

How to Fix Windows 7 and Vista When It Fails to Boot

Typical Errors would be:
Error loading operating system
Missing operating system
Invalid partition table

Now Windows 7 has the new Startup Repair option when entering safe mode and more often than not that procedure is successful in automatically fixing many different start up issues,

If a startup problem is detected, Startup Repair will start automatically and try to fix the problem.

If the problem is severe enough that Startup Repair doesn't start on its own and you can't access the System Recovery Options menu on your computer's hard disk, you can get to the menu and start Startup Repair by using the Windows installation disc or a system repair disc that you created earlier.

Startup Repair can only fix certain problems, such as missing or damaged system files.

In Windows 7 and Vista, the procedure to fix the master boot record is a bit different compared to XP. You have to start up Vista in the Recovery Environment and then run the bootrec command.

Procedure

- 1 If you are using the installation DVD, when prompted by the following screen select Repair your computer.
- 2 The computer will take a moment now to scan itself for any Windows installations, after which you will likely be given a choice to select which installation you wish to repair. Select the appropriate Windows installation from the list and then continue. If by chance a problem is detected in one of your Windows installations at this initial stage, the system may also ask you if it can try to repair the problem automatically. It is up to you if you wish to let the system try to repair itself, but otherwise just select No.
- 3 `bootrec.exe /fixmbr`

This will rebuild the boot configuration data and hopefully fix your problem.

You can also run the command with switches to fix just the master boot record (`/fixmbr`), the boot sector (`/fixboot`), or rebuild the entire BCD (`/rebuildbcd`).

(for example)

```
bootrec.exe /fixmbr
bootrec.exe /fixboot
bootrec.exe /rebuildbcd
```

Note: If no OS is detected to select, select install instead of repair and it will detect your drive, select cancel and go back to the repair section, your OS will show up now.

- 4 At the menu screen select Command Prompt to continue, or Startup Repair if you chose to.
- 5 At the command prompt type in "`bootrec.exe /FixMbr`"
If successful, you should be greeted with the message The operation completed successfully. Done!

Note: While the above command does fix the MBR, and sometimes that is enough, there still might be an error with the system partitions, boot sector and Boot Configuration Data (BCD). This might occur if you have tried to install another operating system alongside Windows 7, such as Windows XP.

Therefore, To write a new boot sector, try the following command:

```
bootrec.exe /fixboot
```

If you are still faced with your Windows 7 installation not being detected during start up or another OS you installed is not being detected then type in the following:

```
bootrec.exe /RebuildBcd
```

If you are still not able to detect the OS then type in the following to completely rebuild the BCD file.

```
bcdedit /export C:\BCD_Backup
```

```
c:
cd boot
attrib bcd -s -h -r
ren c:\boot\bcd bcd.old
bootrec /RebuildBcd
```