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# the ToneQuest

*The Player's Guide to Ultimate Tone* Report™  
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## The Milkman Delivers

*The throes of spring are here. This world is whirling away so fast. Another sunrise. Another moon liting through the cloudless skies. How much time will any of us even have here to chase our dreams and find joy? As we all make sense of this life, our place in it, and reflect deeply into ourselves asking what truly matters, the answers are simple. Love, without question, is the reason why we are here. In every sense of the word. This world asks that we be there for each other, take care of each other, and hold each other on high.*



*As for the rest of things, we believe the smallest moments are everything. The moments when the hustle bustle, the rote, the tail chasing, are awash in the ether, out of our minds, and we are absolutely present. We are here now. What gives us this state of "presence?" When our hands are held in another. For sure. And oh, damn, when our hands are around the neck of a guitar we cherish and know, with a few feet of cable leading to the amp we've had at our hips for decades, that aquamarine jewel light shimmering, the tubes basking in the incandescent orange glow of the heater elements, and yes, oh, yes, the notes pouring forth from our hearts through the speaker, filling the entire room and onward. This is why we write this issue. It is for you, our kindred souls. Our family in being present to celebrate the creative essence of all things music, all things wood, wire, air, earth elements, and the wickedly magical energy we are tapping into thanks to these instruments.*

vintage Fender reverb units, one was black, the other a mint blonde, and they were disappointing tone sucks. The onboard reverb and tremolo in our black panel amps are magical, indeed, but the old standalone Fender tanks have always been problematic. They got sold. To us, this Milkman tank one-ups them, and it adds the surreal and stunning harmonic tremolo. The first guitar input of the two has a sublime signal boost that's killer, while the second is simply level. The usability of the knobs is right on the money, especially the tone knob, which lets us dial in each guitar or amp the way they should be. The DWELL knob is as gonzo as you need it to be. We don't want to live without this, and we won't be shipping it back. We are more than happy to ante up for this one, as it has been everything we were hoping for, and more. And yes, it loves Telefunken and RCA 12ax7s in the preamp section. But who doesn't? The check is in the mail.



The F-Stop Pedal is a rowdy plug and play version of the standalone reverb tremolo unit, and for the money, it's a good one to check out. It is game on for fly gigs when you want to pull out surf instrumentals and old school grooves. It even has an accessible rear trim pot you can dial in tremolo output with. What a classy move. We found that it digs cleans, and the well fabricated casing feels

bulletproof. It is just a hair on the bright side, which can be a good thing, so simply EQ it to taste. The spring portion of the circuit is digital, but the guitar signal path and tremolo are analog. Although on paper it has both effects, it is obviously different from the standalone unit, which is another world of tube driven warmth altogether. It is beyond fun to let rip with the F-Stop, indeed. We'll file this under, "Ace in the hole."



## A Candid Encore

It seems like ages since the offerings from an amp builder have moved us so. It's about time. You should know that we have gotten quite a few from others through the years in for review, and we simply sent them back, not feeling they were up to par. Same with pedals. We just shipped a "famous" one worth hundreds of dollars back the same day it landed here. Too painfully digital and lackluster. No thanks. We are happy to shine the ToneQuest light on everything that sets the bar, although there just isn't as much out there as one might think. They are there, though, the freaks of nature,



and we will find them to celebrate here, you bet your guitar cranking ass. As far as our final thoughts about Tim Marcus, we declare him up there at the top of the mountain with his work. Here is a guy who is getting everything right. Who rides his bike to work and makes truly special products that inspire musicians to be the best versions of themselves, and at the end of the day, he simply cruises home to the family he deeply cherishes. Through the night we bet he dreams of amps, of all that could be. And when the sun rises in San Francisco Bay, he rolls out to the shop and does it again. Quest forth... **TQ** —*Riverhorse*

[milkmansound.com](http://milkmansound.com)  
[pedalsteelamp.com](http://pedalsteelamp.com)  
[timmarcus.com](http://timmarcus.com)

CHRIS YOUNG

## Jupiter Speakers



**TQR:** Good to catch up with you, Chris. We know you are a serious audiophile, but how in the world does someone find their way to making stellar capacitors and speakers like you have? That is quite the rabbit hole.

Audio is a deep interest for me. I grew up in Ohio and Western Electric gear has always been fascinating to me. The way I ended up at WGS was by building a clone of a Western Electric speaker. I had cone tooling made, and a cone company directed me to them, which was nice. They were only doing Celestion type speakers at the time, and then began

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doing builds for me. One of the guys asked me what I knew about Jensen speakers, and I responded, quite a bit, because Jensen are a favorite of mine. We decided to work on guitar speakers, and that's how it all started.

**TQR:** Well, some things are meant to be. What is it about Ohio? We have all sorts of great players, builders, and characters we are meeting round there. The Cuyahoga Valley near your home is beautiful. So, you went from hi-fi audio to guitar, but you already had other electrical endeavors.

Yes, I started out making capacitors, which is still pretty much the heart of it all. I was making wire products as well. My start in capacitors began by studying the Bell Telephone Laboratory chemistry journals, engineering notes, and I made friends with people at capacitor companies. I even got in touch with some of the old RCA engineers who developed early speakers.

**TQR:** Were you using old tube amps with your hi-fi and went through the chain to connect the dots finding out why they were special, which led you to the components?

In college, I was more so buying run-of-the-mill high-end audio gear. As a college student, my budget started to run out and I looked at building gear. The Western Electric gear became a focus for me. I felt like I had missed the window of when they were at "giveaway prices." Western Electric had become expensive by the time I had discovered their speakers. They developed most of the vacuum tubes, most of the circuits for tube amps, and did most of the early speaker development work. Jensen was one of their prime contractors. I am a fan of the early speakers like the Jensen PLJ18, which



was an auditorium speaker, and it was similar to the Western Electric 4181. My understanding of the history of Fender amps and the early speakers, is that they ended up using the Jensens, which were surplus speakers from the war era.

**TQR:** They sure did. So WGS does all the builds for you? How has that process been for you?

We start with a plan of what I am looking for and what parts are available to procure. Then, just like anything, sample builds. I was listening to old Jensens, and would A/B everything, and more importantly, I was getting a feel for what people's preferences are. I know my preferences are for

more vintage construction types. Paper voice coils, how they sound and how it feels when you play or listen. I realized that the times and people have changed. Now people have different preferences for sound and tone than those who grew up thirty to forty years ago. Most people do not prefer paper voice coils, which is not what I expected. Kapton coils have a really interesting warm, holographic, 3-D type of sound. However, if you push it, they break up differently. I wouldn't call them harsh sounding, but more present so maybe brighter. I am always cognizant of how I word things because some words mean different things to different users.



**TQR:** Yes, the word warm can mean many things to guitarists, good luck with that, ahaha. Tell us about this 50-watt Jupiter alnico 12-inch speaker. We have a 1959 Jensen in one of the Deluxe Reverbs, and we would say this speaker is the closest modern equivalent to vintage we have heard. It's fantastic. And it definitely caught us out of left field. The way Tim at Milkman voices his amps to go with this speaker is perfect. We are going to crank these in a few amps with different guitars and applications, and then write about them for reviews to go with this conversation. We live for this. Tim did say the ceramic version of this has incredible detail, too. You were going for a vintage P12N sound with the alnico?

Yes, exactly. One of the factors, aside from tone, was longevity in the field. Back in the day were there reconers in every town. If you blew up a speaker you would get it reconed. These days, it seems like people want things to last forever. A lot of consumers expect that. The process was detailed. I knew what kind of dust cap I wanted based on how the true vintage speakers were built. A great deal of the tonality is

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balancing the components like the spider, versus what the gaps are, the coil height, so that it's not overly sensitive but not dead sounding.

**TQR:** You've certainly done something wonderful. We are doing an extensive project with 15-inch speakers soon and are already gearing up for it. We have a hundred-year-old pine cabinet with a vintage potato sack grill cloth Larry Pogreba hand built for us that is light as a feather with a huge body. We can't wait to hear the fifteen in it. What can you tell us about Jupiter's alnico?



The 15 is a different beast all together. It has a felted cone. It is a single piece where it is felted on a tool. Everything else that we are making for guitar is a calendered paper, which goes through a roller mill to get compressed, and it is a harder denser paper than a felted paper. That gets cut into something that looks like a

Pac-Man shape, and it gets seamed, sprayed down, and pressed into a mold. After the mold, some of the differences that you start with are the treatments you can apply to the same type of paper, such as whether it is lacquer-dipped, a homogenous lacquer dip, or a progressive dip, or a secondary dip just for the neck of it to add rigidity. There are a lot of variances like that, for speakers. So, things that appear as if they are identical might not be. The vintage Jensen P15N compared the to the Jupiter 15 may have a bit less weight to the sound and be less sensitive. The Jupiter 15 has a longer break in, with its full paper surround, and thicker paper. The spider and the surround need to break in mechanically. If you have cloth surround the break-in period is shorter.

**TQR:** How do you feel about the durability of Jupiter speakers compared to vintage Jensens?

This all comes down to how aggressively they are played and for how long at a time. We've only had one consumer who had a C10N from us that felt it needed a recone. That's the only player ever. It's been more than eight years and he must have played it extensively. The coil looked great. Everything that I am making is underrated for power. They can take more power than listed, by the way. As far as other materials, I don't know if the steels have improved, but it is probably easier to get better quality low-carbon steel these days, which will give you more flux in the gap. The magnets have gotten better. Alnico is probably only marginally better, but enough that I bet it's about 2 dB more than what a vintage

speaker would have been. The ceramic magnets have vastly improved. The ceramic 12 is really nice. For years it was a best seller.

**TQR:** How is the breakup on them? Do they have a brighter top end that needs to be considered for applications when cranked up?

It's brighter with more sizzle. The alnico is warmer and creamier.

**TQR:** Do you feel you have these speakers dialed in where you want them or are you still tweaking? From here, are you working on new projects?

We did release some new speakers. They are the Midnight Series. There are only three of them. The large 12 ceramic, the large 12 alnico, and the large ceramic 10.



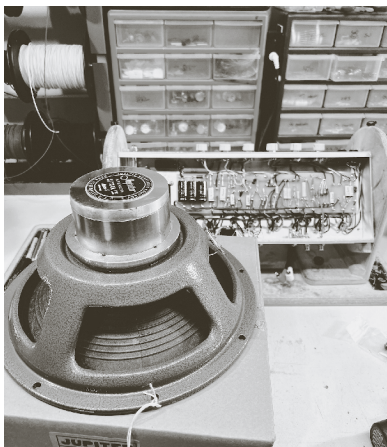
Just because we could adjust the sensitivity of the speaker. They are about 2 dB less and the idea was that you could play them in the evening without quite as much volume. They are more geared towards studio and home use. For years we were building them, and they weren't part of the standard lineup, and we decided to put them out. People really want to be able to tailor their sound. There are enough people who really want a paper voice coil and who like the way it sounds. They aren't worried about burning it up. They like the sound so much if it did burn up, that's fine, they were using it the way they should. They are fewer and far between. For some reason, people in Portland seem to blow up a lot of gear. (laughs) You need to hear the 10-inch Midnight speaker. Sometimes you just luck out and get it right and the build turns out amazing. That speaker is really nice.

**TQR:** Excellent. We'll put it in the Princeton Reverbs and give them a ride. We are so tired of modern speakers that don't have clarity, and so the 12 of yours is such a joy to crank.

There is a lot of scammy in the speaker world. Some hemp speakers, for example, don't use any hemp. They use what is called manila hemp, which is abacus fiber or banana leaf fiber. They end up with a really heavy, dark sounding cone. Something that I've done that I have yet to decide if it will ever turn into a product offering, is that for the past eight years or so, we used actual hemp. We used bast and hurd fiber and some recycled clothing fiber, and made the sheets by hand. Then we made the cones, and they were pretty interesting. They were along the lines of the seamed cone you have been listening to. They can sound like a blend of ceramic and alnico.

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**TQR:** Congrats on all of the amazing work. We look forward to putting them all through the paces.



Awesome. I hope this interview is helpful for ToneQuest readers. I'm not a musician, but I am a listener. Whether it is coffee, food, or capacitors, or speakers, everything gets taken as far as I can take it. Look at the back of our speakers, for example. The black plate label of our speaker is actually an embossed aluminum plate. All of the artwork is laser engraved into them for the model number and such. Another project that spun out of control seeking the highest artistic and audio quality. TQ —Riverhorse

## The Bison 15

"Montana, this is the ToneQuest Mother Ship calling, are you there?" "Affirmative Riverhorse, this is El Capitan Loco Gonzo, Larry Pogreba. I have the Bison and it is heading your way. Houston, you are about to have a real good problem." And so began our interstate journey through the ether of



speaker adventures. Pogreba not only makes all sorts of radical guitars, one of which we are fortunate enough to own, he has been a cherished amigo for years and has let us crash in his backyard cabin when visiting to play music and fly-fish, along with other shenanigans. He makes a homemade tequila sherbet ice cream, too.



Thanks to the Milkman HT15 amp and the Jupiter alnico speaker in it, we quickly realized that both Chris and Tim are creating amps and speakers the likes of which are just plain supreme. We've had endless speakers here for review, and they all have their flavors. As stated, there is no 'best' speaker. They are tools. That said, there are some that are far better than others, same as most anything in life. Our gig is to unearth those rare gems and turn over every stone to find out what they do, so you can make a choice as to whether or not they light the fuse with your musical dreams. We ordered up three speakers in varying sizes from Jupiter and asked that they be broken in for about a dozen hours before shipping.

Meanwhile, how would we be able to even compare and evaluate these Jupiters, which claim to be like vintage Jensens, if we didn't run them in and out of all kinds of amps with various guitars alongside actual late 1950s Jensens that we use day in and day out? It has to be this way. Otherwise, it would be like comparing current production Les Pauls to a '59 burst without even having played one, let alone having it right there to A/B repeatedly, live and in the flesh. The only speaker missing from our vintage Jensen stash, was a 15. We know Larry Pogreba has a couple handmade pine cabinets he created from the rescued/reclaimed floor of a 120-year-old Montana restaurant that was being torn down. He likes to use vintage and unique potato sacks for his grill cloth, too, which beats the shit out of

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boring everyday offerings, with far more folk-art juju. We struck a deal with Larry for the Bison cabinet to live in Texas, so we could find a vintage Jensen P15N to put in it, to evaluate the Jupiter alnico 15 alongside. Plus, we have always dreamed of having a great 15-inch cabinet.



From there, we searched the internet far and wide, and found just three of these hallowed Jensen P15Ns for sale. They all looked funky and pricy. They could easily have been dried out, blown out, and lackluster. In a random weekly phone call with our amigo Mr. Valco, we asked what he thought of the ones for sale. "Oh, that's a killer speaker, hot damn. No one ever talks about those. Let me wander into the back barn...let's see here, oh, shit, I have a pair of them. Well, I



will need at least one for a backup to one I have in a vintage National amp, but this other one here, it is from the third week of 1960, I know a guy who can recone it better than anyone, so how about I give you a deal on it and ship it to him to recone, then it gets to you for the Bison cabinet?" And just like that, we are rolling.

### Motivational Speakers

Within the month, on the floor was a 50-watt Jupiter Midnight Series ceramic 10-inch speaker, a 50-watt Jupiter Alnico 12LA, and a 50-watt Alnico Jupiter 15LA. The 1960 Jensen P15N was loaded into the Bison, and we set out a Princeton Reverb with both a 1959 Jensen C10N and a spare 1959 Jensen P10N, a Deluxe Reverb with a 1959 Jensen P12N, a modern tweed Deluxe TQR founder David Wilson built with us, and Jeff Bakos loaded with a Celestion ceramic G12H30, and the Milkman HT15 with the Jupiter 12. Let's get to it. And by that we mean, over the course of a few weeks, with different guitars in and out of different amps,

over, and over, writing notes, thinking, heaps of friends stopping by to crank them while we listened, and on and on. Until we were finally ready to tell this story.



### The Jupiter Midnight 10

Through the Princeton Reverb, thanks to the 50-watts, it gave the amp a sweet and crystalline shimmer, and a bit more headroom, which is a good thing. The Jupiter 10 seems to somehow meld the best qualities of a ceramic and alnico into one sublime, strong and smooth pureness of fidelity that is inspiring. The top end is nice and pleasing, and not as punchy bright as our 1959 C10N. The vintage alnico Jensen P10N is lower powered, sultrier and smokier. We love this Jupiter 10. It sounds old, too. What a fascinating blend of clarity and roundness. Good lawd they got it right.

### The Jupiter 12LA



This is the speaker that floored us and set us on the path to digging in and placing a call to Jupiter. We'll just cut to the chase and say this is the closest to a vintage Jensen of any modern speaker we have ever heard. In the Deluxe Reverb, it adds more headroom, which is absolutely magical, and lets us explore much more wonderful territory before the amp gushes like a great DR will do. There is a fullness and clarity, and the breakup is excellent. The vintage 1959 P12N has less power, and again, is smoky and woody, but doesn't have the note definition of the Jupiter. It is amazing, though. Of special note, the Princeton Reverb with the Jupiter 12 was fantastic, eye-opening, and we could gig that combo until we fly to the great gig in the sky. So good. And in the tweed Deluxe, game over.

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## The Jupiter 15LA

We put every amp we own through both the 1960 Jensen P15N and the Jupiter. It messed with us, and we found it impossible to play the smaller speakers afterwards, we needed a long break each time. The 1960 Jensen was just plain heady and righteous. When we put the Milkman HT15 though it, the entire house was filled with the most glorious throbbing tremolo. Dear lawd. We hated to do it, but we had to, and called Tim up to buy the amp. We suppose all you need to know is that it's the first modern amp we've ever bought, thanks to our vintage cork-sniffery. The Jupiter 15 has this wide-glide oomph that is gorgeous, full, smooth, and pleasing. The vintage 1960 Jensen is more scooped and aged, back in the mix, but incredible, as expected. All of the amps loved these two speakers.

What Jupiter is doing is stellar. They are truly superb speakers you can cuddle with or just plain floor, and they handle the wild and wooly firepower from our vintage fuzzes and Echoplexes without a worry of them melting down in the middle of a gig or session. We always wonder if the vintage Jensens will go up in smoke, it's just how it goes. Quest forth... **TQ** —*Riverhorse*

*jupiter-speakers.com*

## The Wolf's Strat



—*The story of a well-worn but still musical 1963 Olympic white Fender Stratocaster*

## The Back Story

In the days before the interwebs, you could find cool, reasonably priced vintage gear if you looked in the right places, and in many ways, it was the Wild West. We scoured local

newspapers with highlighters and drove as far as we could in search of “the deal.” By 2005 or so, the proliferation of the internet and the success of sites such as eBay meant that while the benefit of reach was expanded exponentially, the chances to find a screaming deal sort of petered out. Suddenly, everyone thought they had the holy grail.

However, in those early days of the world wide web, even up to the late nineties, one could still find a cool vintage guitar or amp, as pricing hadn't yet skyrocketed and information about what stuff was selling for had not yet been normalized. In fact, there was still a bit of horse trading that could be done.

Such was the case in the year 2000 when I started inputting “1963 Fender Stratocaster for Sale” into AltaVista, the search engine we were all using back then. By that point, I'd been playing for about twenty-five years, and knew after checking out hundreds of Stratocasters that my favorite neck shape appeared on instruments from the year we lost JFK, which coincided with my arrival on Earth.



Those early searches had a lot of generic Stratocaster information until one night when I came across an ad showing a beat up white 1963 Stratocaster that appeared to be all there, including the original case. I contacted the seller, and through multiple emails I learned how he had bought the guitar in the early 1970s outside of Chicago, from a woman whose ex had left it at her house. He said it seemed to be one of those “good riddance to bad rubbish” breakups and she sold it for a song. Anyway, we struck a deal and the seller agreed to ship the guitar out to me in its original case. He agreed to include a few parts including the ashtray and the original volume pot, which he said had frozen up and been swapped out decades before. He warned me that he hadn't played it in many years, but it still seemed like a good guitar, so I sent him the money.

A week or so later, the guitar arrived, miraculously in one piece considering there was no additional padding put into the case or the box which left the guitar just floating around. When I opened up the case, my nose immediately recognized the overwhelming scents of whiskey and tobacco. Having spent my early years hanging out in my grandfather's bar, and then the next twenty-five or so playing various buckets of blood throughout New England, I knew those smells well!

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