

OS REINSTALLATION

1. Windows

For whatever reason you want to do a clean install of Windows. That poses no risk to Ubuntu if you install Windows on the same partition it was before. Feel free to format it or even delete and recreate it from the installer partition tool. Just don't touch Ubuntu partitions. Which are those? The ones with **0.0 MB** free space.

Windows and Linux use the same partition table, but different filesystems, so Windows can tell where Linux partitions are, but it can't tell their size.

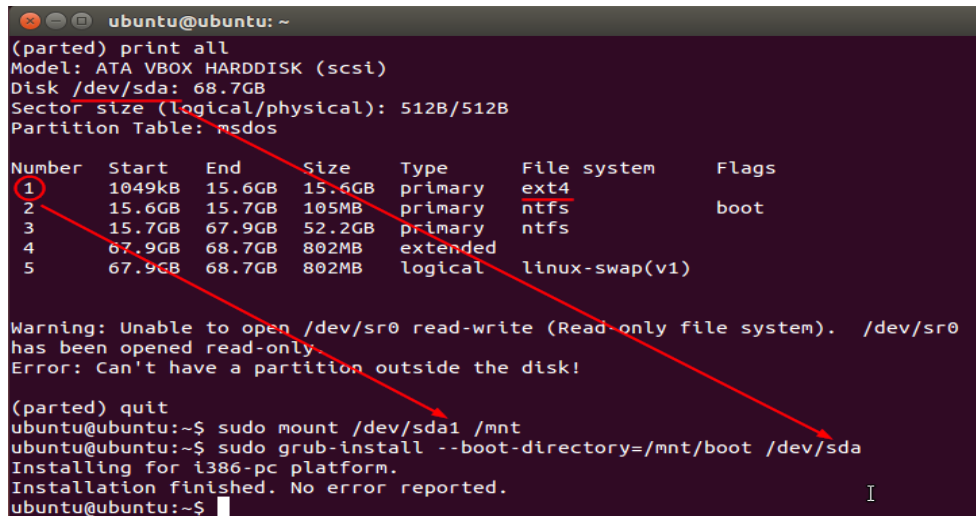
You just reinstalled Windows and got yourself with a non-bootable Ubuntu. You'll need a Linux installation media, preferably but not mandatory of the same Linux distribution you want to restore. Of course you must have a live medium (that doesn't require installation to run). Boot from the installation media and choose **Try** instead of **Install** when asked. If not asked and you get to a screen that shows disk configuration and partitions, quit and get a **live** Linux disc.

Getting Ubuntu bootloader back is simple. The procedure is described in detail at Ubuntu Community Help Wiki. Open a console (Terminal) in the live disc and run **sudo parted** followed by **print all** to identify our partitions. You must mount the root partition or the **/boot** partition if the case. Then you will install GRUB.

There are two commands (don't forget to exit **parted** with **quit**):

```
sudo mount /dev/sda1 /mnt
```

```
sudo grub-install --boot-directory=/mnt/boot /dev/sda
```



```
ubuntu@ubuntu: ~
(parted) print all
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sda: 68.7GB
Sector size (logical/physical): 512B/512B
Partition Table: msdos

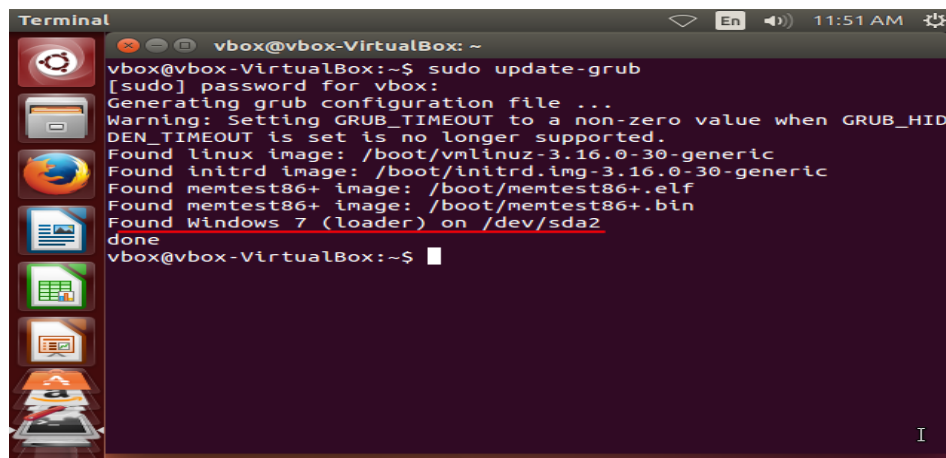
Number  Start  End  Size  Type  File system  Flags
 1      1049kB 15.6GB 15.6GB primary ext4
 2      15.6GB 15.7GB 105MB  primary ntfs          boot
 3      15.7GB 67.9GB 52.2GB primary ntfs
 4      67.9GB 68.7GB 802MB  extended
 5      67.9GB 68.7GB 802MB  logical linux-swap(v1)

Warning: Unable to open /dev/sr0 read-write (Read-only file system). /dev/sr0
has been opened read-only.
Error: Can't have a partition outside the disk!

(parted) quit
ubuntu@ubuntu:~$ sudo mount /dev/sda1 /mnt
ubuntu@ubuntu:~$ sudo grub-install --boot-directory=/mnt/boot /dev/sda
Installing for i386-pc platform.
Installation finished. No error reported.
ubuntu@ubuntu:~$
```

Reinstalling GRUB after Windows.

That should be it. If you ran in the opposite problem and can only boot Ubuntu don't worry. Open a terminal in the working Ubuntu and run **sudo update-grub**. It should detect Windows and add it to the boot menu.



```
Terminal
vbox@vbox-VirtualBox: ~
vbox@vbox-VirtualBox:~$ sudo update-grub
[sudo] password for vbox:
Generating grub configuration file ...
Warning: Setting GRUB_TIMEOUT to a non-zero value when GRUB_HIDDEN_TIMEOUT is set is no longer supported.
Found linux image: /boot/vmlinuz-3.16.0-30-generic
Found initrd image: /boot/initrd.img-3.16.0-30-generic
Found memtest86+ image: /boot/memtest86+.elf
Found memtest86+ image: /boot/memtest86+.bin
Found Windows 7 (loader) on /dev/sda2
done
vbox@vbox-VirtualBox:~$
```

Adding Windows back to GRUB menu.

2. Linux

There should be no problem when reinstalling Linux over the same partition. Just check the format box for each Linux partition at the installation screen. However, to avoid any boot loader issues, you can erase GRUB with Windows bootloader.

See section 4.1 (without the formatting part).

Removing one operating system

1. Removing Linux

Before formatting Linux partitions, you must restore Windows bootloader. If you have a MBR disk, then this can be done by booting from Windows DVD.

Choose Repair my computer when prompted with the Install Now dialog. Let it detect your OS and choose other. Open a command prompt and run the following commands:

```
bootrec /fixmbr
```

```
bootrec /fixboot
```

Now you can boot into Windows and from Disk Management remove all Linux partitions and either make new ones or extend the existing ones in the newly unallocated space.

2. Removing Windows

The bootloader is installed by Linux so you can safely delete all Windows partitions from GParted. To get rid of the Windows menu entry at boot, simply run `sudo update-grub`.

Source: <http://onetransistor.blogspot.in/2015/03/dual-boot-windows-and-ubuntu.html>