

INSIDE

Kingsize Jones...
a brief history of
amplification
&
the guitarist's
enduring Quest for tone

The vintage
Big Dickerson
&
Magnatone 280
revisited

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new **Magnatone!**

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the ToneQuest Report™

The Player's Guide to Ultimate Tone
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Kingsize Jones

"Innovation has nothing to do with how many R & D dollars you have. When Apple came up with the Mac, IBM was spending at least 100 times more on R & D. It's not about money. It's about the people you have, how you're led, and how much you get it." – Steve Jobs

In many respects it would be fair to assume that just about everything that can be done with a guitar amplifier design has been done by now. Tremolo was the first real innovation to be developed for guitar amps, and while smaller and cheaper 'student' combos retained the low power, no-headroom character of early guitar and lapsteel amps, bigger professional models steadily gained more power and cleaner tones at higher volume levels. Tape echo was never offered as an onboard effect in an amplifier, but the Echoplex made a huge splash with guitarists, and the outboard reverb developed by Hammond and licensed by Leo Fender was also tremendously successful. By the time Fender blackface amps with reverb and vibrato appeared, guitar amplification had evolved to deliver power, volume and brilliant clean tones that were unimaginable just 10 years earlier.

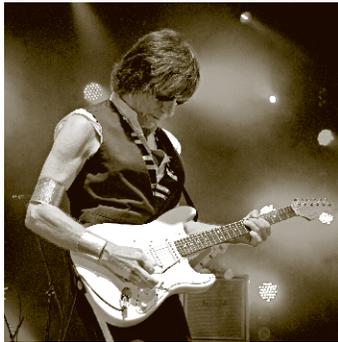


Meanwhile, Gibson was also very busy developing far more new and sometimes bizarre amplifier models than Fender ever produced, yet they never managed to escape Leo's slipstream. Ampeg concentrated on gaining a jazzier following on the east coast, Silvertone, Alamo, Supro and Danelectro successfully targeted the budget market, and among what could be considered the boutique builders of the day, outfits like Magnatone and Stadel were producing high-quality, professional amplifiers on a much smaller scale. The British Invasion completely changed the landscape of popular music to an extent that had never been experienced in the past, but the catchy hits by the Beatles and the Stones offered few clues as to what was to come... Sgt. Pepper lit the fuse, and seemingly overnight rock & roll was redefined by Jimi Hendrix, Cream and Led Zeppelin. Marshall amplifiers became essential to the sound of rock music, but for many young guitarists in America, owning a plexi and pinstripe Marshall stack was little more than a dream, nor did classic Vox and Hiwatt amps ever reach America in significant numbers.

CREAM

As the guitar and amplifier industry continued to evolve, Fender lost its considerable mojo following the CBS acquisition, Gibson nearly disappeared as a subsidiary of the Norlin Corporation,

Ampeg enjoyed a brief period of renewed popularity thanks to the Stones, disco and cocaine gave the entire industry erectile dysfunction in the '80s, and then live blues experienced a strong resurgence, prompting blues bars to open in major cities throughout America and Europe. Suddenly guitarists wanted Fender tweed amps again... Andy Marshall at THD scratched that itch with the first replica 'boutique' Bassman amps, and in 1989 Rick Perrotta started Matchless in Hollywood, California along with partners Mark Sampson, Steve Goodale and Chris Perrotta. In our opinion, Matchless can be credited for creating the demand for modern boutique amplifiers, and you can credit Mojotone for making small batch building viable for aspiring amp designers who could never afford to buy parts in the quantities that big suppliers demand.



Today there are literally hundreds of different guitar amplifiers being built at every conceivable price point, and like guitars, 'cheap' is no longer an automatic guarantee of bad tone. Jeff Beck's 2010 tour and his choice of a Fender Pro Junior mic'd and fed to the house

couldn't have been more revealing or instructive, yet aside from our detailed July 2010 interview with Beck's tech, Steve Prior, the significance of Beck's amp du tour seemed to have gone largely unnoticed. Maybe there were too many guys with too much cash invested in their vintage tube amp stash who really didn't want to hear about Jeff Beck using a cheap little Fender amp. Na,na,na,na,na,na,na,na!

How do you reconcile Beck's Pro Junior with the notion that a boutique amp is somehow going to elevate and transform your tone and chops while the most creative guitarist of our time can pull off a global arena tour with a \$600 1x10 combo amp? You don't. The amp doesn't make the music... you do.



The truth is, many of us are perpetually packing a Kingsize Jones for

whatever seems to be the latest and greatest in the world of gear. Whether it's Dragon's Breath Magic Coils, Hunchback speakers, the Stumble & Drool Snatch Box Limited Royal Assassin or the Blow Job Overdrive with the Honey Dropper mod, a lot of guitarists enjoy chasing tone on a closed oval track like a pack of hounds chasing a mechanical bunny. The

players may change, but the game remains the same, and it isn't about who wins or loses – the game can only exist by churning money. If these sound like the words of a dour pessimist, think again... Deep down in your gut you know this to be true, although we'll admit that we too usually choose to adopt a more romantic and altruistic view of capitalism. One can only take so much reality. It's why we play the guitar...



When it comes right down to it, there are more copiers than innovators working in the amp business, and when something truly toneful and uniquely desirable comes along, it truly is a big f'ing deal.

In the true spirit of the Quest, we are poised to introduce you to the new Magnatone amplifier company created by Ted Kornblum and his merry band of men. Ted's father and grandfather owned St. Louis Music, and having been steeped in the music business, Ted stealthily assembled a collection of vintage Magnatone products while acquiring the rights to a name long forgotten. Thus equipped, he put together a new Magnatone company based in St. Louis. Granted, new companies are launched every day, but Kornblum accomplished something that is very, very difficult to do... With help from some very sophisticated ears and talented engineers, his group has designed and built amplifiers that capture the very best features of the original Magnatones, while making them so much better than any of the originals could ever be. By any measure, the new Magnatone amps have been meticulously, artfully designed and built for today's players and tastes.



Most importantly, they sound and look uniquely fine, firmly entrenched in an entirely new boutique niche that the Magnatone company completely owns. Not since the appearance of the original Matchless DC-30

has the bar for amp builders been raised and reset quite so convincingly, so settle in and relax as we relate the fascinating story of the old and new Magnatone company, followed by our reviews. Enjoy...

For many guitarists Magnatone amplifiers remain cloaked in mystery. Thousands of Magnatone amps were built by various owners of the name over two decades, and many classic Magnatone amplifiers have survived to be experienced and

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appreciated today. The Magnatone story begins in the late 1930's with Delbert Dickerson, a machinist living in Southern California who first built a lapsteel and amplifier for his daughter Belva. Dickerson

launched the Dickerson Musical Instrument Manufacturing Company in 1939, and Dickerson lapsteels and amps remain fairly plentiful, easily identified by their faux mother of pearl (mother of toilet seat) coverings in vivid colors like emerald green and ruby red. You may recall our May 2006 article titled *The Big Dickerson* in which we reviewed a small but immensely toneful emerald green Dickerson sent to us from Montana by Larry Pogreba. The comments we offered then are every bit as timely today...

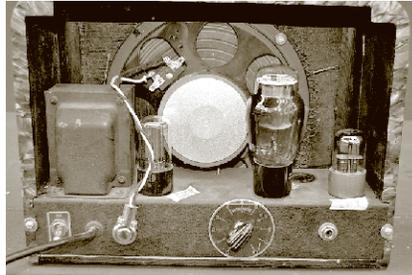
Barely bigger than an old GE toaster, the Big Dickerson features an 8" speaker, a chunky power transformer crammed onto a cheap steel chassis, and an unusual tube quartet consisting of a 5Y3 rectifier, dual 6K6's and a single 6C5. Larry also sent us an ancient GE 6L6 that can be used in place of both 6K6's to create a slightly bigger Big Dickerson when needed. To be fair and accurate, Larry's Dickerson has been entirely recapped and the original speaker replaced with a modern ceramic job of undetermined origin (we



suspect Japan). The Dickerson originally didn't even come equipped with a volume knob – pure "plug and play!" Larry sent the amp to Bruce Collins at Mission Amps in Arvada, Colorado

to have the original 6C5 preamp tube changed to a gutsier 6SL7, which required a few minor circuit mods, and he also added an extension speaker jack (great idea) that enabled us to make the Big Dickerson even bigger on demand. Now, some of you might be thinking that you've heard all these cheap little crappy amps before and there's nuthin' there for you. Please, think again. James Pennebaker coincidentally mentioned a little Silvertone amp of his with an 8" speaker just the other day... "Put a mic on it and it sounds as big as anything I own..." There ya go.

The first time we lit up the Dickerson, 30 minutes flew by before the first break in the instantaneous connection we made with that amp. It filled the room with a bright, pure, beauti-



fully compressed sound that made every one of our guitars shine with a new, old voice. By its very nature, the Dickerson inspires musical ideas

and a dynamic feel that are completely dictated by the amp, yet you'll find yourself venturing to fresh new places rather than struggling to revisit any worn out ruts in your repertoire. Another misconception held about these little amps is that they are only useful for pure distortion. While they technically don't produce clean sounds, there is much to be mined at half volume and a dimed guitar. The little 8" speaker produces amazing chunky rhythms with a delicious inside/out compression that is completely missing in a big speaker, and at a volume that encourages you to play unconsciously at your most expressive best. Our secret weapon with any of these small amps is reverb. Add it via an old or reissue Fender reverb tank and all bets are off – you'll be amazed by the sounds you create. Now, you don't necessarily have to snag a Dickerson... there are lots of similar options, like a vintage Gibson BR9, an old 2-tone Valco, a Magnatone Troubadour, Bronson, Oahu, Alamo, Danelectro, Silvertone, Montgomery Ward... the point is all about expanding your horizons tonally and creatively while diminishing the size of your speaker and the number of tubes, components and watts in your baby amp. Less is more when you're chasing the Big Dickerson, and modifications are sanctioned and encouraged.



Delbert Dickerson eventually sold his business in 1944 and it was sold again in 1946 to Art Duhamell, who changed the name of the guitars and amps to Magnatone, manufactured by the Magna

Electronics Company in Los Angeles. Many different models were built by Magna Electronics – far too many to be described here, but a comprehensive history of Magnatone has been created online by Douglas Ahern, complete with an oral history and thorough documentation of all Magnatone models that includes specifications and pictures. See www.magnatoneamps.com/history.html. Still more detailed information can also be found at www.vibroworld.com/magnatone.

Our hands-on experience with classic Magnatones has been limited to a vintage Magnatone 280 and a rare 190 model

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documented in our November 2009 cover story. The 280 was in dead mint condition acquired from ‘Vern,’ the second owner who had bought it from the first. We zeroed in on the 280 specifically because we had seen one in Neil Young’s rig, and the 280 is widely considered to be the crown jewel of the entire Magnatone line from 1957 to the early ‘60s. We paid \$950 for the mint 280 and here are the impressions it left... *We can’t tell you how many times we’ve taken a leap of faith on a 40 year-old amp hundreds or thousands of miles away only to find that it needs nothing more than perhaps a few tubes or a different speaker. Yes, the accepted parts tolerances of plus or minus 10%-20% were a big swing, especially when you add ‘drift’ over decades, but after literally hundreds of such purchases on your behalf, we can confidently say that these classic amps remain not only fascinating pieces of America’s industrial history, but also a living testament to a standard of enduring longevity that will never be seen again.*



And so it goes with the Magnatone 280. No, it isn’t a gain monster you can hide behind, although fully dimed it gives up the goods with a little more punch

from the Normal channel – but the real deal with the 280 was and is all about old school fidelity... rich, timbral viscosity that allows every guitar you play through it to sound woody, deep, sonorous and steeped in the potent romance of wood, nickel and steel. And yes, the pitch-shifting vibrato channel is creepy-good, both in the less intense ‘mono’ mode, and in stereo, where the speakers move out of phase to create a bizarre but very usable jitterbug warble and bleat. If you’ve a mind to, you can potently speak to folks through the Magnatone. Close your eyes and the guitar sounds as if it is being channeled through a diamond stylus on old vinyl, introducing a smoky and wizened legitimacy to your tone and voice – a sound to be remembered and revered for the way it floats in the mind long after the last note has faded.



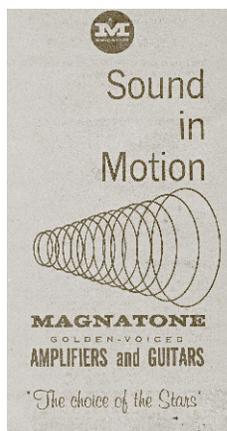
As good as the vintage 280 sounded, we would still describe it as an acquired taste for those who can appreciate subtle nuances and a cleaner tone that doesn’t even pretend to rock. The Magnatone behaved as if a governor had been installed that limited any

hint of overdriven tones or the full power and bluster of a 25 watt tweed Fender. The 280 is a great amp on many different levels,

but by today’s standards there is a lot left to be desired.

Designing and building guitar amplifiers that possesses a truly unique and desirable sound is a significant accomplishment today. To make a difference there must first *be* a difference, and even the most rabid tone hounds will admit that a lot of ground has already been covered when it comes to guitar amplification. Too often it seems as if hot new amplifiers are described as offering new and essential sounds that can’t be had by any other means – as if none of the amplifiers built in the past 50 years, the past decade or last year can compare to the latest boutique amplifier to emerge from the pack. Really? We humans buy into the buzz and the hype because we really do want to believe that someone has created a fresh, new sound that is fundamentally better, but in truth, that’s often not what’s happening. Viewed within the prism of history, creating a unique sound – one entirely new to the electric guitar is virtually impossible at this stage in the game. What we really want is the best possible range of inspiring tones and sounds we can get, and Magnatone has built amps that meet those criteria on every level – visually, technically and sonically. How? That is a story best told by the person responsible for creating Magnatone, Ted Kornblum, with additional insights from his team...

TQR: How did the initial idea of reproducing a new line of Magnatone amps originally occur to you?



My grandfather founded St. Louis Music Supply Co. in 1922, and he was the distributor for Magnatone dating back to the early days. From the moment I learned that my family made musical equipment I wanted to be involved. But before I officially joined St. Louis Music, my folks wanted me to gain outside work experience. So I held a number of music industry jobs to gain experience and not just be the “owners son” that was born into the business. “Be careful what you wish for”, because when I finally did join St. Louis Music, I longed for my independence not to mention it’s not easy working in a family business for a number of reasons.

One day I was flipping through the massive catalogs SLM used to sell Magnatone, and saw the vast amount of Magnatone products they made ranging from record players, coin operated radios, and of course guitar amplifiers. I was curious to see if this company was still in business, and much to my delight, the company had been out of business since 1969 and the trademark had been abandoned! It was almost too good to be true. So with the aid of my attorney, I secured ownership of the brand.

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Just because I owned the brand, it did not guarantee me success. I knew that it would require a significant amount of capital as well as talented people to help me bring it back to life. And who better to help me with this than the great talent pool of engineers that helped my father bring Ampeg back from the dead? The founding members of the Magnatone Engineering team consists of Obeid Khan, Greg Geerling, Ken Matthews, Dan Ryterski, Gregg Hopkins, Chris Villani, George McKale, Larry Cragg and me.

Over the years, I'd seen many of the legendary USA made brands get outsourced, and in almost every case these brands lost their soul in the process. Funny enough, while these famous brands were focused on outsourcing their livelihood, the boutique guitar amplifier industry was sprouting in America. Over the years this market has grown to be quite a category. I view Magnatone to be part of the high-end American craft market. So instead of "outsourcing" my brand, I set out to "in-source" it to America including both people and parts. I assembled a team of engineers and builders that is really a "dream team" and for the past four to five years we have created a full line of all tube, USA made guitar amplifiers. It took me longer than normal to bring the brand to market because I wanted to re-enter the market with a full line of products.



Ken Daniels, owner of True Tone Music in Santa Monica, California has been an invaluable advisor to help me understand the high-end retail market. His store is

clearly one of the best I've ever been in and he and his staff definitely know the high-end market. Ken once told me that he likes to offer his customers "retail foreplay". I asked him to clarify, as I'd never heard that term used before. He explained that he likes to keep his customers returning to his store to check out new gear as it is released throughout the year. I took his advice and over the past seven months we have released to the market five of the eight models in the total product line and this December marks the release of the next three models called the Master Collection. I also learned that guitar players require a variety of sounds from their equipment and in many cases require two different amps to achieve their tone. I don't adopt the view that one amp with two channels can sound as good as two separate amps that each have their own personality. So we designed the models in the Traditional Collection to not have a master volume control and the models in the Master Collection for the player that wants a master volume with more gain.

I needed to establish a benchmark for the Traditional models

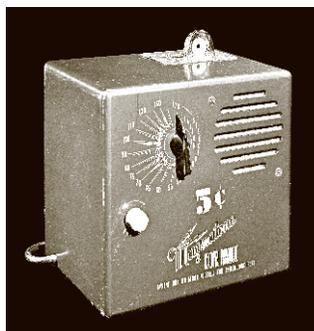


that would rival even the best vintage 50's tweed amps, and also have reverb, tremolo and of course, our famous pitch-shifting vibrato.

So I enlisted Larry Cragg to help us nail this tone. These models use either 6L6 or 6V6 power tubes for that American tone. I praise Larry for helping us achieve what he refers to as an amp with "touch sensitivity and dynamic range".

I've been a close friend with Billy Gibbons for years and when I told him I was going to resurrect the Magnatone brand, he was blown away, not to mention that we'd known each other for years and I never even told him I owned the brand name. If I could pick one player to work with to design amplifiers that address British guitar amp tones, it would be Mr. Gibbons! Over the past three years, Billy has toured with new Magnatone prototypes in various stages of completion to help us define as well as refine both the look and sound of these models. With the help of Billy's guitar tech, Elwood Francis, and studio engineer, Gary Moon, the Master Collection of models was born. One of Billy's priorities was to have a master volume control as well as use EL-84 or EL-34 power tubes for a British tone.

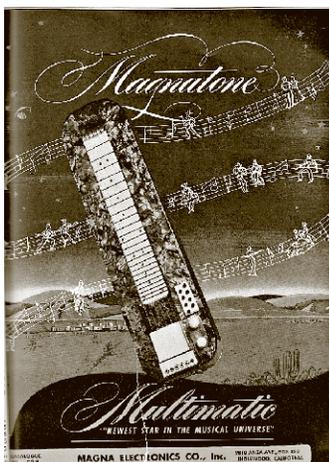
TQR: To what extent were original examples acquired and examined, and over what period of time?



Since there has never been a book published on the history of Magnatone and the brand had been forgotten by most people, the only way that I could really understand the strength of the brand was to collect as many examples of vintage Magnatone products.

Over the last ten years or so, I've been collecting Magnatones as a way to validate the brand in tangible form. I feel like I've been on a continuous treasure hunt and to this day I believe I own over 300 vintage Magnatone products dating back to the company's early days. My collection consists of coin operated AM radios, portable record players, public address systems, lap steels, solid body guitars and basses, and of course guitar amps galore. I intend to publish a coffee table book at some point to share these gems. I have also collected an extensive library of the product literature as well as advertisements. In fact, if you check out the recent ad campaign we have been running, you'll see a

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series of ads that were originally created in 1957 and we have reissued them. The art direction they did back then was so stylish and fashionable, it remains timeless. We did update the product in each ad as well as the description, yet kept the models and headlines used in the original ads.

TQR: How did you approach cabinet construction? The original Magnatones looked cool, but they were a little quirky in terms of construction.

Gregg Hopkins is one of the best cabinet restoration builders around, and he has prototyped every new Magnatone cabinet,



probably at least twice considering the design changes made over the years. Gregg can explain more about this process, but I will say that

he has not only helped in cabinet construction but also in the testing of the various cosmetic materials that we use to outfit the cabinets.

Cosmetics and Attention To Detail

My personal interest was in the designing of the cosmetics as well as securing the various custom-made parts for all the models. I feel that if our customer is going to covet their new Magnatone and use it for years, it needs to look at good as it sounds! The covering material we used for the cabinets is 100% cotton (it gets better looking as it ages), the brown grill cloth needed to match the vintage look so we had it reproduced, and the classic chevron logos needed to be remade and also suitable as replacement parts for vintage amps as well. My original thinking was to use as many stock parts as readily available for obvious reasons. However, as I got into the selection of materials for cosmetics, it seemed like everything I wanted had to be custom made to suit my taste. I figured that if I were a customer for a Magnatone, I'd want these unique parts on my amp! And since the amps are made in the USA and this automatically makes them expensive, we might as well go the extra mile and treat our customers to the best.

TQR: How difficult was it to faithfully reproduce the stereo and pitch-shifting vibrato features?



Everyone I spoke to during the developmental period was honest with me in saying that the vintage amps really were too fragile, difficult to service and needed to be more

powerful. However they loved the true pitch-shifting vibrato circuit, especially in stereo. So we kept the exact vibrato circuit that Magnatone patented in 1957, and had to source the silicon carbide varistors needed to retain the famous vibrato design. I knew from the very beginning of the engineering process that we needed to use varistors in the vibrato circuit. No substitutions would be allowed. Magnatone fans and critics of the brand would be really disappointed if we choose to use a more modern and or less expensive way to achieve the vibrato sound without varistors.

Serviceability & Road Worthiness



Tube amplifiers require a fair amount of TLC as they are fragile and we all know at times they need to be serviced. I brought in from Los Angeles Bob Dixon, who owns an amp repair

shop called The Amp Hole. Having Bob inspect all the proto's we made before they went into production enabled us to learn from his repairman perspective what service concerns he had and change them before they become a problem.

New Models & the Future For Magnatone

I know that Magnatone has a history of making electric guitars that are quite collectable in today's vintage market. In



1957 Magnatone hired Paul Bigsby to design a line of guitars and also Paul Barth was hired shortly after the Bigsby years. I have a few of these examples and envision upgrading these

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models with the aid of the famed guitar builder named John Bolin, of Bolin Guitars in Boise, Idaho. John built six Magnatone prototype guitars and we had them on display at the 2013 NAMM show to get market feedback on them before pricing them for sale. We will follow up on the guitar business in due time, but for now I think it's very important for us to remain focused on the guitars amp business and get the brand positioned successfully before branching out into the electric guitar business.

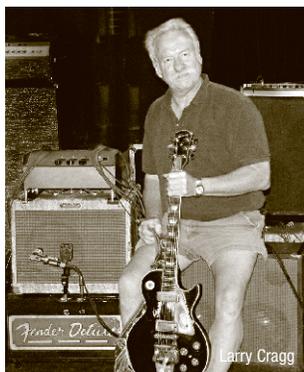
Obeid Khan, Engineer



The original Magnatones we listened to all had a decent clean sound, but not really a good overdriven sound. They were

all also weak on power and the delivery of the notes in a modern context. Great sounding amps with a "vintage" vibe, but limited in their usage because of that. The cabinets were fragile, the chassis were very packed and tight physically and prone to bending, the speakers were of '50s and '60s vintage which did not always reproduce the best tone... We wanted to improve on all of these things in the new designs but keep the original Varistor Vibrato circuit. That was the most important thing for us to replicate with these new amps.

High End Crash



Power supplies were beefed up with more current capabilities, transformers and speakers upgraded to similar sounding but better power handling units. The output transformers were developed in conjunction with Larry Cragg to achieve a balance of tone that did not have the "high end crash" as Larry called it. A smooth

overdriven top end was the tonal requirement we had for our transformers, much like the tone from many other classic amplifiers from the era. We use a mix of transformers by Heyboer and Magnetic Components in our amplifiers and all are made in the USA.

The loudspeakers from that time were typically barely large enough to handle the 20-25 watts of a 280. There has been a

huge amount of development in that arena since Maggie built the 280/480 amps. We set out to find speakers that reproduced that kind of American sound, papery, immediate mid and top end, with a more powerful bass response. We had to be careful to stay away from "over efficient" drivers that gave up tonal balance for sound pressure levels. The speakers are made in the USA by WGS (Warehouse Guitar Speakers) for us custom and we have been very happy with the sound and consistency from them. We also offer Celestion Alnico Gold speakers as an optional upgrade.



The process with Larry began with the "Mule"... a prototype we built based on a '56 Tweed Pro that had been one of Larry's favorite amps of all time. We spent months getting the varistor circuit worked

into the signal path without a "sonic penalty". Many different iterations and locations were tested and finally we had gotten really close. At that point Larry came out to listen and we did the A/B comparisons and he said, "It's 95% there, but there is that 5% left." So we went back and worked the 5% down some more. Finally, we ended up with an amp (Single V) that exceeded Larry's tonal expectations for the project.

The Twilighter was a similar approach where Larry was in the thick of the development. Amps were sent back and forth with slight circuit changes here and there to get the balance just right and to get the amp to play well with all types of guitars. Larry did extensive sound listening tests on his own with his friends and contacts and sent us back to the drawing board a couple of times. But once we had cracked the code of the integration of the Vibrato circuit, it did become a little easier for us to do new designs. The Stereo Twilighter was relatively quick in its development. Based on the two 6V6 Twilighter, it personifies the Magnatone Stereo Vibrato effect. We added the 5 way selector switch to operate mono and also in different stereo modes to give some flexibility to the end user.

ADDITIONAL NOTES



The chassis was upgraded to a boxed welded steel enclosure along with a

single PCB that mounted all the preamp tubes and compo-

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nents. With the original Magnatone design being somewhat of a rat's nest (ask any tech), the design lent itself to a PCB approach, at least for the preamp. In this application a PCB gave a consistency in layout and repeatability that was never found in the vintage Maggies. The cabinet was also upgraded with finger jointed corners and better construction techniques. The biggest thing we wanted to keep was the original Varistor Vibrato that Magnatone was famous for.

LFO Design – Low Frequency Oscillator.



The LFO drives the Vibrato audio modulator stages, and it is the generator of the pulsing wobble. We started out with a vacuum tube LFO, but soon realized that the limitations imposed were too great for what we were trying to do. A solid state LFO was developed which also allowed the remote speed control feature. The advantages of a solid state LFO design are

many, the range of speed is far greater than a tube LFO and the stability is much greater as well... No caps to dry out and now your tremolo doesn't work. We now have the ability to go extremely slow and even stopped on the LFO speed, all of which can be remote controlled with a simple 20K ohm expression pedal. The audio modulators remain all tube signal path for the preservation of the authentic vibrato sound. The original circuit has been updated with far greater range, control and stability and usefulness than the original, while retaining the classic sound.

EARLY VARISTOR DEVELOPMENT – The most difficult part of the process...



A lot of brain power went into this, Ken Mathews and Greg Geerling were instrumental in sourcing the new Silicon Carbide Varistors. The originals were tested and quantified and then Ken located a few

different manufacturers. Many different samples were tested and evaluated on their own and in test circuits until a proper match was found. The new varistors also have to be graded and paired for use in the circuit. Ken built the test and grading jig that we use to match them up into pairs. This was not an easy task – in fact, it was probably the most difficult part of the process. Understanding how the center frequency points change with voltage bias and varistor grade is essential in reproducing a consistent sound from one amplifier to the next.

The other large daunting task was getting the circuit to integrate into an otherwise good sounding amplifier without



sucking all the tone out of it. Larry helped immensely in this process, giving us his objective set of ears for critical listening. We have learned a great deal

about how to integrate this Vibrato circuit into many different types of circuit topologies. Take the Super Fifty-Nine and Super Fifteen amps – those amps have the vibrato within the gain circuit where it becomes part of the texture of overdrive rather than an effect sitting on top of the sound. This was another challenge to integrate within a master volume gain structure type of amplifier. The noise and headroom shortcomings of the vibrato circuit had to be placed just right in the signal path to allow gain to pass with quality tone and a healthy overdrive sound to be achieved.

Being a Marshall guy myself, I enjoyed the challenge of making a British style master volume amp with the inclusion of Maggie Varistor vibrato. This was not an easy task because of all the tradeoff's involved with the gain structuring and noise levels and overload characteristics. You had to juggle them all to where it all came out OK. Plus, integrating the varistor vibrato into a distorted master volume amp arrangement had never been done before. Of course it also had to live up to the standards of Billy and Elwood, so it was a long process to finally get it where everyone was happy.



Ken Mathews, Engineer

"History doesn't repeat itself, but it does rhyme."

– Mark Twain

Ted Kornblum put out this challenge of going back, and picking the Magnatone line of amps up at their high point, and using the original technology of vacuum tube signal paths and varistor vibrato, but being able to include the heritage created by all of the most prolific and successful tube guitar amps, and including some of the new things that resulted inside the team during the process as well. We didn't and couldn't build exact replicas, as some exact varistors and speakers and vacuum tubes have become obsolete. In the case of those obsolete parts, we always obtained better performing parts,

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even having them custom made for our purposes when necessary.

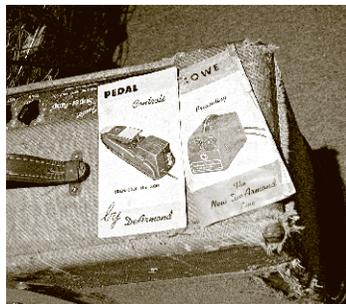
So history *does* not repeat itself, as Mr. Twain said, but we did and do rhyme with the best of legacy Magnatone and all of the art applied to vacuum tube amplification in that era, and in the decades since. We had fun, have some great results, and we are just getting started.

Greg Geerling, Engineer



I was looking back through some of my notes last weekend, and the amount of Vibrato research and experimentation we did over the past few years was just insane. Many of

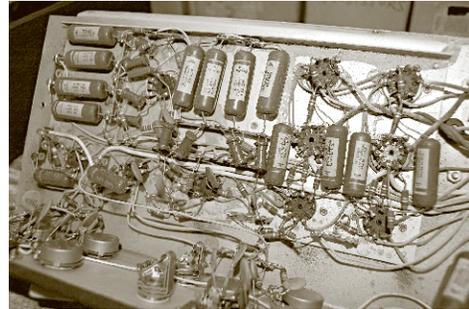
the experiments were insane as well. We knew from the start that vibrato was the cornerstone of the Magnatone amps, but I don't think that we understood at the start just how complicated the whole thing was. There were so many variations just among the various Magnatone amps, and endless varieties and personalities even between different units of the same model. I think I had 5 or 6 of the 280s at one time, but no two were alike (all were pretty good, but some had more magic than others). That's what sparked it for me – what was it that made the “real” Magnatone vibrato, how could we reproduce it and make it reproducible? Who would have thought that you could sit for hours listening to these crazy vibratos, coming up with ways to “see” the vibratos on the scope, measure their parameters, etc.?



We started at the beginning, looking at the progression of Magnatone vibratos (not to mention other vintage things – the DeArmond Trem, the old Gibson trem, new vibratos, old vibratos, Fender tremolos, analog, digital, varistors, optical,

new stuff, old stuff, computer simulations, on and on – and still continuing, I guess)

Anyway, we went all the way back to the old Bonham Vibrato patents. Ken and I sat for hours scribbling circuits on the white board, prototyping things, experimenting with different materials, different components, grinding down “new” varistors to try to make them act like the old ones, blowing things up – all fun stuff. For me the most important “piece of magic” was the “stereo” vibrato – how did the 8-varistor multi-stage tube vibrato work? My goal was to make sure that if we did



nothing else, we at least had to capture and faithfully reproduce the multi-stage “Magnatone” stereo

vibrato. When Obeid got involved he got the amps going, doing his magic there, which of course was really the more important piece. Vibrato is just an effect (but certainly an important and necessary one for Magnatone). Obeid (and I believe George was involved as well) really did a good job on getting the initial single stage (and dual stage) vibratos going in the earlier prototypes – very true to the original amps and really, really faithful to the original vibrato circuits and their signature sounds. But I think we finally made a true believer of Obeid when he did the first “stereo” vibrato in the early stereo Twilighter proto. It's that special circuit, with the “real” varistors, carefully selected, with the ability to have the vibrato stages in phase, out of phase – all that makes it “The Vibrato.”

And from there, we took it to places that Mr. Bonham wished he could have gone, covering all of the classic circuits tone and range, but extending the low end response, improving the oscillator drive circuitry to allow even slower vibrato speeds, and the “remote” speed control. Obeid (and the team) really did things right and we've not only built the foundation for the Magnatone vibrato, but we have also brought it right up to date while keeping it “right.” We have a very special collection of mad scientists who have created some things that we are really proud of.

Dave Hinson, Sales Manager



Most important was that the Vibrato circuit be reproduced in exacting precision, the sourcing and acquisition of a reliable, high quality Varistor being the key ingredient. These were daunting

but absolutely necessary tasks and were accomplished with painstaking effort. The cosmetic design while adhering to the original look came together in what you might call respective retro. While keeping with the original and making subtle improvements to make it a valid, user-friendly amp with modern concept and accessibility. The power amp and

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pre-amp sections were the weak spot of the Magnatones of yesteryear. This is the area that needed basically a complete re-vamp and was accomplished with respect to the tonal quality, a less fragile circuitry and certainly an emphasis on reliability. The reverb circuit is also certainly more pleasant than the 480 or the M series amps. This improvement was something that gives the new Magnatones a voicing of their own while also respecting the brand and it's integrity.



There will certainly be more stereo model options and I would suspect some

Artist and tribute reissues of the famous models associated with Musical Legends. The Master Collection of models such as the Super Fifty-Nine, Super Fifteen and Super Thirty are a slight departure with a very positive and modern approach. While not exacting remakes, these in a way are what Magnatone was respected and known for in the '50s and '60s – innovative and extremely versatile amps combining a very modern power/Pre-amp with the Varistor Vibrato and the master volume circuit that in no way hinders the performance or tone of the amp. The Master Volume is extremely subtle and nearly undetectable when not engaged.



The Varsity is the sleeper in the arsenal. While not brandishing the Varistor Vibrato, this amp is hands down one of the most amazing sounding amps on the market by

anyone. Roughly 15 watts with a very simple control layout, the Varsity sounds much bigger, and the tone of this amp is un-rivaled by anything past or present.

Gregg Hopkins, Vintage Amp Restoration

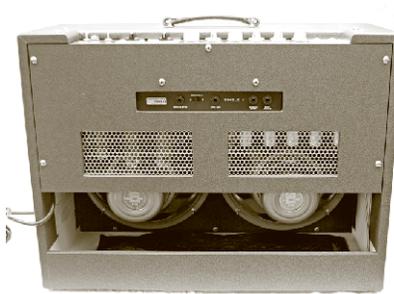
The R & D on the new Magnatone cabinets was about a three year process and we tried a little bit of everything. There is a rack of prototypes at the Magnatone factory that are all different. We wanted to play on style points of some of the vintage Magnatones from different eras, but also update and improve them here and there.

We experimented with dozens of combinations of different grill cloths and covering materials. I've restored lots of brown-era Magnatone cabinets using covering material from



the original American manufacturer, so we went to them for the various colors and patterns for the three series of amps and had them custom made. They're

unique to the new Magnatones. One of the three grill fabrics is custom manufactured and all are made in the USA. We also found a small company here in the USA that hand makes leather goods and they're making the two different leather handles for the Studio Collection and Traditional Collection.



The brown cabinets of the late '50s and early '60s were notoriously weak, so we gave them proper joints, beefed up the chassis mounting and upgraded the

hardware on all the cabinets. Back panels that need to be removed for service are held with big heavy-duty stainless steel machine screws and threaded inserts instead of wood screws.

The look of the Master Collection is a departure from anything Magnatone has done in the past, and we had some fun with it. From first glance they have some style points we've seen on classic British amps, and that relates to their sound as well, but we gave the combos a wrap-around baffle and illuminated logo inspired by the M Series "suitcase" amps Magnatone made in the '60s. When the new Magnatones debuted at NAMM last January, people were knocked out by how great all the amps look. When they played them, they were doubly impressed. To look at them makes you want to plug in your guitar. There are some new designs in the pipeline that we'll see in production one of these days.

Magnatone Single V Review

The Single V is a big 30 watt dual 6L6 amp and our review model was loaded with two robust Celestion Alnico gold speakers. The Single V is also described as "loosely based on a '56 Fender tweed Pro."

The Single V features Normal and Bright channels with two inputs with high and low sensitivity, separate volume controls for both channels, treble, bass, presence and reverb controls. The True Pitch Shifting Varistor Vibrato is controlled by an

-continued-



AM/FM slider that allows switching to traditional vibrato, and Intensity and Speed Controls. An expression pedal can also be used to control speed. The cabinets for the Single V and Twilighter

reviewed here honor the original Magnatone designs in appearance, but like the new amp circuits, the cabinets have also been enhanced and improved as described by Gregg Hopkins.

Tone

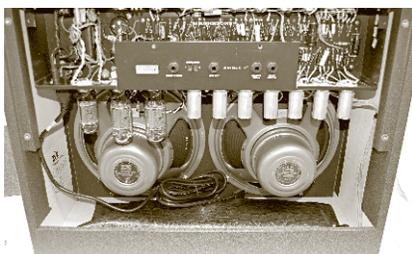
Larry Cragg, musician, collector, tone freak and longtime tech for Neil Young is quite proud of the Magnatone Single V. We asked him to explain...



My idea was... pitch shifting vibrato is really nice, but I want to have a really good amplifier – it's not about the vibrato, it's about how good does the

amp sound? When you get tired of the vibrato and turn it off how good does it sound? So they came to me and asked, "If you were king, what would you do?" They said the sky was the limit and I knew immediately what I wanted. It took a long time before the amp sounded the way I wanted it to, but we finally nailed it. It's loud, but it sounds as good as anything I have ever heard.

TQR: The first thing we noticed were the great clean tones, but it also overdrives beautifully... more so than most.



That's where I was coming from. I was all about the sound when you turn it up, and I hope you did – all the way up.

In terms of power and volume, the Single V will please both

home players and gigging musicians with 30 watts of manageable headroom. The #2 inputs on both channels deliver lower volume and gain, and we tended to prefer the #1 inputs. The Normal channel is rich, full and round, while the Bright Channel adds more sparkle and presence. The first thing we noticed was the beautiful fidelity and lush detail that the Single V produces. Our old Magnatones never sounded this crisp, defined, clear and transparent. The bass and treble controls display a broad and effective sweep, and increasing bass also seemed to fill in midrange frequencies. The Single V stays clean and clear up to 12 o'clock on the volume control with rich harmonic overtones, smooth, musical treble and deep, solid bass. Beyond 12 o'clock thick output tube distortion gradually increases, producing a perfect mix of edgy sustain and clarity. Above 3 o'clock the Single V gracefully achieves the overdriven char-



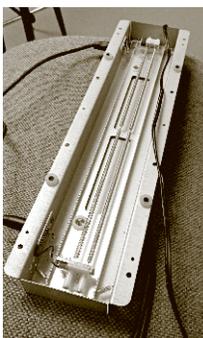
acter of a late '60s metal panel Marshall with intense sustain, yet retaining the pure fidelity and definition present at lower volume levels. If you can handle the full 30 watts, you won't need an overdrive pedal to reach the promised land with the Single V. As good as it sounds at clean volumes, it is equally toneful and adept at delivering a solid overdriven sound with single coil and humbucking pickups.

True Pitch Shifting Varistor Vibrato



Of course the most salient feature of the vintage

Magnatone 280 was its true pitch shifting vibrato, and the Single V resurrects this unique effect in stunning detail along with a more traditional vibrato, and both are excellent. The optional use of an expression pedal adds flexibility and control on the fly for live performances, and the technical team at Magnatone have absolutely nailed the captivating vibe of pitch shifting vibrato. The quality of the long pan reverb in the Single V is equally good, with a variable range of intensity from the single reverb control that makes it very usable, from barely wet to a full splash. Overall, the Single V is a heady achievement on a technical level, meticulously designed and richly endowed with truly exceptional tones.



Our only quibble pertains to weight. Loaded with Celestion

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Alnico gold speakers, our review amp was heavier than the stated 58 lb. curb weight, but the handcrafted leather handles at least make lifting these amps as painless as possible.

Magnatone Twilighter Stereo Review

In terms of tone, the Single V and 22 watt Twilighter Stereo definitely share the same sonic DNA. They are similar enough to be identifiable as sharing the same badge, yet varied enough to appeal to different tastes and power/volume requirements.



The Twilighter is a 2-input, 22 watt dual 6V6 combo loaded with Magnatone Signature speakers made by Warehouse Speakers in the image of vintage Oxfords.

As we immediately noted in our review notes, the Twilighter produces a more percussive, glassier tone with a power range similar to a Deluxe Reverb, but with two speakers you get a louder, more imposing sound. Once again, Larry Cragg described the development of the Twilighter:



The Twilighter came about a few years back when I was in St. Louis. We were having a big meeting with everyone and the perception was that among Magnatone collectors they liked the original 1x12 Twilighter. But

the original Magnatone amps without the vibrato just don't do it for me. They made a new version of the Twilighter using the old circuit and it sounded OK until they turned it up, and then it didn't sound good at all. I said, why don't we make the world's biggest, juiciest sounding blackface Deluxe Reverb? The mono version is very cool, too. With a single 12 it still sounds bigger than a Deluxe. They both sound great.

Like the Single V, the Twilighter produces an outstanding clean tone, and while the overdriven sustain at high volume levels is less intense than that of the Single V, it remains nicely focused, rich in complex harmonic overtones. The addition of a Midrange tone control along with Treble and Bass also helps the Twilighter achieve a more focused tone that will really hold its own on stage. Like the Single V, the long pan reverb is really good, and fans of Vibrato will be knocked out



by the Mono/Stereo/Wet-Dry/Dry-Wet settings for the pitch shifting vibrato. For us the stereo setting is the money tone, but all

of the varied vibrato tones offer a unique twist on vibrato that is entirely unique to the Twilighter. An expression pedal can also be used to precisely control vibrato speed. The Tremolo setting is more subtle, and we found ourselves leaning much more on the pitch shifting settings. Before we had spoken to Larry Cragg, we wrote in our review notes "sounds like a big Deluxe Reverb," and the Twilighter really does challenge the best vintage examples of this classic Fender amp with a more robust and versatile voice.

Magnatone Super 59



With none other than Billy F Gibbons involved in the hands-

on development and prototyping of the Super 59, you might think this is the beast in the Magnatone lineup designed for a full face melt. You'd be wrong. Of course, Señor Gibbons is righteously known for some rather smoldering guitar tones, but we have come to know him and his music well enough to point out that his tonal repertoire and tastes extend way beyond the sound of an amp fully floored... May we suggest "A Fool for Your Stockings" as proof of the Rev's uhm... sensitive side? A more delicate and touching ode to irresistible southern snatch has yet to be written, and the guitar tones are Gibbons at his clean Fendery best. True, most of ZZ Top's big hits feature Gibbons ripping it up pretty good, but the Super 59 should not be narrowly viewed as just another afterburner amp by any means... It's got *all* the tones.



Unlike a lot of vintage and new amplifiers that have been deliberately designed to rock hard, the Super 59 actually boasts a beautiful clean tone with volume and power.

It's all in the way you manage the master volume and volume controls, and while that juggling act is nothing new, 45 watt amps that can really boogie rarely display such gorgeous clean tones at stage

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volume levels as the Super 59. It's just another diamond pin in the pork pie hats of the design team at Magnatone.



Controls are consistent with the other models

reviewed here, effective and straightforward. Left to right you have the Pitch Shifting Vibrator (no typo) with the same FM/AM switch for Vibrato/Tremolo, Presence, Bass, Mid and Treble controls, Master Volume, Vibrato Channel Volume and Normal Channel Volume. The Vibrato and Normal channels both feature dual inputs with slightly lower gain from the #2 inputs. For the loudest, cleanest tones in either channel you simply turn up the Master Volume and keep the individual Volume for either channel set lower. For maximum burn use the individual channel Volume as the heat control and adjust the Master to taste. It's that simple, and among all the things we like about the Super 59, we also like what *isn't* there, like more knobs and switches. If you can't get yer tone with what's here, more knobs and switches won't help you. However, we do like the groovy backlit Magnatone front panel and illuminated control knobs... Another touch that shows how much thought went into designing these amps.



We deliberately reached for our most excellent '07 Robert Cray Signature hardtail when we first hit the switch on the Super 59. We knew the amp was gonna rock, but we wanted to know if adequate attention had been given to the *full* spectrum of the guitar rather than just the distortion elements. You can rest easy in the knowledge that the Super 59 deftly handles both clean and dirty jobs with

equal aplomb, whether you are playing a guitar equipped with Fendery single coils, humbuckers, P90s, Filtertrons or something reminiscent of classic DeArmonds. We played them *all* with the Cray Strat, our Thinline Cabronita, the Squier Tele, an Andy Elliott custom Honey Pine Tele with gold foil neck pickup, our '55 ES135 loaded with double P90s, a new and OMG awesome Echopark Arroyo loaded with a Filtertron and DeArmond gold foil, and our infamous 2010 '57 Historic Goldtop pushing early '60s vintage Gibson patent number humbuckers. We can confidently say this about all of the new Magnatones reviewed here including the Super 59 – the lush fidelity and tone stacks work beautifully with all of our guitars and pickups. You know how some amplifiers seem to sound best with single coils but perhaps not so great with humbuckers? That's not happening here, and like the Single V and Twilghter Stereo, the Super 59 could easily be prized by play-



ers who don't even use or need distortion. The clean tones are that good, yet cranked, this amp purrs and growls with the same extraordinary fidelity and clarity. The tone controls are precise and effective in subtly goosing specific frequencies, and as we mentioned in our review of the Twilghter, the WGS speakers are typical of the Warehouse brand – full, round and rich with a sweet top end and perfectly

balanced from top to bottom.

COMMENTS ON THE SUPER FIFTY-NINE

BILLY F GIBBONS



Ted, it's such a pleasure to have accepted your invitation to participate in the Magnatone revival under your direction. Everyone is truly impressed with the sound and performance, not to mention the beauty of the appearance of the entire line. Splendid...!

GARY MOON, ZZ TOP STUDIO ENGINEER

When Ted sent the first Super Fifty-Nine prototype to ZZ's "Foam Box Recordings" in Houston, we immediately "threw it into the fire" and set it up to replace Billy's go-to studio amp. It has the best characteristics of a classic British EL34 amp, and once we adjusted the gain and master to get the volume and feel right, we were able to dial-in "BFG-approved" sonics with the EQ section easily. We started recording tracks with it the same day, and never went back to its predecessor. It sounds bigger, it's more dynamic, and the noise floor is much, much lower. Long story short, there's a Super 59 set up and mic'd at Foam Box right now. Kudos to Ted and Obeid.

ELWOOD FRANCIS, BILLY GIBBONS GUITAR TECH



We did a gig last night and the word is that Billy's guitar was a monster of tone. I have never had so many compliments and I'll be honest when I say, Billy pretty

much always sounds great and always has gotten compli-

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ments, but never like these! It starts at sound check when a couple of local guitar heroes usually show up, and continues all day and night. I must admit – the Super Fifty-Nine sounds like a fucking guitar factory. That amp slams a home run just by turning it on!

The Varsity

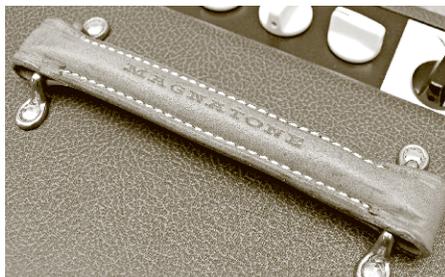


The Varsity name was used by Magnatone as early as 1948 and appeared on the model 108, one of the smaller combo amps equipped with a 10” speaker. The new Varsity is a 15 watt dual EL84 amp that will appeal to those whose power and volume requirements are more modest, and of course, dual EL84 booteek combos have become immensely popular during the past 15 years. Few of them sound quite like this.

Available as a 1x12 combo or head in black or a very cool burgundy croc tolex, the Varsity embodies all the features that have made smaller combos so popular today – portability, comparatively low decibel levels, and the harmonically rich character of EL84s that can be overdriven to produce smooth sustain and excellent dynamic touch sensitivity. Minimal features include Hi and Lo sensitivity inputs, Volume, Treble and Bass controls, a top-mounted extension speaker jack and line out. A NFB (negative feedback) 8dB boost toggle switch is also mounted on the control panel for extra burn. Clean headroom is more than adequate with, here we go again... outstanding full fidelity, and cranked, the Varsity is the quint-essential 15 watt rocker that sounds much bigger than it looks. When we went to Atlanta’s Boutique Guitar Exchange to pick up the amps for review, they couldn’t get the players in the store to turn off the Varsity. Magnatone will sell a ton of them.

Final Notes

Here are a few additional observations that apply to the amps reviewed here along with a photographic montage of historic Magnatone shots and moments captured from the new Magnatone company...



The leather handles are a work of art and very comfortable, which is important given the weight of the 2x12 models.

All of the Magnatones we reviewed feature true high fidelity that will be immediately apparent on the first few chords, and their exceptionally musical character is maintained throughout the entire sweep of the volume controls.

The WGS “hotdog” basket speakers are *outstanding*.

The overall build quality of the cabinets and accessories is exceptional, including the supplied cables and footswitch, pine cabinets and the faux alligator reverb bag. No detail has been overlooked in designing and constructing these amps.



Unlike the originals, you’ll have easy access to chassis and tubes.

None of the new Magnatones are cheap, but one look at them and it is obvious that you are getting what you pay for and more. Simply

put, they sound and look better than they had to... Absolutely state of the art, with everything you need and none of what you don’t. *Quest forth...To*

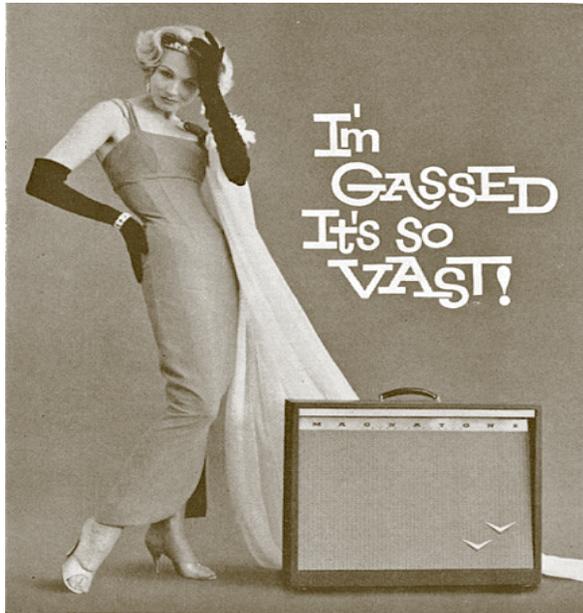
Varsity 1x12 **\$1699**
Single V 2x12 combo **\$3999**

Stereo Twilighter **\$2999**
Super 59 head **\$2999**

See www.magnatoneusa.com for additional models, options, pricing and dealer locations.



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I'm
GASSED
It's so
VAST!

ONLY MAGNATONE gives you the DOUBLE V — the BIG Sound of Stereo-Vibrato* which creates a Vastness that's as big as all outdoors. The "extra-bright—extra-mellow" switch offers a range from the softest mellow tones to the screaming highs required for "Rock and Roll". When professionals, who must have the best, perform they choose MAGNATONE — so why not treat yourself to the best.

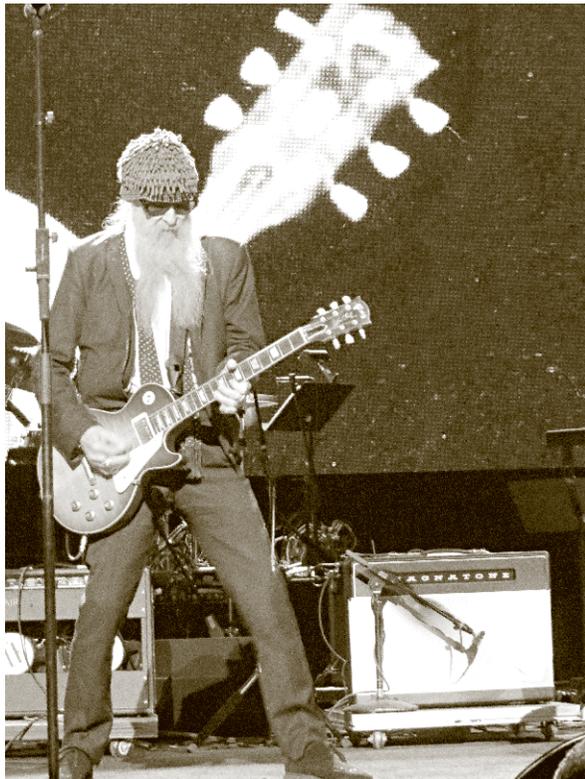


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MAGNA ELECTRONICS, INC.
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4 • DOWN BEAT



2013 NAMM SHOW, LEFT TO RIGHT: GREGG HOPKINS, LARRY CRAGG, DAN RYTERSKI, GREG GEERLING, THOM KIEFFER, OBEID KHAN, GEORGE MCKALE, TED KORNBUM (CENTER) NOT PRESENT AT TIME OF PHOTO, KEN MATTHEWS, DAVE HINSON, CHIRS VILLANI

New Orleans Guitar Company

Voodoo Custom



"The minute you land in New Orleans, something wet and dark leaps on you and starts humping you like

a swamp dog in heat, and the only way to get that aspect of New Orleans off you is to eat it off. That means beignets and

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