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Subject: Need Help with Frankie head  
Posted by [BrianBB](#) on Sun, 23 May 2010 23:02:42 GMT  
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Hi everyone,

I last visited here about 6 months ago when I needed advice on buying a charcoal Frankenstein bass rig. The amp sounds great but has a loud hiss in the right channel when the treble is turned up. It happens with or without a guitar plugged in and makes the channel unusable for recording or playing out anywhere but a noisy bar. Any ideas to the cause and how to fix it?

Thanks.

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Subject: Re: Need Help with Frankie head  
Posted by [pleat](#) on Mon, 24 May 2010 02:15:15 GMT  
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If the noise is only on the right channel, I'd check the input jacks to make sure they short to ground when not being used. Just a thought.  
pleat

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Subject: Re: Need Help with Frankie head  
Posted by [BrianBB](#) on Mon, 24 May 2010 03:10:23 GMT  
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pleat. It is the right channel that hisses badly, increasing as you turn up the treble (especially after about 90%. The amp overall has some hiss in the left channel but nothing like the right.

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Subject: Re: Need Help with Frankie head  
Posted by [chicagobill](#) on Mon, 24 May 2010 15:44:06 GMT  
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The hiss that you describe is fairly common on the Frank heads. Some are better than others, some are worse. Apparently you have one better and one worse channel.

The treble control in the Frank preamp circuit does 2 things. One, it changes the amount of high frequencies that are boosted or cut and two, it increases the high frequency response of the input stage. That being said, there will always be some hiss in the circuit with the treble control set to maximum.

To try and reduce the hiss, you can try replacing the first 3 transistors in the bad channel, try replacing the related resistors in the front end of the channel and also try changing the electrolytic coupling caps in the channel.

If it was mine, I'd start by replacing the coupling caps as they are 40 years old and probably need replacement anyway. Whenever I do this to a preamp, I find that there is a great improvement in the overall frequency response of the amp.

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Subject: Re: Need Help with Frankie head  
Posted by [BrianBB](#) on Mon, 24 May 2010 16:09:02 GMT  
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Thanks Bill from Chicago. How do I identify the first three transistors?

Overall, which amps are more desirable, the Frank heads or Kustom by Ross or Kustom A or B series?

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Subject: Re: Need Help with Frankie head  
Posted by [steven](#) on Mon, 24 May 2010 16:27:34 GMT  
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There is 3 forms of desirable.

First you have the person who is just a collector and values a frank era head in mint shape and being in good working order is secondary.

Of high order also is a color other than the standard black.

2) you have the collector/user who will put up with a few small burns and scuffs as long the amps electronics function 100%, and hopefully not black.

3rd) is the user/player who I have seen using a Kustom in just a stripped bare of tuck and roll wood cab painted black or even recovered in black Fender tolex.

In 2 and 3 everybody has a preference for what sounds better model wise for their playing needs. At times for some live gigs I have used my Frank era and a 3rd generation metal face K250 at the same time.

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Subject: Re: Need Help with Frankie head  
Posted by [chicagobill](#) on Mon, 24 May 2010 18:57:43 GMT  
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If you follow the shielded cable from the volume control to the pc board it will lead you to the input cap of the preamp, which on a Frank head is in the middle of the board. There are three transistors in a row starting from the input cap and heading to the right side of the board. These are the first three that you are looking for.

That being said, I'd still suggest that you replace the caps first.

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Subject: Re: Need Help with Frankie head  
Posted by [steven](#) on Mon, 24 May 2010 19:01:18 GMT  
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also look at all of the tubular caps on the boards for signs of them being swoolen and or already leaking stuff out of eitheir end.

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Subject: Re: Need Help with Frankie head  
Posted by [BrianBB](#) on Mon, 24 May 2010 21:37:42 GMT  
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Thanks Bill. I'll pull the chassis and see what needs replacing. Steve, of the three types of Kustom you mention, which flavor is the most reliable and useful soundwise for a player?

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Subject: Re: Need Help with Frankie head  
Posted by [chicagobill](#) on Mon, 24 May 2010 22:10:29 GMT  
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My 2 cents.

Each model of the Kustom heads is slightly different in design and so there are subtle sound differences and major feature differences.

The Frank heads have a power amp design that uses a driver transformer, so it will distort differently from the other series heads. Some say they are a bit more tube like in the break up. The power amp is similar to the ones used by Thomas Organ Vox amps as well as early Acoustic Control amps.

The A-Series heads started the use of the transformerless output amp. These amps are a bit louder, cleaner than the Franks and also introduced the use of multiple FX to the line.

The B-Series improved the preamp design for the line, but for some reason they decided to split the FX to the two channels instead of having all of the FX on one side.

The 150-250 Metal fronts added a new preamp design using ICs and have the FX on both channels. These also increased the power output slightly and added the ability to blend trem and vibrato together again.

Which one is best depends upon what you want the amp to do. If clean sound is important, almost any of the heads will do clean really well. If FX are important then try them all and see if one set of FX work best for your sound. A lot of the guys here say that they use outboard FX in front of their amps with no problems.

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Subject: Re: Need Help with Frankie head

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Posted by [BrianBB](#) on Tue, 25 May 2010 03:52:14 GMT

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I thought I read that A series were guitar amps and B series were for Bass but that seems to be untrue.

I have a Frank rig with two JBLs that seems pretty clean sounding but a bit harsh, with the harmonic frequencies sounding very solid state.

My K100 is very clean and Fenderish with a large mid scoop and doesn't like pedals.

My first Kustom was a K200B-1 which breaks up at about 10 o'clock and loves pedals. This one will do almost anything and sounds like a tube amp when pushed.

I'd like to get the Frank to sound warmer but they all have that very woodie signature sound.

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Subject: Re: Need Help with Frankie head

Posted by [stevevm](#) on Tue, 25 May 2010 10:09:28 GMT

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Kustom never made a bass amp in a strick sence untill the middle to late 70s when they where owned by Baldwin organ company.

What most people concider and as Kustom intended, a bass head was just a Frank, A serise or B serise head without effects.

I find the Frank heads to be the warmest sounding heads with the early 100s a close second, but the Frank heads can sound harsh.

Frank heads use a ton of coupling and bypass caps on the circuit boards and these componets drift in valve massively as the amp ages, in fact more so if the amp goes unused for long periods of time.

This drifting in value can make for greatly increased gain and noise in certain frequencey ranges that can make for the harshness you dislike.

Replacing 25 dollars work of 40 year old caps can make for a huge difference in tone and placing the amp back to the way it sounded when new.

It would also be a very simple thing to and a cap and resistor network to just one input of the amp to roll off some of that spiky high end that you do not like.

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Subject: Re: Need Help with Frankie head

Posted by [BrianBB](#) on Tue, 25 May 2010 14:21:10 GMT

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This forum is the greatest!! Such a wealth of information and great people.

I see Kustoms advertised as bass amps so I assumed that's what I had.

I'm pretty handy with a soldering iron.....do you think I can get this Frank back to spec. myself or do you know a good amp person who knows Kustoms? I had a solid state Vox that most techs had never seen but were willing to work on. I found a guy who had three in his shop and seen

dozens of them. I'd like to find someone with similar Kustom experience. That's if I can't do it myself.

FWIW, I sold the Vox and still have three Kustoms if that tells you anything.

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Subject: Re: Need Help with Frankie head  
Posted by [steven](#) on Tue, 25 May 2010 14:26:06 GMT  
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The circuit boards in the Frank era heads are not hard to work on, if you can solder and use a solder sucker and or some wire wick you should have not problems changing out whatever needs such done.

On the other hand I have a solid state Tomas Vox amp myself and they are a pain in the butt to change parts on board wise, so if you have a guy who can work on those your frank will be a walk in the park for him!

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Subject: Re: Need Help with Frankie head  
Posted by [BrianBB](#) on Tue, 25 May 2010 14:39:20 GMT  
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That's what I love about Kustoms. They sound great, are very reliable, easy to work on, look cool.

I guess it would help to have a picture of the chassis and which parts needed to be changed rather than a schematic. I can read schematics but prefer a layout of the circuit. With a picture of diagram I'm sure I could work on it myself.

My Vox was a JMI Conqueror, like The Beatles used. It sounded great but I had to send it to Mass. for service.

Are there any comprehensive books on vintage Kustom amps, like there with Vox, Fender, Marshall?

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Subject: Re: Need Help with Frankie head  
Posted by [chicagobill](#) on Tue, 25 May 2010 15:24:19 GMT  
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BrianBB wrote on Tue, 25 May 2010 09:39 I guess it would help to have a picture of the chassis and which parts needed to be changed rather than a schematic. I can read schematics but prefer a layout of the circuit. With a picture of diagram I'm sure I could work on it myself.

Kustom didn't create pictorial layouts for these amps. They did for the later series. There really aren't that many parts in these circuits, you should have no trouble if you have basic soldering skills. Do you have the schematic? By the way, which model do you have?

BrianBB wrote on Tue, 25 May 2010 09:39Are there any comprehensive books on vintage Kustom amps, like there with Vox, Fender, Marshall?  
Not that I know of. Maybe some of the guys here can talk to Bud Ross about writing one.

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Subject: Re: Need Help with Frankie head  
Posted by [BrianBB](#) on Tue, 25 May 2010 20:31:54 GMT  
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Bill,  
I don't have a schematic. My Frank amp is a C-595.

Thanks.

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Subject: Re: Need Help with Frankie head  
Posted by [chicagobill](#) on Tue, 25 May 2010 21:05:37 GMT  
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PM me your email and I'll send you the correct schematic.

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Subject: Re: Need Help with Frankie head  
Posted by [BrianBB](#) on Tue, 25 May 2010 23:16:16 GMT  
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Thanks Bill. I sent you my email.

Being that I thought B-series meant bass amps, how can I tell what my K100 and K200 are?

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Subject: Re: Need Help with Frankie head  
Posted by [pleat](#) on Wed, 26 May 2010 01:55:35 GMT  
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Speaking of books, I've been writing a complete history of kustoms. In fact I spoke with Bud this afternoon about going over it and make any corrections. As far as telling what the K100 and K200, we need more info. A K100 could mean a self contained amp and speakers, or a K100 piggy back model, or a K100 PA head. Describe what you have and we can pinpoint what you have. The K200, A or B model? Any effects? How many channels? What do the controls say? The very rare K200B-6 is similar to the more common K200B-1.  
pleat

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Subject: Re: Need Help with Frankie head

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Posted by [BrianBB](#) on Wed, 26 May 2010 02:20:19 GMT

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Pleat,

Sign me up for the first copy of the book. I would love to see one.

Here are my three Kustoms, all are plexi faceplates:

My )))K200((( has two channels with volume, bass, treble, and bright switch, high and low inputs on each, plus a blue jewel light. it has no plate on the back. Power switch on front middle.

The )))K100((( has one channel and high and low inputs with vol., treble, bass, reverb, speed, intensity. Plate on back says K100 2. Red pilot light. Power switch in back.

The Frank has the same two channel layout as the K200 without the bright switches. Back plate says C 595 CHARCOAL. Red pilot light. Power switch on front right side.

Are these A or B series? Did they really make them without power transformers?

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Subject: Re: Need Help with Frankie head

Posted by [stevem](#) on Wed, 26 May 2010 10:06:54 GMT

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Brian you kind of answered your own question.

Your K100 is a k100-2 model like you posted, and this is just a head, one of only three K100 heads in the kustom line up that they ever had . These models first came out in 68.

Your K200 amp would be a A serise model if it has a white circuit breaker button on each side of the on/off switch, other wise its a latter B model when they ditched the breakers and went to internal fuses.

Your Frank head is the standard model used for both bass and guitar.

All kustoms have power transfomers, and as in all solid state amps that are not made for 70 volt paging system use, they have no output transformer also.

The Frank heads do use a output stage driver transformer which is quite unusual for a solid state amp, and I would love to know why Bud choose to go that route. May be they still did not trust the transistors they had to pick from for driver use at that point in time and fell back on something that could be counted on 100%.

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Subject: Re: Need Help with Frankie head

Posted by [pleat](#) on Wed, 26 May 2010 11:04:36 GMT

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Brian, Kustom produced two K200A series amps. The first generation would have the two white circuit breakers each side of the power switch and would have the etched aluminum face plate.

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The second generation of the A series, they went back to the black plexi face amps the breakers were removed and fuses were inside the amp. Both generations would not have the (((200))) on the front panel under the Kustom logo. Below the input jacks would state By Ross Inc. Round silver cord wraps on the back. Speaker jacks located just to the right of left cord wrap. 5 chassis bolts.

The B series K200's added the (((200))) under the Kustom logo removed the By Ross Inc. Speaker jacks moved to the upper side of the back panel. 4 chassis bolts. Cord wraps changed to the black hook style. All these are things will help you identify which model you have, it also helps when looking at amp heads that may be on craigslist or eBay.

pleat

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Subject: Re: Need Help with Frankie head

Posted by [Shaun\\_Musings](#) on Wed, 26 May 2010 14:07:15 GMT

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Whoa, so what is mine? It has two fuse placements on the head, one says 'speaker' and one says 'power.' Mine is a Frankenstein L795 with RV...

SD

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Subject: Re: Need Help with Frankie head

Posted by [pleat](#) on Wed, 26 May 2010 15:25:31 GMT

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Brian, you have the Frankie head. The model number L795 indicates the retail price of 795 the L indicates it came with a 2x15 JBL equipped speaker cabinet. The RV indicates it has reverb and vibrato. Your amp has two fuse holders lower right front panel. The K200A early versions did have two round white circuit breakers, but would be placed each side of the power switch. Check out the literature section click the 100/200/400 tab, then click on lower right catalog for the Frankie series and you will see a L795 pictured showing your head and a 2x15 JBL cabinet. All amps pictured in the catalog have really large black knobs with a silver ring towards the outside edge. Fender used this same knob on their tape echo units in the mid 60's. I've never seen a kustom amp surface with those knobs.

pleat

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Subject: Re: Need Help with Frankie head

Posted by [chicagobill](#) on Wed, 26 May 2010 15:40:41 GMT

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Pleat: Great to hear about your book. Will it contain history of Bud and the company as well as nuts and bolts?

All of the Frank heads were called K200 Energizers. There were three versions:  
1-Basic Model 96000 2-Channels, High/Low Inputs, w/No FX.



2-RV Model 96001 2-Channels, High/Low Inputs, w/Reverb and Vibrato on left channel.

3-PA Model 96002 2-Channels, w/Reverb on left channel.

All three models had the Speaker and Power fuses on the right front panel under a three way power switch. And most came with red non-jeweled pilot lamps.

Stamped on the Serial number sticker plate was the Model Number which was usually a coded number and letter combination that described the features and the list price of the amp/speaker combination.

So L795 meant that the amp originally came with Lansing speakers and cost \$795.00.

C595 meant CTS speakers and a list price of \$595.00.

If the amp had FX or was a PA (Public Address) model there would be an added suffix to the model of either RV or PA, something like L1295RV.

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Subject: Re: Need Help with Frankie head  
Posted by [BrianBB](#) on Wed, 26 May 2010 15:45:24 GMT  
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Neither of my amps, the K100 or K200 have any circuit breakers on the back of the amp so they must be internal. Neither have "by Ross" on the front face and both have hook style cord wraps. The K100 has power sw. in the rear, The K200 has the powersw. on the front if that means anything. The Frank is a c595, which should mean CTS speakers, I think, but it has JBLs and the diamond around the speaker cabinet jack has been changed.

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Subject: Re: Need Help with Frankie head  
Posted by [chicagobill](#) on Wed, 26 May 2010 16:04:09 GMT  
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Remember that during the past 40 years the speakers could have been changed out and that the speaker cabinet that you got with the amp head could have originally been from an different amp.

I suppose that even the original dealers could have swapped speaker cabs to fulfill the specific needs/wants of a customer.

Beginning with the plex front K200A's all of the fuses were moved inside the head. The speaker fuse was eliminated in the B series.

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Subject: Re: Need Help with Frankie head

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Posted by [Shaun\\_Musings](#) on Wed, 26 May 2010 17:21:19 GMT

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THere are two Frankies being discussed here, lol. I have an L795, and Brian as a C595. Mine didn't come with speakers. Just the head.

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Subject: Re: Need Help with Frankie head

Posted by [pleat](#) on Wed, 26 May 2010 22:50:52 GMT

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Still the same basic amp, yours has the added reverb and vibrato which would have added 100.00 to the retail price.

pleat

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