Re: Sun Monitor Tuneup − how?

Source: http://sci.tech−archive.net/Archive/sci.electronics.repair/2005−01/0825.html

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From: Sunny (*sunny_at_nospam.net*)
Date: 01/07/05

Date: Thu, 06 Jan 2005 22:52:41 −0500

Bradley1234 wrote:

> *This kind of question makes me want to open a monitor shop again.*
> *You havent experienced the hassle yet, you think its the metal shielding and stuff? No, its the way Sony uses matched parts that you typically cant find replacements for.*
> *So its a 2SD4343whatever transistor, it crosses to an NTE3434 or ? but you install it and it doesnt work or something else goes out. Whatever Sony does they seem to have a major hatred for repair shops and design their equipment to be difficult to repair, Im guessing they apply dummy circuits that do nothing, except detect if some part is outside of a tolerance %, then causes a shutdown*
> *There can be exceptions, but spend $40 or ? on the service manual even if its a similar chassis.*
> *You know about high voltage thats still in the chassis even after the power is off and cable is disconnected? If you are around monitor circuits get a standard neon bulb and glue it onto the end of a wooden or hard plastic stick. get a 5K 10watt resistor and solder a wire on each end, then a jumper clip to those ends, then clip one side to the chassis ground, and you can clip the other to a screwdriver metal part and short out possible high voltage, and put it under the high voltage anode to zero it out also, but only if the power cord is unplugged*
> *So the big thing is safety, check regulators and workhorse components, if a regulator went out, chances are a big resistor in that area is also bad; Caps always go bad*
> *If the one set has a jittery picture is it near a poweredon tv set? or is a cell phone sitting on top?*

Thanks for your response, and the safety warnings.

The symptom on the one you described as "jittery" (I said "shimmer") is

sort of like the effect you get when a TV camera is pointed at a CRT monitor, only much, much less pronounced − and no, it's not near anything that might interfere with it, and doesn't get any worse when I put more running monitors close to it.

I don't have the skills to do component−level diagnosis on these monitors, that's why I swapped boards until I had two working reasonably well. I was hoping the minor remaining problems would be within the range of internal adjustments, are you saying that's not the case?

> "Sunny" <sunny@nospam.net> wrote in message
> news:cG3Dd.42563$P%3.1772793@news20.bellglobal.com...
>
>>I recently acquired (from the dumpster) several Sun Microsystems 20"
>>monitors, model GDM − 20D10, which appear to be Sony Trinitrons on the
>>inside. They are really nice when working properly, but were
>>manufactured in 1994 so probably aren't worth sinking $ into.
>>
>>I'd like to get two of them running to upgrade the 17" pair I'm
>>currently using.
>>
>>One worked reasonably well as−is, but was unusable due to severe CRT
>>burn−in. The others had symptoms ranging from collapsed display to
>>failure to power on at all.
>>
>>I made inquiries about professional repair, but nobody was willing to
>>provide even a diagnostic estimate − they said the chassis is
>>unreasonably difficult to work on.
>>
>>I decided to have a go myself, and experienced the difficulties first
>>hand − the internals are completely surrounded by multiple layers of
>>metal shielding, with circuit boards mounted to the inside of the
>>shields all over the place. It takes almost an hour of disassembly just
>>to check the power supply fuse, and close to another hour to dismount
>>boards and arrange them such that one can apply power and take
>>measurements with any degree of safety.
>>
>>Without going into tedious detail, I've swapped parts around and now
>>have two working monitors with good CRTs. One is almost perfect, except
>>for a slight "shimmer" (not sure how else to describe it), while the
>>other is sharp but exhibits faint retrace lines and has the display
>>offset to the left about 1/2" further than can be corrected with the
>>remote control.
>>
>>It seems to me the remaining problems are minor and could probably be
*>>corrected via internal adjustments, but there are a *lot*, mostly*
>>unlabeled, and I'm well aware that fiddling with them to see what effect
>>they have is not the recommended approach. Looks like these monitors now
>>just need a good "tuneup".
>>
>>Any suggestions on next steps? − given that obtaining a service manual

>>is highly unlikely, the professionals aren't interested, and my
>>electronics knowledge doesn't extend much past digital logic circuits?
>>
>>TIA
>>
>>Sunny
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