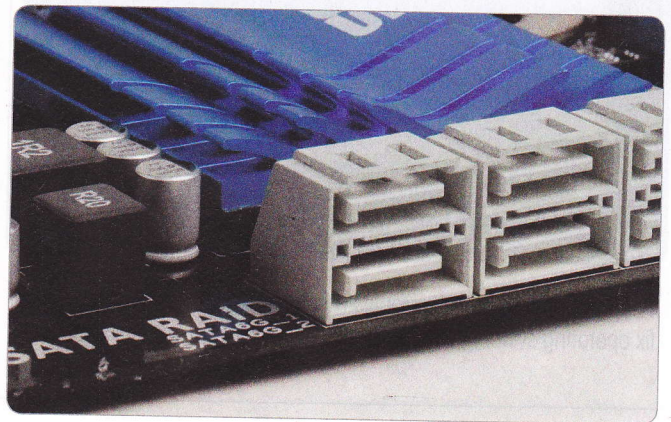
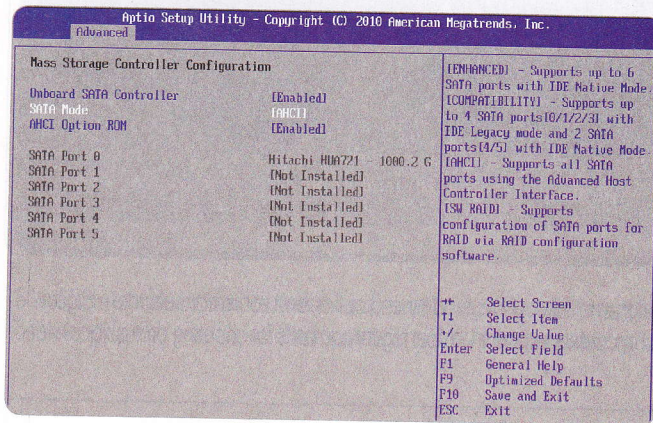


Troubleshoot SSD Problems

Common Problems & Solutions



Within a traditional BIOS, you'll typically find the SATA mode under a Storage section.

Examine the SATA ports on your motherboard to find out what speeds are available.

SSDs are less prone to error than traditional hard drives, but no technology is fool-proof. Here, we examine the most common issues and provide fixes to help you quickly get back up and running.

My Operating System Won't Detect The SSD

The computer's BIOS (Basic Input/Output System) or UEFI (Unified Extensible Firmware Interface) may be set up in a mode that's not compatible with your SSD. For example, some older BIOSes automatically configure storage devices in an IDE (Integrated Drive Electronics) mode, rather than the AHCI (Advanced Host Controller Interface) mode typically used by today's SSDs. Alternatively, a UEFI

system may offer extra AHCI settings, such as Hot Plug/eSATA, that won't work with your SSD.

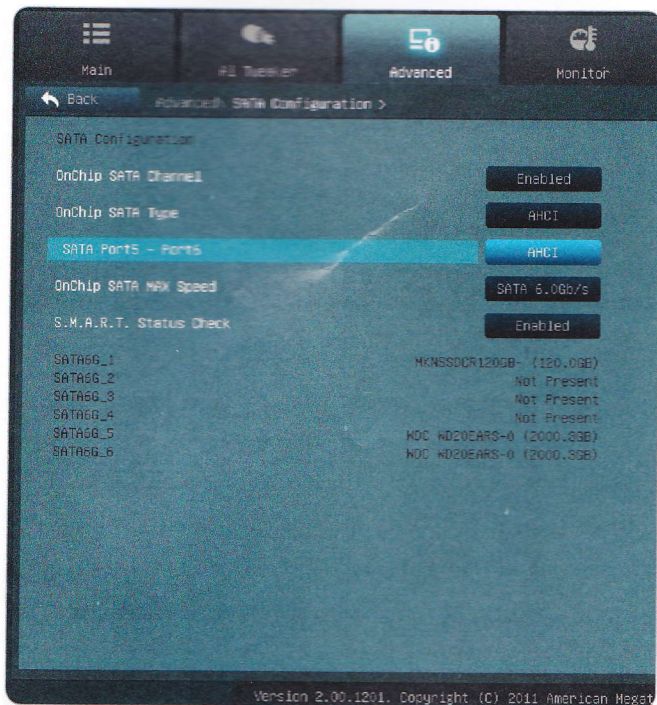
To make changes to the storage settings of your PC's BIOS or UEFI, you can typically press the DELETE key at bootup. Find the storage configuration section (note that the name of the BIOS area will vary by motherboard) and ensure that your SSD is set up to work in AHCI mode. If the SSD still isn't being detected, disable any advanced AHCI settings that may be preventing your PC from seeing the drive.

Windows 7 Won't Defragment My SSD

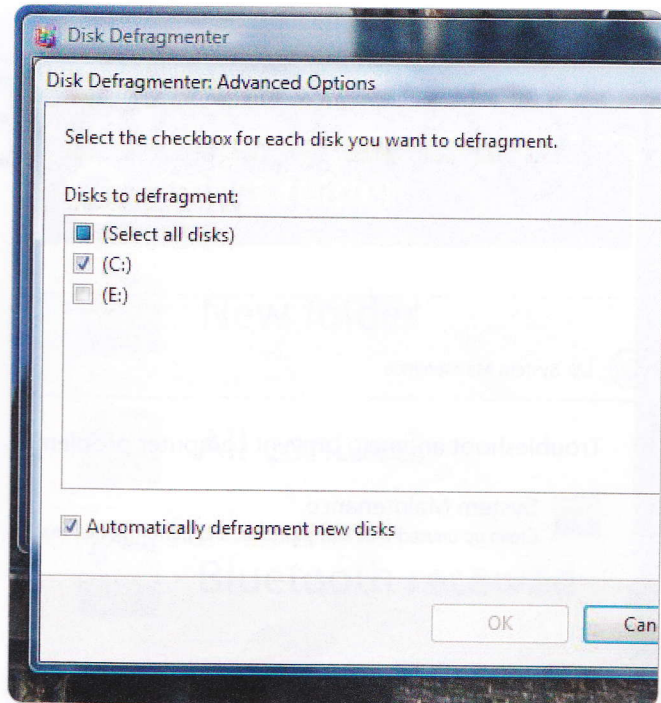
This is by design, because defragmenting the SSD on a regular basis can actually *reduce* the

drive's lifespan. Defragmentation is a feature that writes data fragments together into blocks. Hard drives have a magnetic platter that must spin around, and they search for data on the spinning platter; writing the data into one continuous area helps to improve performance. SSDs gain no benefit from a disk defragment, because there's no mechanical seek time. Instead, defragmentation would reduce the lifespan of SSDs because they use a type of flash storage with a limited number of writes in the drive's lifetime. Typically, the number of total writes is in the billions, which equates to around five years of use under normal workloads.

If you installed the SSD in a PC running Windows 7 or Vista, you



You'll probably need to open the Advanced section of a UEFI BIOS to locate storage settings.



If you install an SSD in a system running Windows Vista, ensure that you make changes to the Disk Defragmenter settings so that it won't automatically run on your SSD.

may want to disable the Disk Defragmenter utility. To do so, click the Start button and type Disk Defragmenter into the search field. Click Select Volumes and uncheck the checkbox next to the drive where your operating system is installed, which is typically listed as "C:," and click OK.

SSD Works More Slowly Than Expected

PCs that are more than a few years old may have SATA 1 ports, which are only capable of supporting transfers up to 1.5Gbps.

Today's low-end SSDs can reach speeds of 3Gbps, and the high-end models can hit upward of 6Gbps, assuming the drives are connected to SATA ports that can handle the speed. A modern SSD installed in a PC with SATA 1 ports will function, but at speeds much lower than it's capable of.

If you're investing in an SSD that's capable of read/write speeds above 3Gbps, note that you'll need a PC that offers a 6Gbps SATA port, as well as a 6Gbps SATA cable, in order to take advantage of the fast transfer rate.

Again, a 6Gbps SSD will function on a computer with 3Gbps SATA ports, but the speed will be limited by the PC's 3Gbps connection. Your SSD's specifications will indicate how fast it will be able to read and write data.

Further Fixes

If you're still experiencing a problem, it's possible that there could be some kind of physical problem with your SSD. If so, we recommend that you contact the manufacturer's tech support to help you find a resolution. ●

If the SSD still isn't being detected, disable any advanced AHCI settings that may be preventing your PC from seeing the drive.