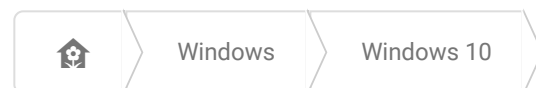


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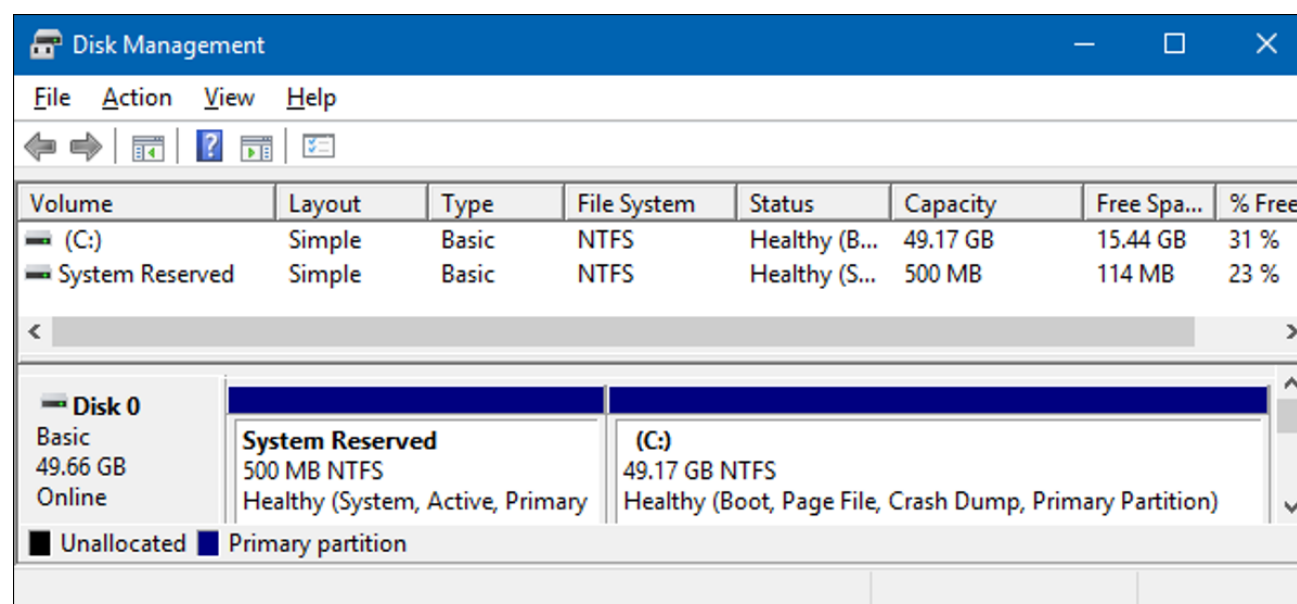


What Is the System Reserved Partition and Can You Delete It?



CHRIS HOFFMAN [@chrisbhoffman](#)

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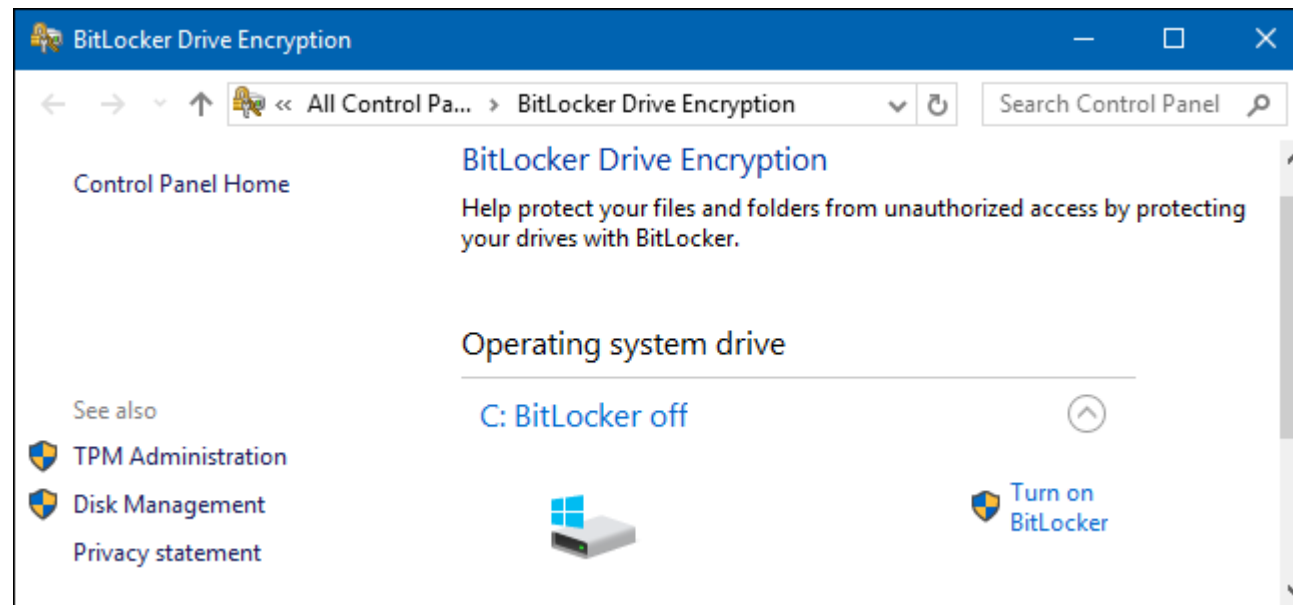


Windows 7, 8, and 10 create a special “System Reserved” partition when you install them on a clean disk. Windows doesn’t normally assign a drive letter to these partitions, so you’ll only see them when you use [Disk Management](#) or similar utility.

RELATED: [Understanding Hard Drive Partitioning with Disk Management](#)

The System Reserved partition was introduced with Windows 7, so you won’t find it on previous versions of Windows. The partition is also created on Windows Server 2008 R2 and newer Server versions of Windows.

What Does the System Reserved Partition Do?



The System Reserved partition contains two important things:

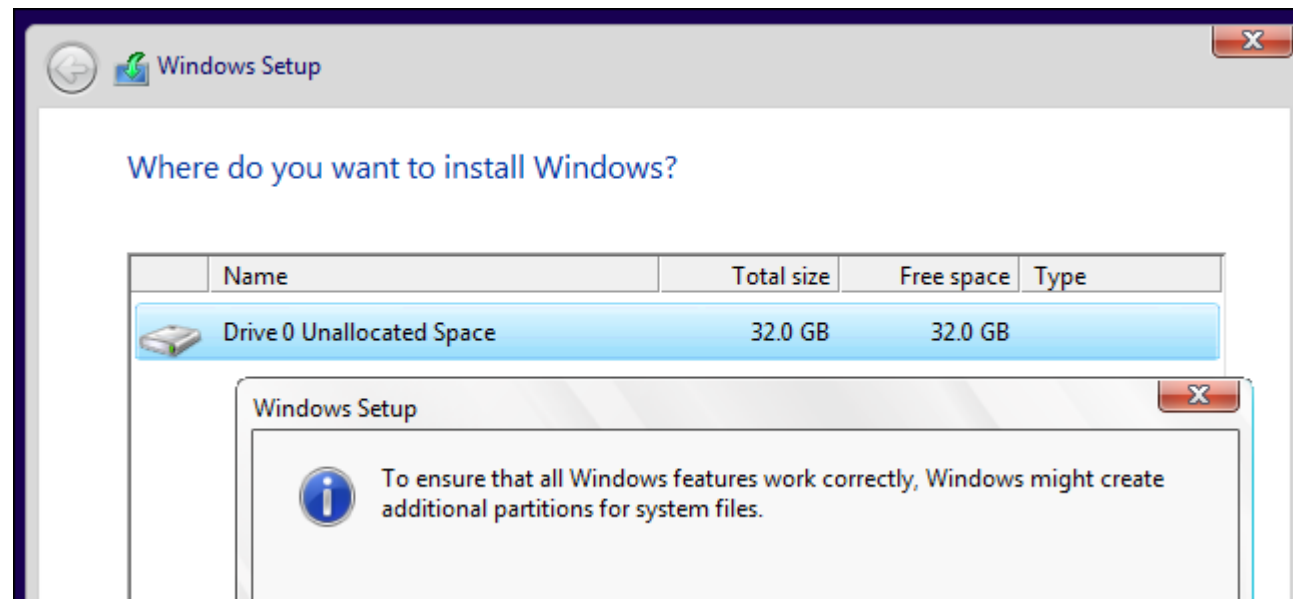
- **The Boot Manager and Boot Configuration Data:** When your computer starts, the Windows Boot Manager reads the boot data from the Boot Configuration Data (BCD) Store. Your computer starts the boot loader off of the System Reserved partition, which in turn starts Windows from your system drive.

RELATED: [How to Use BitLocker Without a Trusted Platform Module \(TPM\)](#)

- **The startup files used for BitLocker Drive Encryption:** If you ever decide to [encrypt your hard drive with BitLocker drive encryption](#), the System Reserved partition contains the necessary files for starting your computer. Your computer boots the unencrypted System Reserved partition, and then decrypts the main encrypted drive and starts the encrypted Windows system.

The System Reserved partition is essential if you want to use BitLocker drive encryption, which can't function otherwise. Important boot files are also stored here by default, although you could store them on the main Windows partition if you preferred.

When Windows Creates the System Reserved Partition



The System Reserved partition consumes 100 MB of space on Windows 7, 350 MB of space on Windows 8, and 500 MB of space on Windows 10. The partition is typically created during the [Windows installation process](#), just before the installer allocates space for the [main system partition](#).

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Can You Delete the System Reserved Partition?

You really shouldn't mess with the System Reserved partition—it's easiest and safest to just leave it be.

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Windows hides the partition by default instead of creating a drive letter for it. Most people never notice they have a System Reserved partition unless they fire up disk tools for other reasons. The System Reserved partition is mandatory if you use BitLocker—or want to use it in the future.

Prevent the System Reserved Partition From Being Created

If you really don't want this partition on your drive—for whatever reason—the ideal thing to do is prevent it from being created in the first place. Rather than create a new partition in unallocated space from within the Windows installer, you can create a new partition that

consumes all unallocated space by using another disk-partitioning tool before running Windows installation.

When it comes time, point the Windows installer at the partition you created. The Windows installer accepts that there's no room for System Reserved partition and installs Windows onto a single partition. Bear in mind that you're still not saving the entire 100 MB, 350 MB, or 500 MB that the partition would have taken. The boot files instead must be installed on your main system partition.

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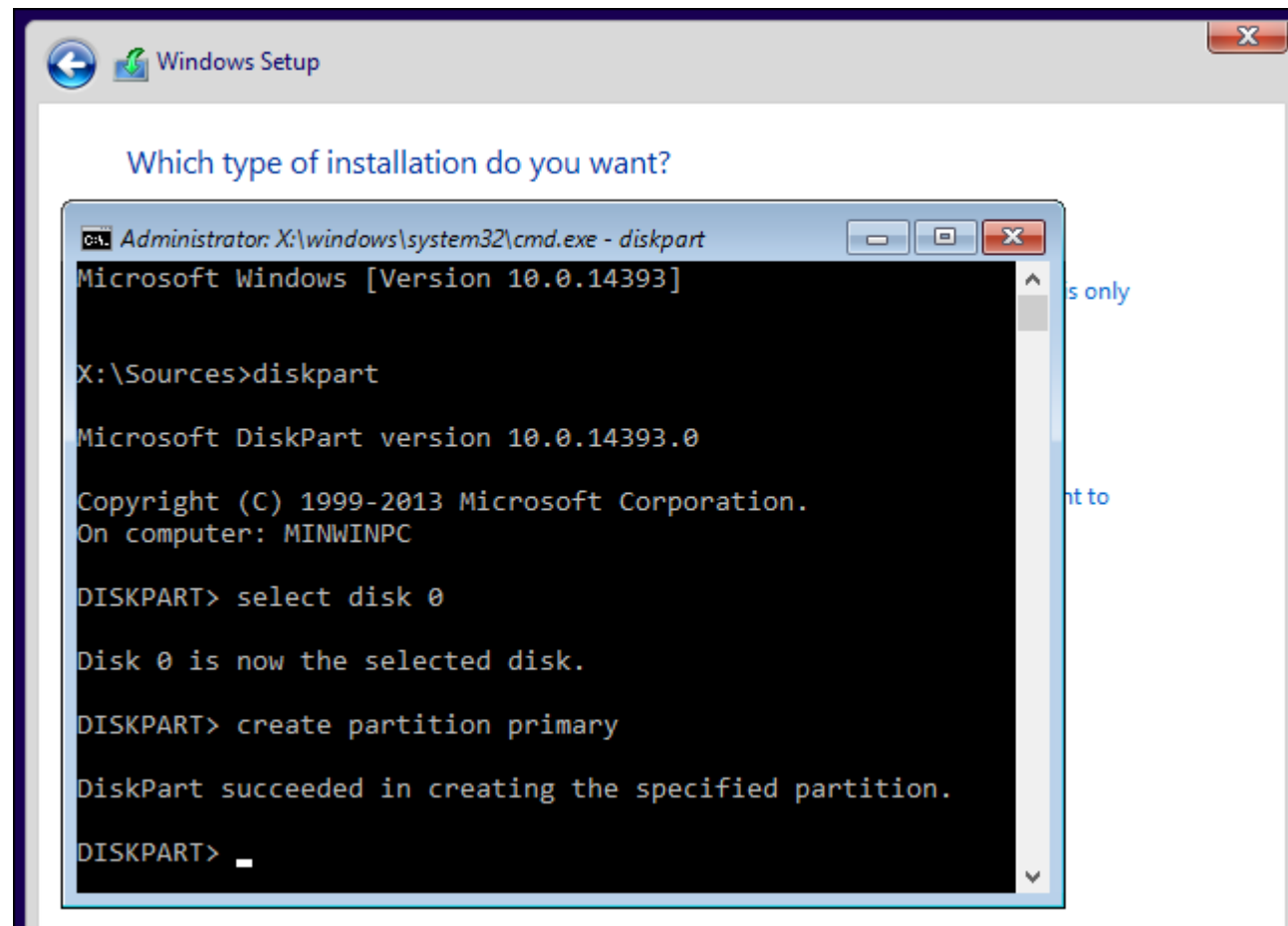
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To do this, you'll need to use any disk-partitioning software except the graphical one in the Windows installer. However, you can actually do this from within the Windows installer. Just follow the following steps:

- Press Shift+F10 while installing Windows to open a Command Prompt window.
- Type **diskpart** into the Command Prompt window and press Enter.
- Create a new partition in the unallocated space using the diskpart tool. For example, if you have a single drive in the computer and it's completely empty, you can just type **select disk 0** and then **create partition primary** to select the first disk and create a new partition using the entire amount of unallocated space on the drive.
- Continue the setup process. Select the partition you created earlier when you're asked to create a partition.



Remove an Existing System Reserved Partition

It may be possible to remove a System Reserved partition after installing Windows. You can't just delete the System Reserved partition, though. Because the boot loader files are stored on it, Windows won't boot properly if you delete this partition.

To delete the System Reserved partition, you first have to move the boot files from the System Reserved partition onto the main Windows system drive. And this is harder than it sounds. It involves messing with the Registry, copying various files between drives, updating the BCD store, and making the main system drive the active partition. On Windows 8, it also involves disabling and then re-enabling the Windows Recovery Environment. You'll then have to remove the System Reserved partition and enlarge your existing partition to reclaim the space.

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All this is possible, and you'll find various guides on the web that walk you through the process. However, Microsoft does not officially support the technique and we don't recommend it, either. You'll gain a very tiny bit of space—less than the few hundred MB used

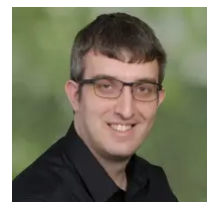
by the System Reserved partition—at the cost of potentially messing up your operating system and losing the ability to use BitLocker drive encryption.

For reference, here's why you shouldn't just delete the System Reserved partition. We [used the GParted partition editor on an Ubuntu live CD](#) to delete the System Reserved partition, and then made the main Windows system partition bootable with no attempt at copying the boot files. We saw a message saying our Boot Configuration Data was missing, and that we'd have to [repair our computer with Windows installation media](#).

```
Windows Boot Manager
Windows failed to start. A recent hardware or software change might be the
cause. To fix the problem:
1. Insert your Windows installation disc and restart your computer.
2. Choose your language settings, and then click "Next."
3. Click "Repair your computer."
If you do not have this disc, contact your system administrator or computer
manufacturer for assistance.
File: \Boot\BCD
Status: 0xc000000f
Info: The Boot Configuration Data for your PC is missing or contains
errors.
```

RELATED: [The 10 Cleverest Ways to Use Linux to Fix Your Windows PC](#)

This partition may look like it's cluttering your drive and wasting space, but it performs important functions and removing it frees up almost no space. It's best to simply ignore the partition, and if you really don't want it to be there, prevent it from being created while installing Windows.



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Chris Hoffman is Editor-in-Chief of How-To Geek. He's written about technology for over a decade and was a PCWorld columnist for two years. Chris has written for The New York Times, been interviewed as a technology expert on TV stations like Miami's NBC 6, and had his work covered by news outlets like the BBC. Since 2011, Chris has written over 2,000 articles that have been read nearly one billion times—and that's just here at How-To Geek. [READ FULL BIO »](#)

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