

## Clean install of Windows

### using the media creation tool to create a bootable USB drive

**NOTE:** If you want to be **absolutely certain** that only the existing Windows operating system disk can be selected when doing a reinstall, disconnect **all** other drives, internal or external, except your USB installation drive, **prior** to starting. This is not a bad idea, anyway, as it eliminates the potential for selecting the incorrect drive when using the **diskpart** command, below.

1. Download the Windows installation media (media creation tool or MCT) from the Windows downloads page. <https://www.microsoft.com/en-us/software-download/>
2. Run the MCT and choose the option to download media for another device. The MCT defaults the language and architecture to match that of the machine running the tool. If you need to change either one for your target machine then uncheck the checkbox that controls this and tweak the dropdown for language and/or architecture [32-bit or 64-bit] appropriately. When you arrive at the dialog that prompts for what you want to download, elect to create a bootable USB flash drive.
3. Boot your system from the USB flash drive. [Since I don't know what UEFI or BIOS you're using it's up to you to find out how to change the boot device order on your machine to put the USB drive first in the boot order].
4. *If this is a fresh install on a machine that has never had any operating system on it, **and** you are not using a drive that's previously been used elsewhere, you may choose to skip this step and move to Step 5.* Otherwise, when you get to the screen that asks for language, press Shift + F10 (or the Applications/Context Menu key if your keyboard has it) to open a Command Prompt or PowerShell session (depending on how your system is configured). Type the following commands:

**diskpart** (you will likely get a UAC prompt for *diskpart*, answer, "Yes," of course)

**list disk**

**select disk X** Where **X** is the disk number on which you wish to install Windows. This is *usually* 0, as that's what's used as the default boot drive number on most systems. That being said, make **absolutely sure** you have the correct number as the next step will *wipe the disk of all partitions*.

**clean** or **clean all** Purges the disk of all existing partitions

**IMPORTANT NOTE:** The choice of **clean** versus **clean all** is based

on why you are doing the reinstall. If it's for yourself or someone else who will be keeping the machine, use **clean**. This clears the drive of all existing partitions, but does ***not*** literally wipe the drive by overwriting its existing contents. A **clean all** also overwrites drive's contents, and takes much, much longer to complete as a result. Count on approximately 2.5 hours per 500 GB capacity on a HDD, at least. It could be longer. I only use **clean all** when the machine is being donated or given to someone else, and I want to ensure that the data on the drive cannot be recovered.

**convert gpt** Initializes the disk as GPT required for booting on a UEFI motherboard. If you get an error ignore it. *If and only if* you **know** you have a legacy system that uses BIOS, use **convert mbr** instead of *convert gpt*.

**exit** (to close *diskpart*)

**exit** (to close Command Prompt or PowerShell)

5. The install will now continue; answer any prompts appropriately. When you get to the screen asking on which disk you wish install Windows, activate the *Next* button. The Windows installer will automatically partition and format the drive (using the boot type you previously specified in the *convert* command above if you needed to perform Step 4, otherwise it will figure things out as part of the install to an uninitialized drive based upon the hardware configuration you have).

**Important:** If you get through the install to where you've answered "Custom" (which is your only choice for a completely clean install, as you've wiped anything that previously existed and cannot choose to work on an existing installation) you can walk away and let the install complete. Be aware that you've changed the boot order. After the install completes, the system may reboot from the USB drive, making it look like you've circled back to where you started. You haven't. Shut down the machine. Remove the USB drive. Turn on the machine. You should also restore your boot order back to default in UEFI/BIOS.

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