
Subject: Reverb won't turn off

Posted by [bluezebra](#) on Wed, 23 Apr 2014 02:20:40 GMT

[View Forum Message](#) <> [Reply to Message](#)

Just restored a K200B-2. Even with the reverb turned off you can hear the reverb springs with every little vibration in the room.

Also, this one has too much reverb, but I don't see a fix for it on this site, just the K100.

The tremolo works, but the intensity just isn't enough.

So.....too much reverb and not enough tremolo.....other than that the amp sounds perfect on both channels.

Subject: Re: Reverb won't turn off

Posted by [bluezebra](#) on Wed, 23 Apr 2014 02:25:09 GMT

[View Forum Message](#) <> [Reply to Message](#)

The board is
PC303

Subject: Re: Reverb won't turn off

Posted by [chicagobill](#) on Wed, 23 Apr 2014 06:15:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

Are you turning off the reverb with a foot switch or turning down the reverb control?

There are a number of revisions to that board that relate to the amount of reverb and vibrato. Do you know which board version you have?

Go over to the technical section of the site and look up the pc303 boards and see if yours is the same as the latest version of the board. You might need to update a few values to get the fx working right.

Subject: Re: Reverb won't turn off

Posted by [steven](#) on Wed, 23 Apr 2014 10:32:52 GMT

[View Forum Message](#) <> [Reply to Message](#)

I doubt that any pc303 circuit problem could make for of enough added Gain to make the reverb that sensitive as the level of hum would be quite high also!

I would peel back the protective cover on the reverb pan and look in it as I would bet that one of then two long springs is busted off the input side of the pan and sitting down in the pan. This is the only way that every little vibration to the amp can make the reverb rustle around.

Subject: Re: Reverb won't turn off
Posted by [bluezebra](#) on Wed, 23 Apr 2014 15:17:22 GMT
[View Forum Message](#) <> [Reply to Message](#)

I have reverb if turning the reverb off with footswitch and also switching off at the pot.

Version 1 board

And Stevem....the reverb pan is fine. Cleaned all contacts and blew out the interior. Both springs are intact and connected.

Subject: Re: Reverb won't turn off
Posted by [chicagobill](#) on Wed, 23 Apr 2014 16:48:25 GMT
[View Forum Message](#) <> [Reply to Message](#)

Making a quick comparison of the version 1 and version 6 schematics, there are a number of changes that would reduce the amount of reverb signal getting to the power amp stage.

The output from the reverb tank is amplified by the recovery circuit based around Q318 and Q319. The output is then sent to the reverb control through a 1uF cap and then through R382. R382 was originally 100 ohms but was later changed to 22K ohms, a big difference.

Resistor R395, 6800 ohms, which reduced the amount of clean signal going to the reverb control was removed from the circuit and there were changes to the the values of R385 and R386, which increased the amount of clean signal being sent to the power amp stage when the reverb was turned off.

If you feel confident in your soldering skills, you can revise the circuit to the version 6 circuit and see if that is more to your liking.

Subject: Re: Reverb won't turn off
Posted by [bluezebra](#) on Wed, 23 Apr 2014 20:31:03 GMT
[View Forum Message](#) <> [Reply to Message](#)

Thanks Bill... good info.

I'm going through the revisions now and have changed a few you

mention. I did find a tantalum that was backwards (from the factory...go figure).

It's hard to see what the revisions are....the heavy black changes don't show up as well as they should.

Subject: Re: Reverb won't turn off
Posted by [bluezebra](#) on Wed, 23 Apr 2014 20:51:55 GMT
[View Forum Message](#) <> [Reply to Message](#)

My board is marked Version 1....but I'm seeing resistor values from version 6 already in place.
ie...R395 is installed as 22k.
R385 and R386 are already 33k.

Subject: Re: Reverb won't turn off
Posted by [bluezebra](#) on Wed, 23 Apr 2014 21:26:57 GMT
[View Forum Message](#) <> [Reply to Message](#)

Just tested the amp. The reverb has calmed down a bit. The tank crashing when the reverb is turned off from footswitch and at the pot is still there but not as sensitive.

The intensity of the tremolo has not changed. It's turned up all the way and is barely noticeable.

Thanks!

Subject: Re: Reverb won't turn off
Posted by [chicagobill](#) on Wed, 23 Apr 2014 22:03:36 GMT
[View Forum Message](#) <> [Reply to Message](#)

You might want to check Q321. When the reverb is turned off it is supposed to ground out the delay signal.

As for the vibrato, did you happen to check the value of R350?

Subject: Re: Reverb won't turn off
Posted by [bluezebra](#) on Thu, 24 Apr 2014 00:28:59 GMT
[View Forum Message](#) <> [Reply to Message](#)

Q321 looks to be OK....changed a few resistors around it that had drifted a bit.

R350 could be a problem....should be a 68k...I have a 10k in there right now.

Subject: Re: Reverb won't turn off
Posted by [bluezebra](#) on Thu, 24 Apr 2014 03:06:27 GMT
[View Forum Message](#) <> [Reply to Message](#)

Checked everything out...changed some resistors that had drifted.
The reverb is somewhat subdued but I still have plenty of it.

The pan can still be heard when the reverb is switched off but it is not as sensitive as it was.

As for the tremolo....I think it could be an intensity pot problem. This amp was trashed and there were several mice living in it for a while. The inside looked so bad the owner gave it to me for free. I have checked all the wires for mouse bites. They nibbled but never cut through....! I had to get very rough to get the knobs off and the pots suffered as a result. I get some static on the intensity pot even though I have taken it apart and cleaned it. The intensity does get better as the pot is turned. Where does one get a Kustom 10k pot with on/off...?

Subject: Re: Reverb won't turn off
Posted by [chicagobill](#) on Thu, 24 Apr 2014 04:41:21 GMT
[View Forum Message](#) <> [Reply to Message](#)

The simple test for the pot is to bypass it. Jumper the wiper to the CW lug and see if the intensity increases.

As for a replacement, the only place is from another amp.

Read the voltage at the base of Q320/321. It should be positive when the reverb is on and it should be negative when the reverb is off. Check the resistors R388/389/390 values to be sure that the voltage swing is big enough to turn off the reverb.

Subject: Re: Reverb won't turn off
Posted by [stevem](#) on Fri, 25 Apr 2014 15:07:35 GMT
[View Forum Message](#) <> [Reply to Message](#)

I do not have a 10k with a switch, but I have a 25k audio taper with a switch from a k300 pa you can have which should work good.

Subject: Re: Reverb won't turn off
Posted by [bluezebra](#) on Sat, 26 Apr 2014 05:02:53 GMT
[View Forum Message](#) <> [Reply to Message](#)

Thanks Stevem..

I'll keep that in mind. I need to research the pot a little more and had to put the Kustom on the side...I had to jump on a Fender Bandmaster to do a cap job for a kid who needed it quick.
