

# CHASE TONE

When it comes to hardcore authenticity in vintage gear replicas, no one tops Kyle Chase—a lone-ranger builder who says he can hear the difference between stranded and solid-core wire in his Marshall-, Vox-, and Fender-inspired amps and pedals.


BY JOE CHARUPA ■ ORN

There's certainly no shortage of boutique manufacturers and DIYers offering their take on the iconic gear of guitarodom. Marshall plexis from the '60s, vintage Fender Bassmans and Strats, old Electro-Harmoni Big Muffs, and finicky Echoplexes, among many others, have served as inspiration for countless new builds and reissues. However, exact replicas are virtually impossible to produce because most of the parts that went into these instruments are now virtually impossible to source in reliably replenishable quantities. Sure, you could cannibalize a vintage workhorse if you had one lying around—and, of course, there's the burgeoning new-old-stock (NOS) tube market for your glass fi—but generally speaking, you're out of luck if you're after 100 percent authenticity. That's why you have to be prepared to shell out the big bucks when you seek out vintage classics on eBay or Craigslist. And even if you do manage to snag a vintage gem, unless it's an uber-rare, kept-in-the-attic-for-decades prize, it will likely have or need replacement components.

Enter Kyle Chase of Chase Audio, an ultra-obsessive tone freak who builds replica amps, effects, and even guitars using only NOS parts—or, when those are impossible

to come by, using custom parts made to period-correct specs. Yes, NOS is Chase's MO. In fact, he's so intent on building authentic, museum-quality replicas that he spends exorbitant amounts of time sourcing parts that are seemingly mundane and interchangeable—like wire and fuse holders—from around the world. He's so fastidious that it took nearly eight years to complete his first Marshall JTM45/100 replica. His other builds include replicas of Fender Champs and Strats, Vox Clyde McCoy and Grey wahs, vintage Cry Baby wahs, Dallas-Arbiter Fuzz Faces, and Echoplex preamps, among many others. Because of the difficulty of finding the stuff Chase works with, he's an underground phenomenon—you're not likely to find information about him on forums, because only the absolute geekiest of gear freaks know of him—well, until now. His creations are finally starting to circulate. For example, his McCoy wah replica will be featured in an upcoming guitar-tone instructional DVD by Favored Nations artist Doug Doppler.

For the most part, Chase's outfit is a one-man operation. His shop is located on his family's property, 13 acres of isolated



Builder Kyle Chase with a replica 1966 Marshall stack and a late-1960s-era Fender Stratocaster repro with reverse neck, reverse pickups, and reverse-angle bridge pickup. Notice the replica gold slim vents on top of the amplifier head.  
Photo-by-Andy.com

forest on the highest part of a mountain near Wilkes-Barre, Pennsylvania. The advantage of this remote locale is that Chase can crank his creations to Madison Square Garden levels without getting visits from the cops. Although he's already quite accomplished as a builder, Chase continues to channel his energies into the pursuit of sonic nirvana, and to that end he's currently pursuing a bachelor's in electrical engineering with an emphasis in electronics.

Before we get to what led you to your remarkable commitment to authentic vintage tone, which guitarists inspired you as a player?

Some of my favorite guitarists are Jimi Hendrix, Eric Clapton, Eddie Van Halen, Jeff Beck, David Gilmour, and Neil Young, although the list could go on and on.

Did those players also shape your concept of tone and what you're trying to achieve sonically with your period-correct replicas?

Yes and no. Each one of those artists has a tone that represents them, and some have many different tones. Jimi Hendrix's tone was always evolving. Eddie Van Halen was a big influence on me, but I was more a fan of what he had to say on the guitar than his voice. Thinking about some of his great tones came later.

What was your first tube amp? The first real tube amp I had was a Marshall JCM2000 TSL602 2x12 combo, and my first quality electric guitar was a custom

shop Peavey Wolfgang. Both were purchased as gifts for me from my mother during my senior year in high school. This setup made it effortless to play in the style of Van Halen, Vai, and Satriani. To this day, I favor it for certain tones.

The TSL602 and TSL601 1x12 are nice amps, but they don't seem to get that much love from gearheads. Did you mod yours at all?

No, I like it the way it is. People get caught up in modifying things. I modified my Tube Screamer every possible way you can, but for my personal taste, I like it stock the way it was originally made.

I actually almost got rid of my TSL602 at one point. I traded it in at Guitar Center in Philadelphia but after a couple of weeks I thought to myself, "Man, I think I want that back." I went back and went through all these different TSL602s, but none of them sounded like the one I had. I did end up getting my original back, though. I had it sourced back through Guitar Center. That amp has sentimental value, too.

What are your benchmarks for good tone? The recent JTM45/100-inspired amp I created from scratch gives me the tone of Jimi Hendrix's first album, *Are You Experienced?* I think the tweaked setups of Hendrix's wah pedals on his recordings are benchmarks. I also like Neil Young's *Rust Never Sleeps* concert. His Fender Tweed Deluxe has a varied distortion character, and then there's that Firebird pickup in his Les Paul.

What prompted you to start making your own amps, pedals, and guitars? I was unhappy with the sound from my equipment compared to the music I was listening to. I began to tear apart and modify numerous Fuzz Faces, guitars, and amps. Through countless years of research and studying old tube electronics college textbooks, I gained knowledge. I knew if I wanted the sound to be right, I had to build it myself and I did it without a computer or the internet. I used the classic tones of studio and live recordings by Hendrix, Cream, and others as benchmarks. It was done through trial and error, just using my ears and just playing the guitar and comparing it to classic tones.

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Do you compensate for the variables introduced by the recording studio itself—mics, mic placement, room acoustics, etc.—as you listen and compare?

I think if someone wants to match the sound of original recordings, it's much easier with live recordings. The studio recordings have too many variables that we don't truly know. I base my amps' sounds on the essence of the original sound or of an original amp. They all varied. There is no single original sound of these amps. That's the beauty of it. I also think one shouldn't copy someone else but use it to learn and build off of.

Do you also do repair work or mods? In the beginning, I did it for experience or for people who needed it, but I usually try to stay away from it. A lot of modern amps are built very differently from the older ones, and the time I spent working on amps that could just get fixed at a local music store was time I wasn't spending on building a custom



People get caught up in modifying things. I modified my Tube Screamer every possible way you can, but for my personal taste, I like it stock—the way it was originally made.

unit or getting more knowledge by tweaking a custom unit. I do repair old stuff, just not new stuff—but I don't actively seek old-gear repair work out. It's more like, if someone is stuck—like their old Marshall stopped working and they're worried about taking it to a tech they don't trust. People sometimes contact me from the internet and want to send in stuff for repair. I tell them to get the work done locally, if possible, because there's that risk of the amp being damaged in shipping. I kind of treat it on a case-by-case basis.

That type of honesty is pretty rare. A lot of guys will do whatever it takes just to get work in the door.

With anything I've ever sold, I've always told them, "For the rest of your life, if you ever have any problems with anything, just let me know. If you change your playing style, I'll re-tweak it." I'm always worried about what the customer wants—that's how I do everything.

Why are NOS parts are so important? The old resistors in '60s Marshall pedals sound much different than resistors made from the '80s until the present. They have a smooth, warm, classic sound that I don't hear in modern resistors—it's easily heard in an A/B comparison for most positions in the circuit. And I'm not talking about old



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carbon-composition resistors although they, too, provide a certain flavor of tone in certain spots in these amps. I just don't prefer them all the way through, because then it loses high-end fidelity and doesn't sound like a Marshall.

But NOS parts are only part of the puzzle. You have to know what to do with them and which ones to select, and you have to have a very finely tuned ear to do this. It's more than just whipping together a recipe.

Is shelf life a concern with NOS parts? I suppose any NOS part does have a shelf life if you're talking about a long enough time frame. I won't use old electrolytic capacitors for obvious reasons—they dry out. Also, depending on how the parts were stored—and just because they're old parts in general, with different manufacturing processes than today—you can get ones that are way off tolerance. Sometimes that can be a good thing or a bad thing.

Do you test all of your NOS parts? I measure each part, and I sometimes utilize components that do not measure what they actually are supposed to. I have a large stash of vintage parts. Sometimes certain part values measure near spec, and others always measure higher or lower. I'm not talking about different-toleranced parts, but ones that were supposed to have the same tolerance. By having a large selection go through my hands, I've been able to figure out some things that someone with a smaller quantity wouldn't know. You can't just look at an amp's insides and copy it, because it will not sound the same. There's more than meets the eye.

Tell us about some of your builds. My most recent amp is based on a 1966 Marshall JTM45/100. I went all out on details, so it's cosmetically and sonically like the original. The back panel has the proper gold font—even the misaligned "III" in "M III" and the dot in the second "i" in "Amplifier" is slightly oval, as per the original amps. The gold knobs on the front panel are old and nearly identical to vintage Marshalls. The circuit board is NOS Pablin, as per the originals. This does have an effect on the sound. I used all NOS original resistors found in amps from that era. The coupling capacitors are original Mullards with a date code of 1966.

I sourced as many original components as possible from all over the world. I even managed to source original PVC [polyvinyl-chloride-plastic-insulated] stranded wire from a guy in England who supplied Marshall with them in the '60s. I also sourced the original pink wire to the pots and the slightly thicker diameter pink wire for the pot lumps and input jacks, as per original amps of this era—this wire is next to extinct and plays a role in the vintage tone.

How so?

The old wire had a different molecular structure, a different strand arrangement, and a different grade of PVC. Also, the old Marshall carbon-film resistors I used are part of the tone of this era. I find modern carbon-film resistors much too bright for these amps, and carbon-composition resistors lack too much high-end fidelity.

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I have eperimented and A/B'd different wire. I can tell the difference between stranded and solid-core wire. I can also tell the difference between cloth-covered and stranded PVC wire. To take it a step further, there is a difference if the stranded wire is twisted inside the PVC, or if it's all laid out parallel to each other. I see many builders today using bonded or top-coated stranded wire, and I don't like this wire for vintage Marshall amps. It doesn't sound right.

What specifically doesn't sound right about it?

Notice I said it doesn't sound "right," but I didn't say "bad." We are talking about vintage Marshall tube amplifiers and recreating that original tone. The top-coated or bonded wire does not transfer the signal the same as a stranded wire does. By stranded, I mean the wire's strands are easily separated and not tinned into one conductor. There's

more detail in the high-end with stranded wire. It's harder to work with, but I much prefer the tone for these amps. After all, isn't that the whole point of the build? the tone?

I think a lot of guys use top-coated wire because they don't believe it can have an effect on the tone, or it's easier to work with, or they simply don't pay attention to the details like I do? or their ears can't hear the difference. I am really particular about the kind of wire I use in different circuits, and where I use it in the circuits.

How do you find your parts?

The best way to find the original parts is to spend an enormous amount of time contacting every ham radio guy from England there is. It's similar to how guys find parts for old classic cars. You really have to spend a lot of time digging. I love this part of rebuilding some of the old amps, though? There are guys I regularly stay in contact

with from England, and I love that they know I am putting parts they saved for the past 40 or 45 years to good use. I read an interview with Jeff Beck not too long ago and he talked about looking for car parts in America to complete his hot rods. Same deal there.

Are there enough parts to go around to make a big run of vintage replicas? I have a large amount of vintage parts for multiple vintage amp builds, but I treat it on a case-by-case basis. If I were building a high quantity of my own designs, I would source new parts that gave me the tone I wanted.

What do you do if you can't locate an NOS part?

If I can't find an original part, I often make my own replacement part. In the JTM45/100 replica, I made my own internal fuse holder. I design and make my own circuit boards for my



LEFT? Authentic replica JTM45/100 amplifier, angled pinstripe cabinet and tall pinstripe cabinet to exact dimension and radius of the originals. Featuring EC Collins' True "Blues breaker-Pinstripe" grille cloth, essential for the authentic look and most importantly the tone. High grade quality Baltic birch wood and vintage pine internal bracing and sound post. Photo-by-Andy.com

ABOVE? Authentic JTM45 gold plezi panel with proper font and layout. NOS gold Marshall-style knobs. Photo-by-Andy.com BELOW? Authentic white polystyrene rear panel with proper gold script "Super Amplifier" & MK III font. NOS Bulgin power socket. NOS Radiospares dime-slot bakelite panel-mount fuse holder. Photo-by-Andy.com





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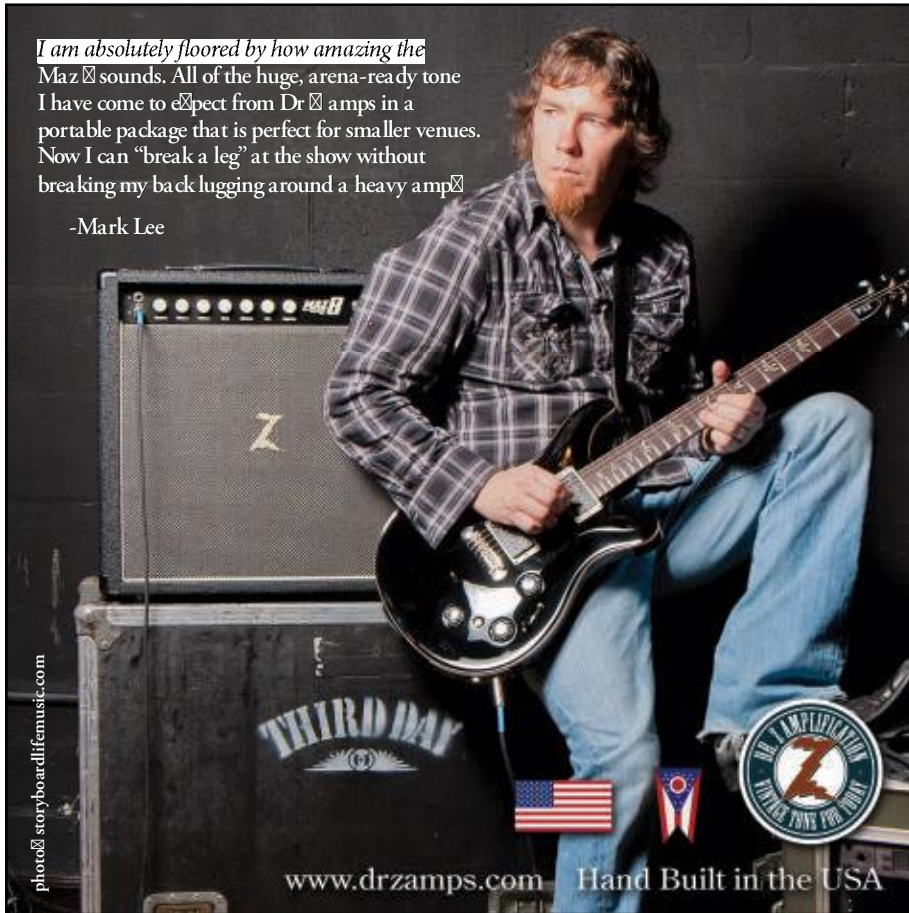


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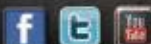


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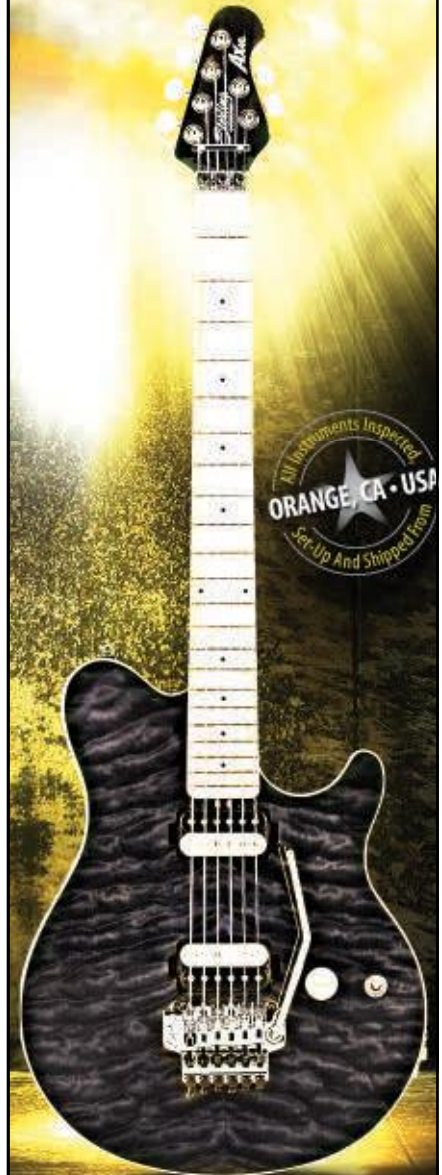
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amps and pedals. I make my own wah induc-tors, too. For wah pots, one way I build them is by swapping the internal phenolic wafer from an old pot into a new wah pot casing. In gui-tars, I modify the pot's internal carbon track for a higher resistance, so they sound more like the pots found in old Les Pauls. If making my own part is not an option, I'll source an alternative NOS part or, if needed, a new part that reacts and sounds as close as possible to the original.

Would you later replace that part with an NOS part if you were able to track one down?

Yes, but mostly on strict vintage builds.

What about the cabinets? Do you make them yourself?

Yes. I couldn't find Marshall cabinets or ones on the market today that had the look or tone of the old ones, so I started building them. My father is a carpenter and stonemason. Together, we started dovetailing and designing cabinets from scratch out of Baltic birch ply-wood, and soon we are going to use a slab of pine that's a few hundred years old for builds based on the tweed Bassman and tweed Twin.

What's the price range for your product line?

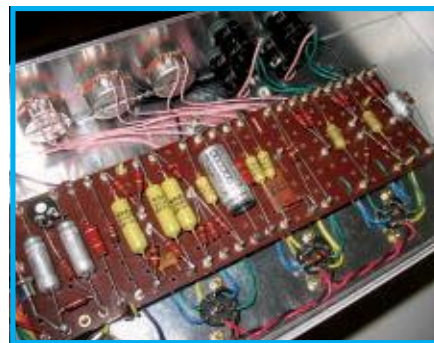
My VoX Clyde McCoy wah replicas range from \$300-\$500, and my VoX Grey wah replicas normally range from \$500-\$650, depending upon what actual NOS components are used. The Grey wah replicas are handwired on old Radiospares circuit boards, with all NOS components, including induc-tors. For amps, it depends on the build and whether cabinets are involved. To put an average price figure, I've been offered \$4,000 to \$5,000 for the recent JTM45/100-inspired build. But that one is my personal amp. It means something to me and isn't for sale.

If the price of your NOS-equipped amps is partly influenced by the use of NOS parts, what happens to its value after the amp is used and the parts are either no longer NOS or are replaced by modern components? For instance, is the \$5,000 amp worth less when the parts, which directly influence the cost, are no longer present or new?

No, I don't feel using the amp makes it lose its value. But, yes, any component replaced with a modern part can alter the original tone of the amp. How much of a tonal dif-ference there is, I can't say. It depends what part you are talking about.



Featuring white rolled Tolex, sleek elegant rolled edges, gold piping and trim, and handwired series Marshall pinstripe grille cloth. Custom Shop EVH Peavey Wolfgang Moonburst guitar with detailed flame maple. Photo-by-Andy.com



LEFT ■ NOS 1960s original Radiospares carbon film and carbon composition resistors. NOS 1966 Mullard Mustard coupling capacitors. Original Marshall 1960s PVC stranded wire (green, blue, yellow, purple, white, black and red). Original Marshall 1960s PVC Pink stranded wire, as well as original thicker diameter 1960s Marshall pink wire for pot jumpers/input jacks, per original spec of this era amplifier. NOS rare arched-logo RS silver mica capacitor. NOS Radiospares silver mica tone stack capacitor. NOS custom made perforated Paolin board from the UK, with original Radiospares split turrets. PEC military-grade stainless steel body, steel shafts, and gold contact potentiometers. RIGHT ■ NOS tube sockets. NOS BY137 bullet diodes. NOS BY114 Mullard top-hate diode for bias supply. High quality Rifa brand electrolytic capacitors. 1960s original Radiospares black wire wrap. NOS tube sockets. Cliff UK (UK) chokes. New Marshall impedance/voltage selector for reliability. Custom trans-formers from Merren Audio through years of extensive testing they were the only transformers that accurately reproduced the original sound.

I also want to say that I don't just copy old tones. I like to move ahead and look forward. I often use original tones as something to aim for. I feel there is a fine line between someone who chases that "brown sound" that so many do and who also go about it the wrong way and someone who uses the original tones of the greats as a springboard. I feel that

recreating original amps and tones is only the beginning. It's not the end goal most of the time. I think it would be very boring if everyone just copied someone's playing style or tone. PG



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