

**Operational Description:**

- Power supply switched on
- The microprocessor timer chip receives the Power Good Signal.
- The CPU starts executing the ROM BIOS code
- The ROM BIOS performs a basic test of central hardware to verify basic functionality
- The BIOS searches for adapters that may need to load their own ROM BIOS routines
- If this is a cold-start the ROM BIOS executes a full POST (Power On Self Test). If this is a warm-start the memory test portion of the POST is switched off
- The BIOS locates and reads the configuration information stored in CMOS
- If the first bootable disk is a fixed disk the BIOS examines the very first sector of the disk for a Master Boot Record (MBR). For a floppy the BIOS looks for a Boot Record in the very first sector
- With a valid MBR loaded into memory the BIOS transfers control of the boot process to the partition loader code that takes up most of the 512 bytes of the MBR
- The partition loader (or Boot Loader) examines the partition table for a partition marked as active. The partition loader then searches the very first sector of that partition for a Boot Record
- The active partition's boot record is checked for a valid boot signature and if found the boot sector code is executed as a program
- Assuming that the operating system being loaded is Windows NT, 2000, or XP, operating system boot sequence go on.
- Last phase of sequence is logon to operating system than the computer ready to operate.