

# 4k sectors

[https://wiki.archlinux.org/title/Advanced\\_Format#Setting\\_native\\_sector\\_size](https://wiki.archlinux.org/title/Advanced_Format#Setting_native_sector_size)

```
# lsblk -td
NAME        ALIGNMENT MIN-IO OPT-IO PHY-SEC LOG-SEC ROTA SCHED RQ-SIZE  RA WSAME
sda          0    4096     0   4096    512     1 none    32 128   0B
sdb          0    4096     0   4096    512     1 none    32 128   0B
nvme0n1      0 16384 131072   512    512     0 kyber   256 256   0B
```

```
Node                Generic                SN                Model
Namespace Usage                Format                FW Rev
-----
/dev/nvme0n1        /dev/ng0n1                ???????????????? Samsung SSD
980 1TB                1                0,00  B /  1,00  TB  512  B +
0 B    2B4QFX07

# nvme id-ns -H /dev/nvme0n1 | grep "Relative Performance"
LBA Format 0 : Metadata Size: 0 bytes - Data Size: 512 bytes - Relative
Performance: 0 Best (in use)
```

```
# nvme id-ns /dev/nvme0n1
...
lbaf 0 : ms:0 lbads:9 rp:0 (in use)
```

about which the wiki page says

It has an lbads (LBA data size) of 9, which means sectors are  $2^9$  or 512 bytes. If the device is capable of 4 KiB sectors, there will be another entry here with an lbads of 12.

```
# smartctl -c /dev/nvme0n1
Supported LBA Sizes (NSID 0x1)
Id Fmt Data Metadt Rel_Perf
0 +    512     0     0
```

## firmware

Samsung SSD 980 1TB firmware 2B4QFX07

<https://semiconductor.samsung.com/consumer-storage/support/tools/>

1. Download [Samsung SSD 980 3B4QFX07.iso](#)
2. unpack gzip cpio and go to /root/fumagician
3. run `sudo ./fumagician`

1. NOTE: will reboot at end !!!

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