

[Why is my new DDR3 memory not working in my computer even though it matches the same specifications as my old memory?](#)

It may be due to chip density, especially if you have an older DDR3 based system. Your system may require 2Gbit (Gigabit) density DRAM chips and the memory you have installed uses 4Gbit density chips, which are not compatible. Not to be confused with the term Gigabyte, which refers to memory capacity, DRAM chip manufacturers are no longer producing 2Gbit chips. Therefore we're unable to manufacture compatible modules.

[How do I find out how much memory is installed in my system?](#)

In Windows, click on the start button and open "Control Panel". Use classic view for Vista and 7. Then open "System". This will display basic information about the computer including the amount of RAM installed.

In MacOS, select "About This Mac" or "About This Computer" from the Apple menu in the upper left corner of your Desktop. This will provide information about your Mac's total memory (built-in memory plus DIMMs or SIMMs installed).

In Linux, open a terminal window and enter the following command: `cat /proc/meminfo`

This will show the total amount of RAM as well as other memory information.

[When I installed memory in my notebook, the system did not boot or did not recognise the memory. How do I resolve this?](#)

First, make sure you have the correct memory for your notebook. Refer to Kingston's online Memory Search at www.kingston.com for assistance. After confirming that you have the correct memory for your system, do the following:

1. Prior to memory installation, first shut down the notebook, then remove the battery pack and unplug the power cord. Reseat the memory firmly into the socket and then push down on the memory to lock it in place. Replace the battery pack and power cord and boot the system. If the installation is still unsuccessful, try inserting the memory into a different slot, if available.
2. If you have properly installed the recommended memory and the PC still does not boot or recognise the memory, you may need to download the latest BIOS from your computer manufacturer's Website.

Note: Kingston is in no way responsible for any problems resulting from flashing the BIOS. Flashing the BIOS is merely a troubleshooting suggestion. Customers who flash the BIOS do so at their own risk. All instructions on how to upgrade the BIOS will be provided by the computer manufacturer or the 3rd party BIOS manufacturer and not by Kingston.

[When I installed memory into my desktop computer, the system did not boot or did not recognise the memory. How do I resolve this?](#)

First, make sure you have the correct memory for your computer. Please refer to Kingston's onlineMemory Search at www.kingston.com for assistance. After you confirm that you have the correct memory for your system, do the following:

1. Shut down and unplug your computer.
2. Reinsert the memory module(s) with the largest capacity in the first socket followed by the smaller capacities in descending order. To ensure the memory modules are installed properly, line up the memory notches with the key in the memory socket, then push the memory firmly into the socket until the tabs lock the memory into place.
3. Make sure all the cables in your computer are connected properly. You may have failed to connect a needed power connector to the motherboard or accidentally disconnected a cable to your hard drive.
4. If you have properly installed the recommended memory and the PC still does not boot or recognisethe memory, you may need to download the latest BIOS from your computer manufacturer's Website.

Note: Kingston is in no way responsible for any problems resulting from flashing the BIOS. Flashing the BIOS is merely a troubleshooting suggestion. Customers who flash the BIOS do so at their own risk. All instructions on how to upgrade the BIOS will be provided by the computer manufacturer or the 3rd party BIOS manufacturer and not by Kingston.

[Will additional memory speed up my computer?](#)

Additional memory will not necessarily increase the performance of your computer. It will allow you to run more programs or processes at once or more memory intensive programs. There may be a performance increase if the original amount of memory installed was close to insufficient for the programs and processes you use the computer for.

[How do I install memory into my computer?](#)

For **desktop** computers, shut down and unplug your computer and open the case. Please note: The higher capacity memory should be installed in slot 1 followed by the next lower capacity memory in slot 2 and so on. Please refer to your motherboard manual for proper slot identification.

Remove the memory module as shown in Fig 1. Push the tabs (1) outward and the module will gently pop out of its slot (2). Remove it completely from the slot.

To install the new memory module, see Fig 2. Push the tabs (1) that are at the ends of the memory socket outward and align the memory notches with the key of the memory socket (2), then push the memory down FIRMLY into the socket so the latches lock the memory in place

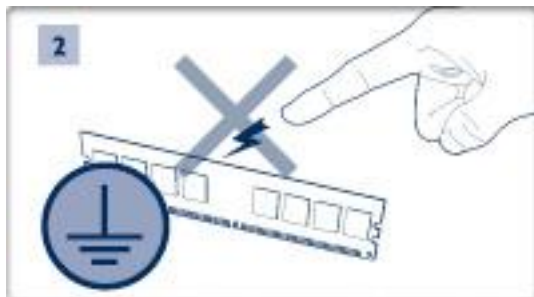
(3). If the memory has been properly installed and you have the correct memory but it is still not being detected, you should make sure you have the most up-to-date BIOS from your computer manufacturer's website.

Desktop DIMM Installation

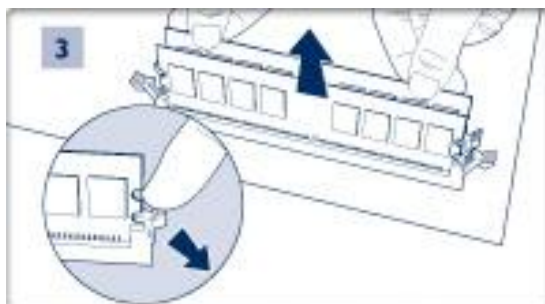
Note: Never apply pressure or handle the memory module on or around the Integrated Circuit (IC)! Always handle the memory with both hands positioned at the upper-most corners of the Printed Circuit Board (PCB).



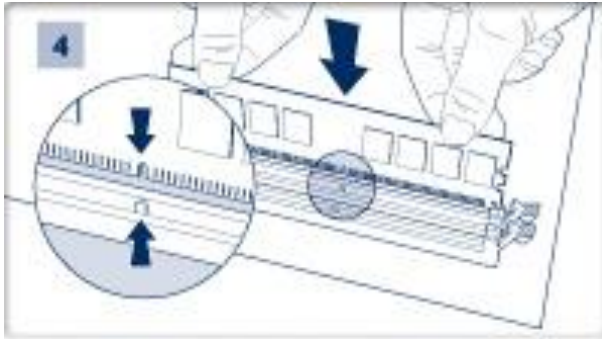
1) Disconnect the AC power cord and remove the computer cover.



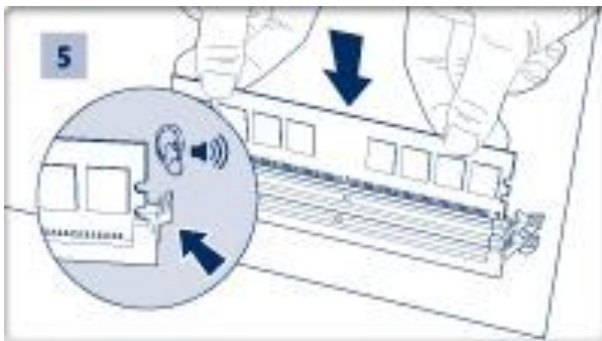
2) Prior to handling the memory module(s), always touch an unpainted and earthed metal object or use an earthed antistatic wrist strap to prevent electrostatic discharge (ESD).



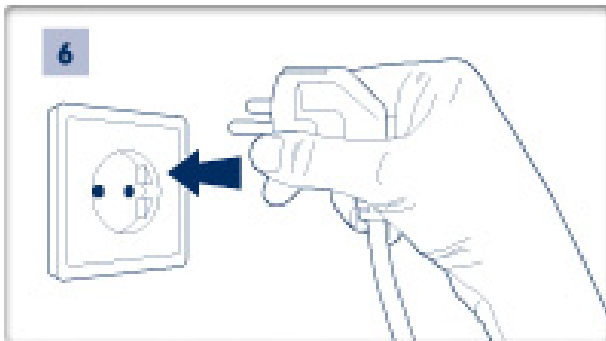
3) If necessary, remove pre-existing memory by pressing down on the lock/ejector tabs. The tabs are located at both ends of the memory socket.



4) Align the memory module key(s) with the memory socket keys(s) for proper installation.



5) Press the memory into the socket until the tabs snap into place and secure the memory module.



6) Replace the computer cover and plug in the AC power cord.

For **notebook** computers, please note that you need to shut down the unit and remove the battery pack and power cord before you remove/install memory. Push the memory into the socket **FIRMLY** so that it makes good contact (it is important to push the memory in **FIRMLY**) before pushing it down to lock it in place (see figures below) . Once the memory has been installed, put the battery back in your unit and supply power using the power cord and not solely from the battery. If the memory has been properly installed and you have the correct memory but it is still not being detected, you should make sure you have the most up-to-date BIOS from your computer manufacturer's website.

Notebook SO-DIMM Installation

Note: Never apply pressure or handle the memory module on or around the Integrated Circuit (IC)! Always handle the memory with both hands positioned at the upper-most corners of the Printed Circuit Board (PCB).



1) Disconnect the AC power cord and remove the battery.



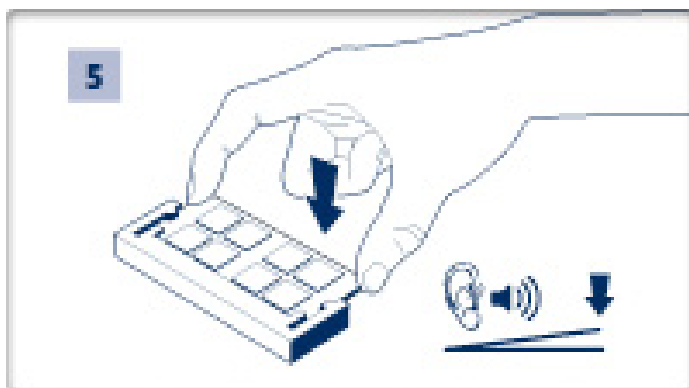
2) Prior to handling the memory module(s), always touch an unpainted and grounded metal object or use a grounded antistatic wrist strap to prevent electrostatic discharge (ESD).



3) If necessary, remove pre-existing memory by gently pulling the lock/ejector tabs (located on both sides of the memory socket) away from the memory module. The memory will unlock and pop-up 30 degrees for removal.



4) Align the memory module key along with the memory socket key and insert the memory at a 30 degree angle.



5) Rotate the memory downward until the lock/ejector tabs engage and click into place.



6) Replace the battery and plug in the AC power cord.

BIOS - Basic Input/Output System is installed on the computer's motherboard. It controls the most basic operations and is responsible for starting your computer up and initialising the hardware. It is data that is usually held on a ROM chip and can be updated by "flashing" the BIOS. BIOS upgrades may correct errors, support new CPUs, and support new hardware including memory. BIOS updates are usually obtained from the computer's manufacturer's website.

*NOTE: Kingston is in no way responsible for any problems resulting from flashing the BIOS. Flashing of the BIOS is merely a troubleshooting suggestion. Customers who flash the BIOS do so at their own risk. All instructions on how to upgrade the BIOS will be provided by the computer manufacturer or the 3rd party BIOS manufacturer and not by Kingston.

[What is the difference between the part numbers that are in dual or triple channel kits and the parts that are sold individually?](#)

Parts sold in kits (denoted by "K2" or "K3" in the part number, e.g. – KVR400X64C3AK2/2G) are specifically packaged for use in Dual or Triple Channel motherboards. Although Dual and Triple Channel technology resides on the motherboard itself (inside the chipset), the memory modules need to be installed in pairs or sets of three for Dual or Triple Channel mode to function properly. Identical modules packaged in a kit work best because the motherboard will be accessing all the memory modules as a single memory location with a wider bandwidth. Kingston suggests the use of modules sold in kits for Dual or Triple Channel enabled motherboards.

[Will a faster memory of the same type run at a slower speed, i.e., 400Mhz DDR in a 333Mhz DDR system?](#)

Yes. In most cases if the computer supports a slower speed, it will clock down to a slower speed as long as it is the correct memory type (DDR, DDR2, etc). However, be aware that the clocking down function depends on the computer and it isn't guaranteed to work in every case.

[My BIOS or a diagnostic program such as CPU-Z shows the memory is running at half the frequency. Why?](#)

In many cases, the BIOS or a diagnostic program will report the memory bus frequency, which is half of the frequency for DDR type memory. As its name implies, DDR (Double Data Rate) data rate provides twice the memory bus frequency. So if the memory bus speed is 800MHz and you are using DDR3-1600 memory, the RAM is running at the correct speed.