

# unable to install from CD: failure to mount once kernel installed

*Source:* <http://linux.derkeiler.com/Mailing-Lists/Debian/2005-09/2745.html>

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To: "Debian Users Forum" <[debian-user@lists.debian.org](mailto:debian-user@lists.debian.org)>

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I burned an ISO of the Sarge netinstall CD using a Windows box and booted a new box with this CD. The bootloader was able to read the CD, go through all the hardware detection stages, format and partition the hard disk (one large partition). When it got to the stage of rebooting with the new kernel on the hard drive, it was unable to mount the installation CD so it could not go any further. At first I assumed that this was either a bad ISO copy or a bad CD drive, but here's what I tried and the results. Each successive install did a complete wipe and repartition of the disk to create the cleanest possible install.

1) downloaded and burned additional ISO netinstall images, both the 140MB and 40MB versions: same result for three more CD's

2) put each CD media in the Windows machine CD drive: able to explore subdirectories and read files without difficulty

3) ran netinstall off floppies accepting all defaults: still unable to mount CD after otherwise successful install (2.4.x kernel)

4) ran netinstall off floppies using "expert26" command line option to get 2.6 kernel with purportedly better hardware detection ("linux26" command line option does not work on Sarge boot floppies): still unable to mount CD after otherwise successful install (2.6.8 kernel)

5) upgraded Sarge to testing in order to get any possible hardware discovery updates: still unable to mount CD

6) upgraded the kernel first to 2.6.11, then to 2.6.12 when it came out: still unable to mount the CD

7) added autofs package (which is really autofs4): still unable to mount CD

8) downloaded and burned a Knoppix CD ISO, booted Linux box with this CD: Knoppix loads fine and the resulting system can mount and explore the Knoppix CD

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9) booted the Linux box from the hard disk into the testing Debian distro, with 2.6.12 kernel: it could not mount the exact same Knoppix CD that would successfully boot Knoppix

I think the last two tests show that it is neither the CD drive nor the physical CD media itself. When I try to mount the same Knoppix CD manually (specifying ISO9660) after a Debian bootup, dmesg shows a long string of seek errors for each successive sector. My newbie guess as to what's going on is that the hardware drivers installed by the Debian releases are unable to operate the CD drive, but the drivers in the Knoppix 3.9 distro can. Is that plausible?

I would love to be able to use the CD drive. Any suggestions for what to try next?

The hardware setup is:

IBM 300PL model 6594–A3U  
Pentium III/800  
384MB RDRAM (Rambus 800MHz)  
20GB HDD as first IDE master  
48X Lite–On CDROM as second IDE master  
S3 Savage4 AGP video

Here's some additional feedback from the standpoint of a computer–literate but Debian first–time installer (with very old and rusty UNIX skills: SunOs, pre–Solaris BSD) wishing to get away from Windows.

I read the Sarge installation docs and as much of the Debian Reference Manual as I felt applied before doing the installs. One thing that I could not accomplish was the fact that the BIOS in this particular machine did not allow me to turn off shadowing for either the video BIOS or the main BIOS. The Debian docs did say to disable shadowing of the video BIOS, but were silent on the main BIOS. The docs, however, did not say what to do if you \_couldn't\_ disable shadowing of these memory regions. Is it possible that the video BIOS shadow RAM happens to be where the CD driver or some other file system piece loads (and Knoppix is smarter about not using that memory region)? I would guess that the shadow RAM function is a one–time ROM–to–RAM copy during hardware boot, so reusing that memory region later would not be a problem, but I really don't know how this works. Again, I would guess that overwriting this memory region after bootup would force the cache to be correct for any pieces of it that remained in the cache, but that's just a guess. I don't even know if this memory region is cacheable or if Debian attempts to use it.

Another detail that was not mentioned in any of the install docs (that I could find) was the BIOS setting for Plug–n–Pray OS. This vintage BIOS, though upgraded to the latest available for that motherboard, has a setting Yes/No for this. I tried installing both ways with no difference in the end result, but the Debian manuals should probably list the preferred setting in case it makes a difference on any systems or at least a statement that it

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doesn't matter, if that's the general case.

Thanks in advance for any advice.

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