

STUCK WITH PC BLUES, YOUR PC TURNING
YOU NUTS, PLANNING TO SEE VENDOR

WAIT!!!

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PC troubleshooting is a part of complete computer experience; your computer knowledge isn't complete without it, before calling vendor try your hand at the following home remedies. Before getting to the real trouble shooting let us brush up our basics.

WHAT HAPPENS WHEN YOU TURN ON THE PC?

Well power switch sends surge of electricity through the computer all the parts are powered up, hard drive starts to spin and the power supply fans begins to whir. Your pc comes to life. Microprocessor receives the juice begins to execute instructions in its memory. First instruction it executes is known as POST (power on self test). It includes messages displayed; beeping that occurs and memory count most PCs show when they warm up. Successful POST transfers control to BIOS (Basic Input Output System) which boots the system and loads the Operating system. Let us have a look at the possible Problems and the point where they can crop up.

BEEP!! BEEP!! WHAT DOES IT WANT TO SAY??

POST alerts you for any fault in the machine in the form of beeps. One normal solitary beep after memory count is expected it's the goody goody beep saying everything is fine we can go ahead with bootstrapping. No beep or more than one beep is something to watch for:

NATURE OF BEEP

- None
- Unremitting
- Short repetitive
- Long 2 or 3 in No.

FAULT CAN BE WITH

Power supply/Mother Board
Power supply/Memory
Power supply
Video

*Remember: one solitary beep after memory count is expected. Check that the CPU speaker is connected properly on your mother board; otherwise no beep will be heard.

POST (POWER ON SELF TEST)

The configuration of your machine is stored in the CMOS battery, so the battery stores information about the RAM, CPU configuration, system date and time and the likes. Each time P C starts, POST checks the present information with the past information stored. In case there is any mismatch it informs about the same. It also checks for things like keyboard, floppy drives and other drives and devices installed in case there's fault it will inform you in the form of audible Beeps and the numbers.

Task of POST can be summed up as:

- Checks and verifies the configuration of PC
- It tests for any errors and alerts you to them
- Compares battery backed up CMOS info with what it finds in the computer.

POST POST

After POST next acronym to explore is BIOS (Basic Input Output System). Successful POST passes the control to the BIOS which have a program to boot the machine and to load the Operating System so that the machine becomes meaningful for you to perform your tasks. The process of loading operating system from disk drive this is called bootstrapping coz computer is pulling itself by its boot straps that is why the term booting.

To sum up, following sequence of events is experienced when we power up or reboot our computer:

- Turn on the PC.
- BIOS start up message appears.
- POST system checkout.
- Memory test indicators will fly by.
- POST will sound a single beep.
- OS will boot.

That was all about pre and post POST era. Let us have a look at some of the common Problems

PROBLEMS AND THEIR REMEDIES

Problem can crop at any of the previously explained stages of booting your machine. Let us discuss some of the common hiccups that you might face while booting your machine:

- No sign of life in your machine, it sounds dead
- Machine shows signs of Power but does not perform POST
- POST but hangs
- POST but does not Boot

*Before moving any further let me tell you the most efficient remedy which works most of the time; turn the system off, wait a few moments (at least 10secs) then turn it on again. Sometimes it does work (don't ask me how and why!).

**Remember: Wait at least 10 seconds before turning it on again.

NO SIGN OF LIFE IN YOUR MACHINE, IT SOUNDS DEAD

SYMPTOMS:

- No sign of power everything sounds dead.
- No beep, no sound of rotating hard disk, no glow of LED, fan not rotating.
- Monitor doesn't display anything.

CHECK OUT:

- The machine is plugged in
- The power switch is on
- Power cords are connected properly to SMPS (Switching Mode Power Supply)
- brightness knob of monitor is properly adjusted and its properly plugged in
- The monitor is connected properly to display card port

REMEDIES:

For the first three cases remedies are self explanatory, one just need to plug in the machine or turn on the power switch. Try replacing the power cord, if doesn't work SMPS might be dead. Change it! For the fourth case if the monitor is not connected properly to display card it might show a message like no cable signal or the like, connect it properly and boot again.

SIGNS OF POWER BUT NO POST

If machine shows sign of power but performs no POST, the problem generally lies inside the console box (cabinet), time to open it up, don't fear, it's not that scary, just take care not to do anything you do not know and to replace things as they were, to remember all this, I suggest you to make a note or a rough sketch of everything. Coming back to the problems, one can easily diagnose the problem when there is no POST from the nature of beeps as explained earlier in Beep section, and check out the corresponding device.

SYMPTOMS:

- Are there any missing pieces like loose cables ribbons
- Are any internal cables loose
- Is the pc running too hot
- Either some PCI device has come loose or some component has failed

CHECK OUT:

You just need to check out for the following things like for the internal cable missing cables or the loose PCI slots (I presume that you know what PCI slots and devices are!!)

REMEDY:

Remove and replace all the PCI and RAM cards one by one until the card with problem is sorted out. Also check all the cables and ribbons.

POST BUT HANGS

In this case the problem will be displayed as a text message, most common text messages and the possible remedies for it can be summarized as:

DISPLAYED MESSAGE	POSSIBLE REMEDY
Bad memory timings in BIOS	Revert to default BIOS* settings.
Processor is over clocked	Change the processor speed in BIOS to proper speed of your processor or revert it to default
Bad RAM	Try changing the RAM module or slots
Corrupt BIOS	BIOS EPROM is to be changed for new
CMOS checksum bad	Remove the CMOS battery and put it back if it doesn't work get new one. **

Key board, Floppy drive error

Check for the connections of internal cables and ribbons of the corresponding device

Remember:

*Enter the BIOS setup by pressing Del key when asked during start up.

**Wait for at least 30mins before replacing the CMOS battery or before inserting the new.

POST BUT DOES NOT BOOT

Most common error message is:

"Non system disk or disk error Replace and press any key when ready"

REMEDY:

In BIOS setup one can select three devices to boot. HDD, Floppy and CD are the most common boot devices, HDD being fixed and OS is installed in it with the bootable files, so it's common to select HDD the first boot device. Suppose the order is Floppy, CD, Floppy; PC will not boot if neither of the drives is provided with proper bootable files. Program in BIOS checks the drives in preference order for boot files, non availability of which will display the above error message; this problem might also crop up if Operating system has the required files missing or corrupt.

Thanks for Choosing and reading this E book, I heartily welcome your comments and ideas for improvement.

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