Hello Gerry here from <u>GCCY</u> this is just a brief explanation of how to install Windows 10 on a new computer.

You have built your new computer, congratulations. Now that you've put everything together and you're past all the difficult stages, the rest is straightforward although can be a little time consuming, as after the operating system is installed there are other things to consider and install, all of which will make your life easier in the long run. We will discuss other programmes that will help you later in another blog.

So moving on, here's how to install your operating system and get everything up and running. If you've never installed an OS before, it's remarkably easy. If you have, I'd still suggest reading through this guide to make sure you've got everything right in your own mind.

Installing Windows on a custom machine can take a few extra steps than installing it on a pre-built machine. For this guide, we're going to use Windows 10 as an example, but you can, of course, install Windows XP, Linux, or even Mac OS X, but we won't be looking at the other options for now.

When you first start up your computer, it will tell you to press a key to enter setup, usually, it is the DEL or F11 keys, but can be other keys, depending on the motherboard manufacturer. This takes you to the setup of your Basic Input Output System or BIOS. Here, you can configure some of the lowest-level aspects of your new machine. You may not actually need to edit any of the settings, but it's a good idea to go through them and get acquainted with them to make sure everything's in good order before moving on. At this stage I would say, just navigate around and don't change any settings just yet. The BIOS itself will be a little bit different on various manufacturers motherboards, but overall pretty much the same information will be provided for you.

First, make sure that everything's been installed correctly. If you have a System Information page in your BIOS, head there and make sure the amount of RAM listed is the same amount you put in. If it isn't detecting all of your RAM, some of it may not be seated correctly or it is possible that the RAM could be in the wrong slot or slots. (Remember the guide on how to build which mentioned this before? Make sure that you have placed the RAM in the correct slots according to the motherboard manual.) If you have not placed them in the correct slots, switch off the computer and go back and fix that before continuing. If there isn't a System Information page in your BIOS, your motherboard probably lists the amount of RAM it detects on the POST screen, right after you press the power button.



Find the SATA configuration option, and make sure its configured as AHCI. If you're running Windows XP you'll need to change this to IDE, otherwise, AHCI is probably what you want to go with. The photo shows a typical MSI screen with AHCI highlighted.

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	2 Settings\Advanced	Vintegrated Peripherals	2 , ,		, <u>USB</u>		
SETTINGS	Onboard LA Onboard LAN LAN Option R Network stack	N Configuration Controller OM t turration	(Enable [Disable [Disable	d] ⊵d] ⊵d]		Select to enable Intel Optane memory technology with specific M.2 memory module to improve performance of tradition spindle hard-drive.	
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Use USB to flash BIOS M-FLASH						† →→+: Nove Enter: Select +/-: Value ESC: Exit F1: General Help	

Lastly, find the "Boot Order" or "Boot Priority" page. Make sure your USB drive is the first drive on the list if you're installing from a flash drive, which most of you will be doing nowadays and that the hard drive you'll be installing to is second. Note that some BIOS utilities split this up into two menus—one for setting the boot order for your different media (CD-ROM, hard disks, USB disks) and another that lets you choose the order of just the hard drives.

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GAME BOOST	XMP Supported	CPU Speed 3.60 GHz DDR Speed 2400 MHz CPU Temperature: 43°C MotherBoard Temperature: 38°C BIOS Mode: UEFI/Legacy Boot Priority		MB: MPG 2390M GAMING EDGE AC (MS-7850) CPU: Intel(R) core(TM) 13-8100 CPU @ 3.60GHz Memory Size: 4096MB VCore: 10-324V DDR Voltage: 1.200V BIOS Ver: 27850IMS.150 BIOS Ver: 27850IMS.150 BIOS Build Date: 03/22/2019		
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Use USB to flash BIOS	Boot Option	#7 sk Drive BBS Priorities	(UEFI	Network]		T I→→: Move Enter: Select +/-: Value

If you don't see your hard drive listed, it may not be plugged-in correctly or it may be dead. Turn your computer off and re-check the connection if necessary. These are the most crucial BIOS options you want to tweak, but there's a lot of other stuff going on in there and I would encourage you to explore and look things up that you don't know since the BIOS has some very useful settings. If you want to know more about your BIOS options, you are welcome to contact me at <u>GCCY</u>. For now, we're going to get on with the installation process.

Obviously, in order to put Windows 10 on a USB, you are going to need the use of another desktop or laptop. If you know how to and you have already installed Windows on a USB you can skip this section. If you have not and you don't know how to here is what you should do:

1/ Place your USB stick in your USB socket on the laptop or desktop you are using to make the USB bootable drive, I believe it should be 8GB or more.

2/ Download the Microsoft Media Creation Tool, you can do it from here Media Creation Tool

3/ Run the tool and it will start by saying, "Getting a Few Things Ready." On the next page accept the licence conditions. It will then say ""What Do You Want To Do" and will give you two options, a/ Upgrade this PC now or b/ Create installation media (USB, flash drive, DVD or ISO file) for another PC. Highlight option b/ and click next, you won't have any available options on the next page so click next again. The next page will give you the option of USB or ISO file. Click USB and click next. The next page should highlight the available USB. Click next and it will say "Getting a Few Things Ready" again.

4/ Microsoft's tool will take care of the rest from here. Go get a drink, take a walk or browse the internet while the tool does its job. The process should take about 30 minutes, give or take, depending on your internet speed. When the tool is done, click **Finish** and remove the USB drive from your computer. (Going forward, if you need to install or reinstall Windows, you can connect the drive to your computer and reboot it. Your PC should boot to the drive, giving you the option to install Windows.)

5/ OK you are all done now and ready to get the OS on your new desktop. So grab the USB drive and pop it in. Startup your computer and it should automatically boot into the Windows installer. If you ever get a "Press any key to boot from CD" option, make sure to hit a key on your keyboard to continue. Once the installer loads, hit the "Install Now" button, accept the terms of use, and choose "Custom (advanced)" when asked what type of installation you want. Find your primary hard drive (if you have more than one), click on the "Unallocated Space" partition, and hit Next. Windows should start installing from there.

From here, the rest is just a waiting game. Leave your computer alone to do its thing. It'll copy all the necessary files to your disk and reboot a number of times in the process. You'll know you're done when you hear the familiar startup chime and boot into the default Windows 10 desktop.

The last thing you need to do before you actually use your computer is to install your drivers. If your Ethernet or Wi-Fi works out-of-the-box, Windows may find most or all of your drivers for you and you will need to access the internet.

Once you've got the internet up and running, Windows will install drivers for you. Any that it doesn't or can't install you'll want to download manually from the manufacturer's web site. Head to your motherboard's support page and download any necessary drivers, including chipset, audio, SATA, and any other drivers listed. Note that you probably only want the drivers you won't want the extra bundled software it offers, unless there's something in there you really want. For your video drivers, download them straight from NVIDIA or AMD's web site rather than the card manufacturer's site.

The last thing you'll want to do is get Windows up to date. Chances are, you've already gotten a notification from Windows Update at this point, but if not, head into your Start Menu, go to Programs, and hit Windows Update. Install all the updates it gives you, and reboot your computer. Check for updates again and it'll have a whole new slew of them for you. You'll have to do this quite a few times, but eventually, it should stop serving you notifications and you'll be all up to date. When you are, you're ready to actually start using your computer.

This is also a good time to get some antivirus on your machine, as well as any other basic apps you may want. I will print a blog shortly discussing software that will benefit a new computer.

Congratulations! You've built, and set up a working computer from start to finish! Don't be alarmed if you feel an overwhelming sense of pride, that's normal. Enjoy your new custom-built machine.

I hope you enjoyed the article and found it informative, I welcome your comments below. If you need any assistance with the guide or if you need any information, don't hesitate to contact me at <u>GCCY</u>.