

How To Diagnose Hardware Problems When Your Computer Won't Turn On

1 Strip Non-Essentials:

Disconnect or even physically remove any non-essential system components.

PCI / ISA / PCI Express Cards, Anything apart from your video card.

(and your video card too if you have an onboard port you can use instead)

Hard disks - You need only remove the power to these.

CD-ROM - Again, only take out the power cable.

2 Having that done, try the power again. Are you seeing any activity at all? Is there a power light on your motherboard?

If you get a slight burst of power but ultimately the system won't boot, it's possible that either your motherboard or power supply itself is faulty. It's quite common in old PCs to find capacitors on the board itself that have literally exploded, flooding out liquid inside and causing this kind of behavior. Check around your motherboard quickly to see if you can find any traces of the dreaded bulging capacitor. The tops may have opened, you may see brown liquid on the board, or it may just be bulging slightly, not a huge problem with the newer motherboards.

3 Diagnosing a Faulty Power Supply:

A power supply is the most common component to fail along with hard drives and fans, usually down to either the moving fan inside the power supply itself or again, capacitors. There are two way to diagnose a faulty power supply, one is with a spare, and the other is with a second computer.

4 Sometimes after a power outage your PC will not start try this : remove the power lead to your PC and hold in the power button at the front and hold in for 30 seconds reconnect your power lead and retry.

5 If, having unplugged everything non-essential you find your computer now boots fine, you can start the laborious process of testing each component individually. Start with the video card, then move on to additional cards and components until you find the one that's blocking system boot.

Beeping:

Computers are actually remarkably good at diagnosing themselves, and will often produce their own error codes in the form of a series of beeps. Though the beep codes vary by manufacturer, you can be sure that they have something to do with either your CPU, your memory, or the video card. Check the manual or manufacturers site for codes specific to your motherboard, or you try looking at this table of generic beep codes for older BIOSes here : <http://www.computerhope.com/beep.htm#04> The most common beep code I come across is a continuous series of beeps, which indicated a memory error. It could be as simple as not seating the memory in the slot correctly (and will often come out during a move).

If your computer will turn on and function correctly, but you sometimes still hear a series of beeps during use, it means your CPU is overheating, most probably due to a fan this is starting to fail. You can try to clear the gunk and dust away from the heat-sink and fan as a short term fix, but look to replacing the whole thing. You should consider reseating the processor with some good quality thermal paste don't use a huge amount you don't want it all over the place and it is expensive size of little finger nail is plenty