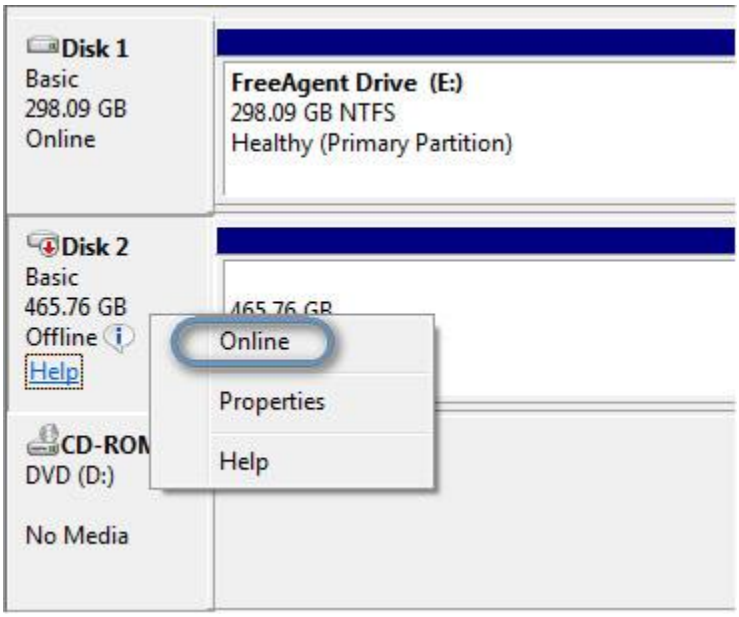
My second external drive isn't detected in Windows

Sometimes only one of two external (ie, GoFlex, Backup Plus) drives mounts with a drive letter when connected to Windows. This article explains.

Sometimes only one of two external (ie, GoFlex, Backup Plus) drives mounts with a drive letter when connected to Windows.
This is caused if two drives have the same drive signature, which can occur when drives are setup in a mass production environment or when they are cloned.

The issue can be quickly fixed by forcing the drive on-line. To force a drive online in Windows:

1. Press Windows key ( ) + R.
2. In the run box type diskmgmt.msc
3. On the right, scroll down so you can see your external drives.
4. You will notice that the 1st external drive is ***Online***.
5. You will notice that the other external drive is ***Offline***.
6. Right-click on ***Offline*** (in the grey area of the box) and choose **Online** from the menu.



The drive should show in Computer (Window Explorer) in a few seconds.

Why won't my 3TB or 4TB external drive work with Microsoft Image Backup in Windows 7?

Microsoft Image Backup in Windows 7 will not support any Seagate Backup Plus, 3TB or 4TB GoFlex drives and the older model Expansion Portable And Desktop drives (along with most other external drives above 2.1TB). This article explains. Windows Image Backup in Windows 7 will not support any Seagate Backup Plus drives, GoFlex drives that exceed 2.1TB (3TB and 4TB models), or older model Expansion Portable  and Desktop  drives (along with most other external drives that exceed 2.1TB in size).

Microsoft only supports drives that are set up to use 512 byte blocks as destinations for image backups. The drives listed above are compatible with all other Windows functionalities.

To allow 3TB and 4TB drives to work in older operating systems such as Windows XP, these drives are configured using 4K byte blocks. Microsoft has added support for 4K drives in Windows 8. See here for more information.

For Backup Plus and GoFlex drives, the bundled software will allow you to back up your data. As an alternative to Windows image backups for Backup Plus drives, GoFlex drives, and older model Expansion drives, consider using DiscWizard.

Computer won't boot with USB drive connected

Issues booting while a USB drive is connected is usually the result of a USB Device option being enabled in the System BIOS' Boot Order or Boot Sequence.

Some of these steps require accessing the system's BIOS. Please refer to the system or motherboard manufacturer's documentation for access and configuring options.

Here are some steps to try and resolve the issue:

- Check to see if the active flag is set to active on the partition. If it is then remove the active flag using these instructions.
- Check the format of the drive. Some Seagate drives ship as exFAT for Window and Mac compatibility. For some systems this may present issues. If using on Windows only, then format the drive to NTFS. See how to format your drive here. If using exFAT is required, try one of the other options listed.
- Disable Boot from USB devices in the BIOS
  Note: Verbiage will vary from system to system
- Disable USB Legacy Support in the BIOS
  Note: If you are using a USB mouse or Keyboard disabling legacy support may result in those devices not functioning in Real mode (MS-DOS) or Safe Mode.
- Here are two Microsoft links that cover Disabling USB Legacy support
  - Computer Hangs During Shutdown with USB Legacy Support Enabled in the BIOS
  - USB Keyboard or Mouse May Not Work After You Restart Your Computer in MS-DOS Mode

Some System BIOS' may not include the ability to disable USB devices from the Boot Order/Boot Sequence. If this is the case, it is recommended that you disconnect the USB External Drive from your system until the system's operating system has fully booted; at which time you can connect the USB Drive to your system.

Seagate does not endorse or accept any responsibility for the content, or use of any such websites.

Newer model Expansion portable  and Expansion desktop  drives are compatible with Windows image backup.

For more information about the limitations of Windows Backup and Restore, please contact Microsoft.

Drive reports 'write protected' or 'read only' when trying to save to or delete from it

Discusses what to do if an external reports "Write Protected" when trying to save files onto it or delete files from it.

A drive can sometimes report "Write Protected" when trying to save files onto it or delete files from it.

This typically means that you have connected an external drive that is formatted with an NTFS partition to a Mac computer. MacOS cannot write to NTFS partitions and so will often indicate the drive is write-protected.
Seagate GoFlex and GoFlex for Mac drives include an NTFS driver that can make the drives intercompatible between Mac and Windows, so that may be a good solution.
See Document ID: 214531 for more information.

For all other drives, please see Document ID: 207851 for instructions on reformatting the drive in MacOS.

! Warning **Reformatting the drive will ERASE ALL DATA on the drive.** Please note that Windows partitions (ie, NTFS partitions) and MacOS partitions are not easily compatible at this time without special software, so using an external drive to transfer data between a Windows computer and a MacOS computer can be difficult and sometimes dangerous to your data.

Windows 7 or Vista requests drivers for an external drive

Troubleshooting when external drives encounter driver and ″Unknown Device″ problems in Windows 7/Vista Device Manager.

Windows 7 or Vista sometimes encounters problems locating the drivers necessary for the proper function of external hard drives.

When that happens, it may alert you that drivers were not loaded correctly. These drivers are part of its own Windows registry.

First, update Windows Vista to Service Pack 1.

If this does not resolve the problem and the drivers do not now load automatically, you may simply point Windows 7 or Vista to its own drivers manually.

From Vista:

1. Right-click on Computer.
2. Choose Manage.
3. Choose Device Manager.

Here is the relevant graphic for Vista's Device Manager:

(Click to expand image.)

Here is the procedure to load the drivers manually:

Troubleshooting GPT Protective Partition Issues

Sometimes, after connecting an internal or external hard drive to your system, Windows Disk Management says that it is prepared with a GPT Protective Partition. This will mean that you cannot repartition or reformat the drive. This article will discuss how to overcome this issue.

What is a GPT disk?

The GUID Partition Table (GPT) was introduced as part of the Extensible Firmware Interface (EFI) initiative. GPT provides a more flexible mechanism for partitioning disks than the older Master Boot Record (MBR) partitioning scheme that has been common to PCs.

A partition is a contiguous space of storage on a physical or logical disk that functions as though it were a physically separate disk. Partitions are seen by the system firmware and the installed operating systems. Access to a partition is controlled by the system firmware before the system boots the operating system, and then by the operating system after it starts.

The GUID Partition Table (GPT) Scheme was implemented under Microsoft Windows XP x64 edition, Windows Server 2003 (64-bit), Windows Server 2003 SP1 (all versions), Windows Vista, Windows 7+

In a nutshell, GPT Partition was developed to get around known, MBR partition size issues; the maximum size for a MBR partiton is 2 Terabytes (TB). GPT partitions enable this limit to be exceeded.

Note: For more comprehensive information on GPT Protective Partitions, refer to the following Microsoft link:
https://docs.microsoft.com/en-us/windows-hardware/manufacture/desktop/windows-and-gpt-faq

GUID Partition Table (GPT) partitions are also found in Mac OS X versions 10.4.6 and newer. All Intel-based Macs require a GPT partition on a boot volume, whether it be internal or external.

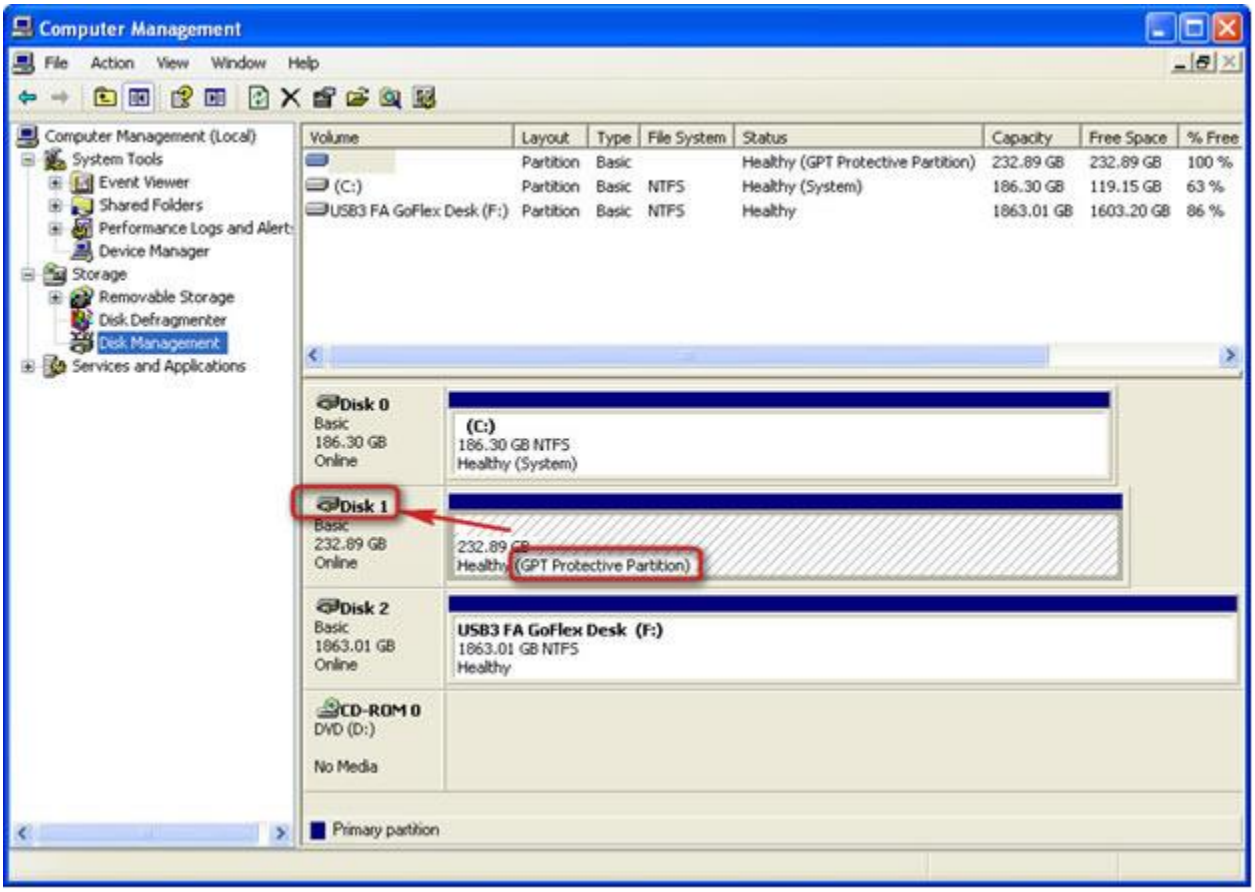
When connecting an internal and/or and external hard drive to a Windows XP (or newer), 32-bit operating system, you may find your drive is inaccessible and that Disk Management reports that the drive has a GPT Protective Partition on it. The drive cannot be repartitioned and formatted in this state. This is because the internal or external hard disk was previously prepared on either a Windows or Macintosh computer with a GPT partition.

Normal Disk Management facilities will not overcome this issue. To prepare this drive, you will need to use the Windows **diskpart** command-line utility. The following procedure provides the steps for *cleaning* a GPT Protective Partition from a hard disk drive connected to an existing Windows XP (or newer), 32-bit Operating System.

Note This is a data destructive process. This procedure not only removes the drive's partition, but also removes the Drive Signature. It is highly recommended that you backup any/all critical data on the drive before proceeding.

! Warning You **must** open Disk Management and **document the Disk *Number*** of the drive containing the GPT Protective partition, as you will need this information later in the procedure.

1. Determine the ***disknumber*** assigned to the GPT-protected drive.
    1. Right-click on (My) Computer.
    2. Choose **Manage**.
    3. Select **Disk Management** (listed under Storage).
    4. Look for the drive that is identified as GPT and note the **Disk number** (such as Disk 1).



2. Open a Command Window. From the command prompt, type **diskpart** and press **Enter**. The diskpart prompt will open.

3. From the diskpart prompt, type **list disk** and press **Enter**. A list of disks will appear in a text format. You will return to the diskpart prompt.
4. From the diskpart prompt, type **select disk *disknumber*** (for instance, if the disk containing the GPT Protective Partition is Disk 2, you would type ***select disk 2***)and press **Enter**. A message appears saying that the disk is selected. You will return to the diskpart prompt.
5. From the diskpart prompt, type **clean** and press **Enter**. At this point the drive's partition and signature a removed. You will return to the diskpart prompt.
6. From the diskpart prompt, type **exit** and press **Enter**. Type **exit** once more to close the Command Window. At this point, the internal and/or external drive can be re-initialised, partitioned and formatted.
7. Launch Disk Management, and to initialise the disk:
    - Use the **Initialise and Convert Disk Wizard**...

      -OR-

    - Close the Wizard, right-click on the disk in question and select **Initialize Disk** from the drop-down menu.
8. Once the drive is initialised, continue using Disk Management to partition and format the drive.

1. Click the + box next to *Other Devices*.
2. Double-click the drive (usually listed as USB Mass Storage, but may be listed under another name).
3. A new window will open showing properties; click the *Reinstall Driver* button.
4. This will open the Update Driver software wizard, click "Locate and install driver software (recommended)".

5. Then click "Browse my computer for driver software".
6. Click Browse.
7. Open the Windows folder on the C: drive (Computer > C: > Windows) and click OK.
8. Make sure the "Include subfolders" box is checked.
9. Click Next. This should load the drivers.

Additional Troubleshooting Step for External Drives requesting drivers or if receiving an Error Code 28 on an External Drive / Mass Storage Device in Device Manager.

Vista and Windows 7: If the drive works fine on another computer, there are a few steps to try while the drive is connected to the original computer:

1. Click the Start / Windows button at the bottom left corner of the screen.
   Right-click on Computer and choose Manage.
2. Double-click on the Device Manager.
3. The device will usually appear under "Other Devices" or "Unknown Devices"; right-click on it and choose Uninstall.
4. Once it has disappeared from the Device Manager, disconnect the external hard drive.
5. Disconnect the device from the computer (unplug the USB cable).
6. Click Start / Windows button in the bottom left corner of the screen
7. For Vista - In the Search field, type c:\windows\inf and press Enter.
   For Windows 7 - In the Search field, type C:\windows\system32\driverstor and press Enter.
8. Delete the file INFCACHE.1.
9. Note If you get an error when trying to delete this file, try the following steps:
    1. Right-click on INFCACHE.1.
    2. Select Properties.
    3. Click the Security tab.
    4. Click the Edit button.
    5. Select (Users xxxx-PC\Users) or something like (Users 7xxxx \Users)
    6. Under the "Permissions for users" check, mark everything to "Allow All".
    7. Click Apply then OK.
       If you receive a Windows Security box click Yes, then OK, then OK again.
    8. Right-click on INFCACHE.1 file and choose Delete.
    9. Reboot and reconnect the drive. The file should be rebuilt, correcting the problem.
    10. If that fails, you will need to try to reload the USB drivers for the operating system by inserting your Vista install CD, rebooting, and attempting a Repair/Restore.
        ! Warning This can be dangerous to your data and you should disconnect your external drive before attempting this.

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My USB device is detected with a ! or ? in Device Manager

If a USB external drive displays in "Other Devices" in the Windows Device Manager, it is possible that additional drivers are required for it, that Windows lost track of the drivers, or the drive is malfunctioning. This article gives troubleshooting steps.

If the device is in "Other Devices" (look for "USB Mass Storage Device") then it is possible that additional drivers are required for it, that Windows lost track of the drivers, or the drive is malfunctioning.

To see Device Manager, right-click on (My) Computer/ This PC > Manage > choose Device Manager from the left column.

1. ensure you have Service Pack 4 (Window 2000) or at least Service Pack 1 (Windows XP).
2. try another USB cable and another USB port.
3. try another computer. If it works on another computer, the drive is fine but the Windows drivers on your computer need to be reloaded.
4. If the drive is not detected there in the same way, go back to the USB Mass Storage Device and double-click on it. Look under the General tab.

If Code 28 appears:

1. First see the Microsoft support article related to this issue.
2. In general, Code 28 can often be overcome by following these steps:
    1. right-click on the drive (probably USB Mass Storage Device) and choose Uninstall
    2. turn off the drive

    3. reboot the computer
    4. turn the drive back on and retry.
3. If the problem still continues, then you will possibly need to reload your USB controller drivers, which means you would need to insert your Windows install CD and boot to it to launch the Windows Repair.
   Warning: (This can be dangerous to your data, so use discretion when doing this.)

If Code 10 appears:

1. First see the Microsoft support article related to this issue.
2. In general, Code 10 often means, unfortunately, that the drive has failed. If the drive shows the same problem on another computer, try connecting the drive via 1394 (Firewire) if possible. If that is not possible, please replace the drive.

Related problems:

- Windows Vista asks for drivers when I connect my Seagate/Maxtor external drive. See Document ID: 201235.
- My locked Maxtor OneTouch drive does not show up anywhere. You must unlock your drive on this computer before it will be detected.
  -To unlock a Maxtor OneTouch 4 drive, see Document ID: 200271.
  -To unlock a Maxtor OneTouch III drive, see Document ID: 199871.

Hard Disks Do Not Turn Off After Your Computer Has Been Idle

When your Windows 2000/XP/Vista-based computer has been idle for an amount of time that is sufficient to make your hard disk turn off, your hard disk may not turn off. This article explains.

When your Windows 2000/XP/Vista-based computer has been idle for an amount of time that is sufficient to make your hard disk turn off, your hard disk may not turn off. For example, even though your Turn off hard disk setting is set to 3 minutes, your hard disk might not turn off until your computer has been on and idle for 15 to 20 minutes.

For information about disk activity and the MacOS see Apple support article 303698 "Mac OS X: Why your Mac might not sleep or stay in sleep mode".

This behavior can be caused if any disk activity occurs, whether it is caused by user input or system tasks. Disk activity of any type resets the hard disk idle timer, and this can increase the amount of time it takes for your hard disk to turn off.
Windows 2000/XP/Vista/7 is designed to automatically perform maintenance tasks to improve performance and reliability. When your computer is on AC power and is idle, system maintenance tasks may be able to run for a few minutes. These system maintenance tasks include disk-layout optimization to improve performance and preparing automatic system restoration points to increase reliability. Typically, these tasks occur the first time you leave your computer idle after you start it. These tasks ensure that the system maintains its performance and reliability even after long use. Because these tasks involve reading and writing to the hard disk, the hard disk idle time is reset regularly during this maintenance period.

There are other items that can reset the hard disk idle timer. These items can include:

- Paging operations.
- Windows Update checking the system state.
- Event logging.
- Network detection such as DHCP or Autonet.
- Third-party services such as quota software or an antivirus program.
- Scheduled tasks.
- The loading of services or drivers.

When these items either read from or write to the hard disk, the hard disk idle timer is reset. This behavior is by design.

You can use the Power Options tool in Control Panel to configure your computer to turn off hard disks after your computer has been idle for a specified amount of time.

The light on my external drive is blinking. What does it mean?

Troubleshooting and links for when the light or LED on your external drive is blinking.The behavior of the light (or LED) on your external drive can vary in meaning depending on the drive model. This article will provide numerous useful links for checking and troubleshooting this behavior.
If your external drive's LED behavior has recently changed (and particularly if the drive is no longer detected or has changed the way it interacts with your computer), begin troubleshooting by following these steps:

1. Make sure the computer and external hard drive are powered on.
2. Safely remove the drive from the computer (if possible).
3. Disconnect the external drive's USB or FireWire cable.
4. Disconnect the power supply plug from the external drive.
5. Power off the computer.
6. Disconnect the computer's power supply cord for 60 seconds.
7. Reconnect the computer.
8. Power on the computer.
9. Connect the power supply to the external drive.
10. Connect the drive's USB or FireWire cable and check for detection.

If that does not correct the behavior, and if the drive is also not detected by your computer, the blinking light is probably a symptom of a larger problem. If those steps do not return the drive to correct function, it is very possible, even probable, that the drive has failed and needs to be replaced - see our Warranty page to check the warranty.

If your external drive's power supply (also known as the power adapter) needs to be replaced because of malfunction or because it was lost, please contact Seagate Support.

Windows will not allow me to safely remove my drive. It keeps reporting the drive is busy or in use

When you cannot safely remove a drive successfully, the cause is usually a program that is trying to read from the drive. This article explains.

It is always considered a safe removal to shut down/reboot the computer and turn off/disconnect the drive while the computer's power is down, but that is not always a convenient solution. This document will explore several possible resolutions for the problem.

Step 1: Try the drive on another computer so as to attempt to isolate the problem. If the problem does not repeat itself on the second computer, then it might well be system-related. If the problem follows the drive, then continue troubleshooting.

Step 2: A process that can hold up the drive is ***explorer.exe***. This is because of the Windows Recycle Bin.
The Recycle Bin may need to be disabled.

1. Right-click on the **Recycle Bin** on the desktop.
2. Select **Properties**.
3. Select the **Global** tab.
4. Select **Configure drives independently** (instead of **Use one setting for all drives**).
5. Select the USB drive letter tab on the top.
6. Put a check in the **Do not move files to the Recycle Bin** checkbox.
7. Click **OK**.

! Warning Disabling the Recycle Bin will cause deleted files to be permanently deleted immediately.
Note This option may not be available in Windows Vista or Windows 7.

Step 3: If you have Norton System Works installed, the Safely Remove Hardware icon in the System Tray will not work with the external drive because of the Norton Protected Recycle Bin. If your Windows Recycle bin on the desktop has an "N" with a shield, then Norton is running a special software on your system.
This is a known issue.

Step 4: Other software like antivirus programs, or any programs or image files that remain open on the drive (even Windows Explorer if its window is open and displaying the contents of the external drive) can prevent safe removal. Close all programs and any open files or windows displaying the drive contents and attempt to remove the drive again.

Step 5: In Windows 7/Vista/XP/2000, please follow these directions:

1. Right-click on (My) Computer.
2. Select **Manage**.
3. Select **Device Manager**.
4. Open **Disk Drives**.
5. Double-click on the hard drive's model number.
6. Go to the **Policies** tab.
7. Check whether the drive is set to **Optimize for Quick Removal**.

If so, the hard drive does not need to be Safely Removed manually from the system. Just turn off the hard drive or disconnect it at your convenience whenever the hard drive is not busy transferring data.

This way there is only a slim chance that the partition will be corrupted by a removal. This carries no risk for the drive hardware, but it does put your data at a small risk.

Note Please remember that you would be very unwise to put yourself in a situation where that is a concern for you. If this drive were to experience a sudden mechanical or electronic failure or if it should fall, or if the drive's partition should become corrupted, your data could be lost and data recovery is very expensive. Remember that this is a **backup** drive, and a backup is defined as "a second copy of data in a second storage media".
Whether on a second external hard drive, a CD or DVD, an internal hard drive, a network hard drive, or tape, make a 2nd copy of your data **today** and keep it.
If not, please continue.

Step 6: If the Windows Media Player Library is configured to monitor a folder on the external drive for new content it will not allow a Safe Remove.

Note Instructions may vary depending on the version of Media Player.

1. Open Media Player.
2. From the top menu, choose **Tools**, then **Options**.
3. Choose the **Library** tab.
4. Click the **Monitor Folders** button.
5. View the **Advanced Options**.
6. Remove items that point to the drive letter used by the external drive (ie, E: or F:).

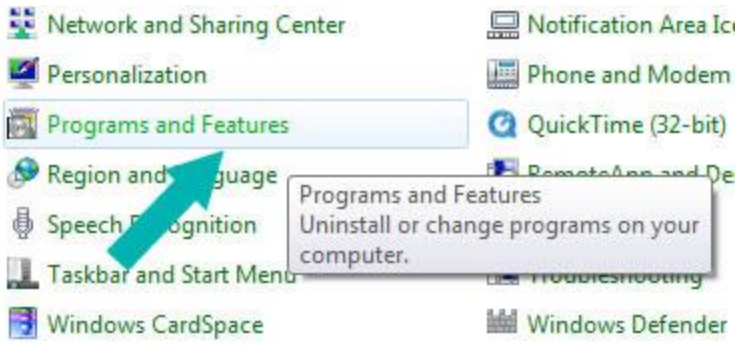
Note Other multimedia applications may have similar issues if they automatically add new music to their library by monitoring file locations, specifically on the external drive.

Step 7: If Windows Media Center is set to record shows, podcasts, etc. to the external drive, Windows may not allow the removal of the external drive.

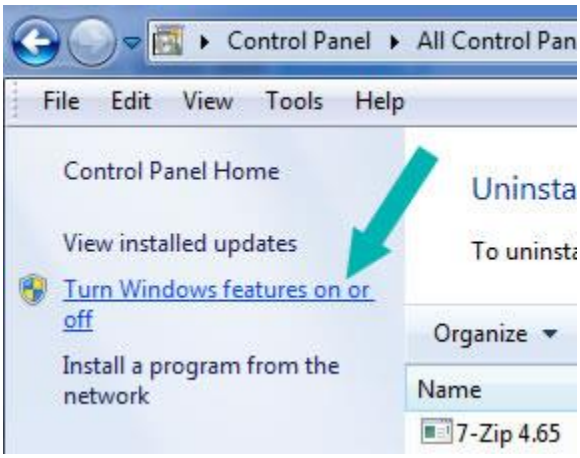
Step 8: If Windows Indexing Service is turned on, Windows may not allow the removal of the external drive, since it causes Windows to constantly watch the drive.

For Windows 7/Vista:

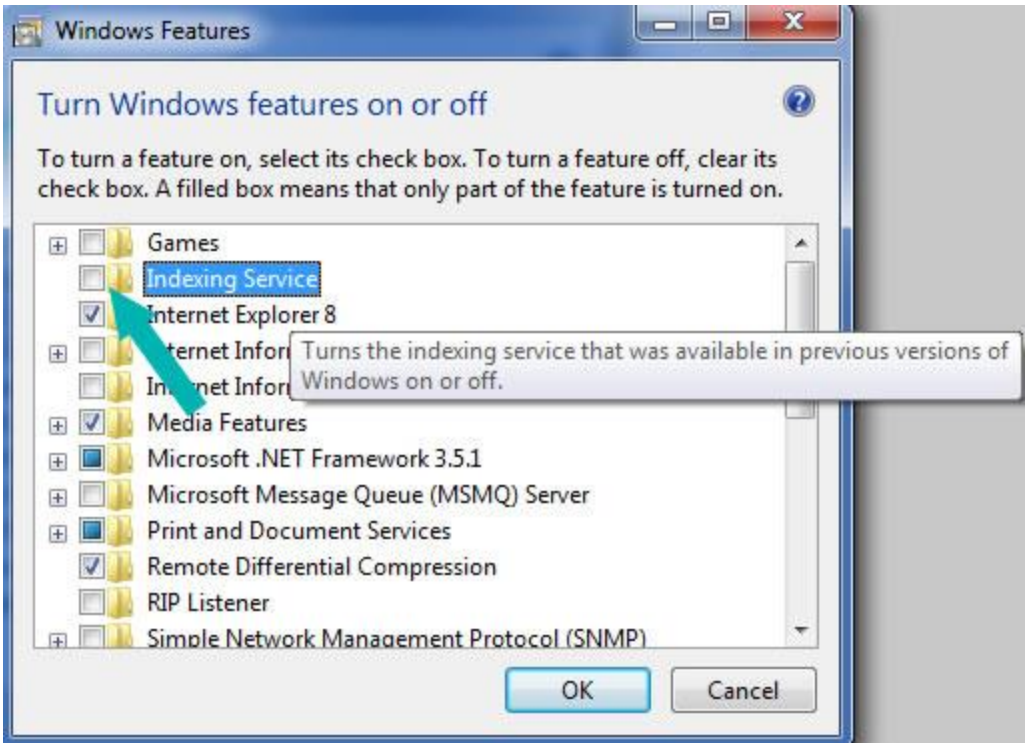
1. Click the Windows start button in the bottom left of your screen. Select **Control Panel**, and then **Programs and Features**.



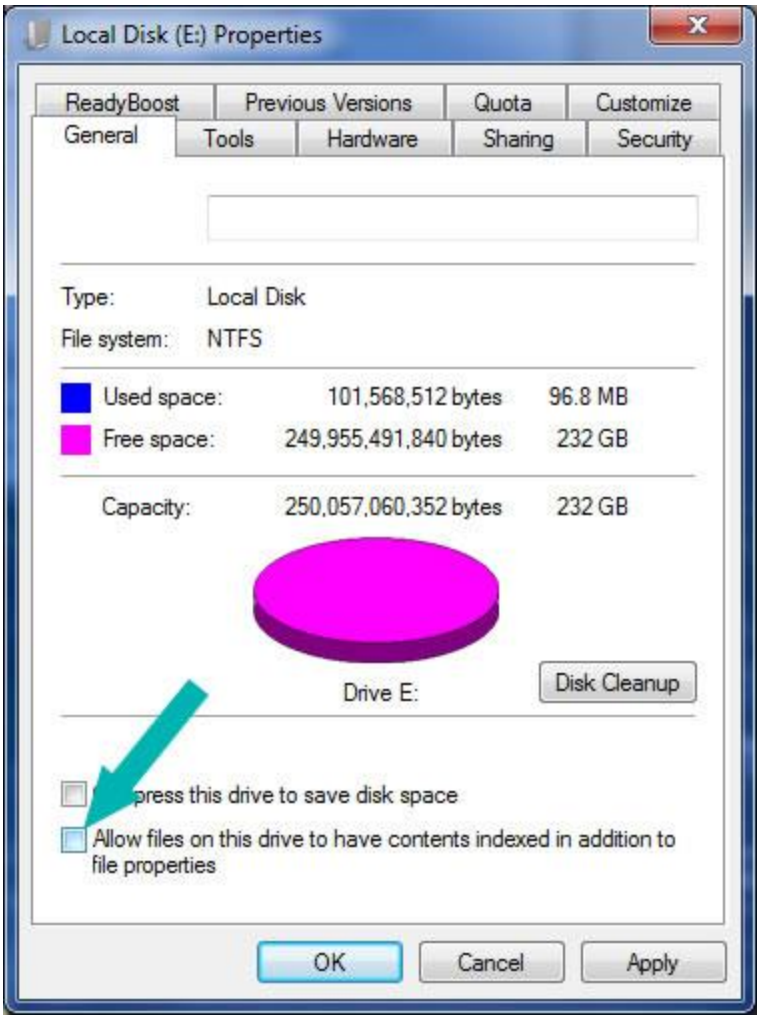
2. Select **Turn Windows features on or off**.



3. Confirm that the **Indexing Service** is unchecked. If it is checked, uncheck it and click **OK**.



4. Double-click on **Computer** to open it, then right-click on the external drive's drive letter (for example, E:) and select **Properties**.
5. Uncheck the **Allow files on this drive to have contents indexed in addition to file properties** box.

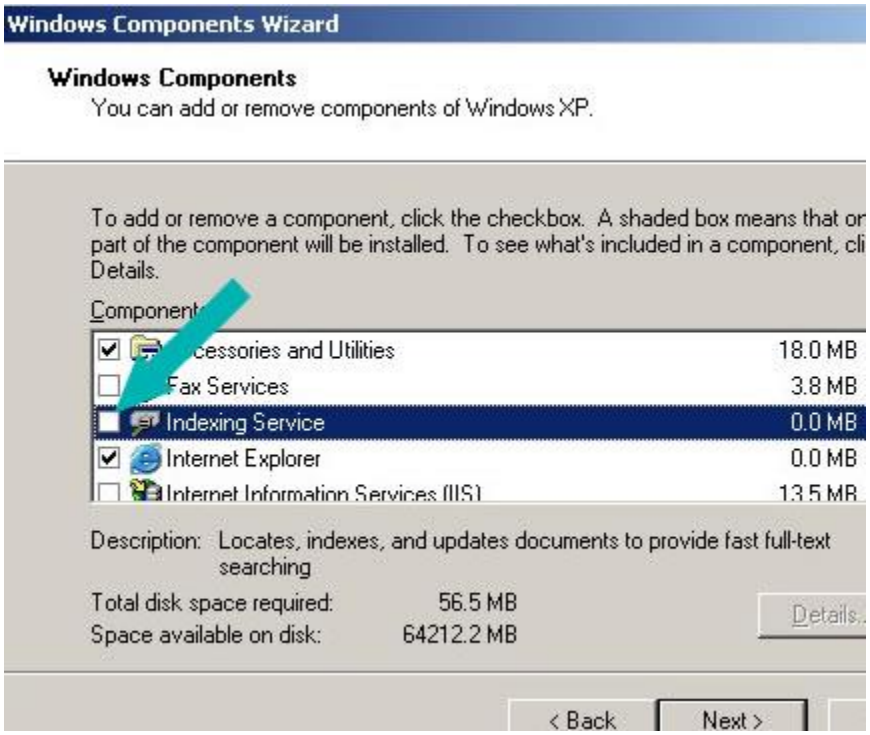


6. Then retry the Safe Removal.

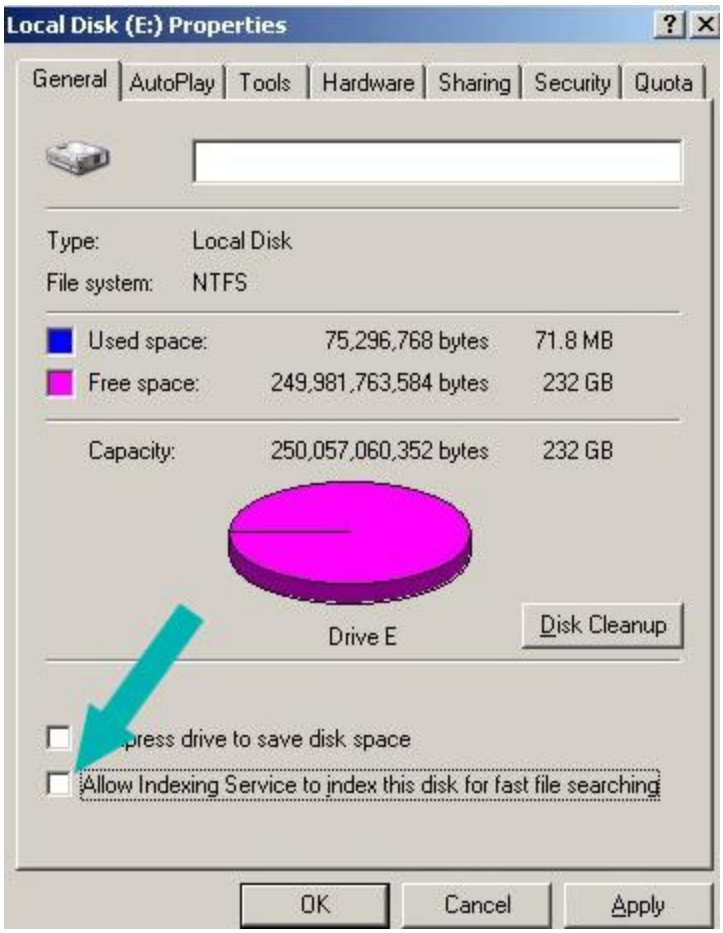
For Windows XP:

1. Click on the Start menu on the bottom left of your screen. Select **Control Panel** and then **Add/Remove Windows Components**.

2. Confirm that the **Indexing Service** is unchecked. If it is checked, uncheck it and click **OK**.



3. Double-click on **My Computer** to open it, then right-click on the external drive's drive letter (for example, E:) and select **Properties**.
4. Uncheck the **Allow Indexing Service to index this disk for fast file searching** box.



5. Then retry the Safe Removal.

Step 9: For the Seagate **Pocket drive** - The Pocket drive Toolkit is constantly updating the free space of the drive and other information in order to display it to the user.

You can use the Eject option in the Toolkit or exit the Toolkit software:

1. Right-click on the Toolkit icon in the System Tray
2. Choose **Exit**.

This will release the drive and may allow you to safely remove the drive.

Also, please see the linked-to Microsoft Support article on this topic.

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