

## Re: KV-20EXR10 PS Problem

**Source:** <http://sci.tech-archive.net/Archive/sci.electronics.repair/2004-10/1006.html>

---

**From:** Dave M. (*gadget007\_at\_rochester.rr.com*)

**Date:** 10/13/04

Date: Wed, 13 Oct 2004 00:46:00 GMT

Hi Jerry,

The power supply board has only three non-electrolytic caps and many electrolytics, which, at least, show no physical problems (bulging, corrosion etc.) My capacitor meter doesn't measure ESR, so I'd have to get one that could, or replace all the caps as you did. This "running hot" condition has apparently been stable since the unit was almost new, since the last I.C. lasted 6 years! I have just attached a 40mm x 10mm 13.2 volt max brushless fan to the heat sink. I runs well at 8 volts and at a current of 69ma. I want to connect the the fans power leads to the 8 volt d.c. output of the TV's power supply. I am aware that this could cause shutdown or interference and hopefully no damage from a spike. Otherwise, I planned to do as you suggested and install a very small power supply for the fan. I don't know if the problem is the caps or just a "too small" heat sink that is improperly oriented. The board is mounted vertically. It has large holes at the base of the heat sink, which to me implies that the board should be laid parallel to the ground. That way the fins would also be positioned vertically for proper air convection. This set appeared on the store displays for a very short time, then was clearanced. Hmmm.

Dave M.

"Jerry G." <jerryg50@hotmail.com> wrote in message  
news:2t2q69F1rncbuU1@uni-berlin.de...

- > *Check for high ESR capacitors in the power supply. Be very critical*
- > *about the cap's ESR rating. If you suspect it to be defective in any*
- > *way, replace them.*
- >
- > *Some of these caps are very critical, and if they are defective, the IC*
- > *may fail. These caps are doing various tasks such as being part of*
- > *circuits to control noise, pulse width, and filtering, just to be*
- > *simple.*
- >
- > *I have had this type of fault, and had to replace a number of caps.*
- >
- > *I have a Sony XBR that is going on 14 years old. It is used about 20 to*
- > *50 hours per week at times. I installed 2 fans inside of the cabinet. I*
- > *have one sucking out the air at the power supply, and the other blowing*

> the air down on to the horizontal output section. This set had only one  
> failure about 6 years ago, and it was the drive IC in the supply.  
> Instead of spending my time using the ESR meter, I replaced all the  
> caps, and then installed the two fans. I installed a small 1 amp linear  
> 12 VDC supply to run the fans. I found a space off to the side in the  
> cabinet. Care had to be taken to not interfere with the CRT, or anything  
> else.  
>  
> --  
>  
> Jerry G.  
> =====  
>  
> "Dave M." <gadget007@rochester.rr.com> wrote in message  
> news:oZUad.7398\$107.1679@twister.nyroc.rr.com...  
> After about two years, my Sony TV's Converter chip (STRS6301) failed. I  
> replaced it with the original Sony chip. It was evident it's heat sink  
> was  
> getting too hot. A year or two later that converter chip failed. I  
> replaced  
> it with the ECG 7046 cross. That chip lasted 6 years, then blew.  
> Inspection  
> of all these chips showed blistering and discoloration of the poly case.  
> Unless too much current has been drawn over all this time, I did notice  
> the  
> heat sinks fins are placed horizontally, which prevents air convection  
> between the plates. I'm considering installing a mini-fan against the  
> heat  
> sink fins.  
>  
> Is there another solution (perhaps in a bulletin) for this overheating  
> problem?  
>  
> Thanks,  
>  
> Dave M.  
>  
>  
>