

# Mercury Magnetics transformers: The Biggest “Little” Tonal Improvement You can Make to Your Amp

by JP Cervoni

I'm a player from Los Angeles. Even though I endorse companies like *Framus* and *Brunetti* amps, who both make fine equipment, I still rely on *Marshalls* for some of my favorite tones.

Last month I went on a quest—how can I make my “road-dog” amp, a *Marshall JCM DSL 2000*, play like my vintage 30+ year old *Plexi* (which stays home, of course!)?

Well, first I got a tech to change a couple little things: resistors out from the volume pot, a couple of changes with the EQ resistor's values, etc. This made a bit of difference. Then I played with a variation of power and preamp tubes, from different companies



JP Cervoni at the *Mercury* factory giving his modified JCM 2000 a workout.

and fuller overall frequency. So, I kept fishing around on the web and by chance hit upon a review for *Mercury* replacement **transformers**.

As luck would have it *Mercury* is located 5 minutes from my home! I thought I had nothing to lose by replacing the **transformers** since it's usually a fast and easy tech operation, so I went to see them.

Along with their technical knowledge, what struck me instantly was their level of care and enthusiasm. *Mercury's* Sergio Hamernik explained that I could do more than upgrade the existing power and output **trannies**, such as add a real choke to the circuit, like the original *Marshalls* (the stock *DSL* has a cheapy resistor instead of a choke).

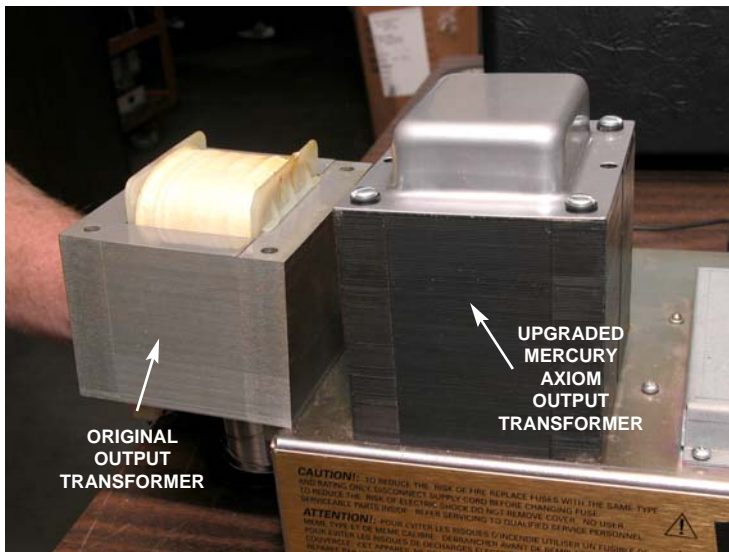
Although *Mercury* had something special in mind, I had a gig in a couple of days, so we decided to *only* replace the **output tranny (OT)**—then finish the job later. Not all **transformers** are the same within any model (or year) of amplifier, and in many cases there are radical differences. *Mercury* makes a particularly outstanding drop-in output that would help the *JCM's* sound. Although it was a temporary “patch” this change gave me the chance to feel, let me repeat, f-e-e-l the amp at my gig, and I was positively surprised by the how it reacted and sounded. Simply stated, the improvement with the feel and tone was 50%.

After the gig *Mercury* went to work on my amp by literally reengineering new power and **output transformers** specifically for the *DSL*. The **power transformer**



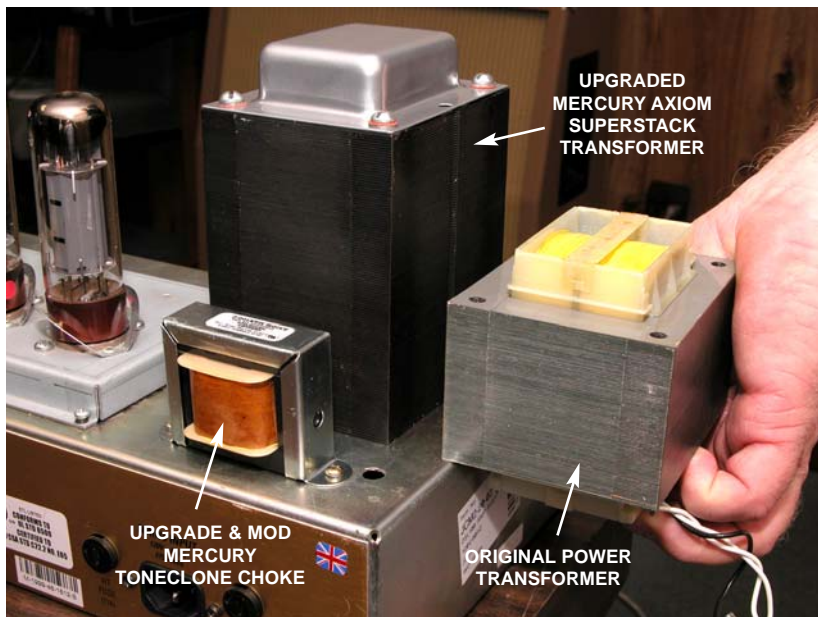
**BEFORE:** Front and back views of JP's unmodified *Marshall JCM 2000 Dual Super Lead*. Note the fan connector next to the **power transformer**. JP was experiencing overheating issues due to the undersized original **transformer**.

(*GT*, *JJ* and *Tesla*) until I found the combination I liked best. This made a perhaps 25% difference. I was happy, but still searching for that missing ingredient because the *Plexi* had... well, more of everything, including more power, more clarity, faster response,



**BEFORE & AFTER:** On the left is the original Marshall output transformer. The right is Mercury's upgrade (Mercury AXIOM Part #: MAR100-O). Note the darker color of the Mercury transformer core metal vs. the stock transformer. Mercury uses only "high perm" iron cores. High perm = better tone. On the other hand, "low perm" cores are good for things like soup cans and lunch boxes. Today, only the highest quality amp transformers are being made of the finest quality core material.

(PT) utilizes their new "SuperStack" technology (it's huge and looks like a skyscraper in there!) that completely eliminated the amp's tendency to overheat! They also modified the circuit by adding a choke. The final result was nothing short of a revelation! The amp has more power, better tone, faster response, wide palette of frequencies... it has more of everything!



**BEFORE & AFTER:** Check out Mercury's custom-built "SuperStack" (on the left—Mercury AXIOM Part #: MAR100-P) as compared to the original power transformer. Vintage Marshall trannies had a much larger footprint. What do you do when you run out of real estate? Right... you build UP! Note that we also added a Mercury choke (Mercury ToneClone Part #: MAR100-C) to the circuit. Our choke takes the place of a resistor. The choke is like a shock-absorber for the circuit. It's one of big factors in the final smoothing of the tone, and increases the life expectancy of your power transformer. **Note:** In order to save money, manufacturers typically do not put chokes in their reissue amps.

Before modifying the amp, the more I cranked the Master Volume the "cheaper" it sounded, with lots of preamp gain/tone but not enough power tube interaction (compared to my old Plexi). Now, the feel and tone stays uniform at all volumes. Likewise, the DSL used to sound best when on the clean channel, I could not match the distorted channel with the clean and it was a turn-off. Now the clean channel is the clean channel and the distorted channel does what it's suppose to do—which is keep the same tone and overall frequencies and give me the amount of gain I choose to have.



You know, I really learned a lot from this experience. It seems to me that there's been too much attention on the little things amp techs do for only marginal tonal improvements. If you want to hear a B-I-G improvement—upgrade your trannies! It's not too expensive, it's fast and it's the biggest noticeable enhancement you can do.

By the way, I later found out that Brunetti already uses Mercury trannies, likewise with most other top amp builders all around the world. This amazing company has a complete line of replacement and upgrade trannies for just about every tube-based guitar amp ever built! Got questions? Give Mercury a call, they're very helpful. They even offer an unheard of "Tonal Guarantee" and a full 10-year workmanship warranty. Try it, they've got you covered... you can't lose.

Upgrade your trannies for the biggest "little" improvement you can do. ⚡

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



Players who know tone insist on Mercury transformers

9167 Independence Ave. • Chatsworth, CA 91311  
(818) 998-7791 • [www.MercuryMagnetics.com](http://www.MercuryMagnetics.com)