

# Mac startup key combinations

Learn about the Mac features and tools that you can access by holding down one or more keys during startup.

## On a Mac with Apple silicon

[Find out if you have a Mac with Apple silicon](#)

1. Turn on your Mac and continue to press and hold the power button as your Mac starts up.
2. Release the power button when you see the startup options screen, which shows your startup disks and a gear icon labeled Options.
3. From this window you can start up from a different disk, start up in safe mode, use macOS Recovery, and more. [Learn more about these options.](#)

## On an Intel-based Mac

If you're not using a Mac with Apple silicon, you're using an Intel-based Mac.

### Guidelines for using these key combinations

- Press and hold all keys in the combination together, not one at a time.
- If you can't get a key combination to work when restarting your Mac, shut down your Mac first. If you can't shut down, press and hold the power button for up to 10 seconds, until your Mac turns off. Then press and hold the key combination after pressing the power button to turn on your Mac.
- You might need to wait a few seconds before pressing the keys, to give your Mac more time to recognize the keyboard as it starts up. Some keyboards have a light that flashes briefly at startup, indicating that the keyboard is recognized and ready for use.
- If you're using a wireless keyboard, plug it into your Mac, if possible. Or use your built-in keyboard or a wired keyboard. If you're using a keyboard made for a PC, such as a keyboard with a Windows logo, try a keyboard made for Mac.
- Some key combinations don't work when your Mac is using a firmware password. [Turn off the firmware password](#) first.
- If you're using Boot Camp to start up from Microsoft Windows, set [Startup Disk preferences](#) to start up from macOS instead. Then shut down or restart and try again.

### Key combinations for an Intel-based Mac

**Command (⌘)-R:** Start up from the built-in macOS Recovery system. Or use Option-Command-R or Shift-Option-Command-R to start up from macOS Recovery over the internet. [macOS Recovery installs different versions of macOS](#), depending on the key combination you use.

**Option (⌥) or Alt:** Start up to [Startup Manager](#), which allows you to choose other available startup disks or volumes.

**Option-Command-P-R:** [Reset NVRAM](#) or PRAM.

**Shift (⇧):** Start up in [safe mode](#).

**D:** Start up to the [Apple Diagnostics](#) utility. Or use Option-D to start up to this utility over the internet.

**N:** Start up from a NetBoot server, [if your Mac supports network startup volumes](#). To use the default boot image on the server, press and hold Option-N instead.

**Command-S:** Start up in single-user mode. Disabled in macOS Mojave or later.

**T:** Start up in [target disk mode](#).

**Command-V:** Start up in verbose mode.

**Eject (⏏) or F12 or mouse button or trackpad button:** Eject removable media, such as an optical disc.

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Helpful?

Yes

No



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