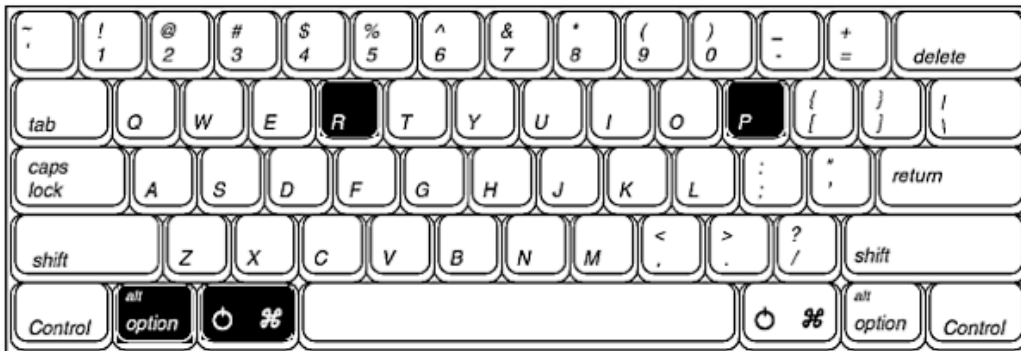




## No Chime on Boot, Fan Noise? Screen Not responding? Try This-

Is your Mac acting just...*odd*? Stuff like drives not appearing, screens not adjusting correctly, Bluetooth problems, AirPort non connecting? Maybe your fan is running non-stop or your battery has said that it is 50% charged...for two days...and your MacBook is *plugged in*. Yeah, these aren't problems that simple rebooting often fix. And while doing stuff like fixing permissions can fix *some* strangeness, this is strangeness on a deeper level. This is *hardware strangeness*. The good news is that, you're only a few key presses and reboots away from things (hopefully) being back to normal.

Sometimes on a Mac, the PRAM (parameter RAM) and NVRAM (non-volatile RAM) can become corrupt and cause various problems. These two memory areas store settings and information that is not cleared whenever you turn off your Mac's power.



To reset the PRAM and NVRAM, we'll do the following for Intel-based Macs:

1. Shut down the computer.
  2. Locate the following keys on the keyboard: Command, Option, P, and R. You will need to hold these keys down simultaneously in step
  3. Turn on the computer.
  4. Press and hold the Command-Option-P-R keys. You must press this key combination before the gray screen appears.
  5. Hold the keys down until the computer restarts and you hear the startup sound for the second time.
- Release the keys.

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## ***Here's how to reset your PRAM:***

When you log back in, you'll probably will have to adjust your mouse speed, time and date/time zone, and a few other things, but otherwise you should be good to go. Back in the day, we would often let the PRAM zap several times (like 2 or 3) to make sure it was clear. Sometimes, in fact, the machine needed that kind of kick in the pants to clear everything out. However, today's Macs seem to be good to go with a one shot zap, so no worries there.

## **Resetting the SMC**

The companion to the PRAM is the SMC (system management controller) and is *only for Intel-based Macs* and it stores/manages/controls a lot more interesting things than the PRAM:

1. Turn off your machine (really, you knew this was coming at step one)
2. Keep the MagSafe adapter **plugged in**.
3. Press at the same time shift-option-control (on the **left side of the machine**) and the power button
4. Let go
5. Turn your machine back on with the power button.

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