Changing speakers is one of the easiest amp “mods” you can do in your quest for killer tone, yet there actually was a time when players simply bought an amp and played it “as is” until something broke, melted or blew. Tube amp circuits were uncomplicated, vacuum tubes were built to provide a lifetime of reliable performance, and the most common service problems encountered by guitar players were usually blown speakers. As rock & roll guitar evolved into distorted, overdriven tones on singles like The Yardbirds “Over, Under, Sideways, Down,” scores of original speakers were soon shredded by neighborhood rock stars-in-training across America, but it wasn’t too difficult to locate a new replacement speaker for your Fender, Ampeg, Gibson or Silvertone amp. It might have been a Utah … but who cared what it was as long as it worked? Speaker repair remained an obscure craft, and the cult of tone had yet to fully develop (although there were many accomplished practitioners on vinyl). For twenty years or so after The Big Rock Explosion, Celestion continued to chug along fueled by
after the town in which the company was founded – Eminence, Kentucky. Eminence filled the need previously served by Jensen, CTS and Oxford providing amplifier manufacturers with economical, reliable speakers to “spec.” Competition being what it was (stiff and unforgiving), builders could specify price points for their original equipment speakers and Eminence delivered the goods while continuing to develop efficiencies in speaker manufacturing that preserved their competitive edge.

Ultimately, the guitar speaker business was pared down to just three major players… Celestion, Eminence, and the Jensen reissues made by Recoton Corporation in Italy.

When it comes to modern guitar speakers, there are essentially Jensen players and Celestion players (sorry JBL and EV freaks… you are a tiny minority of contrarians). Jensen players generally find Celestions too dark and unruly, while Celestion players think Jensens are too bright and thin. Yes, this is a gross generalization, but true nonetheless. Eminence now straddles both worlds, and they have even developed hybrid designs that capture the open, airy, warm tone of a vintage Jensen-style speaker with the heavy attitude of a Celestion. We’ve never had it so good.

Which brings us to the present… If you need a speaker today you can buy an old and very expensive original and play it until it blows, buy an old, expensive, reconed vintage speaker of dubious tonality, have your own vintage speaker reconed (careful now… ) or buy a new speaker made by Celestion, Eminence, Jensen, Weber, Tone Tubby, or the darkhorse in the pack, Fane. Yes, changing speakers is indeed the easiest amp mod you can do, and it can be a very rewarding move. With this in mind, the goal of our Quest is to celebrate the coming of Spring with new and zesty tones that will inspire you to grow as a player and become eminently more toneful. As the blossoms bloom in the warmth of Spring, so should your music, and we’ve carefully planted the seeds for you in this issue. The rest is up to you. If you don’t try you’ll never know, so by all means, Quest forth…

No doubt you’ve heard the buzz about the new line of 21 guitar speakers developed by Eminence. We were fortunate to have published the only interview ever given by the late Bob Gault, founder of Eminence (TQR July 2001) and we have asked Chris Rose at Eminence to elaborate on the genesis of these superb new speakers. Our reviews follow Chris’ interview …

**TQR:** What inspired the development of the Patriot and Redcoat Series? What did you want to accomplish, specifically?

Despite the fact that Eminence had been making speakers for virtually every major guitar amplifier manufacturer for over 30 years, very few of those speakers were branded as Eminence. We had never really put any marketing effort into guitar speakers and there was no real notoriety for Eminence with the end consumer. To support all the manufacturers using Eminence in their amps, we felt we needed to establish ourselves as the guitar speaker of choice and make the products very recognizable with consumers. Thus, there would be added value in an amp that was Eminence loaded.

Beyond that, we had been contacted by multiple amplifier manufacturers who were complaining that our most formidable competitor had moved the production of many of their key speaker models to China. They were telling us there were delivery issues, quality issues, inconsistency and tonal variations with core models. While at the 2003 Frankfurt Musik Messe, one of the worlds most well-renowned guitar designers and manufacturers sat down with us and said, “If you guys don’t take this opportunity right now, you will be missing a once in a lifetime boat.” We came home from that show, immediately had a meeting with all our key people and decided the time was right to initiate a project that would ultimately lead to the launch of the Patriot and Redcoat Series.

We had several things we wanted to accomplish: First, we knew we had to develop a few key speakers that would mirror the tonal characteristics of our competitors’ core models in order to answer the call of our customers. Second, we knew we needed a wide assortment of tonal characteristics and speakers that were worthy of obtaining longevity in the market. We also knew that we had to be better than anyone else at explaining the characteristics of each speaker. Probably more than anything, we wanted to educate the consumer about how easily they could change their tone by changing speakers. Finally, we wanted each speaker to be unique cosmetically and easily recognizable by everyone as an Eminence product.

**TQR:** Describe the R&D process that went into designing the new speakers. Were there specific players involved in addition to your engineering staff, and if so, how were they involved?

Eminence engineers have probably designed more guitar speakers than any other group of engineers on the planet. They knew exactly where to start with matching the competi-
tors’ models. It was simply a matter of using the same components and the same manufacturing methods. As loudspeaker manufacturers, we all have access to basically the same components like cones, spiders, magnets, baskets, etc..., so that part was pretty easy. We also knew we wanted to soup up some of those models based on comments we’d been hearing over the years. The Stonehenge is an example of that effort.

For most of the Patriot models, we either used designs that were already popular with some of our endorsing artist like Tab Benoit (Delta Demon), or created new designs based on cones manufactured in the USA. Of course, our Cannabis Rex is a hemp cone model. We loved the marketing implications with that cone! Many thanks to John Harrison at A Brown Soun for letting us use it. I think we made him proud with the finished speaker design.

Throughout the design process, we sent samples all over the world to key amplifier manufacturers just to confirm that we had nailed the Red Coat (British) tones and confirm their continued interest. Their input was invaluable. Early on there were some things we didn’t have exactly right, but with their help, we quickly discovered how to make the necessary changes. We also wanted to make sure we developed speakers with superior power handling. There was a considerable amount of testing involved for us to reach those goals.

We are also very fortunate to have some awesome guitar tone gurus right here in our back yard. Greg Martin, lead guitarist for The Kentucky Headhunters is an endorsing artist and always willing to come spend time with us listening to new designs. Greg brought his guitar tech, Paul McGarry and Steve Wilson, the head sound engineer for The Headhunters and former Stevie Ray Vaughan guitar tech. Everyone involved with the project here at Eminence spent hours with these guys confirming the validity of the various designs and describing the tonal characteristics of each speaker. They were very instrumental in the development of the “Eminence Tone Guide.”

**TQR:** Can the sound and construction of specific speakers in the new Eminence series be compared to the sound of vintage speakers of the past?

It would probably be inappropriate for us to mention the name of our competitors’ speakers for which we have designed tonal matches. As far as we know, they are still offered on the market today. We have the utmost respect for those designs. What I can tell you is that our Red Fang, Private Jack, and Governor speakers are all models with British tonal characteristics that will be easily recognized by your readers. This year at NAMM we released four new British flavored models to round out the series. The Wizard could well be one of the best sounding guitar speakers I’ve ever heard. Man-0-War, Red Ryder, and The Tonespotter have also been getting favorable reviews.

Our Patriot Black Powder is a souped-up version of a speaker many may be familiar with from several Fender amplifiers of the past such as the Slant 4-12S, Straight 4-12S, Roc Pro GE 412 MKII, Ultimate Chorus, Princeton 112 Plus, Princeton 65 and Roc Pro.

Our Red Coat Tonker is a modified version of a speaker that was used in “The Twin” by Fender. The Copperhead is a highly modified version of our blue frame Legend 102.

The rest of the models are truly new and unique designs.

**TQR:** What are the major differences (advances) in construction materials and/or techniques used in the new Eminence speakers compared to the traditional archetypes among vintage speakers?

Eminence continues ongoing development of the loudspeaker voice coil and related manufacturing processes. There have been marked improvements in coil handling during the winding process, adhesives, former materials, processes and improvements in insulation. As a result, a coil wound in our coil department today may handle twice the power of one we made 30 years ago.

[continued]
Most of the adhesives that were used in vintage speakers have long since been replaced with much improved or different glues altogether. Such improvements have also impacted the attachment of surrounds to cones, cones to baskets, cone edge treatments and the durability of cloth spiders. Cones are probably superior to those in most vintage speakers as well... especially their suspensions.

Our e-coat and powder coatings are far superior to paints used years ago. The evolution of speaker building techniques has of course taken a different path for different manufacturers. For Eminence, our techniques today mean that when a speaker comes off the end of the assembly line, it is ready to be shipped to the consumer. Thirty years ago, the speaker likely had to sit for at least a day while the adhesives cured before it could be tested and packaged. So really, the speaker is much the same as it was 40 years ago. There have been no real major changes in technology with the loudspeaker... only with the improvement of components and manufacturing processes, resulting in better power handling and durability.

**TQR:** There has been some controversy over recent developments involving the manufacturing of “British” speakers in China. We’ve been getting calls from our subscribers asking us which speakers if any are still made in England... Eminence continues to exclusively manufacture its products in Eminence, KY, but do you source materials exclusively from the U.S. as well?

The controversy you describe is one of the things that precipitated our drive to introduce the Patriot and Red Coat lines. We’ve made efforts to find out which of our competitors’ speakers were still made in England and which ones are now made in China. We frequently get asked the same question and we still don’t really know.

All Eminence speakers are indeed still manufactured here at our facility in Eminence, KY. When we have a domestic choice for a component, we will always chose that component provided it allows us to remain competitive on the finished product. The Patriot series cones are all provided by domestic suppliers, as are most other components. For the Red Coats, we specifically sourced British manufactured cones. We wanted the tone to be a direct match to the original.

In the past several years, we have been forced to source some parts from outside the USA... usually when a viable US source no longer exists. Our philosophy at Eminence is to always keep our employees employed, support our vendors, support our industry and community, and demonstrate our pride in US manufactured products. This gets harder and harder for most all industries as consumers more willingly accept an import alternative. We have no intention of changing our philosophy though. There are over 200 families right here in Central Kentucky that depend on the continued success of Eminence and our ability to conform in an ever-changing market.

**TQR:** How can players, amp techs and builders actually hear and experience the new line of speakers first-hand?

As I mentioned before, changing speakers is a phenomenal way to change your tone. It is second only to changing your guitar or amplifier, and a whole lot less expensive. The hard part is really demonstrating to anyone how dramatic these changes can be. We spent a great deal of time trying to figure it out ourselves. For anyone to get a viable picture of the difference a speaker makes in their tone, several factors have to remain constant. First, you should be using the same amplifier, guitar, and enclosure for listening tests. Second, you need to be able to switch between speakers in the same enclosure while playing. Preferably, you want to do this with your favorite guitar and amp.

For winter NAMM 2005, Eminence introduced a point of purchase speaker switching system package. We intend to market the package to key guitar shops across the US that are interested in becoming Certified Eminence Tone Centers and willing to help customers “Pick Your Sound.” It will include a 16 channel switching device and the dealer’s choice of cabinet(s) for demonstration purposes. The customer will be able to bring in their favorite amplifier and guitar or choose one from the dealership to try out all the various speaker models. -continued-
In the meantime, we are adding sound clips to the Eminence website on a regular basis. There have also been reviews with sound clips on CD in the September 04, October 04, and November 04 issues of Guitar One. These three reviews covered 12 different Patriot and Red Coat models. I would also direct readers to http://thegearpage.net/board/showthread.php?s=d81c10c2d15c47d5ba747782d07a988e&threaid=34065. This is, what has become a rather large thread on The Gear Page discussing the entire Patriot and Red Coat series. Not only does it provide guitarists with objective opinions on the tonality of the new speakers, there are also some clips that have been contributed by participants.

TQR: You continue to design OEM speakers for many of the largest amp manufacturers and small builders, too. We’ve noticed that Victoria has been using Eminence speakers in some models, and Fender is using the Legend 15” in the hand-wired Vibroverb reissue. Did you also design the speakers found in the new hand-wired, low-power ‘57 Twin?

Yes, we participated in the ‘57 Twin project. Those speakers are 2-12” Fender Special Design Ted Weber/Eminence®, 8 ohm Speakers with AlNiCo magnets. We also participated in the Vibroverb project with a 1-15” Special Design Eminence®, 8 ohm Speaker with ceramic magnet. Eminence is a custom manufacturer first and foremost. Our branded product line was implemented to improve consumer perception of Eminence loaded products. Ninety percent of our business however, is still building speakers for amplifier and PA cabinet manufacturers big and small. The development of custom speakers is different for virtually every Eminence customer. We are always flexible and willing to work with the customer in whatever capacity they deem most appropriate for their particular situation. In most cases, we are given an application, a set of parameters or other criteria the customer wants us to meet. We produce a sample and it is either approved or the project goes back to the drawing board. In other cases, the amplifier manufacturer may have a very clear idea of what they want us to engineer, we build it for them and it is approved. That all sounds very simple, but it can be a very long and time-consuming process for engineers at Eminence and the amplifier manufacturer. The end result is almost always much more rewarding than just choosing a speaker off the shelf or a speaker based on name recognition alone.

TQR: What’s ahead?

This project has given us a lot of renewed confidence both in the validity of these specific designs, and the huge replacement/upgrade guitar speaker market. We certainly intend to continue development of new designs for these lines. We also have some really cool new bass guitar speakers that will become part of the Patriot line and will make their debut soon.

We just finished working with Fender on their new Steel King amplifier with the 1-15” Custom Eminence® 4 ohm
and breaks down over time. Sooner or later, your original old speakers will be that the glue at the surround eventually dries up, a problem we are confronted with in playing original vintage speakers. fragiles and obscure Goodmans speaker made in England. The historically significant, and there are fans of all types – even the Celestion. Oxford, Utah, Altec and Electro-Voice are also historically, the most highly prized guitar speakers not all) builders of expensive, hand-built amps.

We're about to lay some rock-solid speaker recommendations on you developed after many months of carefully evaluating various speaker and amp combinations (nearly a year in all). But first, let's clear the air in regard to speaker reviews, subjective comparisons, and the bias that exists among some (but not all) builders of expensive, hand-built amps.

**EMINENCE REVIEWS**

Historically speaking, the most highly prized guitar speakers of the past have been made by Jensen, CTS, JBL and Celestion. Oxford, Utah, Altec and Electro-Voice are also historically significant, and there are fans of all types – even the fragile and obscure Goodmans speaker made in England. The problem we are confronted with in playing original vintage speakers is that the glue at the surround eventually dries up and breaks down over time. Sooner or later, your original old speakers are going to give it up. This was particularly frustrating when the alternatives among available new speakers were limited (they aren’t now), and you already know how we feel about the majority of recons.

Fortunately for us all, speakers are being built today that exceed the tone, performance and durability of the most cherished original vintage models as they sound today, but an important variable exists that is rarely mentioned in speaker reviews online and in print. To say that a particular speaker possesses “tight low-end with strong, aggressive mids and moderate brightness” for example, risks missing a critical element in the chain – the amplifier. Will a single speaker sound the same in six different amplifiers? Do your preferences and expectations change when evaluating a speaker that is intended for a Marshall 50W versus a 12W Fender, a 60W Boogie or an AC30? Will your favorite speaker mounted in a 2x12 cabinet remain so in your old Flot-a-Tone? In our experience, specific speakers often seem to compliment specific amps or similar types of amps, so there will always be a bit of mystery and chance involved in identifying your ‘signature sound’ through speaker swaps. For the most seriously afflicted tone freaks the question remains, “Is this as good as it gets? Can I stop screwing around now, or am I still missing something worth pursuing?” Given the depth and breadth of the choices available among new speakers today, this is a question you need to be asking.

During our evaluations of Eminence speakers, we had access to a large number supplied by Eminence as well as other brands we had bought earlier or that are mounted in amps and cabinets we already owned. We also shared speakers with trusted and experienced tonehounds like Jeff Bakos from Bakos Ampworks and Peter Stroud; both gave us the benefit of a valuable second opinion. Jeff was also able to share the feedback he received from actual customers that had specific Eminence speakers installed in their amps as permanent replacements.

If you are influenced by the types of speakers you see in expensive, small-production “boutique” amps, understand that some builders of expensive, hand-built amplifiers continue to use modern versions of classic speakers simply because they feel that their customers will accept nothing less. To put it bluntly, you could subject these builders to a blind test of their preferred ‘vintage reissue’ speaker versus an Eminence Red Fang, Private Jack or Governor, for example, and they still wouldn’t mount an Eminence speaker in their designer amp regardless of the results. We believe this often has less to do with tone and more to do with image. Eminence speakers have traditionally cost less than their competitors and frankly, their image has suffered for it among some fans of pricey “boutique” amps. No, the matte black and red Eminence paint jobs aren’t thick and glossy like a car finish, but we urge you to drop any biases that may prevent you from fully experiencing the incredible range of flavors and extraordinary value that are available to us today from the speakers made in Eminence, Kentucky. To assume that Eminence speakers are just cheap knock-offs of the real thing is just plain wrong.

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In our tests we repeatedly listened to a single speaker model in the same amplifier during each session. We also listened to identical speakers in “identical” vintage amps (the brown ones) to experience the variation among amplifiers. Over a period of eight months we tested each speaker in separate, extended review sessions with our blackface Deluxe, Pro Reverb, Balls 18, 1969 Marshall 50W and most recently, the trio of brown Vibrolux amps. Our extended review period was intended to allow first, second and third impressions to develop into solid conclusions over time.

**Reviews**

*Coils, Spiders & Cones … A Guide to Wicked Good Tone*

The Patriot and Redcoat names reflect the two most recognized styles of guitar speakers from the past. ‘American’ speakers are generally considered to be balanced, warm and clean with a more prominent high frequency response, scoped or flat mids, and solid, tight bass. ‘American’ speakers also contribute less harmonic detail, coloration, and ‘growl’ than British-style speakers, which are known for their rich harmonic content, midrange/upper mid emphasis, and a more assertive, aggressive character. Yes, we’re simplifying things a bit, but that’s the point of this article. If you wish to study speaker response curves and specs for each of the 21 speakers that currently comprise the Redcoat and Patriot Series, please reference the Eminence web site. It’s all there…

**The Texas Heat**

This speaker was a real surprise. Perhaps the name initially influenced our expectations (wrongly), but the Texas Heat proved to be an extremely versatile speaker that will be appreciated by most guitarists. This is a BIG, LOUD sounding speaker – very open and wide-glide with excellent low end, moderate midrange presence, and highs that are strong and clear without being overbearing. Eminence describes the Texas Heat as “fat and chunky,” and we agree. Among all the speakers we tested, this one seemed to excel at what it does with every amp we own, which surprised us even more given its 150W peak power rating. Price: $59.99

**The Wizard**

In our opinion, the 75W Wizard is the British cousin to the Texas Heat. It’s another big sounding speaker, very well-balanced and clear with excellent lows and mids and smooth treble tones that are neither masked or strident. Like ‘The Heat,’ the Wizard makes a very bold statement. Perceived loudness and presence is at the upper range of all the speakers we tested. And like the Texas Heat, the Wizard’s versatile character makes it an excellent choice for a wide variety of personal tastes and musical styles. The Wizard’s lower power rating and efficiency results in a slightly more dynamic and responsive tone in lower powered amps. A stout British classic with panache, Eminence describes the Wizard’s tone as being notched between the Private Jack and the Governor. You’ll love it. Price: $79.99

**The Copperhead 10**

Nothing else sounds quite like a great 10” speaker (except four), and the Copperhead is just that. Warmer and fuller than the familiar Eminence blue AlNiCo 10’s commonly found in Fender reissue Bassman and early VibroKing amps, the Copperhead throws just the right level of midrange push and crunch at higher volume levels. The bass is tight and solid while the highs are less piercing and strident than vintage CTS AlNiCo speakers found in old Supers, for example. Overall, this speaker is voiced in the upper mids – terrific for 2x10 and 4x10 applications, and two would be an excellent match with the Eminence Ramrod 10. Price: $49.99

**The Governor**

This isn’t a speaker for ‘Jensen guys’ or anyone that craves screaming treble tones, but man, do we love this speaker! One of the thickest, most aggressive in the Eminence line, the Governor is chock full of complex harmonic midrange detail and...
smooth, thick bass response that doesn’t mask higher frequencies. Highs hold up well on fat chords without dominating them. Rated at 75W, the Governor works equally well in small combos and bigger head and cab rigs, and it calms down the sharp glassiness of single coil pickups very nicely. Running it with our ‘69 Marshall made the idea of pulling the original Greenbacks in our 4x12 very tempting, our Balls 18W roared with authority, and the Brown Vibrolux amps were simply unbelievable for great rock tones. The Governor will also match up very nicely with the Wizard, Red Fang or Private Jack in a 2x12. Price: $89.99

**Red, White and Blues**

If you prefer stinging, sparkling top-end with low-end snap and less intense midrange emphasis for true American spank, here’s your speaker. Rated at 120W, the Red, White and Blues immediately reminded us of Stevie’s big, huge, roaring tone with those EV-loaded cabs in the later years of his short career. This is one of the cleanest sounding speakers we tested, and the clarity and wide-open tone works particularly well with humbuckers for the Blues. Another big-sounding speaker with great presence and depth voiced in the upper mids and higher frequencies, our Pro Reverb and Deluxe delivered the righteous tones of Texas Flood with this one, and it luuuvvvs pedals … Price: $64.99

**Cannabis Rex**

Nothing mines low and midrange frequencies like hemp. This speaker captures harmonic textures that no other speaker in our tests produced, and the Cannabis Rex is your secret weapon for creating captivating rhythm tracks, slithering slide riffs and greasy fills, head-turning solos and a bold attitude that will add a new dimension to your music. This speaker will challenge you to get creative with its thick, low-down vibe, but if the idea of high frequencies being cloaked in a darker shade of wail is a turnoff, keep walking – you don’t get it and it’s not for you. The Cannabis Rex was created for the open-minded player whose sonic requirements are not limited to the more readily accessible and familiar guitar tones of yesterday. “Rex” is the totally stoned, lead baritone in the Eminence choir – prone to brilliant performances but definitely not running with the pack. It is an instrument unto itself and a great addition to any studio. Price: $89.99

**Private Jack**

Created in the image of the famous ‘greenback,’ this is one of our absolute favorite speakers for both 1x12 and 2x12 combos and more powerful heads with 4x12 cabs. The ‘Jack’ is gloriously balanced to produce highs with presence and staying power that are never too sharp, perfect midrange definition, and outstanding bass response that is neither woofy, soft or mushy. At 50W rated power, this is a best bet for small combos, although you would also be quite pleased with the sound of four in a 4x12 cab matched with your favorite 50W or 100W head. The Private Jack is not as aggressive-sounding as the Governor, but very, very British nonetheless. If you don’t like this speaker, it isn’t the speaker … the problem is you, brother. Price: $84.99

**The Red Fang**

If the famously pricey ($310) AlNiCo Celestion G12 ‘blue’ makes your blood run hot and your love gun already, this be your speaker. Buy the Fang and spend the savings on whatever cheap thrills may be missing on your pedalboard, proud in the knowledge that you have helped keep America working while nailing the tone you crave. No, the 30W Red Fang isn’t painted glossy blue, nor will friends and acquaintances knowingly nod at your $600 2x12 speaker rig, but we spent hours bouncing between the Fang and a genuine Blue to discover this: while the Fang may have lacked just a cat hair of top-end chime compared to Blue, the overall difference in tone alone wasn’t worth the extra $200.00. Still, some people will throw down big money for a flamed-out Les Paul when a more pedestrian goldtop might kick it to the curb, and other guys won’t sleep through the night until they have spent as much on a speaker as humanly possible. Hey, if money = tone in your world, buy a couple of vintage Celestion G12’s for $250 each and send them to A Brown for a hemp recone. With shipping charges to San Rafael, you will have set a record investment of around $900.00 in yer speakers. Congratulations! Otherwise, it’s the Fang for signature chime, complex harmonic overtones and laser-beam midrange and upper mid presence. Don’t expect booming low-end from this speaker, but the complex interplay you can create with the Fang, your hands, guitar and amp is definitely not to be missed. For 2x12 applications, try a Fang and a Governor. Price: $129.99.