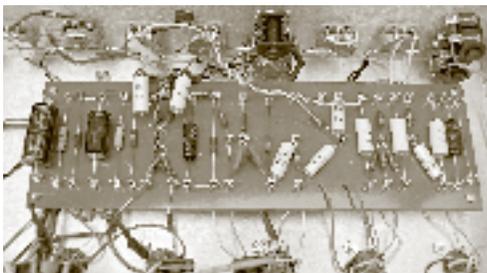
As often as we mention clarity as the most critical quality that defines an exceptional amplifier, readers deserve unequivocal clarity in the

reviews they read as well. Most reviewers dutifully run down features, specs and options, but when it comes to describing tone, dynamics and perceived power, the reviewer's choice of adjectives can leave prospective buyers clueless and confused, or worse, jazzed by unrealistic expectations. So as we describe the RetroKing 18 watt, it's important to keep in mind that while Chuck Dean has tweaked the original circuit to enhance the versatility and toneful character of the RetroKing 18, it is an 18 watt amp that very much honors the unique sound of a Marshall combo. Put another way, it isn't a Fender. What's that mean? It means that the RetroKing 18 possesses a much more aggressive attitude at all settings than a similarly powered blackface Princeton or Deluxe Reverb. Where these Fender classics reveal a scooped midrange tone and bright character, the RetroKing is indeed British in nature, with full, rich mids balancing prominent low-end, and vivid harmonic textures on the top. There are relatively clean tones available at moderate volume levels in the RetroKing – more so than all of the

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other 18 watt amps we have reviewed here when using Dean's Sensitivity Control, but the RetroKing's strength remains in its ability to create exceptionally musical overdriven tones at variable volume levels. **PANEL** Like the Balls amps we first recognized as being far ahead of the pack, the RetroKing just sounds smoother, richer, warmer, and in the 2x12 configuration, bigger than any other 18 watt amps we've evaluated, and the Sensitivity control absolutely makes the Retro-King far more versatile in terms of managing volume without sacrificing the overdriven character of the amp. Add a very useful rectifier switch for a softer tube attack or harder diode, a tone circuit that really does something when you turn that knob, an excellent 2-speed tremolo with footswitch, and a Celestion G12H 30 70th Anniversary mated with an Alnico blue in a custom Baltic Bitch cabinet, and you've got the ultimate Marshall combo in a very portable package that won't break the bank.

At 47 pounds, you can easily tote this amp to the gig without booking a weekly appointment with your chiropractor, and the control layout couldn't be simpler – On and Standby switches, Tremolo Speed and Intensity, Tone and Volume for the trem channel, the Sensitivity control and input, Tone and Volume for the Normal channel with two inputs. The rectifier toggle switch is located on the underside of the chassis with the footswitch input and speaker impedance switch. Simply put, the Sensitivity Control enables you to bring the overall volume up or down while maintaining the overdriven character and feel of the amp from a full roar to roughly half power and volume with none of the rizzy, zizzy faux artifacts imparted by a typical master volume circuit.



We must also note that while it is virtually impossible to successfully

reproduce the sound of a 40 year-old amp using new components, the RetroKing impressed us right out of the box as not sounding exactly 'new.' We immediately noted how the voice of this amplifier seems so elegantly rounded, rich and smooth on the top with no harshness, and how the midrange tones produce an animated vocal character that most amplifiers sorely lack. For an 18 watt, the RetroKing is loud and bold with excellent dynamic touch sensitivity. You feel fully connected through your guitar, and the cabinet seems to impart a sense of space, woody warmth and, here's that word again... clarity to single notes and complex chords. If the 18 watt Marshall vibe is your tone of luv, this is your amp. We'll even have to rank it above our previous benchmark – the Balls, giv-

en the added nimble versatility of the sensitivity control and rectifier switch. We'll bet Mr. Dean's bigger 50 watt models deserve serious consideration, too, and we'll be reviewing one soon. Call Chuck and Quest forth. You'll thank us later. **TQ**

www.retrokingamps.com, 315-673-3435

A Dirty TV Show

The Hogback Growler



This lardass country of ours typically has an aversion to all things small. Understandably so, but some of the wee packages still deliver

good things, like bikinis, espresso shots – hell, any shots for that matter – wiener dog races, and tweed. Speaking of, we've shared shots of tequila with Mr. Valco on the buckled highways from Austin to Atlanta to Nashville and a few points in between, and a hang with the quirky Indiana savant never fails to launch raucous good times, like the Austin parking lot where we bought Stevie's stolen Vibroverb from crackheads packing heat (TQR, Double Trouble, August '07), getting yanked out of The Clermont Lounge when barf flew and a handful of guys were pinballed off the urinals (unreported to protect the innocent), the chocolate-flexing bun cheek after the Gashville NAMM power outage, the reluctant thermostat in Valco's forest service green Hoosier manure wagon shutting down on I65 North... Let's put it this way, whenever we get back from a Valco adventure, first thing to do is take a shower. And then another, "OH TAMMY FAYE I have sinned, and liked it.

We are firm believers that some of you string-ticklers, whether you admit it or not, should immediately wean yourselves from the ever-pathetic-and-certified-homo-erotic-guitar-wanker chat rooms and conjure up some little project of your own to better amuse and alter your dendrites. Lest we forget, we are all headed for the same inevitable flatline, might as well make the most of it today. Plus, it is definitely fun to have something creative on the horizon. For our part, we found an empty and pillaged '50s TV front cabinet for a tweed Fender Princeton with nothing left in the vintage beater but the original tube chart (serial #2365 signed in the obligatory green ink) looking lovely. We guessed Mr. Valco could be counted on to orchestrate something beautiful in it, so we bit and placed the call. Yes, holy mother of pearl we are huge fans of cranking

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