

Question

Note: If you're using Windows 7 or Windows Vista, please see [this](#) article.

My Windows 10 or Windows 8 computer is unable to boot. What can I do?

Symptoms could include one or more of the following:

- The power button does nothing
- The monitor has graphical errors that make it impossible to use
- A blinking cursor appears on a black screen
- A message saying "Bootmgr is missing" is displayed
- A message saying "No bootable device" is displayed
- A Windows error message is displayed
- Your computer continually restarts

Answer

Possible Causes

There are multiple problems that could cause a computer not to start:

- There might be a problem with the power.
- A recently installed or updated program or driver could be interacting incorrectly with the computer.
- The Windows installation on the hard drive could be corrupted. This can occur if the computer was turned off incorrectly or had a virus.
- There could be an actual hardware failure.

We'll help you figure out which was the cause, fix it if possible, and back up your data if needed.

Troubleshooting Overview

When the computer powers on, the hardware must know to look on the hard drive for Windows before Windows begins to load. Once we have checked the basic systems of the computer, we will consider the actual windows installation.

If none of this can fix the problem, Windows might be corrupted beyond repair or there could be a hardware failure.

We'll help you backup your data and perform a recovery, returning the computer to its out-of-box condition.

Performing a recovery will fix most software-related problems, including corruption of Windows and viruses.

If you're unable to perform a step (for example, if the step instructs you to enter Safe Mode but you can't do so), skip that step.

You can also skip directly to a system reset if, at any point, the steps become too complicated.

The steps below correspond to the steps in the article.

1. Check the AC power socket to ensure it has power.
2. Perform a power cycle.
3. Check battery and AC power.
4. Reset the system settings to ensure the hand-off to Windows is correct.
5. Attempt to boot in Safe Mode, a special way to load Windows in the event of a critical system problem.
6. In Safe Mode, undo any changes that might stop Windows from loading correctly, uninstall anything recently installed, and undo any recently changed settings.
7. Perform a System Restore, which restores the computer back to a certain point in time.
8. Attempt a "clean boot," which boots Windows without any additional applications starting.
9. Back up your data.
10. Perform a System Recovery.

Before Windows

Before Windows loads, the computer must be receiving power and the various parts of the computer must be communicating. Sometimes there can be a problem with the power that stops the computer from giving control to Windows. First, we'll check that these pre-Windows systems are working correctly.

Check the AC power socket

The first step is to ensure that the power outlet is working.

- Check that the electrical socket works by plugging another device into it.
- Confirm that your laptop receives power.

Perform a power cycle

Even when your laptop is off and unplugged, residual power can still be held in some components. While this is normal, clearing it can help with boot problems. Perform these steps to complete what's called a power cycle.

1. Ensure the laptop is turned off.
2. Unplug the laptop's AC power cable.
3. Remove the battery (if the model has a removable battery). If your model doesn't have a removable battery, it may have a pinhole reset. Check your user's guide for information, and if it does, press this button. Regardless of what you did in this step, continue to the next.
4. Unplug all wires or peripherals. This includes CDs, DVDs, USB sticks, mice, printers, and any other accessories.

5. Hold down the power button for thirty seconds.
6. Reattach the battery if it was removed.
7. Connect the AC adaptor to the power socket that was confirmed to be working in the first step.
8. Connect the other end of the AC adaptor to your computer.
9. Try starting the computer.

If your laptop starts normally now, you're done!

Check the battery and AC adaptor

If the laptop still won't start, the AC adaptor or battery may have failed.

1. Ensure the laptop is turned off.
2. Remove the battery (if the model has a removable battery).
3. Attempt to start the laptop.
4. If that doesn't work, ensure the laptop is off and reattach the battery if it was removed.
5. Unplug the AC power from the laptop.
6. Attempt to start the laptop.

If the laptop works without one of those two accessories (the AC adaptor or battery), it would seem that the accessory has failed. If your computer is under warranty, please contact customer support. If your computer is not under warranty, you'll need to purchase a new AC adaptor or battery.

Reset the system settings

If nothing is appearing on the screen when you try to start your laptop at this point, skip to the last section of the article, "Contact Support."

If something does appear on the screen, continue here. Sometimes the settings in the UEFI system settings change and cause errors. If you're able to do so, enter the UEFI Settings by holding F2 while turning on the laptop. Keep holding it for a few seconds until the UEFI Settings appear. If holding F2 doesn't work, try tapping F2. Once you reach the UEFI Settings, follow the prompts to reset them to defaults.

Using Safe Mode

At this point, we've checked the basic systems of the computer and are done troubleshooting the hardware. If your computer could not perform the earlier steps and won't respond at all, you may have a hardware failure that requires servicing. In that case, skip to the last section of this article, "Contact Support."

We're now going to consider the actual Windows installation. Problems with the Windows installation can occur after a recently added or updated application, game, or driver doesn't interact correctly with the rest of the computer. This could even be due to incompatibility.

For information on entering Safe Mode and using it to troubleshoot, see the following article:

[How can I use Safe Mode to troubleshoot in Windows 10, Windows 8 or Windows 7?](#)

If you can't enter Safe Mode or those suggestions don't help, continue to the next section.

Reset

If these steps haven't fixed the problem, the final step is to perform a reset. A reset will return a laptop to its original, out-of-box state and eliminates software as a possible cause. If the hard drive has become corrupted or if you have a virus, this is a great fix. While you may be hesitant to perform a reset, if you're considering having your laptop serviced, a reset is a necessary step of the repair process.

Note that doing a system reset will return the laptop to its default conditions, completely wiping all data, documents, settings, and applications. Remember to back up your data!

To learn how to reset your laptop, see the following article.

[How do I reset my Windows 10 computer to factory defaults?](#)

[How To: Understanding System Restore, Refresh, Reset, and, Recovery options in Windows 8 + Video](#)

Contact support

If you have trouble starting the recovery procedure, you may consider [ordering recovery media](#). If the recovery does not fix the problem or if you're unable to perform the recovery, your laptop may not be booting due to actual hardware failure. In that case, please [call customer support](#) to set up a repair.