Subject: h¦¦h studio 50
Posted by mat on Mon, 20 Dec 2004 18:54:50 GMT
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hi i have a lovely hh amp which i adore but the other day it stopped working!!!!!!When i turn it on the speaker moves forward with a rather loud pop and stays forward! but thats it! nothing else i can do basic electronics but i just dont know where to start any ideas?any help would be much appreciated!thanks Matt

Subject: Re: h¦¦h studio 50
Posted by hitsware on Mon, 20 Dec 2004 22:51:17 GMT
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>the speaker moves forward with a rather loud pop and stays forwardProbably a blown (shorted) output xsistor, (the output is directly connected to 1 of the rails via the short). A start would be to test the xsistors, of if readily available just replace them. Put a lightbulb in series with one side of the AC mains in to limit the current in case something else is also screwed up. (this will prevent blowing up the new xsistors).....

Subject: Re: h¦¦h studio 50
Posted by mat on Tue, 21 Dec 2004 10:44:07 GMT
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thanks for this im just about to check if the preamp output works if one of the xsistors is blown should his still work?thanksmatt

Subject: Re: h¦¦h studio 50
Posted by hitsware on Tue, 21 Dec 2004 15:23:09 GMT
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It may if not drawing enough current to pull down the supply.Best to disconnect your speaker or you may burn it up !!!!!

Subject: OOOPS it just went bang!

Posted by mat on Thu, 06 Jan 2005 17:50:45 GMT
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i was trying to check if one of the transistors had blown using a multimeter when BANG one of the big capacitors (capacitor devision 4700uF) blew? would this be the reason for my prevouse fault or is this going to be due to something else ?please help i want my amp back!!!thanks Matt

Subject: Re: OOOPS it just went bang!
Posted by Wayne Parham on Fri, 07 Jan 2005 07:29:42 GMT
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When electrolytics fail, it is usually because a voltage was applied that was either higher than the rated value of the capacitor or of opposite polarity it was made for. Large value capacitors are used in the power supply, so you might find that transistor(s) or diode(s) were already blown and this took out the capacitor. Possible reasons include shorted rectifier diode(s) and open output transistor(s) allowing the power supply voltage to rise past the voltage limit of the capacitor.What I thinmk you might want to do is to remove the transistors and diodes and check them out of circuit. If you have a schematic, it will help you find the parts that are most likely to have failed. But even without a schematic, you can check the transistors and diodes. Be sure to remove them from the circuit when testing.

Subject: Re: OOOPS it just went bang!
Posted by mat on Fri, 07 Jan 2005 07:39:29 GMT
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thanks for that,one thing using a mulitmeter how do i test the transistors? what am i looking for?matt

Subject: Re: OOOPS it just went bang!
Posted by Wayne Parham on Fri, 07 Jan 2005 07:49:05 GMT
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You are looking for continuity on PN junctions when forward biased and open circuit when reversed biased. Every junction should show this reading.So here's how you check it.Connect your meter with (+) to a "P" junction and (-) to an "N" junction, and it should show continuity. This is forward biasing the junction. The reading will usually be from 5-50 ohms, depending on the transistor and the battery in the meter. Reverse the leads, (+) to "N" junction and (-) to "P"

junction and the meter should read open. This is a reverse-biased connection.Then connect from collector to emitter and test forward-bias continuity. If an NPN transustor, the collector is positive and the emitter negative to forward-bias and you should have continuity. PNP transistors are forward-biased with the collector negative and the emitter positive. Reverse bias the collector to emitter and it should show open.

Subject: Re: OOOPS it just went bang!
Posted by mat on Fri, 07 Jan 2005 07:55:18 GMT
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thanks again you know loads!the other thing is how can i test if my transformer is acting funny?thanks againmatt

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Subject: Re: OOOPS it just went bang!
Posted by Wayne Parham on Fri, 07 Jan 2005 08:26:45 GMT
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What is it doing wrong?

Subject: Re: OOOPS it just went bang!
Posted by mat on Fri, 07 Jan 2005 12:08:09 GMT
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i dont know yet, thought that since its directly conected to the blown capacitor it could be doing something fishy? makes a loud humming noise but i guess that might be normal?thanksmatt

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Subject: Re: OOOPS it just went bang!
Posted by hitsware on Fri, 07 Jan 2005 16:08:56 GMT
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Might be humming because it is driving a short. (the cap and or something else) It is good practice to put a lightbulb in series with the mains to limit current draw while working on SS circuits.This can save you from doing more damage and burning new parts if more than one failed component exists.....
