

# Re: computer stops responding and shuts down

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*Source:*

<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.hardware/2007-09/msg00126.html>

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- *From:* sis630/730 <[sis630730@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:sis630730@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Fri, 7 Sep 2007 03:12:03 -0700
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I already made it by using the function "Burn image to disc" of Nero and ran the test and it showed no error at all. I am still not able to run the Prime95 since my laptop keeps not responding. Thanks a lot, Paul!

"Paul" wrote:

sis630/730 wrote:

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sis630/730 wrote:

My laptop often stops responding and shuts down suddenly with one of the following error message:

– error on blue screen telling me to either run memory check and check for faulty or mismatched memory (don't know how to) or try changing video adaptors. And the last message is "Beginning dump of physical memory.

Physical memory dump complete"

– color squares unrecognized–able

– or stop at the posting screen

I have to hold down the button to turn it off

and have to wait for more than

an hour to get it restarted and worked

normally untill it stops again all of

a sudden.

Somebody please help me to figure out what problem my laptop has.

Go here, download the ISO version of memtest86+ ("Download – Pre-Compiled Bootable ISO (.zip)")

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<http://www.memtest.org/>

Burn a CD with the ISO file, using CD burner software and a burner. The ISO is tiny, so the burn should only take a couple minutes to complete. The CD will be bootable.

Install the CD and boot from the CD.

When booted, the screen will look similar to this. 640x480 mode, with a blue background.

<http://www.memtest.org/pics/i875-big.gif>

In this state, the test would run forever, or until you stop it. Quitting the program will cause the computer to reboot, and you might want to remove the CD if you don't intend to boot from the CD at that point.

The program has a pass counter, and a couple complete passes should be enough. For a decent amount of memory, it could take a couple hours for the test to run. For a laptop, you'd probably want to be plugged in while running this. It uses a fair amount of power, so the fan will probably be running.

If there are any errors, they will be printed in the lower section of the screen. You want "no errors", to consider this test to have passed. If you have a severe error problem, the screen might even begin to scroll, so you cannot see an image like the one shown above.

This test is not perfect. If you pass it, it does not mean your computer is trouble free. Memtest86+ is good at detecting "stuck" memory bits, but perhaps a bit less good at transient problems. But if your memory is really messed up, you'll find out pretty quick. If there are enough errors, it could even mess up the appearance of the screen, or memtest86+ could crash.

A second test, is to run Prime95 from mersenne.org . That is a program

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which searches for prime numbers (a math thing). But, the program has one nice testing feature. In the menu for the program, you can find a "Torture Test" option. The program carries out a math calculation where the answer is known, and if the answer is wrong, the program will stop and tell you there was an error. For a machine that is not stable, the "Torture Test" will stop in 30 seconds or less. If the machine is healthy, you should easily be able to run it for four hours or more. (If offered an option, the "blended" test is good.)

Prime95 has an option to "join" the search for prime numbers, but you do not have to join to use the torture test option.

Prime95 also draws a lot of power when it runs, the fan will be running probably constantly, and the laptop will get hot. Make sure it has adequate ventilation during the test, as it could overheat, depending on how clean the vents on the cooling system are.

If the video on the laptop is built-in to the chipset, the video uses "shared memory". Thus, colored squares could be caused by the system memory that the video is using, becoming corrupted. On the other hand, more expensive laptops have a separate GPU and video memory chips. That gives higher performance. If you get colored squares there, then the separate video memory chips soldered next to the GPU could be defective. In some cases, the separate GPU can be unplugged and replaced, which might be cheaper than replacing the whole motherboard. On intermediate priced laptops, there is sometimes a separate GPU, but it is soldered right to the motherboard, in which case the colored squares problem means a new motherboard.

So, try the memtest86+ program and if it passes, then try

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Prime95

(Windows version, if you are using Windows) and see if the computer still passes that. Changing out the memory, and trying some other sticks, is what you'd do as a potential debugging step. In some cases, the problem could be on the motherboard of the laptop, such as if the low voltage regulator powering the processor or memory is defective, and making less voltage than normal. That tends to reduce the stability of whatever it powers.

Heat is always a problem with laptops, and more so when the vents get clogged.

HTH,  
Paul

I downloaded and burned the version 1.7 but it could not be booted from the CD at all. Please tell me which version is right for my celeron 733mhz laptop and step by step burning. Thanks!

A common mistake would be to burn the \*file\* to the disk, as a separate file. In other words, if you can put the CD in your CD drive right now, go to the file explorer and see "memtest86+-1.70.iso" file on the CD, then that is wrong.

If done properly, the CD will show "readme.txt" and the contents of "readme.txt" says:

"There is no visible file here.  
Memtest86+ is located on the bootsector of this CD.  
Just boot from this CD and Memtest86+ will launch."

I had to test this on my other computer, because this computer doesn't have a burner. I used Nero Express, told it I was making a data CD, and it presented a file dialog. I selected the item that lists any ISO in the folder. It sees the memtest ISO file and loads it. Burning took about 2 minutes and I thought it would be faster than that.

What Nero does, is transfer the \*contents\* of the ISO to the CD. Rather than transferring the downloaded \*file\* itself. The burning software that comes with Windows, would not be suitable, as far as I know. You need a proper burning program, that can accept ISO9660 format archives. The version of Nero I use, came with the burner itself, which is why

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I was able to use it. (I was careful to shop for a burner that came with Nero – a previous burner came with a useless package, and I didn't want to make that mistake again.)

I would have suggested the floppy version of memtest86+, but figured a laptop would not have a suitable floppy for that purpose.

After burning in Nero, I then rebooted to the CD and memtest86+ loaded very quickly and started testing the memory. So the ISO9660 image contained in:

<http://www.memtest.org/download/1.70/memtest86+-1.70.iso.zip>

works just fine.

Paul