



and there, so expect to install a heavier set of strings, adjust the truss rod, bridge and intonation.

The Wildkat is a “thinline” hollow-body, but the construction is unlike a typical vintage hollowbody since the body and sides are actually carved from a solid piece of mahogany. You can imagine how much more efficient this method is compared to joining separate sides to the back and top, and given the grade of mahogany used, it produces a heavier guitar – 8.45 pounds for our Wildkat. The maple neck is also spliced just above the heel and at the first fret using three separate pieces, which eliminates the time and expense required to carve the heel and peghead from a single piece of wood. The original fret work on the Wildkat was surprisingly good, and the neck was straight with a very responsive truss rod. The plastic nut would probably have lasted for years, but as with all incremental upgrades, a bone nut improves tone and sustain.

The “licensed by Bigsby” tailpiece seems to work just fine, and we haven’t found anything obviously lacking in its construction or performance. The Wilkinson roller bridge is a huge improvement that will enable this guitar to remain in tune when the Bigsby is used. Of course, the Grover-style reproduction die-cast tuners could be viewed askance, but so far they are working flawlessly. The 500K pots are cheaper than typical CTS or Gibson pots, as is the plastic insulated wiring and the input jack, but they are still superior to many of the original parts found inside the early Fender Japanese

reissues, and there are no miniature pots in the Wildkat. The original P90 pickups were just a little muddy sounding compared to what we are accustomed to hearing, but not horribly so, and we’re certain that many players could happily live with them. Obviously, the Lollar rewind was a big step up, with improved string definition and his trademark “airy” tone, even if a rewind approaches a third the cost of the entire guitar...



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The finish and cosmetic details on the Wildkat are clearly areas that receive a lot of attention in production. The fine details of the binding, fret work and finish are phenomenal for such a bargain instrument, culminating in a very cool, retro design in which form and function meet to create an affordable guitar that is a blast to play. Dan’s artful upgrades may seem like overkill for such an inexpensive guitar, but they were also instructive, revealing both the full potential of the Wildkat and the level of quality that was present right out of the box. **To**

[www.epiphone.com](http://www.epiphone.com)



*Online forums and discussion pages are a lot like virtual clubhouses where the members regularly meet to swap stories, share information and chat online, the difference being that many online “clubs” can claim far more members than could ever be assembled under one roof. And like any club, forums can take on the personalities of their most vocal, energetic and influential members, which can be good... and sometimes not so good. At their worst, forums morph into closed cliques populated by self-appointed Internet experts with bloated egos who pounce on innocent newcomers without mercy. At their best, forums are rich with deeply experienced enthusiasts who are always willing to share what they have learned and for whom no sincere question is beneath answering with respect and courtesy.*



*If not for a group of Marshall 18W amp enthusiasts at the 18W*

*Community Center and their forum at [www.18watt.com](http://www.18watt.com), the founder of Gabriel Sound Garage, Gabriel Bucataru, may never have seen his dream of building amplifiers come true. The same can be said for Danny Gork, founder of Balls amps, and many others. The 18 watt forum is a shining example of the best community forums the web has to offer, and thanks to the tone first set by the group’s founder, Graydon Stuckey of GDS Amplification, 18watt.com continues to inspire and inform amp enthusiasts to build their dreams – even those challenged by growing up in a country where western products were literally banned, like Gabriel Bucataru, founder of the Gabriel Sound Garage. Enjoy...*

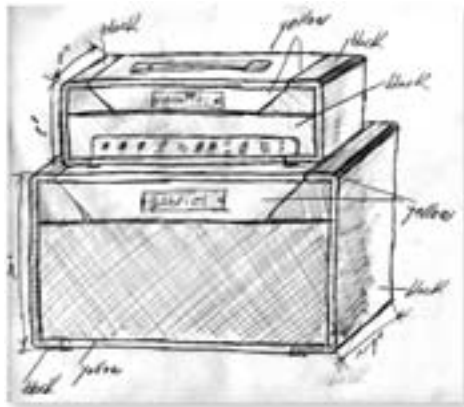
I grew up in Romania and the first time I remember ever laying hands on a tube amp was in the second grade. My cousin gave me this funky electric guitar with gold-sparkle paint and

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a cheesy Russian looking tube amp with one of those oval speakers. Shortly thereafter I began to take guitar lessons, and I played in the school's band, which was comprised of about 15 accordions and one pathetic electric guitar player (me.) What was even more pathetic was the fact that we had to play communist songs about the country's dictator at the time (Ceausescu.)

But despite all of that, the guitar stuck with me. I played in rock bands for several years and became increasingly aware of good tone and how to get it. I started collecting old, busted B&W television sets and stuck my nose in every possible old radio searching for parts for projects – small power amps, guitar effects, radios, etc. This was how I gained my early experience with electronics. Information was very precious and difficult to obtain in those days, and Western amps were very rare in Romania. If you were to obtain one, you would have been screened and cleared by the secret police, because you could get in big trouble for possessing items from the West (blue-jeans, Chuck Taylor's etc.) So I played through a few obscure Romanian and Russian tube amps, and I don't even remember their names anymore. My favorite tones always came from the records I was listening to – mostly British bands, so that meant old Marshalls and Voxes. Although I did not play these amps in my teenage years, they always held a special place in my heart. I came to the United States in early 2000 and finally got to play these amps for the first time.

**TQR:** How did your interest in amplifiers bloom once you arrived in the U.S.?



After lurking on several amp-building forums and researching Marshall schematics, I landed on the 18watt yahoo group initiated by Graydon

Stuckey of GDS Amplification. I got the greatest help and documentation on this amazing 18 watt amplifier from people who even now are the heart of the 18 watt community: Richie Hall (developer of the 18watt TMB), Mark Durham (Vajra version), Phil Rowley (Lite), Mark Huss (Lite I, II), Dan Boul (from 65Amps), Jeff Swanson (from Swanson cabinets), Adam Karol (first photos gallery), Nik Azam (from Ceriatone Amp Kits) and so many others who I highly respect for the knowledge that they share so freely.

In March of 2002, we moved to our current site; The 18 watt Community Center ([www.18watt.com](http://www.18watt.com)) and this has offered a more user-friendly environment than the previous site. Given my background in web and graphic design, I was a logical choice for site administrator. Graydon, Mark and Jeff from the yahoo group continue to contribute as moderators. One thing that is special about this forum is our acceptance and respects for newcomers. We presently enjoy the friendship



and input of over 2,900 members of 18watt.com. If you want to know if you are buying an original or a "spoofed" Marshall 18 watt combo, just submit a couple of pictures and/or the

seller's explanation and within minutes you will receive expert analysis from the members on its validity, down to the last resistor. It is good to know that there is such an army of people ready to help, not to mention the wonderful hybrids that this group is responsible for, all based on the amazing EL84 circuit.

Guests and members of 18watt.com will find a "Downloads" section filled with wiring diagrams and schematics of the original 18 watt amp as well as hybrids, cabinet diagrams and popular mods. Our Sounds section contains mp3 tone bites of several member's amps, as well as sound samples of many different output transformers and EL84 power tubes. There are also close to 2,000 pictures in our Gallery of originals and "clone" amps built by forum members. And of course, the forum has captivating topics daily about this amazing amplifier. It is a sharing community and a fun place to hang out, and I depend on it like water. The forum format has given me an opportunity that was just never available to builders in the past – the opportunity to have a constant exchange of ideas with so many knowledgeable people. It is even fun to entertain the questions of complete novices. They some times help us to push the envelope, since they are not constrained by convention.

**TQR:** When did you actually begin building amplifiers, and what did you want to accomplish?

I've been working with electronic circuits since early childhood and about four years ago this turned from a hobby to a

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First Born Gabriel 18 watt combo.

passion. I guess you could say it started with my first clone of the 18 watt. I built the cabinet and even tolexed it myself. The chassis was bent at a gutter company for a case of Corona (I am their favorite customer to this day) and the footswitch was built from an old porch lamp part. This was before much of the 18 watt aftermarket came about. It wasn't an easy project, but it was a great way to experiment with all aspects of the 18 watt construction.

If you study the amps from the '50s and '60s, you realize there was a lot of cross-pollinating going on (if not outright copying.) The guys working with Leo and Jim were not cork sniffers! They were simply guys who wanted to (ironically) build distortion free amps. Now there is a whole industry digging for their secrets, when in fact the secrets have been in the RCA book all along. When you stop trying so hard and try to think like the guys responsible for the amps that have stood the test of time, you might just build one that will likewise become legendary.

My amps thus far have all started with the "stock" EL84 18 watt circuit. There is something very distinctive and beautiful about this cathode-biased EL84 circuitry. Specifically, it's those power tubes that are run quite hot – very close to their dissipation limits. I really like to have that come through in all of my models. The heart of Gabriel Sound Garage is the 18 watt amp, available as a Head or Combo in either 1x12, 2x10 or 2x12 speaker configurations. The 18 watt amp is a two-channel amp. The Normal channel has just Tone and



Volume controls as well as Speed and Intensity controls. British amps are not generally known for their tremolo, but this one is sure to please tremolo fans.

Volume, making it virtually impossible to dial in a bad tone. The Tremolo channel has its own Tone

My most basic amp is the LowCarb. It is a bare bones 18 watt amp with only Tone and Volume knobs and Hi and Low inputs. It uses one less preamp tube than the original, so the voltages were tamed a bit. Although most people assume that it is basically the Normal channel of the full 18 watt, the component values have more in common with those of the Tremolo channel – it's a little brighter than the Normal channel.

The LowCarb is available as a head or a compact 1x12 combo. One of the factors that influenced this small head was a touring customer (and excellent guitar player) Colin John of the Colin John Band, who wanted to take his cherished baby around the world on airplanes rather than check it in and leave it at the mercy of baggage handlers. The combo features a Celestion G12H30 to help make up for the slight bass loss of the smaller cabinet. What you end up with is a simple version of a legendary tone machine that's very portable and has a very ballsy tone with just two dials.

Finally, there is the Voxer. This too is a two-channel amp where the Normal channel is taken directly from the 18 watt circuit. The other channel has a Voxish preamp, similar to the AC-15. It's the result of my experimenting with the EF86 pentode. The EF86 is a very different tube and presents a



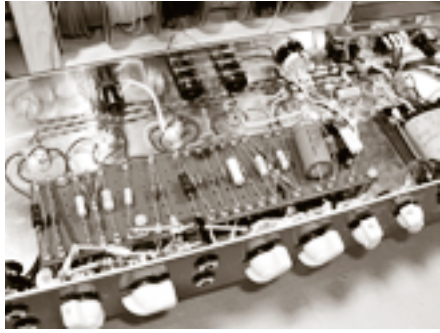
great deal of challenges. It's very fussy about vibrations and needs a rather sophisticated shock mount as well as

being kept as far as possible from the speaker. It's a lot of extra work and consideration, but it delivers a sweet tone that's soothing with a nice jangly overdrive.

I loved playing with different cathode caps and resistor values on the Voxer, as well as tweaking the voltages on the pre-amp stage. It's unbelievable how dramatic the results are. You literally have a whole pallet of tones built in along the Volume dial on this channel. It starts out with a Vox-like jangly clean tone up to about 3, then you enter into a realm with beautiful crunchy mids, ending with a very impressive, vintage sounding edgy overdrive with a pronounced presence that pushes your guitar out in front of the band. I like to use an A/B box between the channels on this amp – it's the closest thing to having two amps!

It is funny how the same circuit can sound so different

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depending on the components one uses. It is almost like home brewed beer. There are so many variables that have to be tested and refined. I got very picky

about selecting my ingredients, and I've concluded that the Mallory 150 caps do wonders in my amps. They need some breaking in (about an hour), but once they shake hands with all the other components, they deliver better tone than their alternatives.

I also settled on carbon composition resistors. Of course this is a highly controversial topic in terms of noise, etc., but I feel that is a big factor in capturing and creating those retro tones. I have found that proper grounding, capacitor orientation and careful resistor measuring and matching play a big role.

**TQR:** What kinds of speakers do you use?

I have tested quite a few speakers to make what I feel are ideal pairings. For example, because the LowCarb combo is in such a small box, some extra low-end response from the speaker is needed. The Celestion G12H30 fit the bill perfectly. My full-size 1x12 combos and extension cabinets favor a Greenback. The timbre, punch and well-defined edge of that speaker lend well to the 1x12 open back cabinet. As for the 2x12 configuration, I like to take a mixed approach and combine a Greenback with the Celestion Blue. The Blue, being slightly louder than the Greenback (100db as opposed to 97db) and sweeter (due to the AlNiCo magnet), delivers excellent compression that complements the punchy and well-defined edge of the Greenback. This interplay between the two becomes more evident as they are driven harder. As with most speakers, this combination also benefits greatly from a rather long break-in period, but it's worth it. I am very eager to try Celestion's recent re-creation of their Heritage Series guitar speakers. They are apparently the closest to the original version of the 30 watt "pre Rola" G12H and G12M.

**TQR:** Tell us about the transformers you use, their design, and what was involved in determining the right specs and characteristics for your amps, and who builds them.

The output transformer is a huge part of the 18 watt sound. I'm currently using a clone of the original Radio Spares EL 84 18 watt output transformer, built by Heyboer and distrib-



uted by Graydon Stuckey of GDS Amps. It was made after thoroughly dissecting and analyzing an old original. Sonically, this thing is danger-

ously close to the RS, and to date it has consistently gotten wonderful reviews from the 18 watt community.

In the near future I'll be switching to a Gabriel custom 18 watt OT. It will feature metal end bells and have a little brighter tone to bring out the best of the 18 watt amp. I've already received the first prototype and I'm quite excited with the possibilities. The only thing that might be better would be a treasure chest filled with aged Radio Spares EL84 OT's.

**TQR:** How important is the choice of tubes you use?

By default, my amps ship with EL84's and 12AX7's from JJ Electronics (formerly Tesla). I have found these to be excellent in terms of reliability. Preamp microphonics are negligible and the JJ EL84 plate material can take the heat pretty well, which is essential since I run them quite hot (close to 12W dissipation). I use Electro Harmonics 6CA4 for the rectifier and choose from between NOS Amperex "Bugle Boys," Valvo's, and Mullards, for the EF86 tube in the Voxer. Even though I buy pre-tested tubes, I end up going through a quite a few until I find one that is minimally microphonic. The burn-in is the fun part for me. That is where I get the rare chance to actually play guitar (it's amazing how few opportunities I have to just play since I've started building amps.) One specific thing that I do is to switch the amp on with the



volume set to around 2 and just listen as I work to hear any suspicious noises. I'll often do this for a good eight

hours just to be sure the amp is quiet and there are no symptoms of something that may cause problems in the future. The burn-in process starts in my shop and is continued by the owner while the amp gets better, hour-by-hour. It is much like wine in this way – it should get better with time.

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The speaker break-in process is a rather noisy one. I use a 6.3 filament transformer connected to the speaker and pump a signal at about one third the speaker's power rating for about 24 hours. The result is a tender spider and cone ready to deliver a smooth tone as opposed to the shrill tone of a new speaker.

**TQR:** What's ahead?

I'm presently experimenting with a four EL 84 model that will have 36 watts. My current offerings are all gig worthy, but with a 36 watt amp I'll be able to offer a model with great clean headroom. This will likely result in 36 watt versions of LowCarb and Voxer as well. Another project I'm working on is developing a great sounding reverb circuit for use in my amps. The challenge here is to have a reverb that is a good fit with the other well-defined characteristics of my amps. I don't want to just throw in a Fender sounding reverb without preserving the signature sound of the 18 watt circuit. In the meantime, I'm also toying with some distinctive new cabinet designs. But until then, even if people don't remember the name of the Gabriel Sound Garage, they will remember "that guy with the yellow and black amps!" **To**



LOW-CARB 18W COMBO

If you've ever wondered why there seem to be so many new, small-batch amplifiers being built today by builders who have embraced the sonic architecture of the original Marshall 18W combo (with a few personal twists) now, you know. The 18W page has pollinated the community of ampheads with the 18W disease quite effectively within the past several years, much to the benefit and delight of guitarists everywhere. But is this fascination with 18 watts merely another passing fad



or something more? Well, we could just as easily be talking about 22 watts (Fender Deluxe), 15 watts (AC15) or 12 watts (Princeton) if not for the fact that Jim Marshall, Ken Bran and Dudley Craven happened to have

designed a feisty little 18 watt combo circuit that simply speaks to a lot of players. "Give people what they want," (even before they may realize they want it.)

The Gabriel "Low-Carb" 18W is a meticulously built rendition of the Marshall 18W, minus the quirks and eccentricities of an original amp with internal components that would now be 40 years old. We've owned and played several 18W and 20W vintage Marshall amps, and they all age differently and sound different. Aside from the collectible appeal and good smell of an old amp, new amps like the Low-Carb offer a more consistent tone that can actually surpass that of an original for a fraction of the cost, and in a wider variety of optional speaker and cabinet configurations.



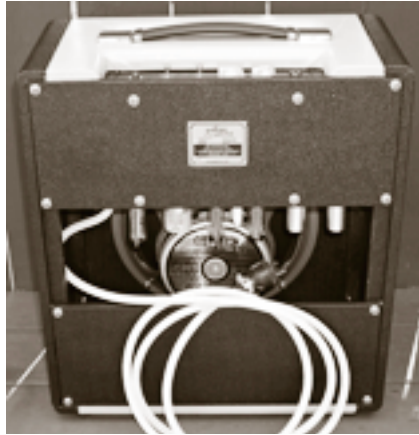
Our review amp was the Gabriel Low-Carb 1x12, and since a compact combo doesn't

move nearly as much air as a 2x12 cabinet, some players may wish to consider whether or not they need the additional presence, power and perceived headroom that a 2x12 can deliver.

The 1x12 version is perfect for small clubs, small stages and recording, so it all comes down to the question we posed earlier... "What do you really need?" You may *want* a head and 2x12 cab, but is it what you need for most situations? Either way, the Gabriel Low-Carb easily ranks among the best 18W amps being built today. Its tone is neither too bright or tame, but very well balanced with the warmth and complexity of a great vintage amp that has aged well. The Low-Carb's build quality is outstanding, and it has the capacity to produce gradual levels of earthy, overdriven tones that work equally well with whatever type of guitar you may play, from single coil Fenders and P90s to humbuckers and bluesy Bobcats. What you won't get are significant levels of clean tones at moderate to high volume.

Even if an 18W amp like the Low-Carb isn't in your future, there is also much to be learned from the decisions that builders like Gabriel have made when it comes to slippery subjects like... *speakers*. Why, for example, do so many builders of custom amps use the Celestion G12H, especially in 1x12 combos or matched with a complimentary speaker in a 2x12 cab? Because they produce tremendous low-end and full midrange tones that smaller cabinets often need to sound full, round and rich, and the G12H fits the bill without dump-

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ing high frequencies. It's a great speaker that simply continues to win the speaker evaluations that so many custom builders routinely conduct. The same can be said for tube choices. Amp builders will listen to nearly every cur-

rent-production tube available for their amps and evaluate them both for tone and dependability, and they use more tubes in a year than we will buy in a lifetime. Why not benefit from their experience?

The Gabriel Low-Carb is representative of the pinnacle of the art within the 18W community, and the black & yellow color scheme is a winner. But the best reason to buy any of these amps is to simply experience and support the incredible level of passionate craftsmanship and uncompromising tone that these amplifiers offer. Builders like Gabriel beat *all* the details out of sheer love, they will work with you to acquire what you need in an amplifier, and they truly care about achieving a happy and harmonious outcome. **To**

[www.gabtone.com](http://www.gabtone.com), 847-394-5091

TREM-O-VERB 1x12

LOUIS ELECTRIC

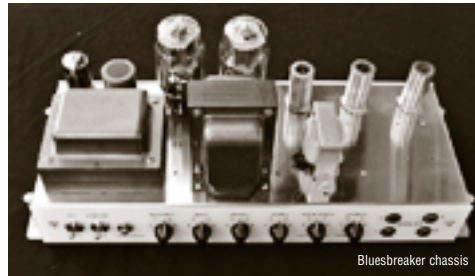
Every time we check in with Lou Rosano, founder of Louis Electric, he always tells us how excited he is about another



amp he's just completed. Lou isn't really pitching us... it's just that he really *is* excited. Dude loves building amps and savoring the results

when he's done, but it seems as if he's never done... No sooner had we finished talking about the subject of this review when he began describing the 45W 2x12

"Bluesbreaker" he had just finished for a client. Forty five watts? Oooo... Stay tuned.



Last spring we told Lou about our newest flame – the '62 brown Vibrolux, and he

expansively replied, "*Really?*" A few months later Lou called to tell us he had something he wanted us to hear, *boom, boom, boom, boom*. And now, it's your turn. The Trem-o-Verb earns a big nod from us on all counts as an extraordinarily versatile, hand-built, dual 6L6 1x12 combo pushing 35-40 watts. We spent several weeks comparing it to our personal all-time favorite '62 brown Vibrolux (the one we kept out of three we reviewed this year), and here's our report...

Since it's a new amp, the Trem-o-Verb sounds new, as in crisp, lively, forward and full of fresh bounce. By comparison, our brown Vibrolux is a little darker – you might say that it even sounds more *evil* and wooly than Lou's amp, or that Lou's amp sounds *happier*. Either way, this is good. The Trem-o-Verb possesses about 20% more clean headroom and power than our Vibrolux, and the tone controls produce slightly cleaner, more defined EQ, yet the Trem-o-Verb slips into a creamy, overdriven tone at about 6 or 7 on the volume



control that can be cleaned up from the guitar in a snap. So, we consider the special

magic found in our Vibrolux to be equally present in the Trem-o-Verb, which is why we love this amp, either as a potential substitute for a vintage brown Vibrolux or as a very worthy backup.

Add lush reverb driven by a full-length Accutronics pan, old-school Tremolo that slithers and pulses like it's s'posed to (and it slows all the way down to a creepy crawl), all housed in a retro-cool big pine box covered in brown tolex (or any other color you choose) and you've got an amp that can cut just about any gig and style of music. You'll also notice another Celestion G12H 70th Anniversary speaker loaded in the Trem-o-Verb (available for \$120.00 from Antique Electronic Supply, [www.tubesandmore.com](http://www.tubesandmore.com).)

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