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HP Customer Care > Compaq Presario CQ60-615DX Notebook PC

Computer Does Not Start and Emits an LED or Beep Code

[What to do when an LED or beep code occurs >](#)

[Code descriptions >](#)

[Reseating memory modules >](#)

[Testing memory >](#)

[Finding service >](#)

This document pertains to HP and Compaq Notebook computers.

If your computer makes one or two short beeps while starting, and Windows still opens, the computer is indicating normal BIOS startup was successful. If your computer does not start, a more serious hardware issue is likely occurring. Listen for beeps and look at the Light Emitting Diodes (LEDs) near the **Caps Lock** key, the **Num Lock** key, the battery, and the AC Adapter to help determine troubleshooting steps. This support document contains information that can help you learn more about the issue and how to resolve the problem.

Figure 1: Example of blinking LED condition (your computer may look different)



What to do when an LED or beep code occurs

An LED or beep code usually means a basic function is unable to start. A basic function might include reading memory, displaying video, or being able to send information to a hard drive. The most common problems that cause LED and beep codes are memory and heat-related failures caused by a build-up of dust in critical cooling areas.

Use the following steps when your computer emits an LED code or beep code:

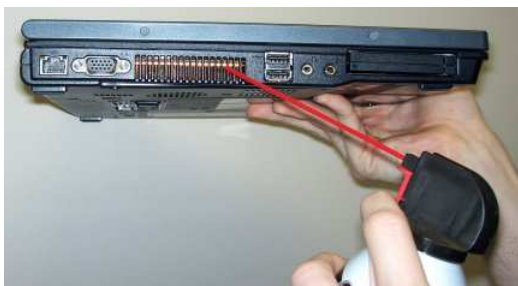
Step 1: Remove dust from cooling areas

If your computer is new and has never been used before, skip this step and go to [Step 2: Perform a power reset](#).

Over time, dust can collect in the cooling vents of your computer. Too much dust can block airflow, causing sensitive components to overheat and fail. Before troubleshooting startup codes, it is important to remove any dust that may have accumulated.

While wearing eye protection, use canned air to blow out vents, preferably outdoors.

Figure 2: Blowing dust from air vents



After cleaning the computer's air vents, restart the computer.

If the computer starts normally, you are done. Otherwise, go to the next step.

Step 2: Perform a power reset

If your computer does not start, performing a power reset can sometimes fix the problem. Follow these steps to reset the power:



NOTE: If your computer has a sealed battery, refer to [Use a Forced Reset to Resolve Hardware and Software Issues on Notebook with a Sealed Non-Removable Battery](#).

1. Disconnect all peripheral devices such as printers, USB storage devices and media cards.
2. Disconnect the AC power adapter.
3. Remove the battery.
4. Press and hold the **Power** button for at least 15 seconds.
5. Reconnect the AC power adapter (do not connect the battery), and press the **Power** button.
6. Look for glowing LEDs near the **Caps Lock** and **Num Lock** keys, and listen for the sound of drives and fans turning.

If the computer starts normally, you are done.

If the computer still fails to start and emits lights or beeping sounds, continue to the next step.

Step 3: Write down the LED or beep code

Use the following steps to write down the LED or beep codes onto a piece of paper.

1. Press the **Power** button to turn on the computer.
2. Your computer's power socket or power adapter may have an LED. If it has an LED, look at the light next to the power socket or the light on the AC power adapter and note its condition: off, blinking or constantly on.
3. Look at the indicator lights near the **Caps Lock** and **Num Lock** keys and note their condition. If the lights blink, count the number of times they blink between pauses.



NOTE: After a sequence of blinks or beeps, there is a pause for a few seconds, and the sequence is repeated (usually 3 or 4 times). The blink sequence can be repeated by pressing the **Power** button.

4. Listen to your computer for any loud beeping noises. If your computer makes a beeping noise, note the type and number of beeps between pauses. For example: two long beeps followed by one short beep.
5. On a piece of paper, write down what you have noted to remember the LED or beep code when doing the next steps.

Step 4: Match the code to a suspected hardware component and look for possible solutions

Use the LED blink code or beep code to find more information. If your computer emits an LED blink code, consult the table of boot codes in this support document. If your computer fails to start and emits a beeping noise, use the code to search the Internet for more information. Removing and/or replacing the memory module DIMM and cleaning dust from around the vents can resolve problems related to some beep codes.



NOTE: Boot or Post codes have changed over time. Earlier computers use a series of beeps. The number and type of beeps depend on the computer's age as well as the motherboard and BIOS manufacturer. With the development of the Extensible Firmware Interface (EFI) environment, HP notebook computers built in 2009 or later use blinking LEDs to identify the hardware component reporting an error during startup. These codes are not valid for earlier models.

[Back to top](#)

Code descriptions

Use the following table to learn about the meaning of a code that your computer may encounter.

Code type	Number of Blinks or Beeps	Component Being Checked	Condition	Possible solution(s)
AC power adapter LED	Constantly on	Power adapter	OK. Power is being supplied.	None. The power adapter is likely not the problem.
AC power adapter LED	Constantly off	Power adapter	Power is not being supplied	Try a different power outlet. Replace power adapter.
AC power adapter LED	Continuous blinking	Power adapter	Insufficient power	Try a different power outlet. Replace power adapter.
Caps Lock/Num Lock	1	CPU	CPU not functional	Reseat replace CPU. Service
Caps	2	BIOS	BIOS corruption	Restore BIOS from onboard

Lock/Num Lock			failure	backup (jumpers) Service
Caps Lock/Num Lock	3	Memory	Memory module error not functional	Reseat memory modules (see next section). Test memory from UEFI or BIOS. Replace bad memory modules. Service
Caps Lock/Num Lock	4	Graphics	Graphics controller not functional	Service
Caps Lock/Num Lock	5	System board	General system board failure	Service
Caps Lock/Num Lock	6	BIOS	BIOS authentication failure	Restore BIOS from onboard backup (jumpers) Service
Beep	Varies	Varies	Varies	Reseat memory modules (see next section). Service For more detail on the exact code, search the Internet for "beep code" and the manufacturer of your BIOS - such as AMI or Award.

[Back to top](#)

Reseating memory modules

If a memory module is loose or is not making good contact with the memory slot, the computer can fail to start. To reseat the memory module, take the memory module out of the memory slot and then put it back into the slot to make a better connection so the computer can recognize the memory.

The memory module compartment on most notebooks is located on the bottom of the case, however, on some models, the memory compartment is under the keyboard. See your User Guide for the exact location of memory modules on your notebook.

Use the following steps to remove and reseat the memory modules:



NOTE: Removing and reseating memory modules requires the use of tools and the partial disassembly of the computer. If you do not feel comfortable doing this work yourself, take the computer to an HP authorized service provider for technical service. See [Finding service](#) for more information.

1. Remove the electrical power.

To remove all power from the computer and prevent accidental damage to the electrical components, do the following:

- a. Turn off the computer by pressing and holding down the **Power** button for about 30 seconds.
- b. Unplug the AC adaptor from the notebook.
- c. Slide and hold the battery release latch to the unlock position.
- d. Use your finger to lift the battery up and out.

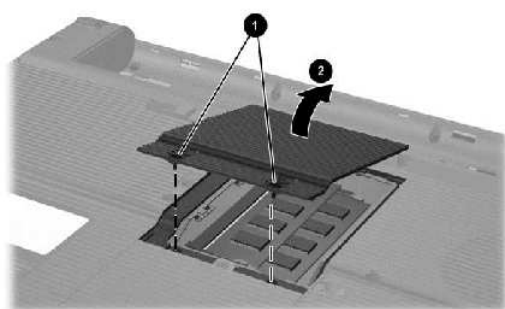
2. Remove and reseat the memory module.



NOTE: The following steps are an example of the most common method for reseating a memory module. Your computer might or might not use similar steps. Some notebook computers do not have easy access to memory modules and should be serviced at this point

- a. Turn the notebook over and place it on a firm surface.
- b. Use a Phillips screwdriver to remove the cover on the memory module compartment.

Figure 3: Memory module cover (your cover may be different)

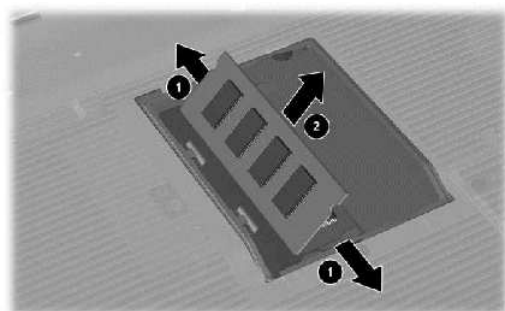


1 - Retention screws (2)

2 - Direction to remove compartment cover

- c. Pull the retention clips away from sides of the memory module, and gently remove the memory module from the memory slot.

Figure 4: Memory module removal



1 - Direction to pull retention clips

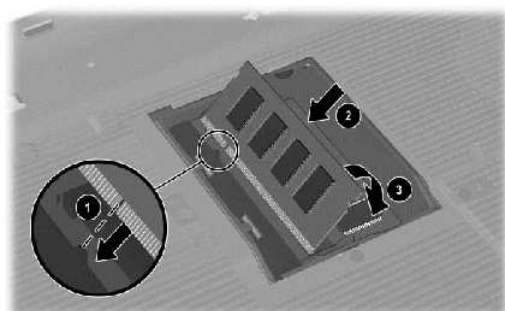
2 - Direction to remove the module



CAUTION: To prevent damage to the memory module, grasp the memory module by the side edges. Do not touch the metal contacts.

- d. Hold the module at a 45-degree angle and press it into the memory slot.
- e. Rotate the module down until it is seated and the retention clips are aligned with the notches in the sides of the memory module.

Figure 5: Notch alignment and memory module insertion



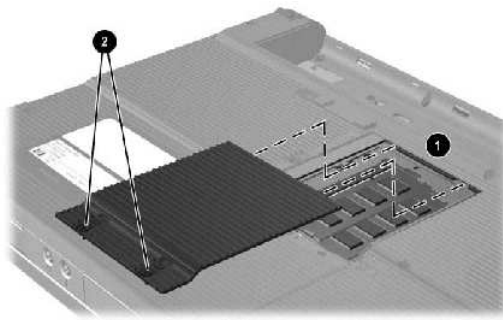
1 - Notch alignment

2 - Direction to insert the module

3 - Direction to seat module

- f. Replace the cover by inserting the two tabs on the cover into the two slots in the opening and tightening the retaining screws.

Figure 6: Memory module cover replacement



1 - Two slots in the opening

2 - Retaining screws

3. Replace the electrical power.

- a. Plug the connection from the AC adapter into the notebook, and then connect the AC adapter to a working power supply.



NOTE: Use only the AC power when performing tests. After the problem is resolved, you can turn off the computer and insert the battery into the notebook.

- b. Perform any tests to verify the computer can start up and run in the Windows operating system.
- c. With the computer turned off, push the battery into the base enclosure until the retention clips click into position.

If the computer fails to boot to the Windows desktop after the memory is reseated and the battery is installed, contact HP for support. See [Finding service](#) for more information.

[Back to top](#)

Testing memory

Use the following steps to perform the memory self test:

1. Plug the AC adapter into the computer.
2. Turn off the computer.
3. Press the **Power** button to start the computer and repeatedly press the F10 key to enter the BIOS Setup menu.
4. In the BIOS Setup Utility, press the Right Arrow or Left Arrow keys to navigate through the menu selection to find the **Diagnostics** section.
5. Use the Down Arrow or Up Arrow keys to select **Memory Test**.
6. Press the Enter key, and then select **Yes** to perform the memory test.
7. After the test completes, press the F10 key to **Save and Exit**, and then press the Enter key to **Exit Saving Changes**.

If the test fails, one or more of the memory modules may not be seated properly. Check for and reseat loose memory modules. See [Reseating memory modules](#) for more information.

[Back to top](#)

Finding service

Many of the problems associated with LED or beep codes require service or parts replacement. To find an HP authorized service provide, go to www.hp.com/go/support.

[Back to top](#)

Was this document helpful?

☐ Yes ☐ No