
Subject: Frankenstein Head recap- please help!
Posted by [1986Bowler](#) on Thu, 15 Jan 2015 02:10:58 GMT
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Hey Everybody,
Just picked up a Gold tuck n' roll Frankenstein. Love it! Everything turns on but it is super noisy. Reverb is also a no go, or very faint sounding. So my plan is to recap and clean (it is FILTHY inside!), starting first with the filter caps. I've got matches for everything but the death cap. As well, there's a 6" long Accutronics 3 spring reverb, which seems very small for such a large head. And the Molex connectors inside it are newish looking.

QUESTIONS:

1. Will 7500MFD be a suitable replacement for 4500MFD (Voltage matches)?
2. What is a suitable replacement for the reverb tank? I'd really like to have that ghostly reverb that CCR had.

I'd appreciate any advice coming my way.
Cheers--Steve

Subject: Re: Frankenstein Head recap- please help!
Posted by [chicagobill](#) on Thu, 15 Jan 2015 07:48:58 GMT
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Welcome to the place. What sort of noises is the amp making?

The original tank was a full length Accutronics tank, so if you have a short tank, it has been replaced. The Frank head didn't have any Molex connectors, so if your amp has some, they have been added as well. If you describe what the connectors are connected to it might help to figure out why they were added in.

I am not a fan of recapping unless the caps are bad, but the 7500uF caps will work as replacements. I would suggest fixing up the problems with the amp before doing the caps, so that you don't add to the problems before figuring them out.

Again, welcome.

Subject: Re: Frankenstein Head recap- please help!
Posted by [stevev](#) on Thu, 15 Jan 2015 11:42:58 GMT
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Hello! first off noise does not come from caps other than if those two big main filters are bad you will get 120hz hum and also note that there are big mfd value caps on the reverb and the output driver board also!

Bad caps most times make for low gain along with distortion and you do not have to replace the

so called death cap as they are rated for 400 to 600 volts and are not part of the issue you are having.

If you even have a cheap 35 dollar Radio shack voltmeter we can help you determine if you even need to at the point replace those two big main filters and also help you trouble shoot other issues!

The replacement reverb pan that you need calls for having a resistance on each side of about 182 ohms on the input and some 186 to 190 ohms on the output and both the input and output jacks need to be grounded to the pans metal case, if not its no big deal to do so if you can get one with the needed resistance.

Note that I have posted the resistance, the impedance needed will be about 180k and 200k or so on the output, a replacement 4fb3d1b pan should do the job.

also to try and track down your noise issue I would unplug or cut off the wires on that wrong pan that you have in there and tape off the ends for now, I hope you still have the needed RCA connectors on those wires to use a new reverb pan.

Let us know how things go!

Subject: Re: Frankenstein Head recap- please help!

Posted by [chicagobill](#) on Thu, 15 Jan 2015 19:18:56 GMT

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Stevem- the input and output impedances of the tank will be more like 1.5K to 2.2K. The number that I have in my files is an Accutronics 4FB2C1A.

1986Bowler- Forgot to ask the most important question, what color? And which model head an RV or PA?

The current Accutronics tanks are all being made in Korea now and they sound different from the original ones. There are a few threads here that will discuss one member's discoveries and trials of the new tanks versus the old ones.

Subject: Re: Frankenstein Head recap- please help!

Posted by [1986Bowler](#) on Fri, 16 Jan 2015 04:17:57 GMT

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Gentlemen,

Thank you so much for all the advice!

It's a Gold tuck n' roll, and I will definitely be putting a multimeter in various places on the unit to check it out.

If I isolate the power stage from the rest of the unit, what voltage am I substituting for the filter caps, and how can I tell if they are bad?

The guy who sold it to me lost the serial number plate, so I am unsure of the RV/PA designation. I really wish this forum allowed pics so I could show you the unit. It would really help to figure out what schematic I am supposed to be looking at from the site.

It was dropped at some point, as the transformer mounts are bent, and the reverb/ trem/vibe circuit board mounts are bent, and there are replacement transistors/ resistors/ capacitors over the four boards. There is a fair amount of gunge covering everything- I will have my hands full just cleaning it up.

As for the reverb tank, I've been researching on the net and I found the MOD 4FB3A1B.

Someone was suggesting it as an alternate, as I've googled Accutronics 4FB2C1A, and come up with nothing. I like the concept of a longer decay reverb, but it's the A vs C in the connectors (grounded vs insulated on the input).

This is a learn as you go kind of thing- that's for sure!!! But I am excited to really get it running smoothly!

Cheers--Steve

Subject: Re: Frankenstein Head recap- please help!
Posted by [chicagobill](#) on Fri, 16 Jan 2015 05:57:30 GMT

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The technical section has the schematic for your amp under the K200A listing. It is marked "Wide Panel" in the lower right hand corner. Each of these amps used the same preamp and power amp sections and would add a separate board for the RV reverb/vibrato or just reverb for the PA models.

The important part of the reverb tank selection is the in/out impedances. Just about any tank beginning with 4FB will work fine as long as you only have one ground connection going to the tank from the pc board.

The simple test of the main power supply caps is to read the ac voltage that is riding on the dc power supply voltages. Too much ac means hum in the background of the signal.

Just be careful whenever working on any amp that is plugged into the wall and turned on. Please know your limitations and understand that any amp can contain harmful voltage levels.

Subject: Re: Frankenstein Head recap- please help!
Posted by [steven](#) on Fri, 16 Jan 2015 18:16:42 GMT

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Tanks on the impedance correction Bill as I was working off the top of my head, I do have notes for that info for a bunch of amps and not just Kustoms but I do not know where they go off to!

Subject: Re: Frankenstein Head recap- please help!
Posted by [1986Bowler](#) on Thu, 26 Feb 2015 01:41:28 GMT

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Gentlemen- the latest update:

Got a new reverb tank (MOD), but there seems to be the same issue that others have mentioned on the forum. As you turn up the Reverb knob, the reverb is there. At about the 1 o'clock position, the signal dims to almost nothing.

I read that the cap nearest the reverb circuit out to the tank might be the issue, but I replaced it and it made no difference.

I'm stumped- any thoughts? Nothing looks burnt or broken but we are talking about 40+ years of use and abuse.

Getting closer- sounds awesome but I'd love to get it to 100%.

Subject: Re: Frankenstein Head recap- please help!

Posted by [chicagobill](#) on Thu, 26 Feb 2015 03:29:46 GMT

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I don't understand what you are saying. You turn up the reverb control and at 1 o'clock the entire signal fades out?

Subject: Re: Frankenstein Head recap- please help!

Posted by [1986Bowler](#) on Thu, 26 Feb 2015 04:15:10 GMT

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Yep. At 7 o'clock (full dry signal), full volume. As you turn the Reverb knob up CCW, the reverb comes in, and the volume goes down a slight bit. At 1 or so, you get lots of reverb, then as you pass that point the signal seems to disappear completely. Weird, but nothing is a huge surprise- I am more surprised it's still working considering its age and the abuse it suffered.

Subject: Re: Frankenstein Head recap- please help!

Posted by [steven](#) on Thu, 26 Feb 2015 11:19:19 GMT

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Speaking for myself before I try to help you more I need to ask this going back to some things you first posted about this amp.

Your comment about the Molex Connectors in this amp has me wondering if this is a Frank type head, are the circuit boards mounted vertical and only the control pots are mounted on the front panel?

Subject: Re: Frankenstein Head recap- please help!

Posted by [chicagobill](#) on Thu, 26 Feb 2015 17:31:58 GMT

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I can't figure out any way for what you describe to happen. Maybe a bad pot.

The Reverb control works as a balance control fully CCW all straight signal and no reverb signal. Full CW all reverb signal and no straight signal. Anything in-between is a mix of the two signals.

Subject: Re: Frankenstein Head recap- please help!
Posted by [1986Bowler](#) on Fri, 27 Feb 2015 02:23:17 GMT
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Hi Guys,
I understand that you're really having to guess- thanks for all your efforts- they are appreciated. Please ignore the Molex thing- that is INSIDE the Accutronics tank, which is an obvious replacement. This amp has nothing on the front except the Kustom logo- no number (boy, i wish we could post pics on this forum!). Actually, if you Google "kijiji Kustom frankenstein head", the very first pic is the amp I bought- looks sort of Gold sparkle.
Anyways, I was under the impression that one component or another is failing- I thought it might one of the transistors, but I will look into fixing the pot.
Onwards and upwards...

Subject: Re: Frankenstein Head recap- please help!
Posted by [chicagobill](#) on Fri, 27 Feb 2015 05:33:19 GMT
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Think about it, if at some point in the rotation of the reverb control you have straight signal, then you know that the straight preamp is all working. If at some other point in the rotation you have reverb sound, then you know that the reverb circuit is working.

Then if at some point in the rotation the signal completely drops out, then the problem could be a bad or dirty pot, or it could be that somebody has mis-wired the pot or replaced it with the wrong pot.

Does the wiring to the pot look different? Does the pot look like the other pots in the amp?

Subject: Re: Frankenstein Head recap- please help!
Posted by [steven](#) on Fri, 27 Feb 2015 11:22:12 GMT
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You know Bill since the reverb on these heads is kinda funky in the way they bring in the verb and bleed out the dry signal as you turn the pot up , would the circuit not perform better with cross wired duel gang pot typical of how the blend pot is used in a parallel effects loop type deal?

Subject: Re: Frankenstein Head recap- please help!
Posted by [1986Bowler](#) on Sat, 28 Feb 2015 04:13:22 GMT
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Hi Steve,

It's not the pot- tested OK. Am I looking at the wrong schematic? I count a total of 7 10MFD caps on the reverb/trem circuit board, but I only count 6 on the K200 schematic.

I've got one transistor that's been replaced by somebody (part number is 2N3904 119) beside a 2.2K that was also replaced.

The rest are original, with F SE4200 611 or something like it- I looked it up and they appear to be the 2N3565's that the schematic shows.

My boss is sympathetic at this point- I've been using my lunch hours to fix this thing- I can't wait until he tells me to get that thing off my desk!

Cheers!

Subject: Re: Frankenstein Head recap- please help!

Posted by [steven](#) on Sat, 28 Feb 2015 16:42:46 GMT

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On the PC 301 reverb / trem board I count 8 electrolytic caps total ,6 10 uf caps, 1 25 uf cap, and a big 500 uf cap, in terms of the voltage rating on the caps if you up them by half or more they will last longer!

Yup, for the next person / player / collector who gets there hands on that Amp 30 or more years from now, lol!

A 2n3565 is a good sub for the original transistor, so that's fine!

Note that you do not need to change out the death cap as so for as Kustoms go I have never seen on go bad unless the amp got hit by lighting, and that cap is not in the signal chain anyway!.
