
Subject: tone problem on K25C-2

Posted by [vintagefan](#) on Sun, 21 Jun 2015 01:31:22 GMT

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Can anyone tell me why this 1970 K25C-2 has no treble, of very little treble? It looks in mint condition clean inside and out. It gets really loud and the Jenson 12" holds up with no distortion. I have 3 Kustom 1969 K100C-8 4x10 amps with Eminence speakers that have over the top shrilly glassy highs. But not this K25C-2..... It sounds boxxy. The bass doesn't add or take away much bass; just subtle.... The treble will only add a small amount of treble, but almost none. Pulling the bright switch out adds just a subtle amount of treble, but almost like nothing, no piercing glassy highs...,,Playing a Fender Telecaster thru this amp sounds more like a muddy Les Paul.,,,

Any ideas why I'm not getting those piercing glassy highs? Or is this the typical sound for this model amp?

Last week I tried out an early 70's Woodson, supposedly made by Kustom, and it too sounded boxxy with no piercing glassy highs..... So I'm wondering if Kustom changed the piercing glassy highs to more mellow bassy after 1969....?

I tried a different speaker, a 1969 Eminence 10"..... no improved highs.

Subject: Re: tone problem on K25C-2

Posted by [stevem](#) on Sun, 21 Jun 2015 10:09:21 GMT

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It's time to overhaul the electrolytic caps in the amp as a first move, as that amp could sound like any other Kustom does!

Subject: Re: tone problem on K25C-2

Posted by [vintagefan](#) on Sun, 21 Jun 2015 19:35:52 GMT

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How much is a fair price to recap the amp?

I unhooked the Jenson 12" and hooked up an 1969 Eminence 10" out of my K100C-8 and the amp came alive with brilliant highs and great sustain, but still too many mids(boxxy sound to me).....Is it possible for a tech to install a mid pot(in the back or under the interior somewhere) to roll off mids?

For my playing style I plug into the bottom input and run the treble maxxed with the bright switch pulled out and bass all the way down.....but even with normal settings of treble at 1 o'clock and bass at 10 o'clock, the mids are too much with a boxxy sound.,,,,Plugging into the top plugin makes the mids even worse and overall sound too thin. I know the top plugin traditionally produces a tighter thinner sound.

My objective is shimmering highs and much less mids.

thanks.,.,,

Subject: Re: tone problem on K25C-2
Posted by [stevem](#) on Sun, 21 Jun 2015 21:25:41 GMT
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Well I guess you do not need a recap job if the amp sound basically normal thru a different speaker!
In that case replacing the Jensen with a Emiience screaming Egle 8 ohm driver should be the ticket for you then.

Subject: Re: tone problem on K25C-2
Posted by [vintagefan](#) on Sun, 21 Jun 2015 21:49:46 GMT
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It's still got way too many mids. Is it possible to install a mid pot control to roll off the mids?

Subject: Re: tone problem on K25C-2
Posted by [stevem](#) on Mon, 22 Jun 2015 10:28:16 GMT
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Well then back to square one then, it may just be time to replace all the caps that deal with the gain structure of the preamp section.

Subject: Re: tone problem on K25C-2
Posted by [zedsalt](#) on Mon, 22 Jun 2015 15:06:18 GMT
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Maybe, then, the question about how much it ought to cost to have someone replace them should be a handful of questions, like "Would the wisest thing to do be a full recap? If not, how many are we talking about in the preamp? Whichever approach you'd recommend, how long, roughly, should that take?"

I think I've read the answer to that first question a few times here, but it would be interesting to see an exception...and really interesting to see an estimation or estimations of the time required. My skills in this field are nowhere NEAR that of the more active posters here, but I can usually pull off a repair with advice from folks like that, like you good people, and so far, I've yet to ruin anything...or even get a piece of gear to the point that when I do take it to someone who knows what he/she's doing, I get a look that says, "Ooooooh, this is one time when 'try and try again' was NOT the way to go..." (I've prepared my opening statement for just such an emergency, though. It starts with, "OK, I just got this, got it REAL cheap, 'cause there's something REALLY wrong with

it..")

Subject: Re: tone problem on K25C-2
Posted by [vintagefan](#) on Mon, 22 Jun 2015 15:23:23 GMT
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Thanks for the input.....

I just bought this amp at not a so cheap bargain which cosmetically looks mint as if it just rolled out of the factory. I have the option to return it, but I doubt I'd ever find as mint of condition(cosmetically) same amp ever again.....

So I am just trying to get an idea of recapping cost to make my decision. My tech here in Dallas is gone for a couple weeks. But I do prefer late 60's Kustoms over any other amps and especially over today's digital amps which I like the least. This is a 1970 amp. My listening preference is to turn the volume down and not run too much volume, so tube amps are out also as to get any good tone, they have to be cranked up too loud for my tv room. My three Kustom K100C-8 4x10 amps can be turned down low and still project clean high treble eq which is what I'm after with my Fender American Special Telecaster.

This K25C has plenty volume and great sustain, just no highs.

Thanks again. I appreciate everyone's input.

Subject: Re: tone problem on K25C-2
Posted by [chicagobill](#) on Mon, 22 Jun 2015 21:11:17 GMT
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I have no real expertise with this model, so I can't be of help regarding the sound of this versus that of a more typical K200B. What you are experiencing may or may not be normal. Only someone that has played one enough to compare it with the other models will be of help here.

As for the cap question, looking at the schematic there are 7 electrolytic caps in the preamp section of this amp. Only 4 of them could have any effect on the tone of the audio signal. The tone controls are not the same as the K200B amps, in fact the entire preamp circuit is different from the bigger amps.

In order to replace the caps the entire pc board needs to be removed and the caps need to be located, removed and replaced. I would guess that any basic tech could perform this task in 1 hour. If all of the tantalum electrolytic caps in the preamp were replaced with high quality aluminums, I would think that the total cost for parts could not be more than \$8 US dollars. And that would allow for a good markup from the wholesale price.

Here in the Chicagoland area typical bench time is \$60-\$90 per hour. So this job should cost somewhere in the area of \$100.00. I don't know what the labor rates in your area are, but you should be able to guesstimate a cost based on these rough figures.

Subject: Re: tone problem on K25C-2
Posted by [vintagefan](#) on Mon, 22 Jun 2015 21:27:00 GMT
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thanks ChicagoBill.

Subject: Re: tone problem on K25C-2
Posted by [stevem](#) on Mon, 22 Jun 2015 23:32:34 GMT
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I was trying to bring up the schemstic on this site since yesterday to check it, I finally emailed Dan in the morning about it.

Subject: Re: tone problem on K25C-2
Posted by [vintagefan](#) on Tue, 23 Jun 2015 00:33:26 GMT
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Here's a schematic I found.....

<http://music-electronics-forum.com/attachments/25937d1382625591-kustom-k25-2-schematic.pdf>

Subject: Re: tone problem on K25C-2
Posted by [Kustom_Bart](#) on Tue, 23 Jun 2015 04:37:23 GMT
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The K-25 is a great sounding amp. I guess I don't know what type of music you are playing, but you can put a processor in front of it and it will do anything that you want it to and sound like anything that you want it to normally they are plenty loud enough to play gigs as well in a bar. Tjey are super clean and should sound like any other Kustom.

If you take the head out of the box and send it to Michigan, Pleat and I have a guy that we use on what I can't fix myself and I think the most he has ever charged me is 35.00 However I don't ever have anything totally redone, I have the parts that are bad replaced. I try to keep them as original as possible He has been doing TV/Radio/Juke Box/CB/ and Amplifier repair for 40 years. Great guy and more reasonable than anyone I know. Depending on what the parts cost, his labor is cheap and most likely already has the schematic for it as he keeps a folder with schematics for everything that I have ever brought to him.

Subject: Re: tone problem on K25C-2

Posted by [vintagefan](#) on Tue, 23 Jun 2015 07:19:49 GMT

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Thanks for the input Kustom_Bart

To answer what I play, and about effects into the Kustoms.....I'm not a tech, so I hope you'll overlook my terminology imperfections.

I only play clean Fender Esquire/Telecaster early 50's/60's hi eq sounds in my tv room at low enough volume to hear the tv. I have a couple Fender American Special Telecasters I outfitted with steel bridges, steel saddles, tusq nuts, wired direct from the 3 way switch to the output jack with no pots, and outfitted with Fender 50's Road Worn Tex Mex pickups measuring 6k and 7k. Using Dean Markley .08 steel strings to do a lot of bending steel guitar notes.

Respectfully, for my ear's tone preference, putting a processor or pedals in front of a Kustom defeats the purpose of why I like Kustoms. To me it loses the identifiable footprint Kustom sound. The 3 Vintage Kustom K100C-8 4x10's I have produce plenty of treble to still be heard when I turn them down low. This K25C-2 has no treble even when cranked up high. By the way, this K25C-2 may be only 12.5 watts, but it sure sounds like 25 watts cranked up.

I have a couple Line 6 digital amps and a Line 6 digital pod which I don't like. I've also owned a dozen effects pedals over the years, none of which I liked. To me pedals, digital amps and digital effects just sound too fake compared to the 50's/60's Fender amps that were cranked up loud to get their tone. Also, on the Kustoms I can turn the vibrato(tremelo) down so low you can almost not hear it, but it will give a good constant even sustain sound. When plugged into my Line 6 digital amp or when using my Line 6 digital pod into my Kustom, when the Line 6 tremelo is turned down as low as it will go, there is not a smooth even sustain sound, but rather a stop and go sound is heard. And the numerous Fender tube amps I've owned have to be cranked up too loud for my purposes to get good tone. The worst amp on the planet for bad tone that I ever owned was a Fender Cyber Twin digital amp. None of the above will matter for someone preferring distortion, pedals, and loud volume.

Here are some videos from the 60's thru the 80's of some good Fender Telecaster sounds at high volume which I'm after, but at low volume. The Kustoms are the closest I've found. You may have to copy and paste these video URL's into your address bar to play them. I can't get them to play by opening them within this website.

Eddie Joe Shaver had the exact sound I'm after

<https://www.youtube.com/watch?v=tj3PG3FSgfY&feature=youtu.be>

Gimpy Mayo

https://www.youtube.com/watch?v=uvRNRiA_h34&feature=youtu.be

Roy Buchannon played so loud, you'll see his amp turned around backwards from the audience

<https://www.youtube.com/watch?v=swX9oq6TVAU&feature=youtu.be>

Kid Ramos

<https://www.youtube.com/watch?v=OUdwGD40yxo&feature=youtu.be>

Roy Nichols

<https://www.youtube.com/watch?v=F2wZqShfpQE&feature=youtu.be>

Danny Gatton

<https://www.youtube.com/watch?v=NWi7-qa8sU4&feature=youtu.be>

Waylon

<https://www.youtube.com/watch?v=tqCRwu2aDEs&feature=youtu.be>

Don Rich using flatwounds

<https://www.youtube.com/watch?v=B4hnlAfsS-o&feature=youtu.be>

Subject: Re: tone problem on K25C-2

Posted by [stevem](#) on Tue, 23 Jun 2015 10:25:16 GMT

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thanks for posting the schematic, as this site's tech section still has issues!

Like Bill posted that amp is different than the normal preamp sections in the A series and latter Kustoms, how much added top end does the amp's bright switch provide?

If this lack of top is the normal way this amp sounds, then I do see two locations in the preamp where a mid scope filter could be put in place, this consists of only two parts, a 220k resistor and a 250 pf cap in parallel.

Subject: Re: tone problem on K25C-2

Posted by [vintagefan](#) on Tue, 23 Jun 2015 11:43:45 GMT

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When this K25C-2's bright switch is pulled out, there is almost no noticeable treble increase. None to make any difference. And the bass pot adds almost no bass and turned down doesn't decrease any noticeable bass.

This amp does have a ton of bassy thuddy low mids with tone pots set on any setting. It sounds like hitting a wrench on a hard wet board. I have a newly reconed 10" 8 ohm Eminence which I hooked up which didn't really change the tone much other than having a little more metallic sound. So I believe the 12" Jensen in the amp is good.

Subject: Re: tone problem on K25C-2

Posted by [stevem](#) on Tue, 23 Jun 2015 12:24:41 GMT

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Well the lack of adjustments making a tonal difference makes the case for getting it the hands of a Tech to go through it then!

Subject: Re: tone problem on K25C-2

Posted by [pleat](#) on Tue, 23 Jun 2015 14:35:34 GMT

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The K25 amp was a short lived model and was replaced by the K50. I'd put your amp around late 68 to early 69 when Kustom changed over to the K50.

I've owned a few K25 and a lot of K50's. I've owned K25's with stock Jensen speakers and have found most have 16 ohm speakers and I've owned one K25 with a 8 ohm Jensen speaker. You will want to check which speaker you have, 8 or 16 ohms. A fellow collector in GA owns both K25's and K50's and he says the K25 is a warmer amp that he uses for jazz tones. The K50 more for a brighter tone. The K50 was introduced to compete with the Fender Deluxe reverb at both price point and wattage.

I agree if you have not much change overall in the tone controls, time to have it looked at.
pleat

Subject: Re: tone problem on K25C-2

Posted by [vintagefan](#) on Tue, 23 Jun 2015 20:19:15 GMT

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Thanks Pleat.....Got it in the amp shop....tech says something is definately wrong.....might take a week to get to and another week to fit it into the workload.....

Subject: Re: tone problem on K25C-2

Posted by [Kustom_Bart](#) on Wed, 24 Jun 2015 15:33:59 GMT

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I agree 150% I hate digital amps for sure, they have no punch and don't cut through the mix on stage, they just get lost on stage. The thing I love the most about the Kustom is they are very very clean power and you can play them that way and put a multi effect unit in front of them and they take them very well because they are such a clean amp. If you are playing in an oldies band that also plays old rock and roll, you need the delay and distortion etc. that is why I mentioned the multi effect unit, but first and foremost the amp has to be right. Pleat and I both use K50's I have a K25 or 2 but have 7 K50's They are super light and can carry it in one hand and your guitar in the other...that I love I think you will love it once it is repaired for sure.

Subject: Re: tone problem on K25C-2

Posted by [vintagefan](#) on Fri, 24 Jul 2015 11:00:49 GMT

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Hey all, my K25C-2 is still in the shop. The tech said something about ordering some power output caps or something like that. Sorry, I don't remember the exact name. Also may have a speaker problem. The speaker is 16 ohm 12" Jenson, very bassy sounding.

I found a 1970 12" Eminence 8 ohm speaker just like the 1969 Eminence 10" speakers in my K100C-8 4x10. The tech says the 8 ohm will work fine. He says the solid state amp won't run too hot with an 8 ohm speaker as opposed to a 16 ohm. Can you give me a 2nd opinion as to if putting in an 8 ohm speaker will not damage the amp? thanks.....

Subject: Re: tone problem on K25C-2

Posted by [stevem](#) on Fri, 24 Jul 2015 15:36:41 GMT

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I would first have the guy/ tech confirm at what resistive test load the amp puts out the most wattage on his test rig, if he has no test rig for that, then get the amp the hell out of there by means of whatever reason you need to use!

I can not see why this amp would not be made for a 8 ohm load, that being said whatever load it is looking for let's use 8 ohms for now, any step of load change up or down from 8 ohms will make for cutting the amps wattage in near half!

Stepping down (4 ohms) will make the amp run 2 times as hot for any given output level, and running higher (16 ohms) will make for half the normal temp of the output stage, which is fine .

Subject: Re: tone problem on K25C-2

Posted by [vintagefan](#) on Fri, 24 Jul 2015 16:36:31 GMT

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Thanks Stevem....I just don't know enough about tech stuff, so I have to trust. The tech has all the test equipment. He's been repairing amps since the early 70's and has worked on Kustoms, but has never seen this model. He did a good job replacing a couple transistors on my K100C-8 4x10. So far I have confidence in his work. I don't think he sees any Kustoms in his shop anymore other than mine. He's got probably 20 amps in line for repairs, thus the 4 week wait period getting to mine(so far).....,I printed out the schematics for him which he's using.

I like to get 2nd opinions about tech stuff since I had a different tech screw up a Fender Vibrolux Reverb a couple years ago. He was probably not so good and after his repairs the amp wouldn't stay working. Finally had to get rid of it.

Subject: Re: tone problem on K25C-2

Posted by [chicagobill](#) on Fri, 24 Jul 2015 16:50:47 GMT

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Steve M's post about wattage and heat in regards to load impedance are kinda broad stroke generalizations. While basically true, it's not quite as simple as that.

Using an 8 ohm speaker should be fine. The only real way to know is to test the amp and check to see if there are any problems.

Subject: Re: tone problem on K25C-2
Posted by [vintagefan](#) on Fri, 24 Jul 2015 16:55:06 GMT
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Thanks Chicago Bill. I had another tech ruin another amp before. So I like to get 2nd opinions.

Subject: Re: tone problem on K25C-2
Posted by [pleat](#) on Fri, 24 Jul 2015 22:51:49 GMT
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The K25 and K50 are designed to drive an 8 ohm speaker for maximum output. There is confusion as why most K25 and K50's were shipped with the 16 ohm speaker. Kustom was only ordering 16 ohm speakers for for the K100SC 2x12 and the K100-1 and K100-2 2x12 cabinets. Made inventorying much easier and keep in mind back in the 60's there wasn't as much knowledge to the working musician as to ohms VS wattage. All the K200 series amp heads and 2x15 cabs came with 16 ohm speakers wired in parallel for an 8 ohm speaker cabinet. The K200 amps produce 100 watts with a 4 ohm load. Kustom did this for three reasons.

1. It allowed a second speaker cabinet to be purchased adding more air movement.
 2. Adding the second cabinet, the K200 amps are now producing it's maximum wattage of 100 watts RMS.
 3. Kustom boasted it was the first solid state amp on the market that was stable. Most all other brand solid state amps died because musicians were used to adding a second speaker cabinet on tube amps, so they thought the same would hold true with solid state amps. Pretty ingenious marketing and they sold a lot of extra cabinets too boot.
- pleat
-

Subject: Re: tone problem on K25C-2
Posted by [vintagefan](#) on Fri, 24 Jul 2015 23:11:33 GMT
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Thanks Pleat.....all you guys are very generous.

Subject: Re: tone problem on K25C-2
Posted by [Kustom_Bart](#) on Thu, 30 Jul 2015 15:41:38 GMT
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You will fall in love with that speaker! I have 8 of them in 2 4 x 12 cabinets in a Risson tube full stack that I have and they are the BOMB! You can find these fairly cheap too.

Subject: Re: tone problem on K25C-2
Posted by [vintagefan](#) on Sun, 16 Aug 2015 05:21:09 GMT
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Success with more treble.....The K25C-2 needed 3 caps(I think that's what they are called).....Much more treble now, although not as much as my K100C-8 4x10's....PC board and soldering and connections were cleaned and had a 3 prong cord installed. I also found a 1970 Eminence speaker which added a little more high end, but also added too many mids. I put the Jensen back in since it sounds best.....

http://i1371.photobucket.com/albums/ag291/stevelewise/Mobile%20Uploads/image_zpsuubk8iu3.jpg

Subject: Re: tone problem on K25C-2

Posted by [stevem](#) on Tue, 18 Aug 2015 10:42:20 GMT

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My k100 4-10 combo has more top then my piggie back 100 with 2-12" Jensens !
To me the 4-10s with there aluminum V coil covers do not round off untill the amp is played pretty darn loud.

If you pull the Eminence out, cut off the V cover and glue on a felt or aluminum V coil cover from Weber speakers the High end should rise up right to where you want it.
