Subject: Reverb K50-2 Reverb Repair
Posted by jammy5152 on Tue, 26 Apr 2022 20:11:21 GMT
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Ohm-Ed Reverb Tank and wiring.. Cleaned jacks and checked wiring to board...
Any ideas to check for Reverb Problems
K50-2

Subject: Re: Reverb K50-2 Reverb Repair
Posted by stevem on Tue, 26 Apr 2022 21:03:54 GMT
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My info that I have recorded with these amps is that resistance wise the input side should be 173 ohms and the output side 175 .
These numbers are at the pan, not thru the cable.

Subject: Re: Reverb K50-2 Reverb Repair
Posted by chicagobill on Wed, 27 Apr 2022 16:18:39 GMT
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If the tank makes a good loud spring splash sound when the chassis is moved, then the return circuitry is working properly. There may be a problem with the drive circuit or the input of the tank.

If you switch the reverb cables at the board and shake the chassis and still get a strong splash sound, you can assume that the input transducer is working well enough.

Subject: Re: Reverb K50-2 Reverb Repair
Posted by jammy5152 on Wed, 27 Apr 2022 23:31:38 GMT
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chicagobill
I spent some time cleaning the rca inputs on pan and on circuit board and then used Deox- on them
I tested continuity on the RCA cables and they are good....
I did change the cables around on the board and it was loud moving it...both ways
I did an ohm test on both transducers (coils) and one read 191 ohms...the other ??
All springs are attached and look great ...All wires still connected
With amp on, should I unplug the cables from the tank leaving other ends of RCA plugged to board and touch each RCA to see if I get a buzz or static coming through amp?
You mentioned drivers...please direct this to me from the schematic (location)...
Thanks so much....by the way, don't retire!! We need ya'll here

Subject: Re: Reverb K50-2 Reverb Repair
Posted by chicagobill on Thu, 28 Apr 2022 04:53:09 GMT
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I think that your tank is fine, as are the cables, etc.

The drive circuit is centered around Q20, Q21 and Q22. It's basically a small power amp with a differential pair input. If anything goes wrong there will be less signal sent to the tank and therefore less reverb signal. When there is less input signal going into the tank, you need to turn up the reverb control to compensate. The problem with that is, turning up the return will start to cause the tank to feedback.

I'd check the transistors and the caps in the circuit.

Subject: Re: Reverb K50-2 Reverb Repair
Posted by jammy5152 on Fri, 29 Apr 2022 22:11:19 GMT
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chicagobill
I removed the amp and set on work bench
I did as you said and shook the amp and it made a huge splash...
Switched the cables at the board and shook the amp....NO SPLASH....
So I guess the INPUT transducer (coil) is bad ???
Any ideas?. Can transducer be found?? Or tank replacement?
If tank replacement what would be the correct one as far as electronics/ ohms/ or ??
Thanks

Subject: Re: Reverb K50-2 Reverb Repair
Posted by stevem on Sat, 30 Apr 2022 11:28:53 GMT
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Do not give up on that tank yet!
75% of the time either end of a tank does not work because one of the very fragile wires at RCA jack have broken off due to vibration .

Peal back the tank cover and look close at the wires , and you may have to look real close as many times they appear to be ok, but are not!

If this is your issue then once soldered back up apply some bath tub caulk or hot glue to the wires and on the metal fold over that is not doing it's job to hold the wires.
Do this on both jacks while you are in there to eliminate this issue from taking place again .

When I am working on any of my amps or customers amp with a reverb tank this is what I do, only I use automotive silicone gasket maker since I always have this on hand.

Should that transducer be open then the replacement tank you need is a 4FB3C1A model.

Yes I know the input on this model tank is grounded and the schematic's do not show such, but this is what the original tank is in my K100-8, and the K50 is no different.

If you get a new tank do the glue down thing to wires before you install it.

Subject: Re: Reverb K50-2 Reverb Repair
Posted by jammy5152 on Sat, 30 Apr 2022 12:34:24 GMT
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I have a pair of 20 Scopes I do my work with and these can see very well...
I have looked at each end of the tank and do not see any wires loose or broke....all wires are still soldered to each post on the rca inputs jacks....I did get a reading of 191 ohms on one end of the tank and continuity on the other but no ohm reading...The yellow wrap tape is still surrounding the transducer (coil).....
I know I can gently remove this tape to see if wire is broken on the transducer but I don't think it is...??
I'll investigate more though...Let you know
You've been a lot of help...Thanks

Subject: Re: Reverb K50-2 Reverb Repair
Posted by stevem on Sat, 30 Apr 2022 14:49:08 GMT
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If the wires are good at the RCA jack then the transducer is open and there's no fixing that with the old type set up.

The ones have a plug at the transducer .
These have a short length of wire from the coil running to this new connector and at times I have one wire broken off there and have been able to fix that issue, but once again there's no hope if a original type is reading open.

Here's another tip for better reverb quality even with the new tanks.

These transducers have a iron core passing thru them .
If the transducer rocks around on the core then a lot of energy transfer is lost.

To cure this snap off a Tooth pick and wedge it into that space between the core and the coil, then place a dab of medium thickness super glue on the Tooth pick to hold it in place.

This works like a charm!

Subject: Re: Reverb K50-2 Reverb Repair

Posted by jammy5152 on Sat, 30 Apr 2022 20:51:16 GMT
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Some of the major differences between the MOD®s and other reverb tanks are that the Transducers are wired directly to their respective RCA jacks as opposed to current production tanks where Transducers are connected by a detachable plug to their respective RCA jacks. This makes the tanks less receptive to any outside interference. The original Hammond Accutronics tanks from the 1960s were also wired directly to their respective RCA jacks. In addition very close attention has been paid to the spacing and size of the lamination of the Transducers resulting in a more vintage like tone.

#50820 - Replacement Reverb Tank for ....4AB3C1B....
Solid, Sturdy Construction
Long (16 ¾") 2 Spring Unit , Long Decay (2.75-4.0 seconds)
Input Impedance 8 Ohms, Output Impedance 2250 Ohms
Input Insulated/Output Grounded
Horizontal,Open Side Down Mounting Plane
Used in Fender™amps with tube reverb from 1963-1990 such as the Princeton Reverb , Vibrolux Reverb , Deluxe Reverb , Super Reverb , Pro Reverb , Twin Reverb , Quad Reverb , Super Six Reverb, Vibrosonic Reverb. This also includes all reissue equivalents.

Other compatible amps include: Fender™ '63 Reissue Reverb Unit, Fender™ Concert II , Mesa Boogie™ MK2C plus other models, LAB™ Series L5, L7, L9, Koch™ Powertone I , Ampeg™VT-40 and Super Rocket SR212 , B-52™ AT-100.
This I found on the web...is this compatible??

Subject: Re: Reverb K50-2 Reverb Repair
Posted by stevem on Sat, 30 Apr 2022 21:49:29 GMT
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In short, no!

Subject: Re: Reverb K50-2 Reverb Repair
Posted by stevem on Sun, 01 May 2022 13:03:30 GMT
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I see that Antique electronics has a Mod brand tank 4fb3a1b that you could use.

You may just have to stretch the inner tank support springs out more, or very carefully move them where they attach to the main tank to different holes that provide less tension which will keep the inner tank from resting on the main outer tank.

Subject: Re: Reverb K50-2 Reverb Repair

Posted by chicagobill on Sun, 01 May 2022 18:59:12 GMT
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The input impedance of the tank that you listed is 8 ohms, much too low for a Kustom amp. Also the input is isolated from ground. The Kustom amp needs to have both input and output grounded.

Check the tank that Steve listed and see if it meets the requirements.

Subject: Re: Reverb K50-2 Reverb Repair
Posted by jammy5152 on Mon, 02 May 2022 00:12:40 GMT
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chicagobill
The transducers are loose on the iron core as you said..Tested everything again so I guess the tank is open
Will check on replacement
Thanks