Re: Mobo repair − any point?

Source: http://sci.tech−archive.net/Archive/sci.electronics.repair/2007−09/msg00204.html

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- *Date*: Thu, 06 Sep 2007 08:46:28 +1000

On Tue, 04 Sep 2007 20:59:10 −0700, w_tom <w_tom1@xxxxxxx> put finger to keyboard and composed:

> On Sep 4, 8:25 pm, Sam Goldwasser <s...@xxxxxxxxxxxxxxxxxxxx> wrote:
>
> > No, I do mean corrupted CMOS. A hard reset using the internal switch (or contacts − I forget what it had) loaded defaults and restored normal operation. It appeared totally dead before that.
>
> Sounds unique. BIOS will ususally perform a checksum or something equivalent to confirm CMOS integrity. If CMOS is corrupted, then BIOS would output an error message to the video controller. Of course, it would not boot the OS. But the computer did boot and should display an error message and / or associated beep code.
>
> BIOS typically starts by performing simple concepts such as memory checks, etc. CMOS is typically ignored until integrity of most basic functions are first established.
>
> Which reset are you referring? CMOS reset or computer reset?

The "extended" CMOS RAM (bytes 65 and above) typically store chipset register settings, memory timings, etc. I can see two ways in which the CMOS RAM checksum could be valid but the register settings may not be.

One is after a BIOS flash upgrade. Since the functions of the extended CMOS RAM addresses are not defined by any standard, different BIOS vendors and different BIOS versions from the same vendor may assign a particular chipset register to a new location. If the updated BIOS tries to use the old data, then this could have unpredictable results.

A second scenario could involve excessively aggressive memory timings or CPU voltage/FSB settings. Overclockers would probably encounter this from time to time.

− Franc Zabkar
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Please remove one 'i' from my address when replying by email.
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