

# LACHAPELL 583S PREAMP

*An innovative preamp in the 500 Series module format*

*Review by Justin Peacock*

Talk to any gear designer and they'll tell you: AC power is critical to good audio. If you have low voltage or a crappy power supply, it's hard to make good sound. That's why quality gear often (but not always) weighs a lot or has a huge honkin' external power supply.

Now enter boutique gear designer Scott LaChapell. If you know Scott and his model 992EG stereo tube preamp, you know he's all about tubes, military-grade construction, and lots of tone.

So when Scott set out to design a tube preamp for the API 500-series, he wanted to base it on the 992. But there was a problem: He needed more juice. After all, the standard VPR Alliance voltage of 16 volts falls woefully short of the 250 volts needed to fire up a tube. And there's the matter of where to put the tube itself. Like the sun, tubes are hot bulbous glowing orbs that require some consideration during design.

Of course Scott managed to figure all of this out. Using a very cool (and apparently rather expensive) DC to DC converter, Scott was able to take the API supply of 16 volts, convert it to AC, step it up to 250 volts (yes, that's right), and then convert it back to DC again. Very cool.

It's also interesting to note that the limit for current draw in the API 500-series format is 130 milliamps per bay, and the 583s (being a doublewide) draws 210 ma, well within the budget of 260ma for the two slots.

Speaking of two slots, one of the big advantages afforded by the doublewide layout is that the tube is easily accessible by the user. This is a really cool feature because you can easily pop out the tube and swap it with something else for a different sonic character. The preamp ships with a 12AX7/ECC83, but you can tailor the 583s to your sonic palette (see sidebar).

## On the front

The 583s is a single channel tube microphone preamp for the API 500-Series. Unlike most modules for the format, however, it's a doublewide—no, not like your mother-in-law's choice of residence, but two 500-series slots wide. That means you'll lose a channel in your Lunchbox (or equivalent), and the numbers on the back of the rack will be out of order (channel 1 is 1, 2 is 3, 3 is 4, etc), but this can be easily remedied with a roll of gaff tape and a black Sharpie.

On the front of the 583s you'll find both input and output gain knobs. I like preamps with output knobs, and lament this world of many preamps with an input gain only. Sometimes it's nice to push a preamp a little harder on the input and pull back the output so you don't clip your downstream device.

There are also 4 very hip switches that light up red when engaged. You'll find phantom power, a -20 dB pad, polarity reverse, and an input selector to switch between the mic input and the unbalanced 1/4" instrument input on the front of the unit. My only lament is that these switches aren't always illuminated in some way: they look so cool! (Light Addiction is a separate but related condition to G.A.S.)

## First impressions

From the outset, the 583s was a gorgeous piece of gear. The care and detail that went into the industrial design is evident. The input/output pots are really smooth, and the aforementioned front panel switches are way cool. The finish is elegant and the preamp is a very complete package. My only request for the front panel would be a meter or signal present LED. While not mission critical, it really helps with signal flow troubleshooting to know that audio is hitting the mic preamp.

## Recordin' time

I used the 583s on a variety of instruments, voices and projects in my studio. I installed the 583s into an API 10 space 500V rack using an external Chandler power supply. Most of the recording was done into my Pro Tools HD system with Lynx Aurora A/D converter.

For whatever reason, I initially tried the 583s on vocals and acoustic instruments, but just about everything made a pass at one point or another as I tried to figure out what this thing was all about.

The 583s has what I would describe as a big, wide and clear sound. It's not a retro, old-school vibe, but it's not boring in the least. It has plenty of character to keep things interesting, yet has fantastic depth and width. I'm tickled to find a preamp with excellent resolution and detail like my Grace preamp, but with more mojo. The 583s is especially fantastic on vocals and acoustic

guitars, or anything you want to be front and center in the mix. I used the 583s with a Neumann U87 on a live recording of jazz trumpeter Marlon Jordan for NPR. The LaChapell gave the trumpet a fantastic character and presence in the mix that I absolutely loved (and the band was loving it, too!).

## Tube Options for the 583s

One of the best features about the 583s is the fact that it's super simple to swap out tubes in the comfort of your own home (studio). Just pop the 583s out of your rack and swap the tube, accessible from the top of the preamp.

Tubes simply have prongs that insert into the socket. Just grab a gentle yet firm hold of the tube and pull straight up. Sometimes a slight rocking motion will help, but be gentle so you don't break anything!

Along with the LaChapelle 583s, Scott sent me four other tubes to try out. Since I was loving the sound of the stock tube so much, I didn't get around to changing them out for awhile. But boy, was I missing out.

I have never actually compared the sound of different tubes side by side. I know there's a difference. Years ago I had my Millennia STT-1 channel strip upgraded from the stock tubes to Telefunken tubes, and I heard the difference then. But it wasn't a side-by-side affair. And now that I've done it (and it's so easy with the 583s), I have to tell you that tube geekery is totally worthwhile and a ton of fun.

The 583s uses 12AX7 type tubes, and there's a whole universe of these available. Here's what Scott sent me as a representative handful, with my observations on each. I should mention that I used the 583s' -20 dB pad to minimize the signature of the input transformer and get more tone out of the tube.

**Stock tube:** The tube that comes with the 583s (now that I have a reference to other things) is a big sound with a nice balance across the spectrum. It's not bright, but has more forward highs and plenty of lows.

**Telefunken Ribbed Plate:** I had a hard time telling this one apart from the tube that came in the 583s, aside from a subtle difference in color. It sounded great, and was very rich. A great all-around tube, and, according to Scott, is rated for twice as many hours as the other tubes. A nice bonus!

**RFT Tube:** According to Scott, these are quite odd and rare. They were manufactured in East Germany and the Czech Republic during the Cold War. I loved the sound of this tube. The highs are a little softer than the Telefunken's, but the low end was full and punchy. I would want this tube for rock projects as opposed to a soft female jazz vocal, for example.

**Westinghouse Tube:** Scott told me that these tubes were in a huge variety of USA-manufactured products from televisions to test equipment. Out of the bunch, this tube had incredible vibe. I swear it sounded like 1950. High frequencies were so smooth it was amazing. This is not an all-around tube, but if you need a mellow, vintage sound, this is it.

**Raytheon Black Plate Tube:** Last but certainly not least, this 1958 Raytheon was probably my favorite tube. It has this really cool combination of full lows, rich mids and a smooth but extended top. Scott says this is one of the best all around USA-made tubes, and I totally believe him.

After this tube exercise was over, I realized how cool and logical it would be to have a few spare tubes around to tailor the preamp sound. Mic selection will always be the number one priority, but this flexibility makes the 583s that much cooler.—JP

What you won't find with the 583s is the more mid-focused sound of a solid state preamp. It's also not so colored that its sound will become overdone when you use the preamp on track after track in overdubs. This is a timeless sound that I would be very happy to use as my singular preamp.

One interesting story: Back at the studio Dave Hedin and I were tracking vocals for a single that we produced. This singer is really fabulous, the kind that gives you great material on every take. Thinking I had my levels set and ready to go (yeah, right), we did a take. Towards the end of the tune, the singer got louder than expected and the Neumann M149 (a really hot mic) drove the 583s into distortion. "Crap," I thought. We just lost a take because I'm a numb nut."

It turned out, however, that the band loved the distortion! I was still upset with myself for letting this happen, but approached it with an open mind and realized that this was really cool sounding distortion and it worked in the tune. I'm not someone who drives preamps into distortion very often, but the 583s breaks up in a "nice" way. Just a little FYI in case you get a little overzealous with the input knob.

## Final thoughts

There is artisan and there is "artisan". The chain grocery store near my apartment has this "artisan" bread—it is good, better than the run-of-the mill bread, but artisan it ain't. I found out that the pre-risen loaves are frozen and shipped to the store. Made by machines—good, just not great.

The work of a true artisan makes you take note. When every detail has been considered, thought out and executed with incredible care, you can just tell. And when you get your hands and ears on the LaChapell 583s you'll undoubtedly note the work of an artisan. The build quality and attention to detail are remarkable, but more importantly the sonics are simply fantastic. The 583s' combination of character and detail is unlike anything I've used before, a true loaf of artisan bread all wrapped up neatly for my Lunchbox.

Price: \$1150

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