
Subject: New Production Tung Sol 6550, Penta KT88s
Posted by [positron](#) on Thu, 19 Jan 2023 05:01:55 GMT
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My first question is, what do you think of the general sonic quality of these two tubes. Does each have a sonic reputation?
Try to be as specific as possible with any response.

Thanks and cheers

pos

Subject: Re: New Production Tung Sol 6550, Penta KT88s
Posted by [positron](#) on Sun, 22 Jan 2023 00:24:55 GMT
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Evidently no one uses them?

My testing has found both tubes to be rather thin, anemic sounding compared to JJs and Winged Cs.

So I demagnetized both, using my 100 watt soldering gun magnetic field (gun windings), and both tubes became fuller than the JJs and Winged Cs. Quite a sonic change. The new Pentas just slightly fuller than the new Tung Sols.

When the tubes are manufactured, induction heating of the plate removes gases. Evidently, the switch/field is simply flipped, rather than gradual field removal.

So when one purchases a new output tube, what you purchase and hear is not necessarily what the tube sounds like after being demagnetized.

One could probably use a dryer, a motor, anything that produces an AC magnetic field. Simply rotate each tube around the AC device field, and then gradually distance the tube from close to 3 feet or more from the device, and power off the device.

cheers

pos

Subject: Re: New Production Tung Sol 6550, Penta KT88s
Posted by [Wayne Parham](#) on Sun, 22 Jan 2023 02:48:03 GMT
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Who'da thunk it?

Degaussing a tube! Interesting observation!

Subject: Re: New Production Tung Sol 6550, Penta KT88s

Posted by [positron](#) on Sun, 22 Jan 2023 03:33:35 GMT

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Neither tube initially sounded very good at all in my system Wayne. But I have performed this trick before, so I degaussed both and the sound sure improved. The zingy highs, the thin sound are no longer.

Best guess of the top of my head is it creates random molecular orientations.? I would have to delve more deeply with a physics/chemistry expert.

Caveat: My system was a lab system (now in my apartment) is extremely sensitive. The sound is also not sterile, but very natural.

There are multiple tweaks that I can perform to cross check and see if the sensitivity results match.

One is being able to alter a crossover resistor by 1/1,000,000 of an ohm with timber, sound stage change etc heard.

Another is, for each speaker leg, I use ten 18 gauge wires in parallel, 6 feet long. If I change to 9 or 11 wires in one leg, the timber, sound stage changes etc.

Audiophile Dan comes over (50 mi) so we have opportunities to make changes and decide if a tweak is an improvement or detriment.

Cheers

pos

Subject: Re: New Production Tung Sol 6550, Penta KT88s

Posted by [positron](#) on Sun, 22 Jan 2023 23:28:53 GMT

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Another tidbit is the frequency response change of 1/1,000,000 equates to -114 to -120db down from the fundamental (one to one on the steepest part of the signal slope).

Even though small, the change covers octaves of bandwidth. Rane Corp found a change covering 1/3rd octave or less is generally not perceived.

A spec of +/- 0,1db equates a change of only about -54db. Not surprising to me that we notice sonic differences of different manufacturer's components even though the frequency response are the same, +/- 0,1db 20 to 20khz.

Cheers

pos

Subject: Re: New Production Tung Sol 6550, Penta KT88s

Posted by [gofar99](#) on Tue, 24 Jan 2023 02:25:27 GMT

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Hi, something I would not have guessed. I agree that really small changes in components can make a difference. 0.1db of the wrong stuff in the wrong place can really mess up a good design. The saving grace if you want to call it that is the speaker and if you use a turntable the cartridge errors are far worse and will mask a lot of ones internal to the electronics.

Subject: Re: Demagnetizing Tung Sol 6550, Penta KT88s

Posted by [positron](#) on Tue, 24 Jan 2023 04:12:52 GMT

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gofar99 wrote on Mon, 23 January 2023 20:25Hi, something I would not have guessed. I agree that really small changes in components can make a difference. 0.1db of the wrong stuff in the wrong place can really mess up a good design. The saving grace if you want to call it that is the speaker and if you use a turntable the cartridge errors are far worse and will mask a lot of ones internal to the electronics.

Hi Bruce,

Over the years, the sensitivity of the ear has certainly surprised me as well.

What is just as surprising to me is that the electronic designs/parts heavily influence as well. Consider that I am using a two way speaker to perceive sonic differences to astonishing low levels.

This is a long lab experiment for me,

1. to find out just how sensitive one's ear is,

2. that some electronics designs (and parts available) are better than others. Finding the best design, and parts.
3. what is possible, just how accurate to the source can the electronics be under the best conditions.

Just trying to help out in the electronics as Wayne is doing with his excellent speaker designs.

Back to the topic at hand. I believe the new production Tung Sols and Pentas can be used to good effect if the plates are demagnetized. Otherwise, I did not like either.

Cheers

pos

Subject: Re: Demagnetizing Tung Sol 6550, Penta KT88s
Posted by [positron](#) on Wed, 22 Feb 2023 04:45:58 GMT
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After more testing/auditioning, I prefer the Pentas over the Tung Sols. I find the new Tung Sols are still zingy in the highs. The Pentas are just slightly fuller compared to the Tung Sols.

That is it for now.

Cheers

pos

Subject: Re: Demagnetizing Tung Sol 6550, Penta KT88s
Posted by [positron](#) on Thu, 16 Mar 2023 20:30:54 GMT
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Well, more testing between the new tung sols and Pentas, the tung sols still have a little too much zing in the highs.

However, the Pentas do sound wonderful now. A little less bass and the highs still do not zing imo. When playing time after time, the guitar always sounded a little too full with the JJs, but the Pentas seem to do the job nicely. It may be my favorite KT88 besides the original Winged Cs from St Pete.

Have not tried the Psvanes, Treasures etc and the expensive ones from Europe.

cheers

pos

Subject: Re: Demagnetizing Tung Sol 6550, Penta KT88s

Posted by [gofar99](#) on Fri, 17 Mar 2023 02:28:51 GMT

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Hi, A diyer of some of my projects reported issues a while back (4-5 years) with Psvane KT88s. They were not thermally stable and were unable to dissipate anywhere near the ratings for a KT88. This parameter is vip in the amps I design as they run class A. He reported that they would only handle about 50% of the rating before serious red plating began. He had them replace several set and all did the same thing... They may be OK now but I have no way of knowing.

Subject: Re: Demagnetizing Tung Sol 6550, Penta KT88s

Posted by [positron](#) on Fri, 17 Mar 2023 03:17:29 GMT

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Are the Penta tubes manufactured by Psvane Bruce?

I do not know how old these tubes are.

Supposively not many hours.

Metal band around bottom is hanging/extremely loose on one tube.

No red plating is occuring. I am running the idle plate dissipation around 30 watts, in triode mode, so includes the screen, and the output is around 20 watts. So not a real test of the quad given your information.

The bass is shy to me, midrange sounds great though, but I can't pull the trigger on them. They are loaned to me, so not out money for this test.

Cheers and thanks for the info Bruce.

pos

Subject: Re: Demagnetizing Tung Sol 6550, Penta KT88s

Posted by [positron](#) on Tue, 27 Feb 2024 03:44:08 GMT

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positron wrote on Tue, 21 February 2023 22:45After more testing/auditioning, I prefer the Pentas over the

Tung Sols. I find the new Tung Sols are still zingy in the highs.

The Pentas are just slightly fuller compared to the Tung Sols.

That is it for now.

Cheers

pos

I am eating some crow now. I just checked and the new Tung Sols (gift years ago) I have been using needed to be demagnetized again. The JJs not so. There is also a difference in the midrange I think I like better with the JJ KT88s.

cheers

pos
