



Replacing the Computer Clock Battery

Note: Many of the computer's internal components are extremely sensitive to static electricity. The following precautions significantly reduce the possibility of damaging components with electrostatic discharge:

- Before handling any components or touching anything inside the computer, discharge your body's static electricity charge by touching a grounded surface. If the computer is connected to a grounded outlet, you can do this by touching any part of the computer metal chassis.
- Keep parts in their antistatic bags until you are ready to install them.
- Do not lay parts on the antistatic bags, because only the insides are antistatic.
- When handling cards, hold them by their edges and their metal mounting bracket. Avoid touching components on the card and the edge connectors that plug into the expansion slots.
- Never slide cards or other components over any surface.
- Avoid plastic, vinyl, and styrofoam in your work area.
- Use a grounding wrist strap if one is available.

Introduction

This process requires a Phillips screwdriver.

Before you begin, familiarize yourself with the project by first reading through the instructions.

About the new part

Keep the new part in its antistatic bag until the instructions say to remove it.

If you received another manual or a Tech Note describing installation of the new part, follow the other manual where it differs from this one. This manual is very general, and the other manual describes items, such as settings, that are specific to your situation.

If your computer has a battery connected to the motherboard by two wires, you have an alkaline battery.

If the battery in your computer is coin-shaped, or if it looks like a large chip, you have a lithium battery.

Warning: Replace a lithium battery with a factory recommended battery. Using a different battery, recharging, or disassembling the battery may present a risk of fire or explosion. The same risk exists if batteries are exposed to water or excessive heat. Used batteries should be disposed of promptly and properly. Keep all batteries away from children.

The battery provides power for the computer's real-time clock and BIOS RAM, which holds the computer configuration information from the setup program. When you replace the battery, the BIOS may lose its charge and be erased. Therefore, you may need to run Setup after you change the battery.

When the battery weakens, the Setup program settings in BIOS, such as the time and date, become unreliable.

To replace the computer battery:

1. Enter the Setup program and record the values in case you need to reenter any after you replace the battery. See Your User's Guide or Technical Reference for details.
2. Open the case.
3. Locate the battery and note which way it connects to the motherboard. If anything is in the way as you attempt to reach the battery, remove it.
4. If you have a coin-shaped battery, lift the clip that holds it in place. Pull the battery, or the connector, straight up.
5. Orient the new battery just like the old one and carefully insert it into the socket. Be sure the battery is pressed all the way into place. If you have a coin-shaped battery, return the clip to its former position.
6. Replace any parts you removed, then replace the cover, but don't fasten the screws.
7. Turn on the computer. If necessary, enter Setup and reset the computer configuration information.
8. When the computer is functioning properly, replace the cover.

Troubleshooting battery replacement

If the computer fails to restart or works improperly after you replace the battery, check the following items in order. After each step, replace the cover (it is not necessary to fasten the screws) and turn on the computer to verify that it works. Remember to fasten the cover screws when you are done.

- Check to be sure that all power switches are on. If the computer is plugged into a power strip or surge protector, be sure it is on as well.
- Turn off the computer. Verify that all exterior cables are securely attached to the correct connectors.
- Enter the Setup program and compare the settings on the screen with your notes or the computer's hardware. Correct any discrepancies.
- Turn off the computer. Take off the cover and verify that all cables and cards inside are still attached firmly. Sliding the cover on can snag cables and disconnect them, or you may simply have bumped a cable. Check that the battery or its connector is aligned correctly, and that the connectors didn't miss any pins. Disconnect, then reconnect the cables.
- If you have the proper test equipment, check to verify that the new battery is has the correct voltage. It is unlikely, but nonetheless possible, that you received a defective battery.