How to do a clean installation of Windows 10

If you would like to qualify for the free Windows 10 upgrade offer, and boot up with installation media like USB stick or a DVD from the iso file, to do a clean installation of Windows 10, please read and follow the procedures below.

> **NOTE:** If your PC cannot boot from a USB device, you *MUST* use the iso to DVD approach.

Preliminary Considerations and Precautions:

- *Please be aware that various computer skills are required.*
  This is not a "Lead-Them-By-The-Hand" installation guide.

- Windows 10 has two primary upgrade versions that are available. There is a Retail version and an OEM version. The primary difference is the Retail version will be upgraded from an original Retail version with a new 25 digit key that is useable on alternate hardware. The new upgraded OEM key is ONLY useable on the original OEM hardware and may not be transferred. Also, recently, the 25 digit key has been imbedded in the BIOS of the OEM hardware. The OEM has NO RECORD of the key in your hardware, so it is imperative that you find and record that key in case you want to or need to return to the original operating system at a later date.

- A simple and easy to use product from, Nirsoft, that will find your keys is listed below.
  ProduKey Software: http://www.nirsoft.net/utils/product_cd_key_viewer.html
  You may have to temporarily disable your Anti-Virus software to use this program. Be sure to save the Keys in a text file and keep a back-up copy in a safe, known location for each key and operating system.

- The free upgrade from Windows 7 or 8x to Windows 10 will result in only one of two versions. If the original version is not the Pro or Ultimate version the Win 10 will be a "Home" version. Otherwise it will be a Pro version. Windows Enterprise versions are not upgradeable !. The *new* 25 digit Keys for Win 10 are unique and are NOT interchangeable between the Home and Pro nor the Retail and OEM versions.

- It is important to back up **all** of your own created files [documents, pictures, music, user id's, passwords, address book, etc]. It is also prudent to locate the installation files, CD's & DVD's [with keys] for all of your needed software and drivers before doing the upgrade. Double Driver software does a nice job of backing up drivers on Win7 systems. Do not *assume* that your PC Manufacturer or Microsoft is capable of correctly saving all of your personal data, files or drivers !

- It is suggested that you use a program like the "Acronis Boot/Recovery CD" to make a complete image of your hard drive to an external USB hard drive to preserve your current information in case it is necessary to return to the original operating system. The Acronis 2012 edition will work with Win 7 systems and all operating systems that have the UEFI/SafeBoot in the BIOS disabled. There is no need to install Acronis to create or recover the image. There are other programs that will also make full image backups with restore capability.

- It is suggested that the upgrade and subsequent clean install be done "off-line" or disconnected from the internet. Laptops usually have a hotkey to disable the wireless connection, whereas desktops normally have a cable from the modem or router that may be disconnected. When it is time to Activate the software it will require that the internet connection be restored.

- Windows 10 is extremely invasive to personal and network privacy. If you would like many of the details read the EULA. If you really plan to do the clean install, you can practice the customization on the upgrade installation or else be sure that you understand all of the implications the first time. When you get to the part of the installation where it asks for a name and a password, you should opt for a local install with just a name [no email address] and no password [you can always add a password later]. In the bottom left side of the page you [might] see a "Customize settings" in very small print with a much larger DEFAULT OPTIONS selection on the right hand side. Take the "Customize settings" option and turn off all of the intrusive privacy and network sharing options at this time [as it is easier than finding them later].

How to do a clean installation of Windows 10

- It is naïve to think that everything will work properly with the upgrade or even the clean install. Many issues already have occurred with drivers and software. Micro$oft claims that the "Automatic Updates" will resolve these issues, but do not expect instant results. It is also unfortunate that the updates are not "optional" any more so expect that your work will be slowed down or interrupted when M$ decides you need an update or does not approve of the program that you just installed. Some of the manufacturers are updating their drivers for Win10, but on many of the older hardware platforms they cannot be bothered. Thus the importance of the full image back-up of your current system, in case you decide Win10 does not [as yet] meet your needs. Also be sure that you do not remove the Recovery partition on your original hard drive, for the same reason. New hardware [motherboards and complete units] should come with Windows 10 drivers and may include capability of drivers for older operating systems. If you are lucky enough to have a Retail copy of the original system this will facilitate the installation of Win 10 on new hardware. If only an OEM version you may have to stay with the Win 7 or 8x hardware.

- Win 10 has a "feature'" to return to the old operating system within 28 days if the files have not been deleted by a disk cleanup. It would be unwise to rely on this feature alone.

- It is suggested that you disable the UEFI Bios [normally only found on newer systems with Win 8x] when doing the clean install from the boot device [DVD or USB drive] unless you feel compelled to have the features of this BIOS scheme. One prominent feature is to enable Hard Disks of more than 2.0 Terabytes [2,000,000,000,000 bytes] when most systems work fine with 500GB [0.5TB] drives and most users only use 60GB [0.06TB] or less on their systems. Disadvantages include system repair and recovery are made more difficult and time consuming.

- When doing the clean install of Windows 10 the Windows 7 Games [ie. Solitaire, Freecell, etc.] will not be available [Win 7 behaves the same way as Win 8x]. They may be installed with the file from my web site if you follow those instructions. To download the ZIP file to your PC Click Here, save the file in a known location, extract the files and follow the instructions in the txt file.

- Whether you do an upgrade or continue to the clean install do not expect any windows "Live" programs to function in either installation. Suggest using Thunderbird for email and Firefox for your browser. An additional benefit is the MozBackup program that can back up both programs.

- Depending upon your specific hardware the upgrade process [steps 2 -11] can take from 2 to 4 or more hours. It is possible to separate the process into three separate tasks, the last two will have about the same time by stopping when you have finished the first Upgrade and shut the pc down after step #7. Step 1 of the process may take an hour or more depending upon the download speed to obtain the ISO file and create the proper media. The final customization and restoring files knows no limit.

- Note: Even if you decide you do not want to go through this complete process, you should seriously consider doing the first step which will give you the recovery DVD that would be required, to recover, if a serious failure requires a reinstall of the Windows 10 operating system. If you decide later that you need a USB version, the Tool can be run again and the USB option can be chosen. There are various software programs and instructions on the internet that can make a bootable USB drive from the iso file. You should also use the ProduKey software, mentioned above, to retrieve a copy of your 25 digit key which will be required for the installation..

- One last warning. On most upgraded systems, with or without a clean install, the System Restore feature has been observed to be turned off ! This quirk needs to be rectified as soon as the finalization of your install has been completed or you will not be able to reverse back to a condition where the software was proper. Be sure that sufficient space is allocated to hold more than one week of Micro$oft's _numerious_ Automatic Updates !

- Let us proceed - _Caveat Emptor._

How to do a clean installation of Windows 10

The Upgrade Process

1. Create your installation media for the appropriate edition of Windows 10 by going to Microsoft Media Creation Tool website. Click here. Download and run the program and follow the instructions to create either an iso file and a bootable DVD or a bootable USB drive. Both Win 7 and 8x have built in capabilities to burn an iso file to a DVD. A really excellent burner is WinISO [$20] which is simple and burns all formats and allows editing of iso files. **Note**: When asked "What do you want to do?", do not select **Upgrade this PC now.** Click on the **Create installation media for another PC**. The best choice is the iso to create a DVD, especially if you are not sure your PC will boot from a USB drive and you will need the DVD for any future recovery operations.

2. Within your activated Windows 7 or Windows 8x device, insert the media created by the Media Creation tool and launch the upgrade process. The program reboots your PC and resumes the Upgrade process automatically. Once you successfully upgrade Windows 10 using the free upgrade offer, an entitlement is registered to your PC's hardware for your OEM edition of Windows 10 when it is activated. A similar type of entitlement is associated with the Retail version with out the hardware restriction.

3. If / when the installation asks you for the name just use a name and no password, then select the custom installation and disable the nefarious selections. See the Appendix on page 4 for the screens.

4. When you have the system up and running with the desktop present and the installation finished, copy the ProduKey software to the hard drive, in a known location folder. Be sure that you are connected to the internet and proceed to step 5. There is no need to change any settings or to try to use the software as the only thing you need is to activate the software and get your new key, as long as you proceed to doing the clean install.

5. Make sure your Windows 10 is activated by going to Settings > Update & Security > Activation > "Windows is activated" before proceeding further. If your Windows 10 is not activated, you can click the Activate Now button to complete the activation process [usually less than one minute]. You may wish to disconnect immediately from the internet after the activation is acknowledged to prevent the download of the Updates that you do not need for a clean install.

6. Use the ProuduKey software to recover your new 25 digit Key and save in a text file, it is suggested that you print out the file for use in the next steps and keep a copy in a safe and known location. If you do not have a second PC that can print, you may need to install print drivers or copy the 25 digit key to a piece of paper for the next instillation sequence.

7. Turn off the computer with the installation media still in the DVD drive or in the USB port.

8. Take the same installation media for the appropriate edition of Windows 10 that you made from the Microsoft Media Creation Tool and then re-install Windows 10 by booting from the media from a cold start. You may be asked for your 25 digit key during the installation process.

9. If / when the installation asks you for the name just use a name and no password, then select the custom installation and disable the nefarious selections. See the Appendix on page 4 for the screens.

10. When you have the system up and running with the desktop present and the installation finished, be sure that you are connected to the internet and proceed to step 11. There is no need to change any settings or to try to use the software at this time. The only thing you need to do is to activate the software and be sure you have the right key.

11. Make sure your Windows 10 is activated by going to Settings > Update & Security > Activation > "Windows is activated" before proceeding further. If your Windows 10 is not activated, you can click the Activate Now button to complete the activation process. If you did not previously enter your key, you may be asked for your 25 digit key during the activation process.

12. You may now proceed to customize your system to your preferences and install other necessary software like Anti Virus, printers, office, etc. Do not forget to turn on System Restore !

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Appendix

The Three "Customize settings" screens
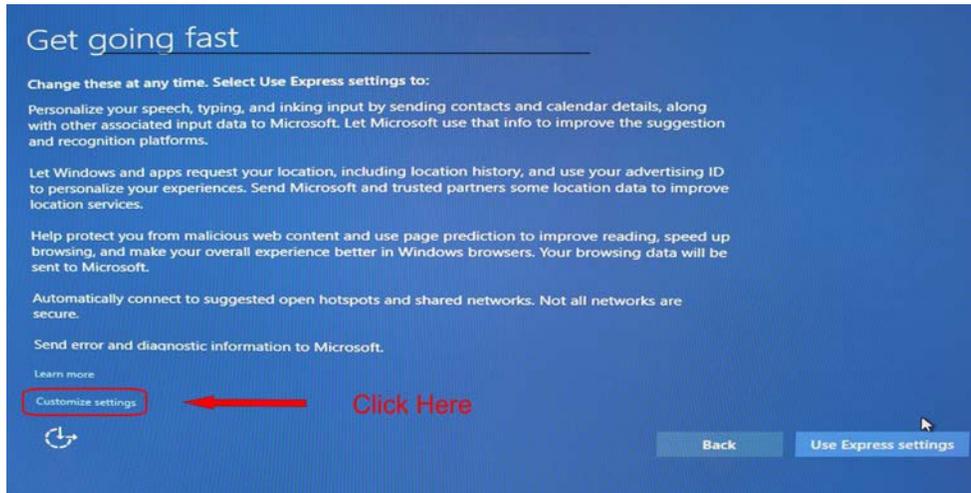
Click on the "Customize Settings" small print at the bottom left of the screen above.
DO NOT click on the "Use Express settings"