

Re: stereo amp cleaning

Source: <http://sci.tech--archive.net/Archive/sci.electronics.repair/2007-06/msg00107.html>

- *From:* "Mark D. Zacharias" <spammenot@xxxxxxxxxxxxx>
 - *Date:* Sat, 02 Jun 2007 01:53:18 GMT
-

Marra wrote:

On 31 May, 01:35, "Mark D. Zacharias" <spamme...@xxxxxxxxxxxxx> wrote:

Smitty Two wrote:

In article <[J%f7i.62157\\$V75.33167@edtnps89](mailto:J%f7i.62157$V75.33167@edtnps89)>, "Dave" <dspear9...@xxxxxxxxxxxxxxxxxxxxx> wrote:

Has technology evolved so that a momentary crossing of speaker wires could not destroy expensive output transistors?

It hasn't as much to do with technological evolution as it has to do with intelligent design. Hasn't there always been good stuff and bad stuff? A good design would allow you to hard wire the speaker leads together and go fishing.

Sorry. From a technical standpoint, that is an idiotic statement, one that has been made before, and disproven time and again. People like to make statements like "This amp will drive a nail!" etc but it simply isn't true. It is the nature of bipolar transistors, in fact any semiconductor, that they cannot carry current much beyond their rating for more than a split-second. The instantaneous current demanded by a short-circuit will destroy ANY semiconductor output device unless that device is being so limited that it cannot produce music, which is dynamic in nature. Any protection circuit is there simply to protect the speakers from an amp failure, and to protect the amp only if the overload isn't too severe. This presumes that the sensing circuit will sense a large (but not TOO large) current

Re: stereo amp cleaning

surge prior to total failure. Any circuit which would really protect the amp from a short circuit would also protect it from the music.

Mark Z.

This is not always true.

The power supply can only supply so much current.

Any of my designs have MOSFETs that can take more than a shorted PSU.

By the time the MOSFETS have got anywhere near warm the fuses will have gone.

www.ckp-railways.talktalk.net/pcb21.htm

I have an Adcom 5802 in the shop right now with shorted Mosfets which resulted from just a momentary short at the speaker terminals.

Mark Z.