HP and Compaq Desktop PCs - BIOS Beep Codes nc6220

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This document pertains to HP and Compaq Desktop PCs.

It is normal for the computer to make one or two short beeps during the startup process or during a BIOS update. Let the process continue and do not interrupt it.

However, if the computer beeps and Windows does not start properly, a more serious hardware problem exists. The most common problems that cause beeping sounds are:

Memory and heat-related failures caused by a build-up of dust in critical cooling areas

A keyboard key is stuck

A memory DIMM or hard drive cable is not seated properly

A component on the motherboard has failed

A basic computer function was unable to start

What to do when beep codes occur

Listen to the beeping sound and write down the number of beeps before each pause, if the beeps are long or short, or if the beeps high or low in tone. Once a pattern is determined, use the following beep code table to identify which component might be causing the problem:

NOTE:
Not all beep codes are shown. For a complete list of beep codes, refer to beep code table specific to the motherboard of the computer. To find the motherboard information, go to the HP Support Web site, enter the computer model number, and then search for product specifications.

Use these codes to help troubleshoot problems related to system startup or flashing BIOS memory (such as in BIOS upgrades). When troubleshooting further, refer to the section What to do when beep codes occur . Four series of beeps indicate a fatal error; that is, a problem exists which prevents the computer from starting. For example, there might be two beeps, a short pause, one beep, a short pause, one beep, a short pause, and then three beeps; this is represented as 2-1-1-3 in the charts below.

The following beep codes can occur while restoring, flashing or updating the BIOS:

Beeps

Description

1 short beep

Legacy floppy drive or CD/DVD drive not detected

2 short beeps

Floppy diskette or compact disc not detected

3 short beeps

Unable to start flashing (such as when missing a utility or BIOS image)

4 short beeps

Flashing failed (checksum error, corrupted image, etc.)

5 short beeps

BIOS recovery successful

2 short beeps, 2 long beeps

BIOS recovery successful

NOTE:
The following codes can vary depending on BIOS version.

Beeps

Description

1 short beep and 1 long beep

Memory problem

2 short beeps and 1 long beep (repeats 5 times)

Unable to initialize video or video card required but not installed

3 short beeps and 1 long beep

CPU configuration error or CPU type is not compatible

Resolving beep codes

Perform the following steps to resolve beeping issues. Before starting a task, turn off the computer, and then remove the power cord. After completing a task, replace any covers, reconnect the power cord, turn on the computer, and then listen for a beep code.

Remove any media from the floppy drives, CD/DVD drives, USB ports, and memory card reader slots, and disconnect all non-essential devices (printers, scanners, external hard drives, and similar).

Disconnect the mouse and keyboard, and then restart the computer. If the beeping sound stops, repair or replace those devices.

Hot air can damage internal components! Remove any obstructions that block vents. Clean the cooling vents on the case to remove dust. If cooling fans stop spinning or make strange noises, service the computer.

Figure : Hot air is released from case vents (your case may look different)

Remove the memory cover, and then reseat all memory modules. If the computer stops beeping, a memory module might not have been fully seated or connected.

If the computer has multiple memory modules, turn on the computer with only one memory module installed. If the computer stops beeping, the memory module might be defective, or might be the wrong type of memory for the motherboard. Reinsert the memory into the socket to see if a connection was the problem; otherwise replace the module. Repeat this process for all memory modules installed in the computer.

If all of the above steps have been tried and the beeping sound still exists, refer to beep code table specific to the motherboard of the computer, or Contact HP (in English) for additional assistance.

Beep codes for American Megatrends, Inc (AMI) BIOS

Beep codes for Phoenix BIOS