

NTRLS IT: Real Stories
Hard Disk Drive Failure

Issue / Problem:

After turning on the computer it gives a message saying "non-system disk or disk error, replace and strike any key when ready" when trying to boot.

Background Information you should know about:

What is a Hard Disk Drive, a.k.a. HDD? A HDD is hardware which the computer uses to store its operating system, such as Windows XP, and the files and data which are usually created by you when you use your computer. What is a HDD failure? It is when the system fails to boot and your computer usually gives a message that it cannot boot to an operating system. What does BIOS mean? BIOS stands for Basic Input Output System, and it's the software in your motherboard that makes sure that all the hardware in your computer is functioning properly before it lets an operating system take over on boot.

Resolution / How we solved the problem:

You should check several things to see if your HDD failed when your computer gives the message "Non-system disk or disk error. Replace and strike any key when ready".

1. Check your BIOS to see if it can see the HDD. Typically you can set the BIOS to auto-detect your devices if it is not set that way to begin with.
2. Check to see if you can hear the HDD powering up when you turn on your computer. You can do this by taking off the case and locating the HDD and listen closely to the drive when you power on the computer for the spin up noise. If no noise is present, than this is another sign your HDD might have failed.
3. Check to make sure that all the cables are installed and seated properly from the power supply to the HDD and from the mother board to the HDD. If they are and you are still not able to boot into your operating system then try different cables for power and motherboard to the HDD if possible.
4. Check to make sure your jumpers are set properly on older HDD's. Jumpers are small pin connectors that set the drive's function for boot order on drives that are earlier than the new Serial ATA interface.
5. If possible check to see if you can connect another device and its cables to the current controller your current HDD is on. Then see if your BIOS will detect it on that controller. Devices such as your CD-ROM or DVD drive can be used if no other HDD devices are available to help root out mother board controller failure and cable failure.

6. Try any diagnostic tools that may have come with your system to also check the HDD. Dell usually sends this installed on the HDD and also on a CD-ROM if the HDD isn't allowing you to access this part of the drive.
7. If it is starting to look like you are going to have to do step 8, you may want to postpone that step if you need to save crucial data on that drive that you didn't back up. You might want to try sending the drive off to have the data recovered before you replace or reinstall the operating system. Note that this can be very costly, so make sure to backup important files instead of only allowing them to reside on your computer's HDD.
8. Once you are sure that it is indeed the HDD that is giving you trouble, you should try to restore the operating system or do a reinstall of the operating system before replacing the HDD.
9. If a system restore or an operating system reinstall fails on the suspected HDD, then it's time to replace it.

If you have any questions or comments, please contact me at abeatty@ntrls.org.