

Setup Guide

Setting up Win10 for Maccor use.

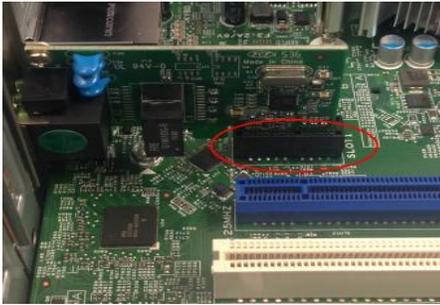
It is recommended that the user have Full Administrative Rights to the PC.

This document covers 2 main subjects:

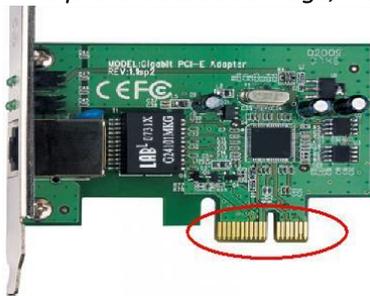
- I. Preparing new PC'S for Maccor use
- II. Disabling Data Tracking

Initial Preparation of PC:

1. Carefully remove PC, Monitor, keyboard, mouse, and save all packing material/boxes.
** Be careful not to damage packing material or boxes (this is used to repack the computer before shipping).*
2. Install Network Card (NIC) in appropriate motherboard expansion slot (PCIe "x1" shown).
** Place instructions, disc, and box aside until PC has been validated – then discard.*



** To prevent static damage, Do Not touch "gold-fingers" while handling the card.*



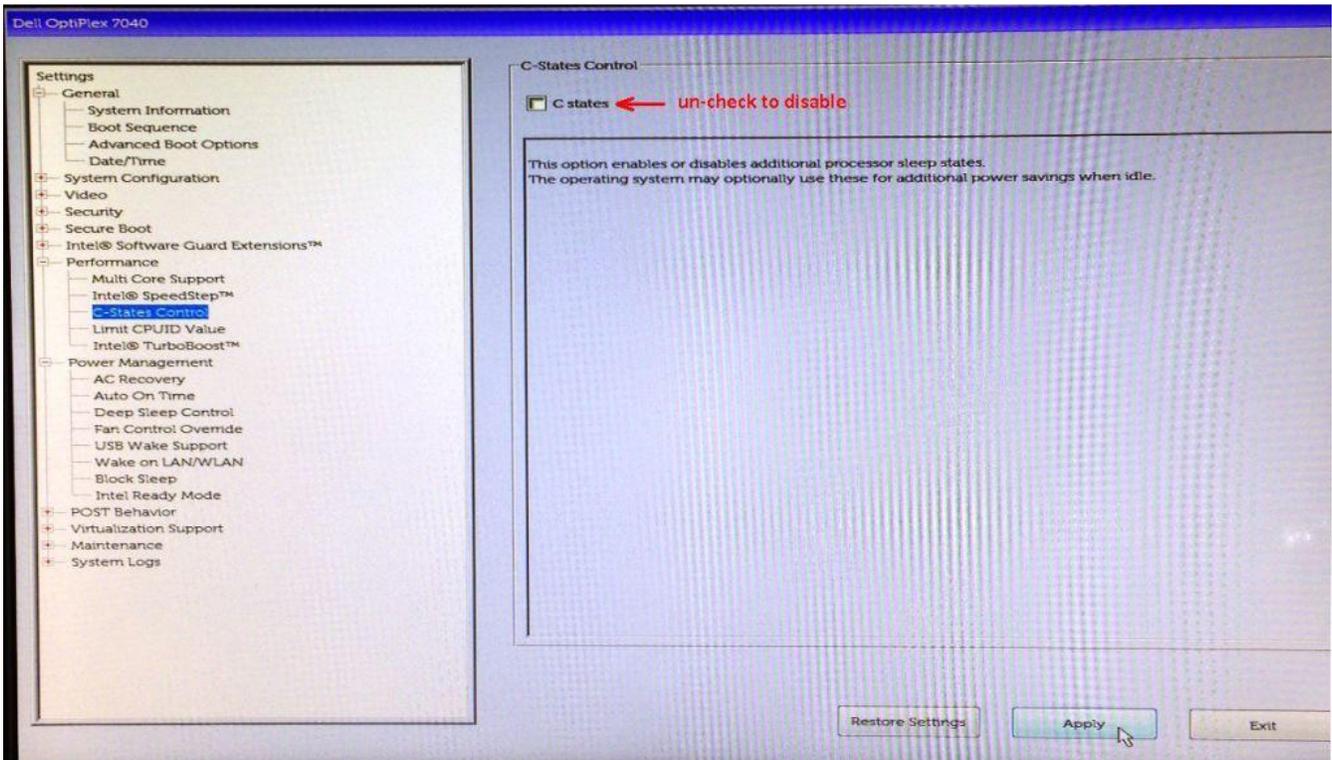
3. Assemble the PC workstation (desktop, monitor, keyboard, mouse).
4. Turn Monitor on.

** Step 5 below is specifically for a Dell desktop. Step 5 may be skipped if not a Dell Desktop computer.*

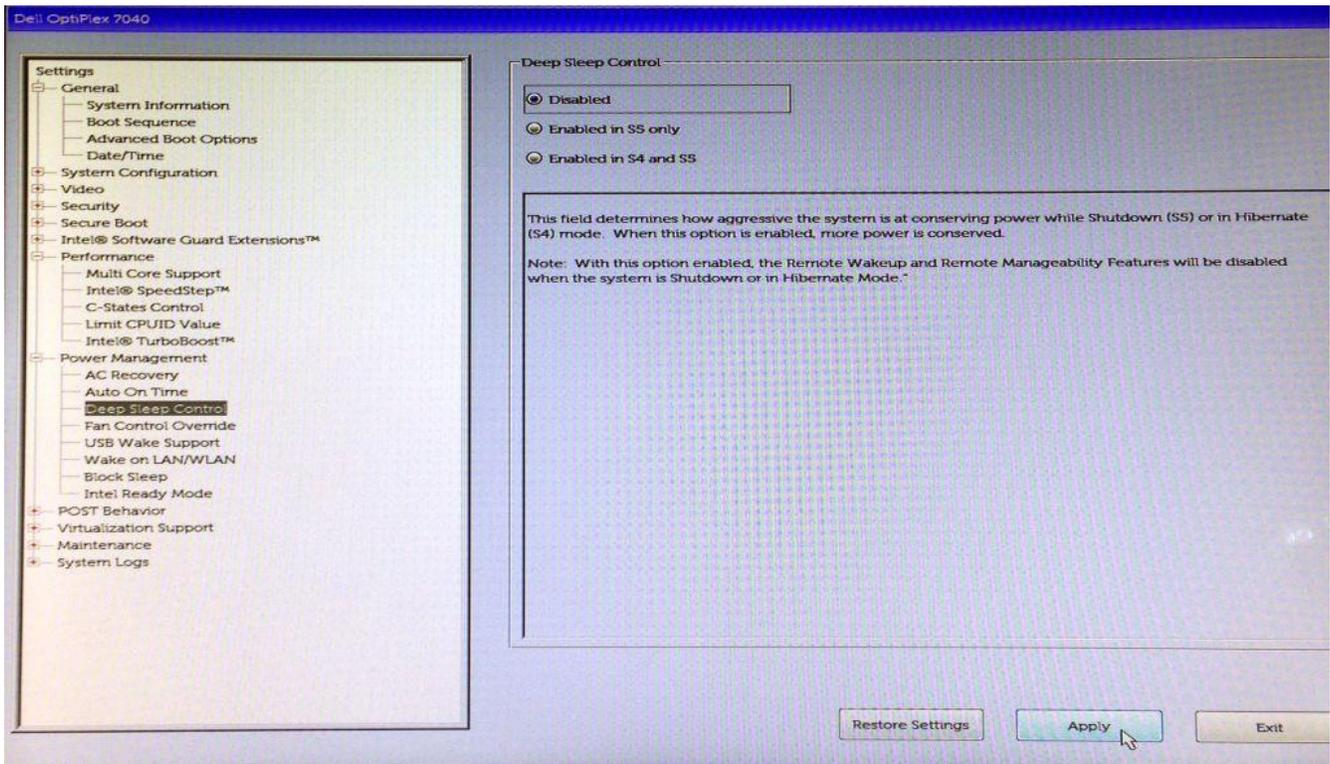
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5. Modify System BIOS: Turn on PC and repeatedly hit <F2> while booting.

A. Locate and disable *C-States Control* (un-check the box). Click [Apply] and save as custom.

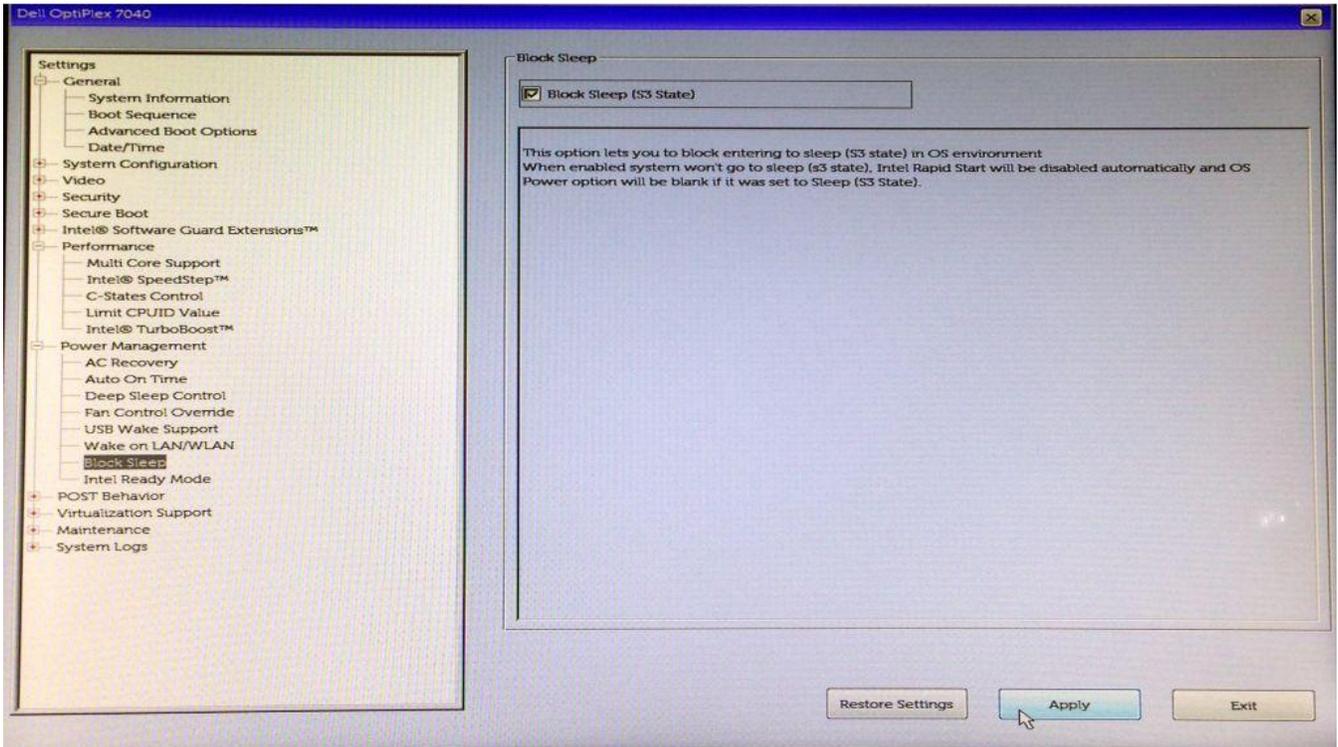


B. Locate and disable *Deep Sleep Control*. Click [Apply] and save as custom.



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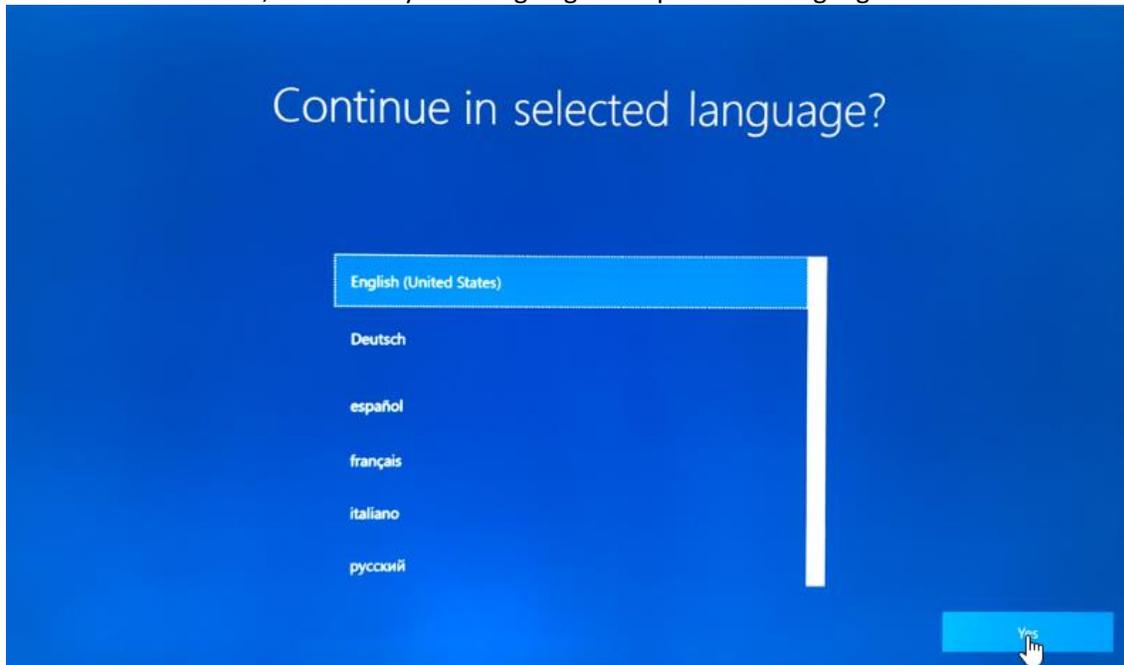
C. Locate and enable “Block Sleep”. Click [Apply] and save as custom.



D. Exit BIOS, allow Windows to boot.

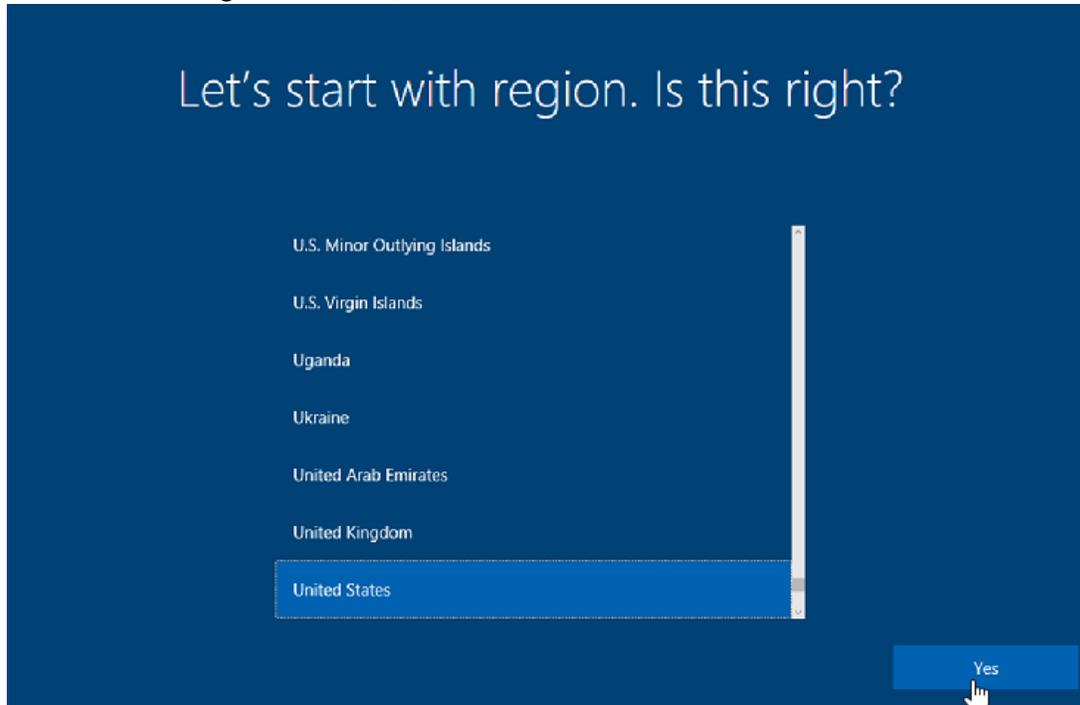
6. Installing Windows 10 “out of box”.

A. At “Welcome” screen, continue by selecting English or preferred language.

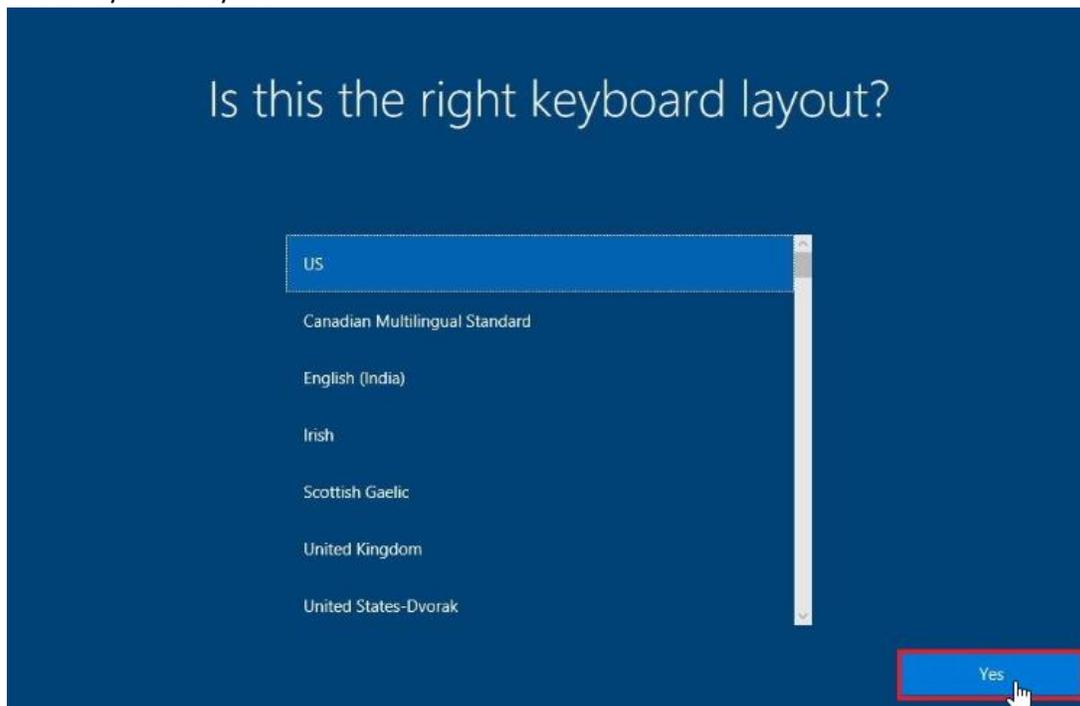


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B. Confirm correct region is in focus, click “Yes”.

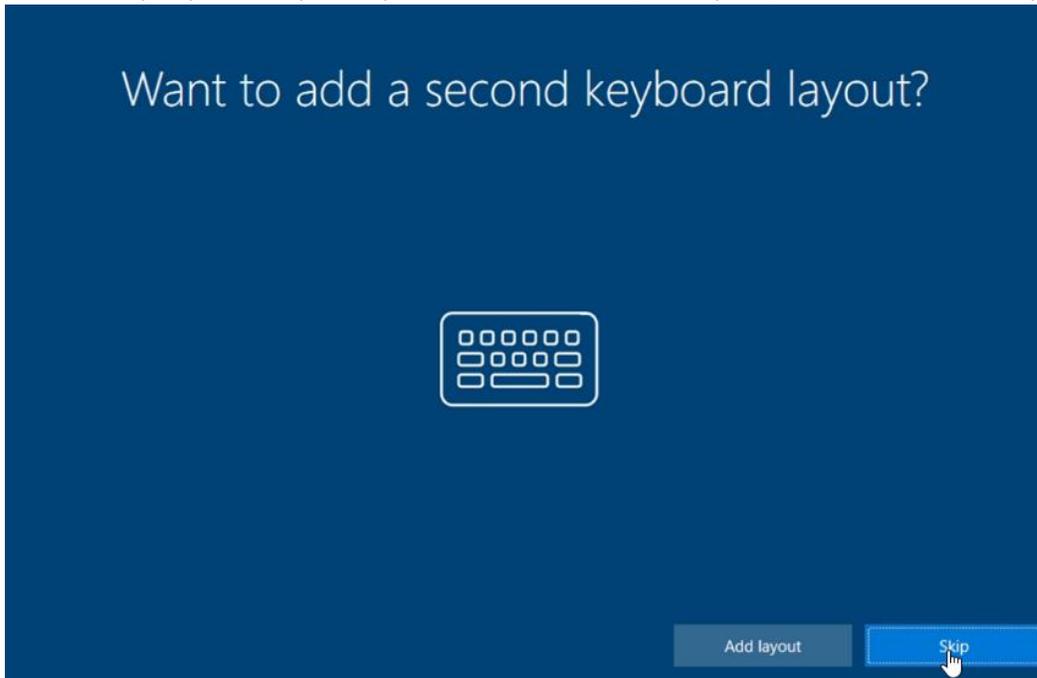


C. Select keyboard layout.

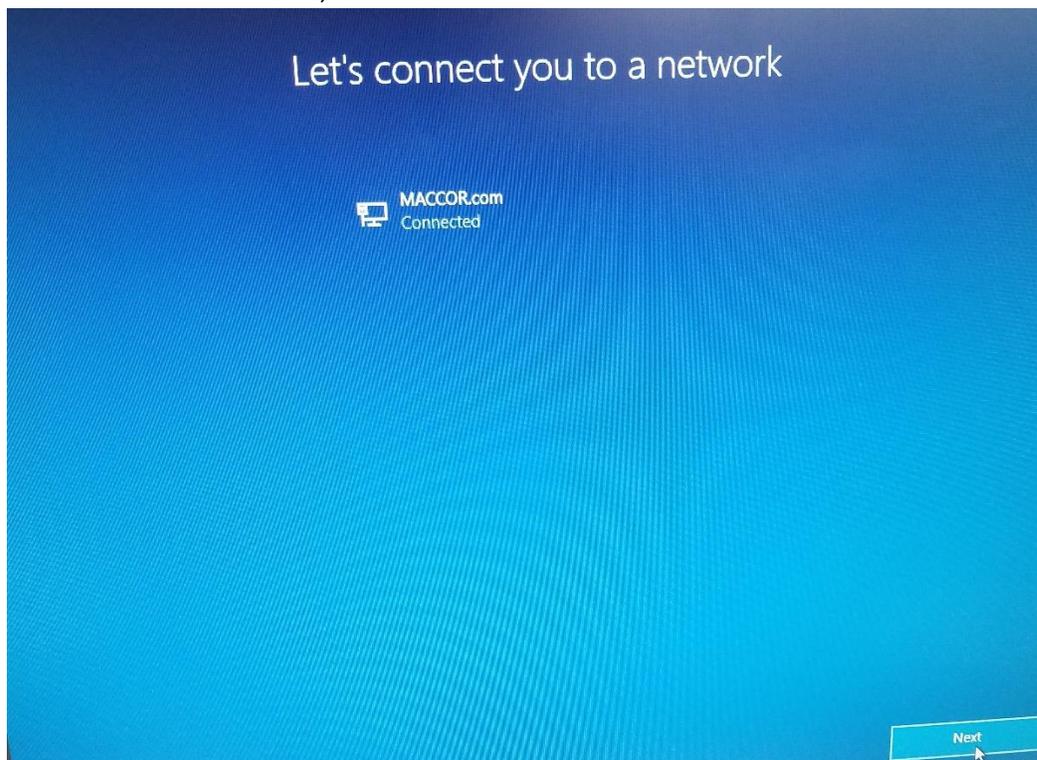


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- D. If secondary keyboard layout is preferred, then click [Add layout]. Otherwise, click “Skip”.

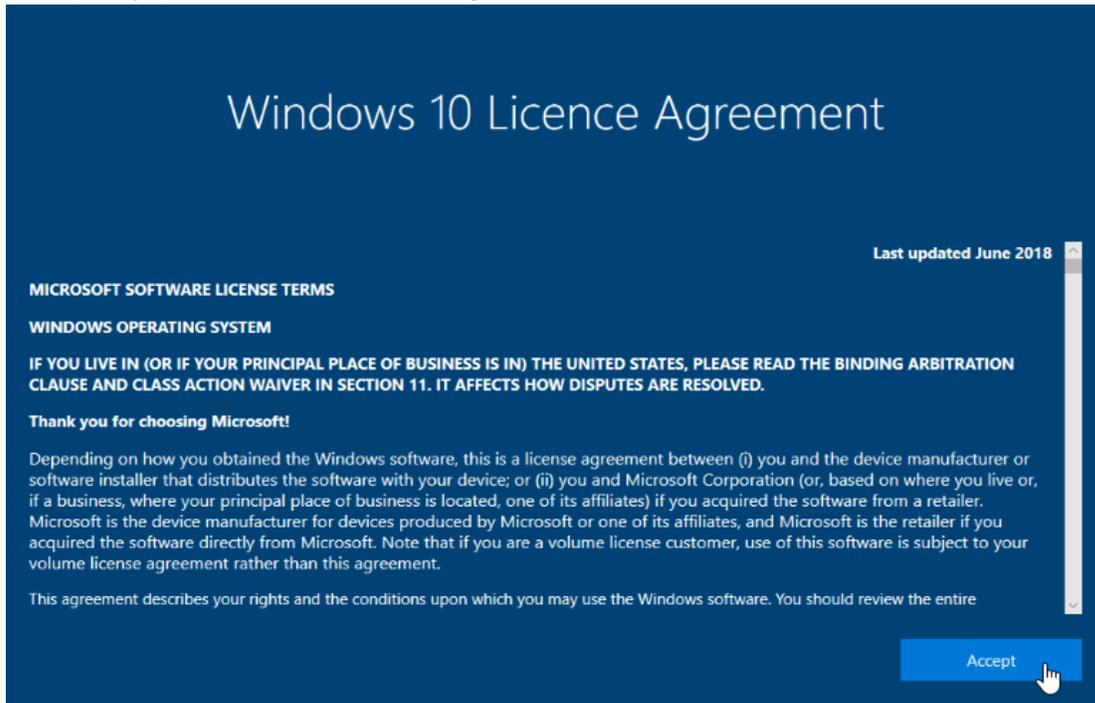


- E. Select the desired network, click “Next”.

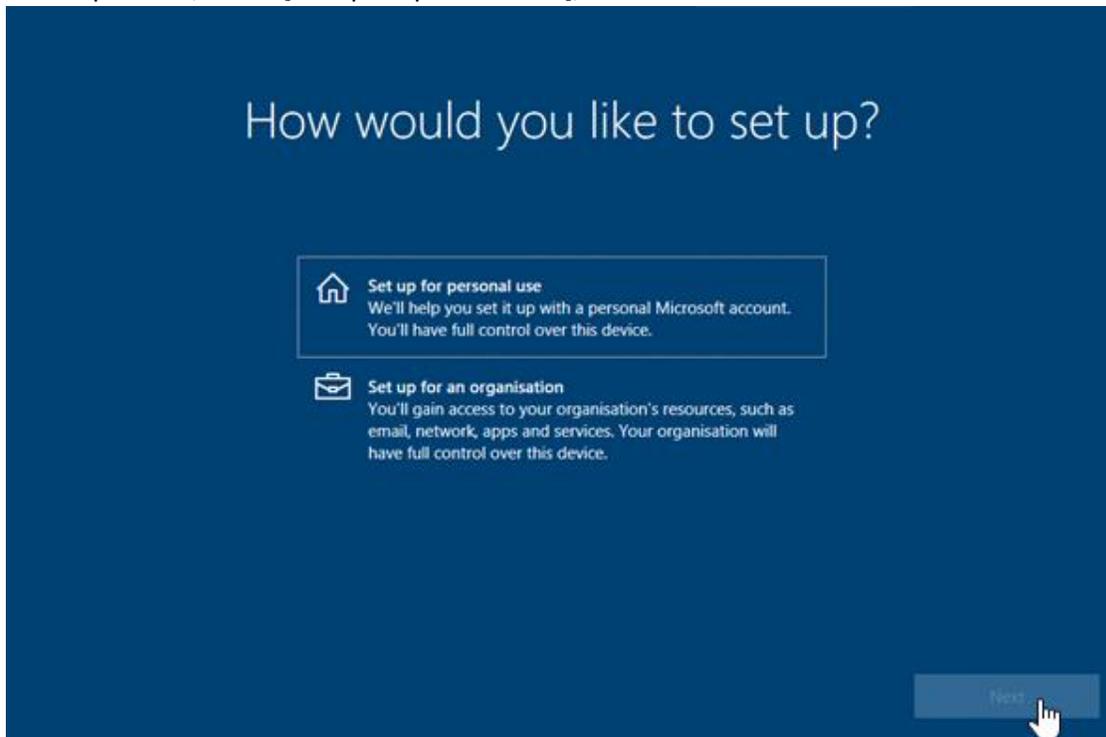


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- F. Click [Accept] at Windows 10 License Agreement.

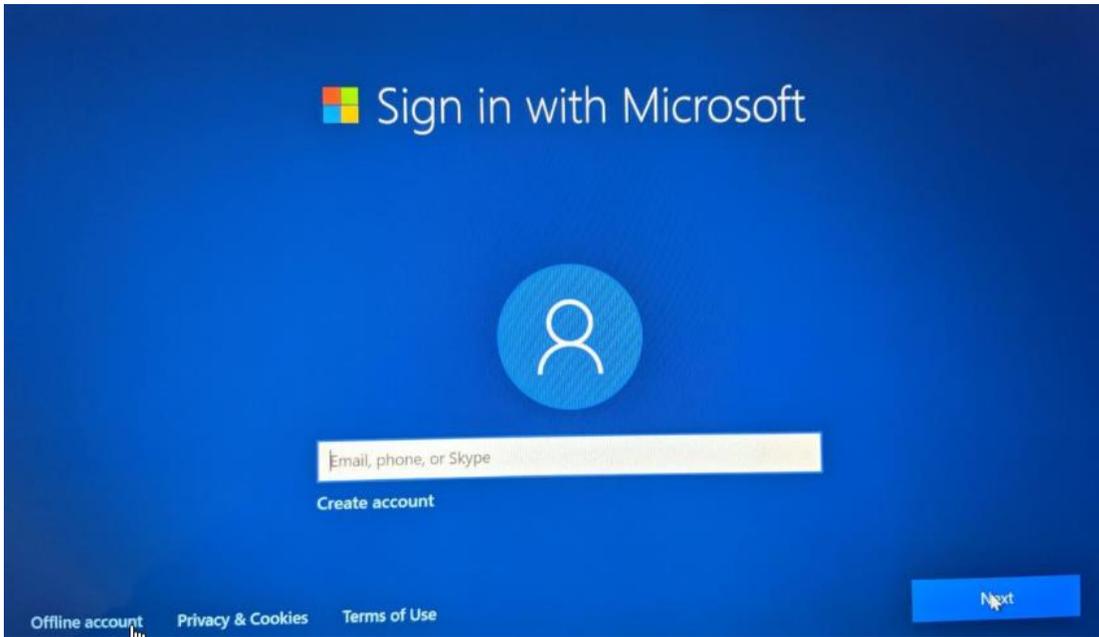


- G. At Setup screen, select [Set up for personal use], click “Next”.

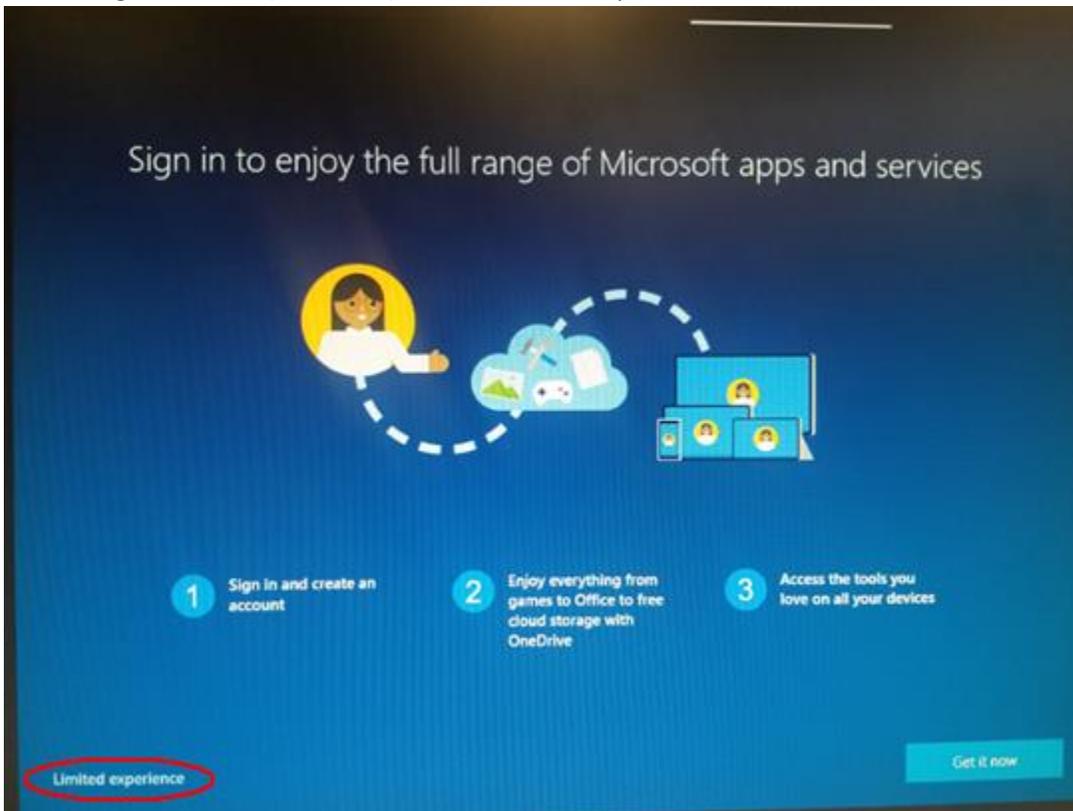


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H. At Microsoft sign in screen, select “Offline Account” at lower left.

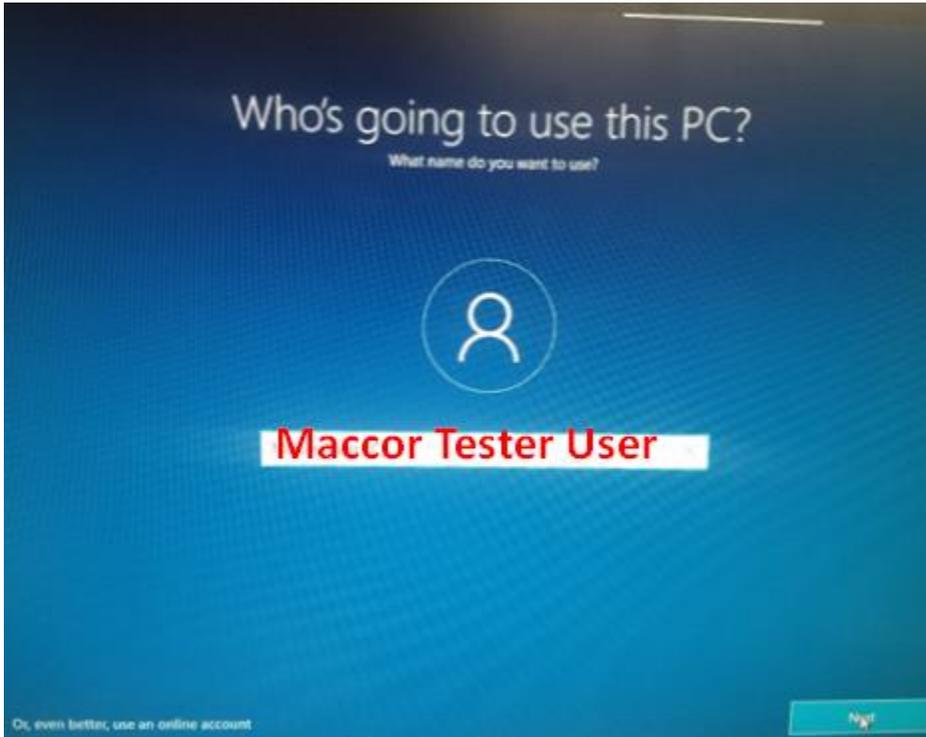


I. At next sign-in screen (lower left), select “limited experience”

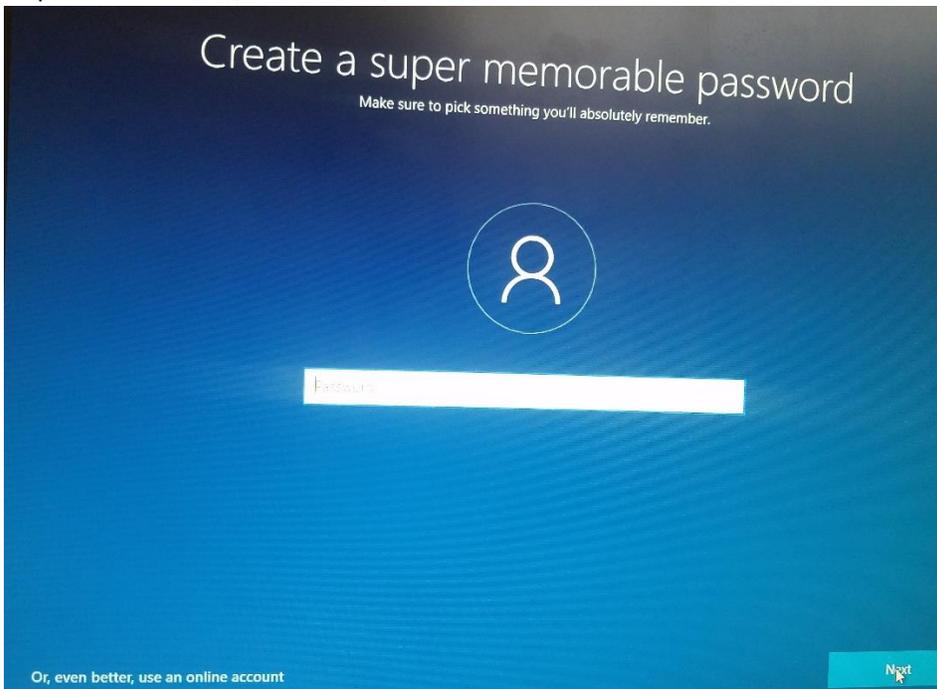


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J. Enter "Maccor Tester User"

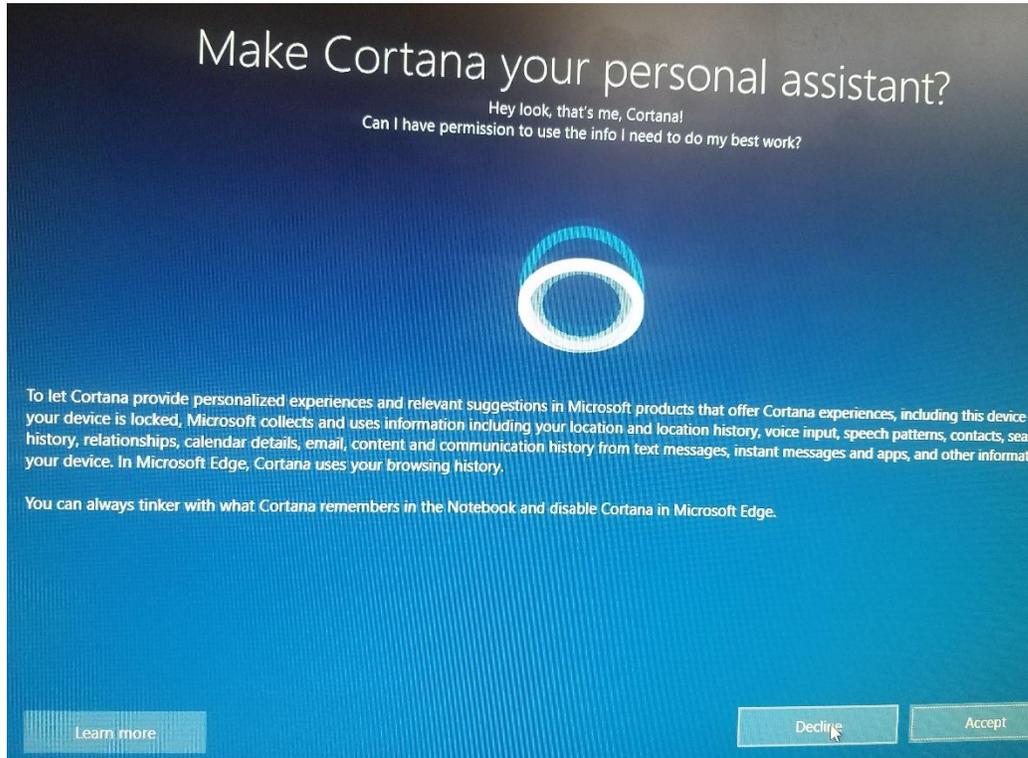


K. At password screen, leave blank, select "Next"

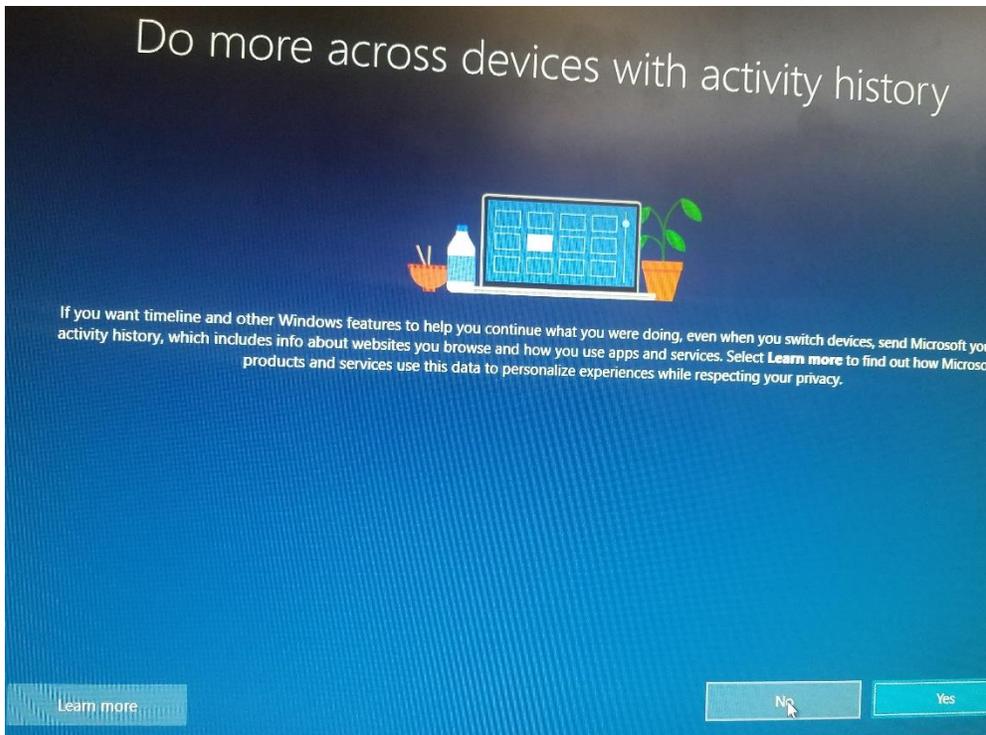


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L. "Decline" Cortana Access.

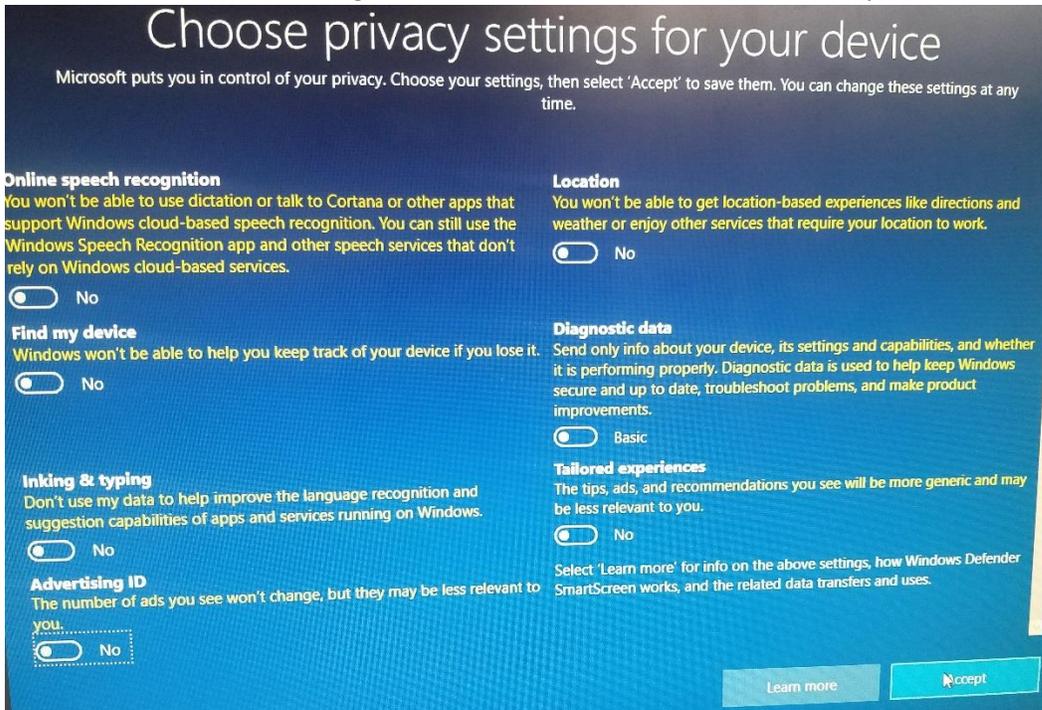


M. At "Do more across devices" screen, Select [No].

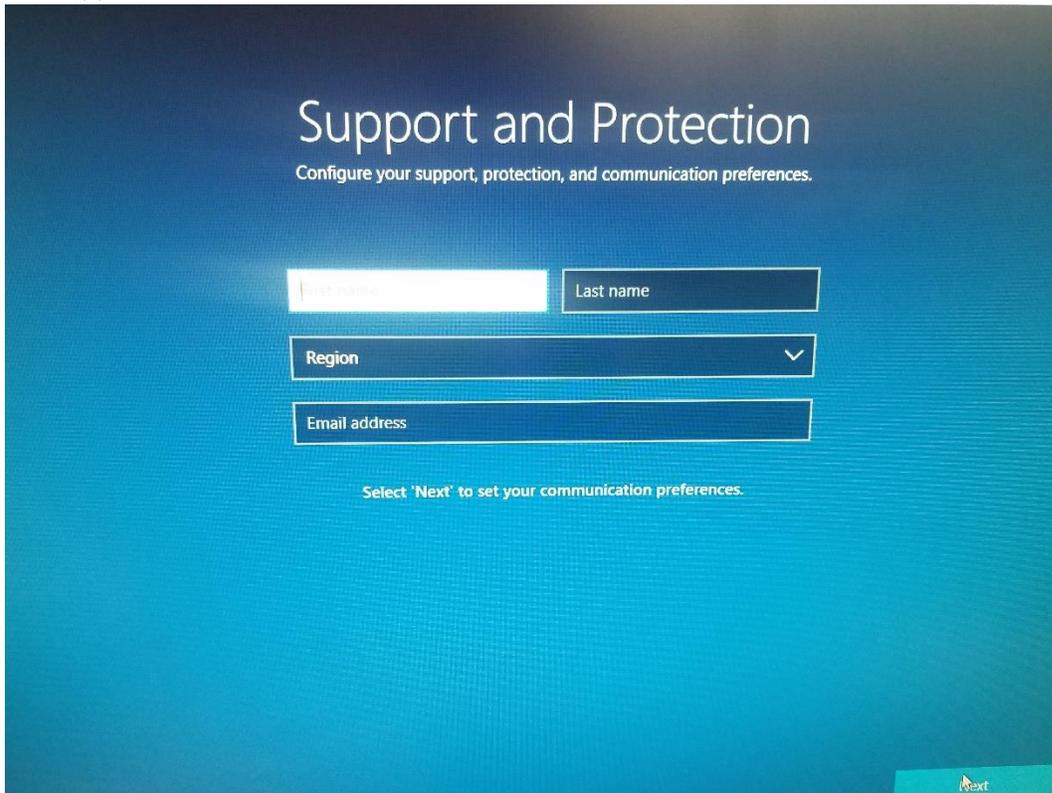


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- N. All switches set to “No”. Diagnostic Data set to “Basic”, then click “Accept”.

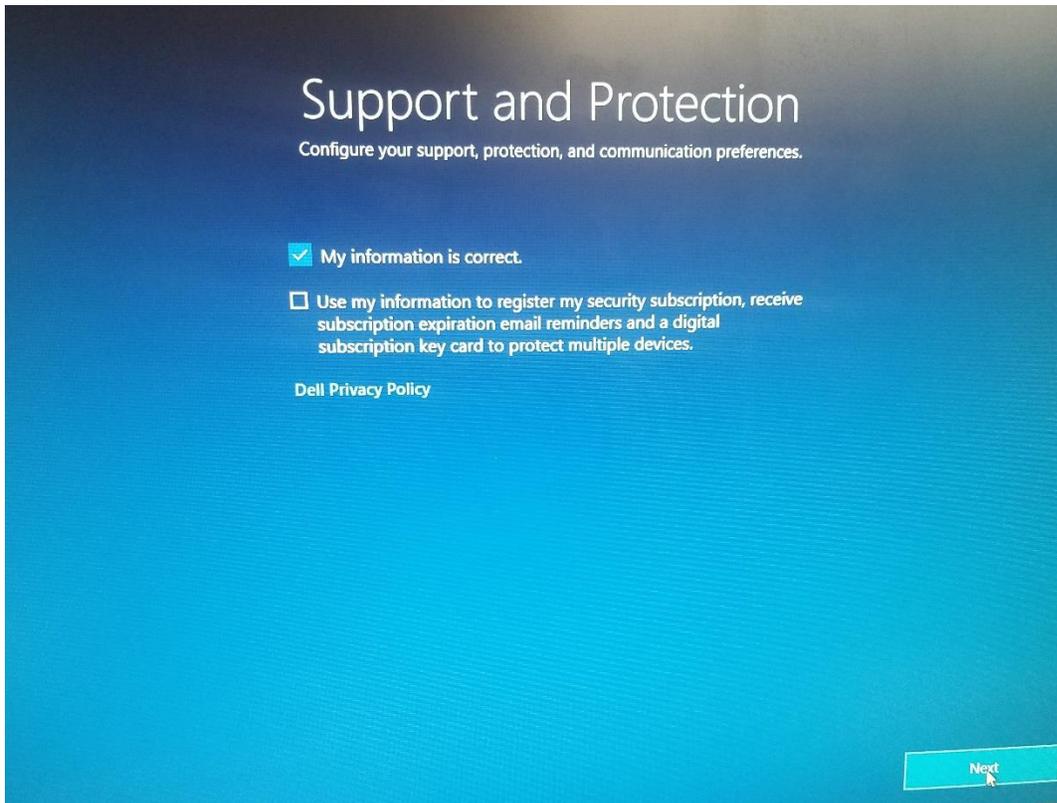


- O. At “Support and Protection” screen, leave blank, click “Next”.



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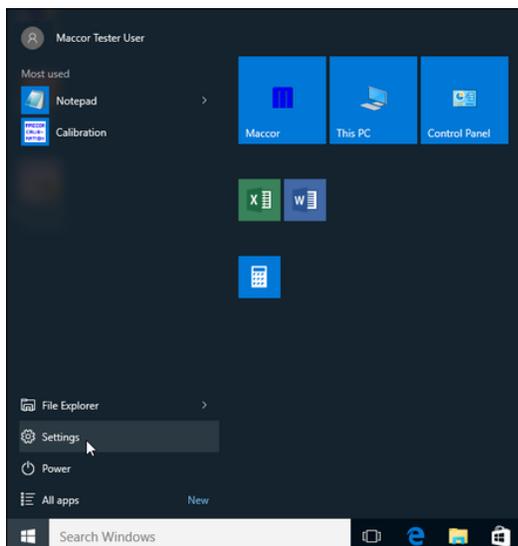
- P. At second Support screen, check “My information is correct”. Click “Next”.



* Windows will perform a finish Boot and bring you to the Windows main desktop. If you are connected to internet, Microsoft Edge will pop up on screen (close Edge).

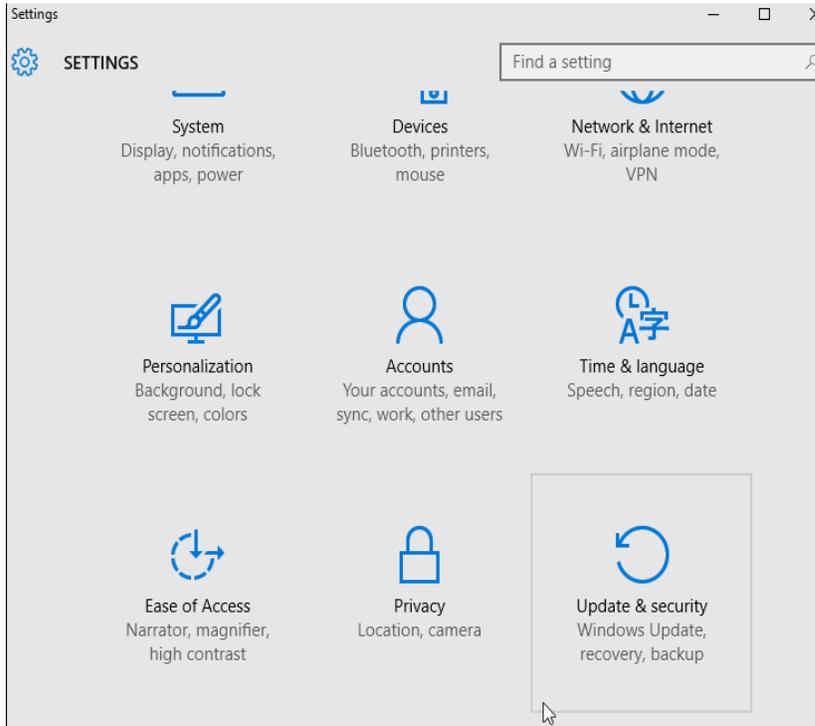
7. COMPLETE ALL WINDOWS UPDATES, restart PC as required:

- A. Left-click start button, select “settings”.

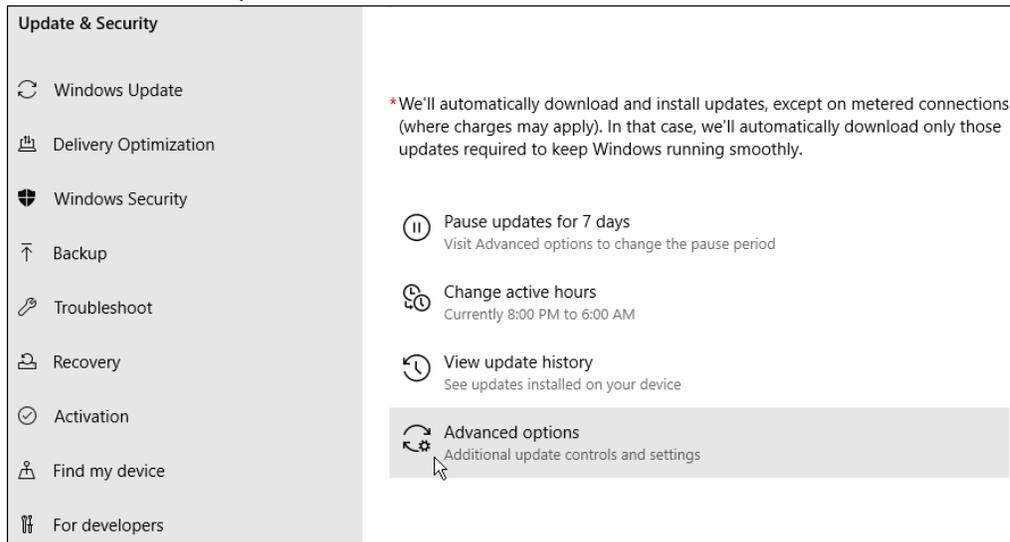


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B. Select "Update and Security"

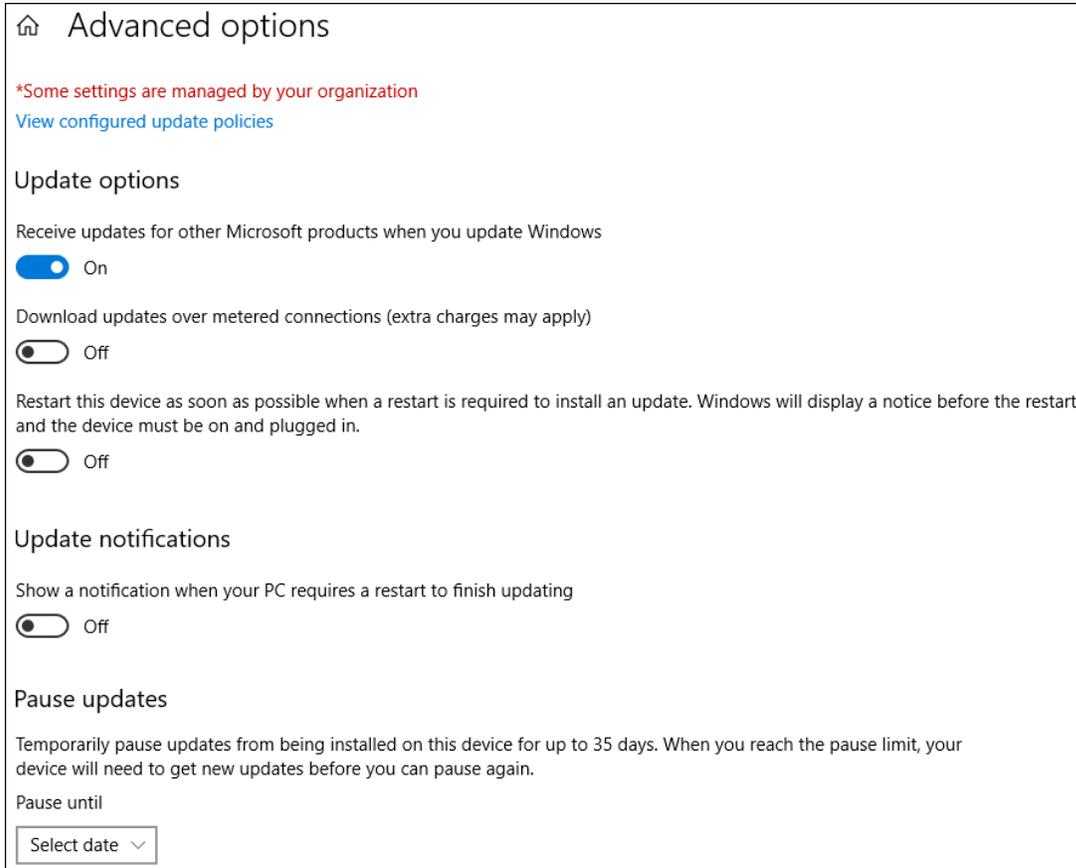


C. Select "Advanced options"

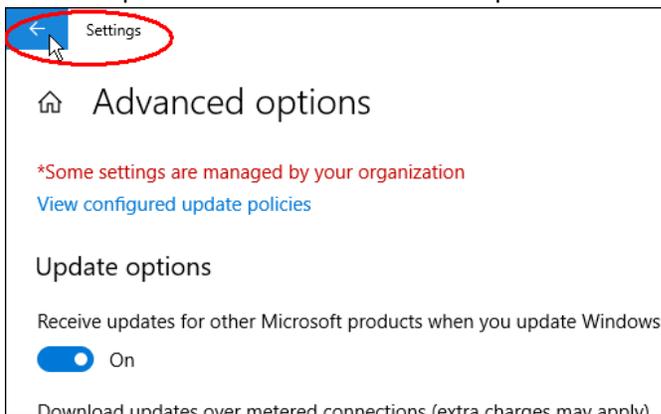


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D. At “Advanced options” screen, turn all selections as shown.



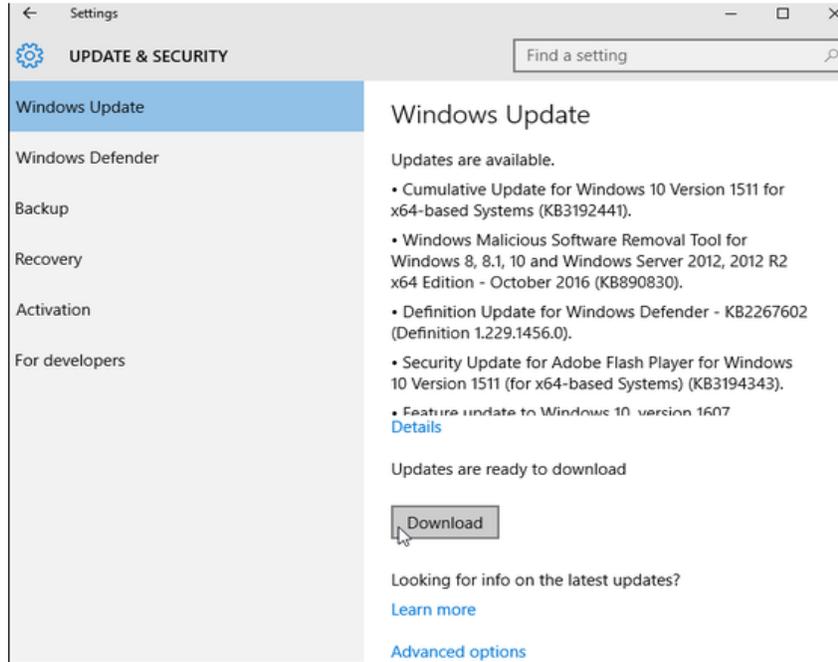
E. Return to previous screen at “Windows Update”.



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F. Click [Download] or [Install], whichever present.

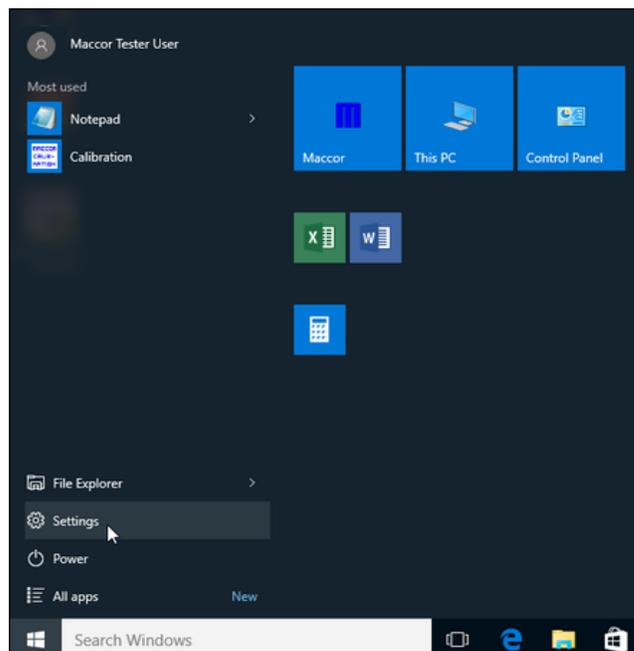
** PC may restart multiple times.*

**8. Install Maccor Software**

** Note: If installing support for Parstat, see Appendix A before continuing (Pg ###-##)*

9. Configure Windows Security (defender)

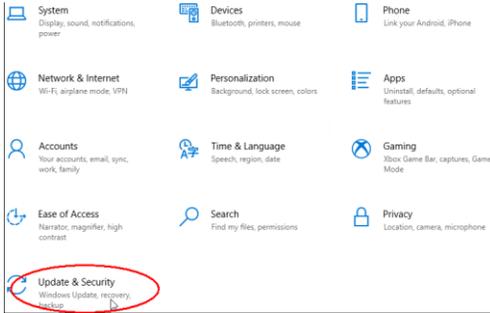
A. Click Windows start button, then Settings.



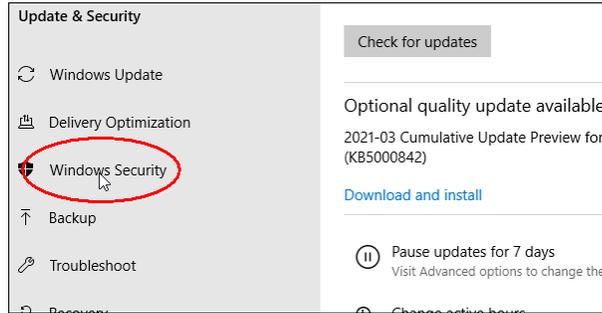
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B. Select "Update & Security" then click "Windows Security".

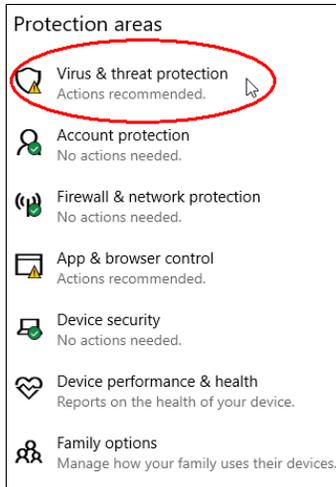
1. Click [Update & Security]



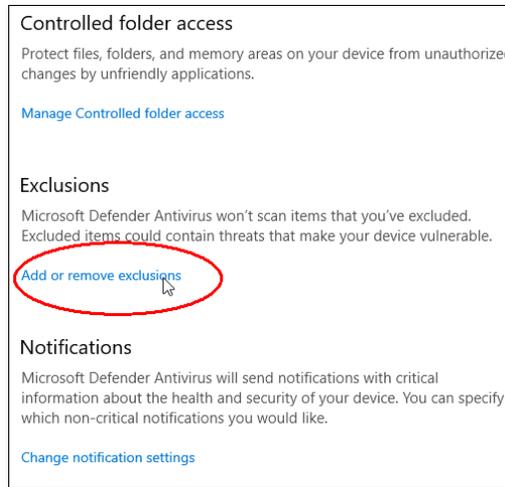
2. Click [Windows Security]



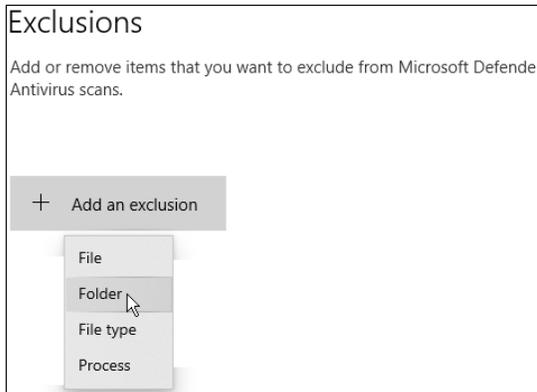
3. Click "Virus & threat protection".



4. Scroll down page, select "Add or remove exclusions".

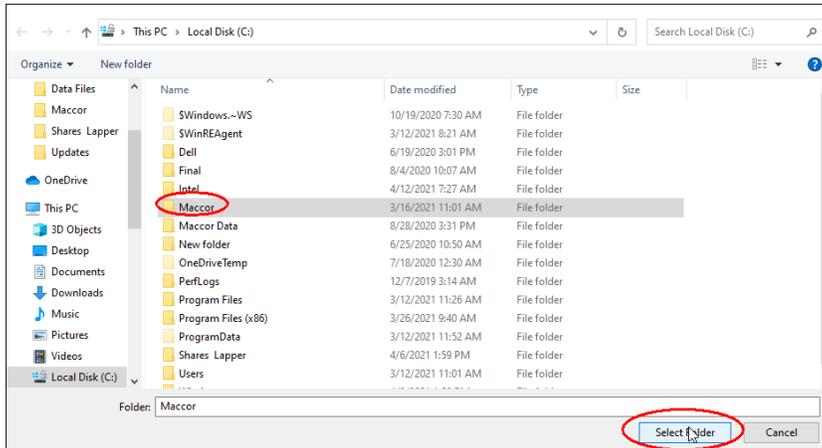


5. Click "Add an exclusion" then "Folder".

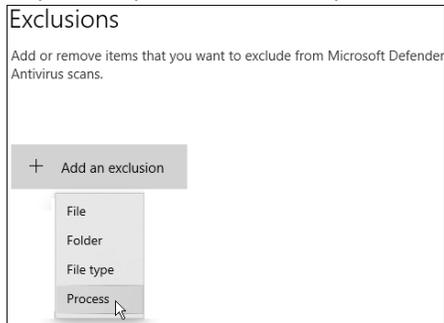


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6. Browse to Maccor folder, click [Select folder].



7. Repeat step 5 above, click “process”.

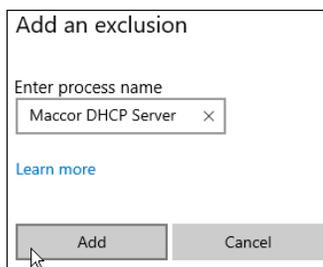


** Dialog may or may not be seen depending on Windows version build*



8. Type in “Maccor DHCP Server” as shown, click [Add].

* Browsing to the process is not an option here so the exact process name must be entered.

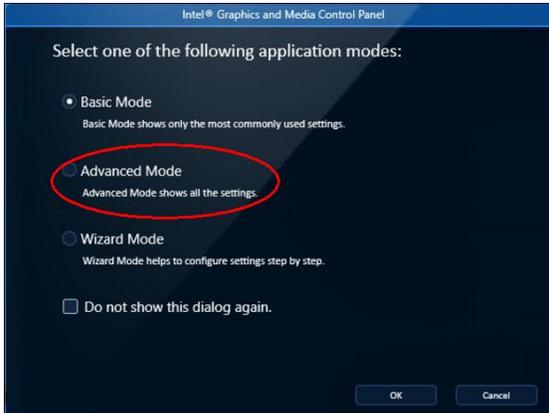


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10. Disable Graphics Hotkeys

1. On keyboard, press “<Ctrl><Alt>Shift>F12”.

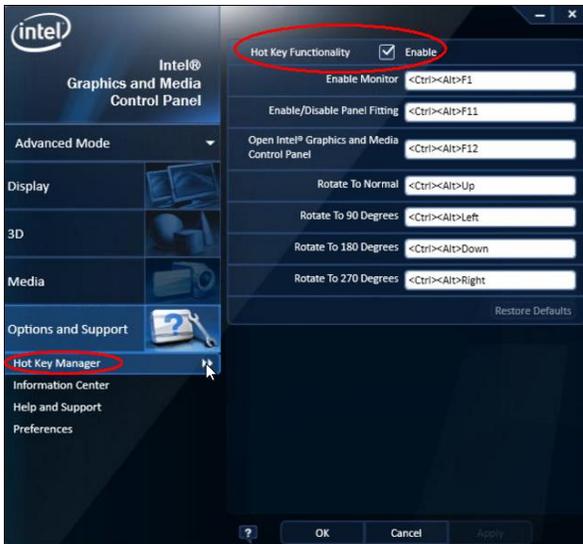
2. Click “Advanced Mode”.



3. Click “Options and Support”.



4. Select “Hot Key Manager”, uncheck box for “Enable”, click [Apply], [OK].



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11: Remove unnecessary entertainment programs/apps/desktop icons.

** Programs listed below will include the ability to directly uninstall. Others will not.*

1. Candy Crush
2. News
3. Money
4. Twitter
5. Sports
6. Microsoft Solitaire Collection
7. Skype

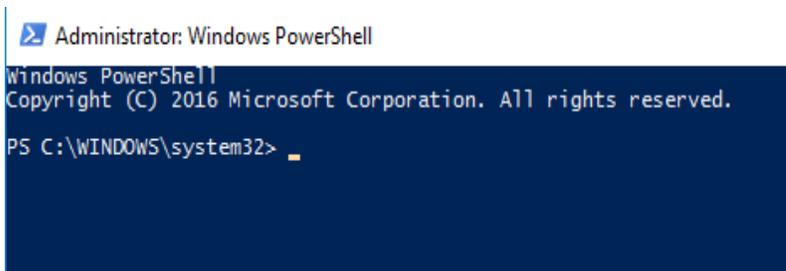
12: Uninstall remaining unnecessary start screen apps (via Windows PowerShell):

Xbox, 3D Builder, Weather, Movies & TV, Groove Music.

- A. Type "Windows PowerShell" in search box (*Run as administrator*).



- B. Allow Windows PowerShell to load.



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- C. To remove Xbox, 3D Builder, Weather, Movies & Tv, and Groove Music, refer to the table below and type or copy each command as shown to the PowerShell for each app to be removed. Press enter after each line is typed or copied.

For example, the command for removing Xbox is copied to PowerShell and appears as shown.

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

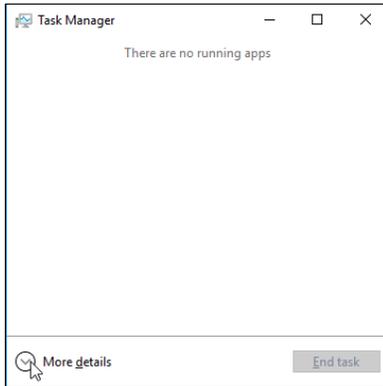
PS C:\WINDOWS\system32> Get-AppxPackage *xboxapp* | Remove-AppxPackage_
```

To Remove:	Copy/Paste into PowerShell or type exactly as shown:
Xbox:	Get-AppxPackage *xboxapp* Remove-AppxPackage
3D Builder	Get-AppxPackage *3dbuilder* Remove-AppxPackage
Weather	Get-AppxPackage *bingweather* Remove-AppxPackage
Movies & TV	Get-AppxPackage *zunevideo* Remove-AppxPackage
Groove Music	Get-AppxPackage *zunemusic* Remove-AppxPackage

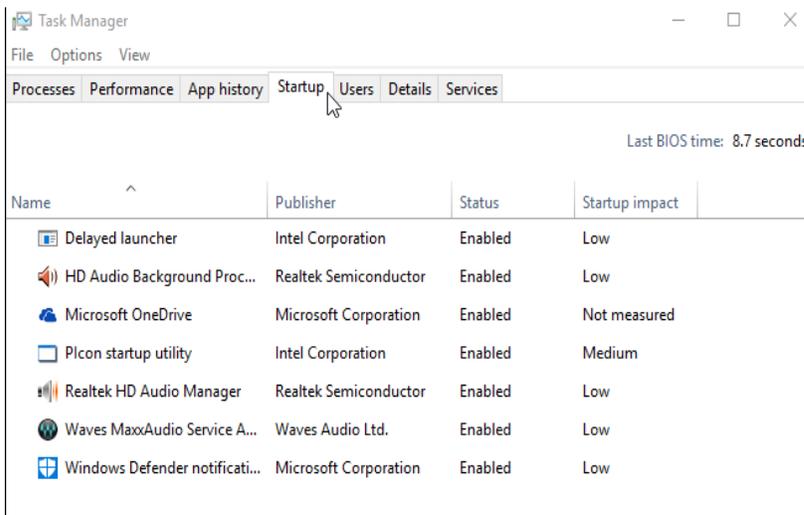
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13. Disable Microsoft OneDrive.

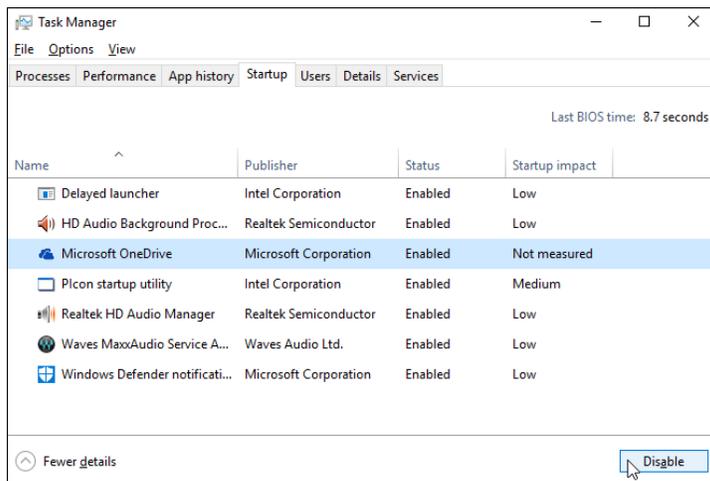
- A. On keyboard, press <Ctrl><Shift><Esc>
- B. Expand “More details”.



- C. Select [Startup] tab.

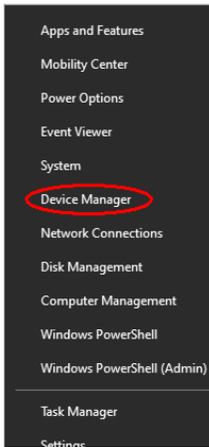


- D. Scroll, bring into focus “Microsoft OneDrive”, click “Disable”.



*Setup Guide***14. Verify no device conflicts exist in Device Manager.** Update drivers as needed.

A. Right-click Windows Start button, select “Device Manager”.



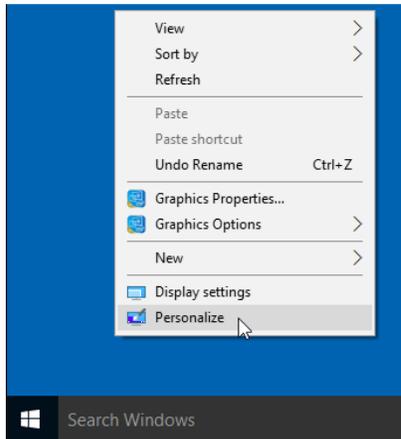
B. Observe/verify no driver issues.



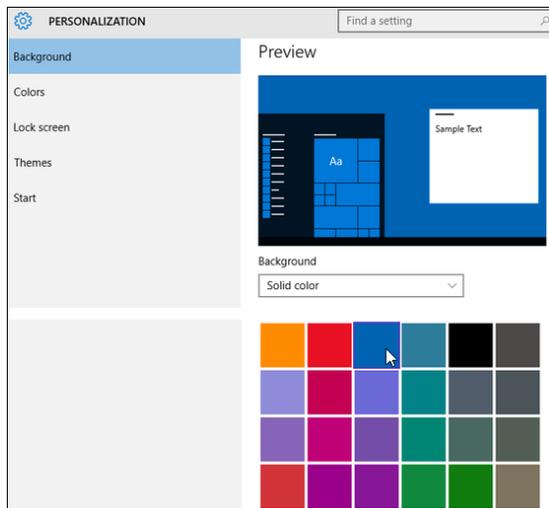
*** If device conflicts exist, check manufacturer website for updated firmware (motherboard). If Dell, search by Service Tag or consult IT.**

*Setup Guide***15. Set desktop background to solid blue.**

- A. Position mouse over blank area on desktop. Right click, select Personalize.



- B. Select solid blue for background.

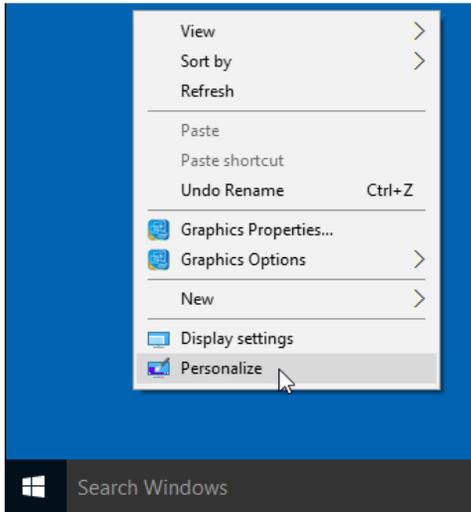


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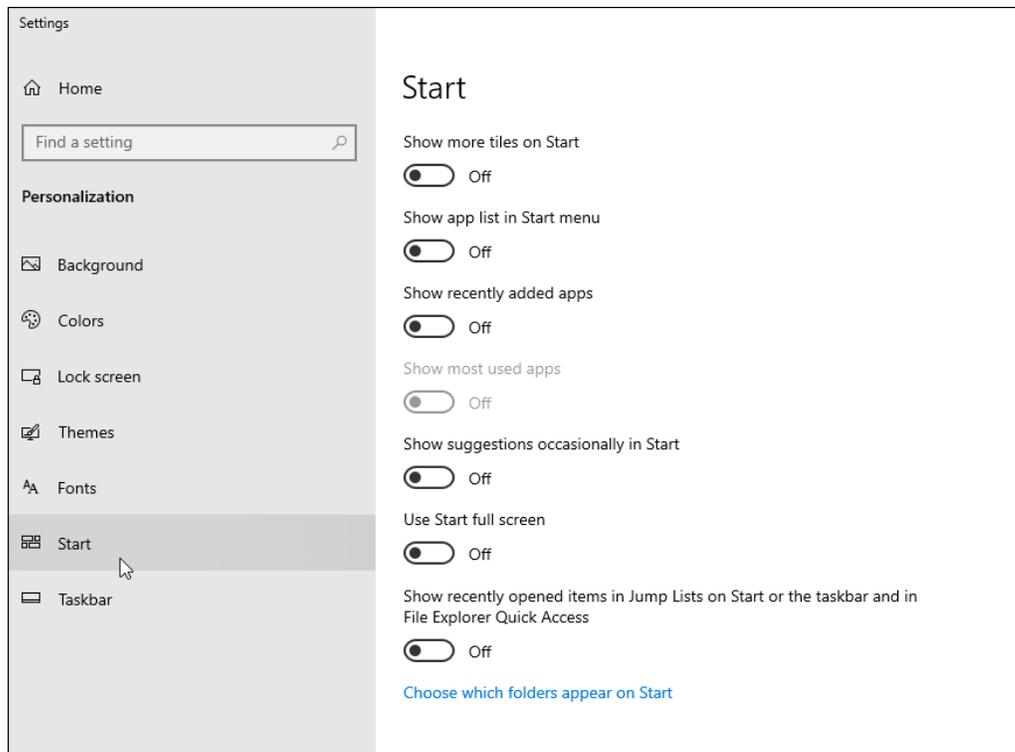
16. Modify Personalization Settings.

A. Start-Screen:

1. Right-click mouse on blank desktop area, select "Personalize".



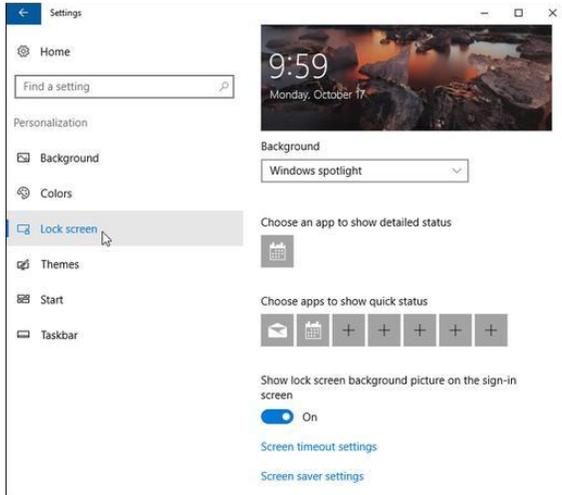
2. Select "Start", turn all selections Off.



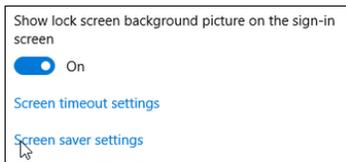
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B. Set screen saver to MacScreen

1. Select "Lock screen"

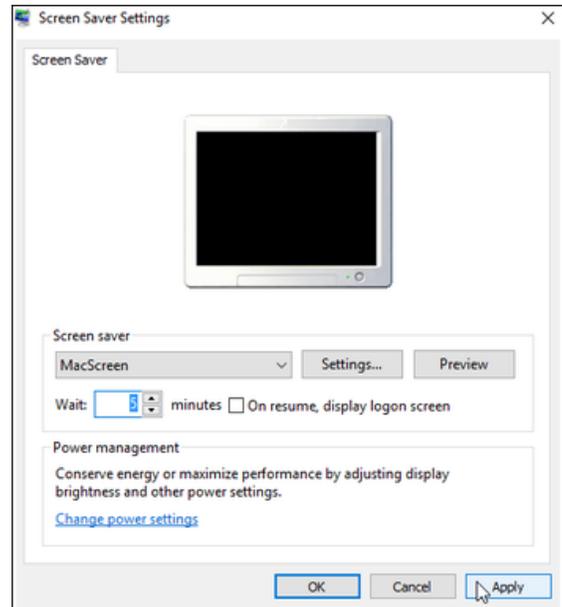
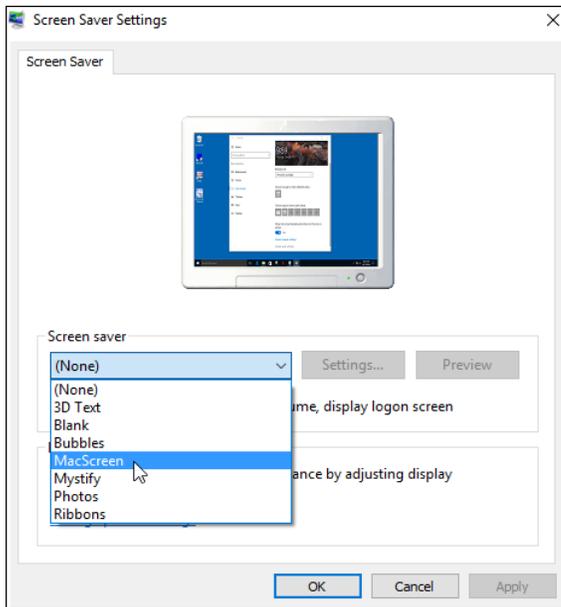


2. Click "Screen saver settings".



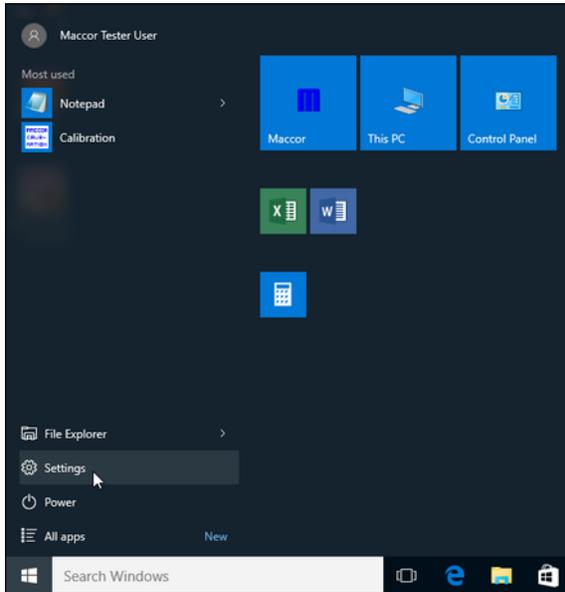
3. Select "MacScreen" within dropdown menu, click [Apply], [OK].

**Choose a reasonable delay (i.e., 5 mins, 30 mins, Etc...)*

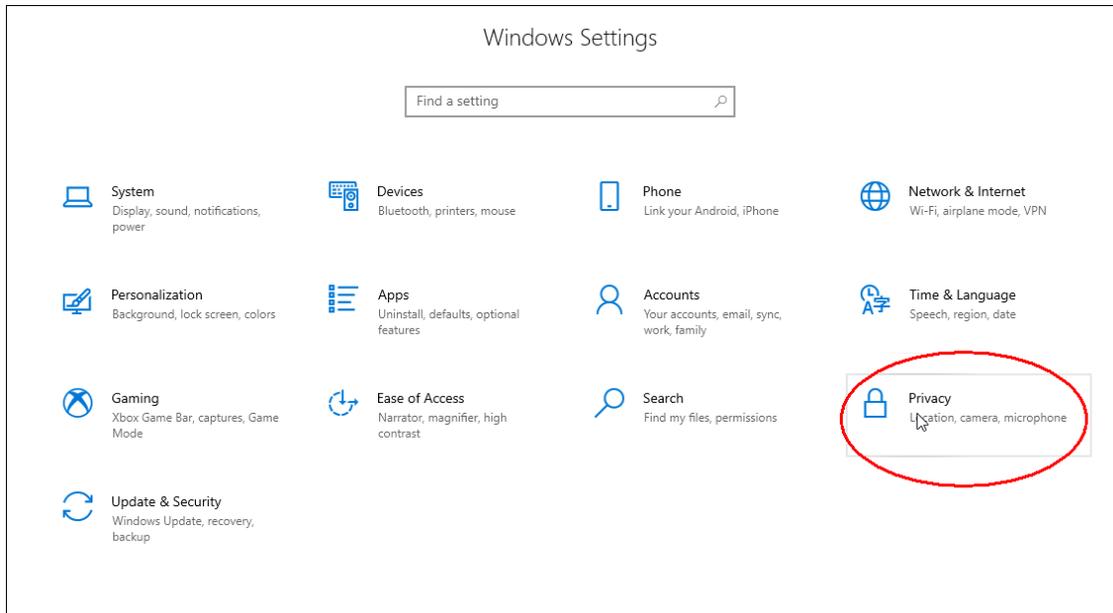


*Setup Guide***17. Disable data logging/tracking.**

A. Click Windows start button, then “Settings”.

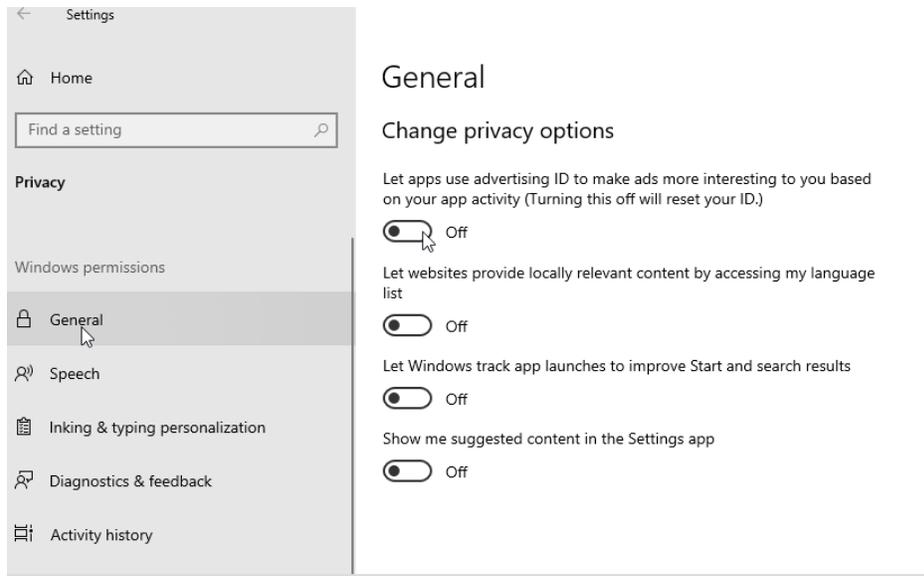


B. Select “Privacy”.

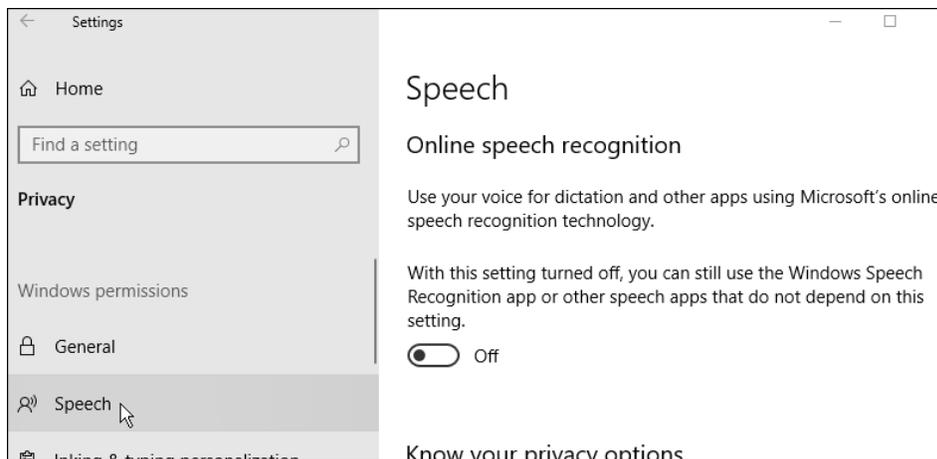


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C. Under “General” tab, turn all settings Off.

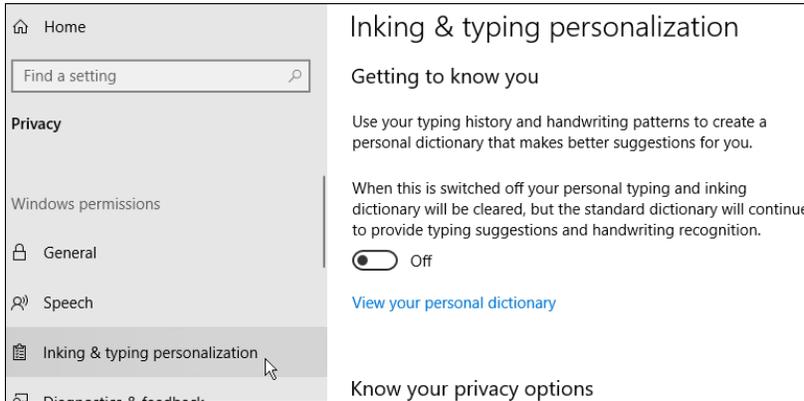


D. Select “Speech”, under “Online speech recognition”, turn switch to Off.



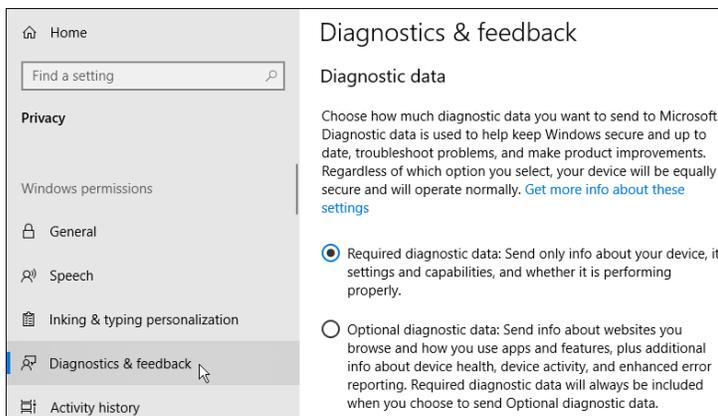
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E. Select “Inking & typing personalization”, turn switch to Off.

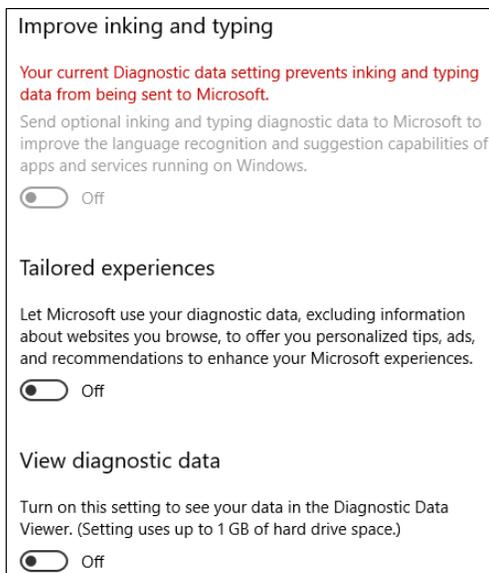


F. Diagnostics & feedback

1. Select “Required diagnostic data

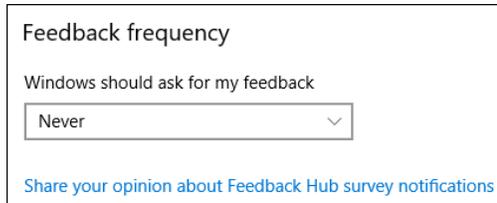


2. Scroll further down, verify additional switches are Off



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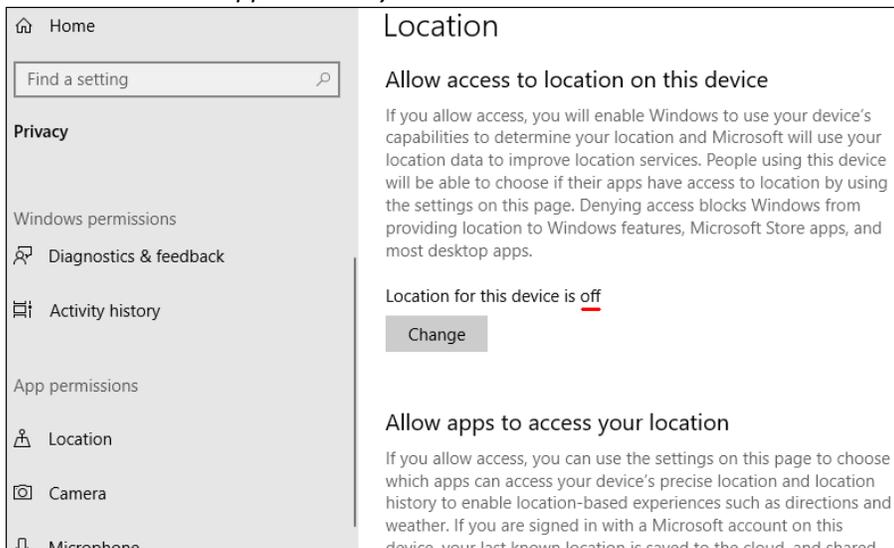
3. Continue scrolling down, set feedback frequency to “Never”.



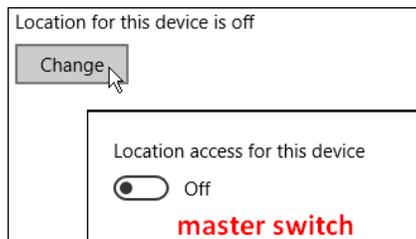
G. App Permissions

1. At left side-bar menu under App permissions, starting with “Location”, then “Camera”, set all master switches to “Off”.

** There should be approximately 22 master switches total.*

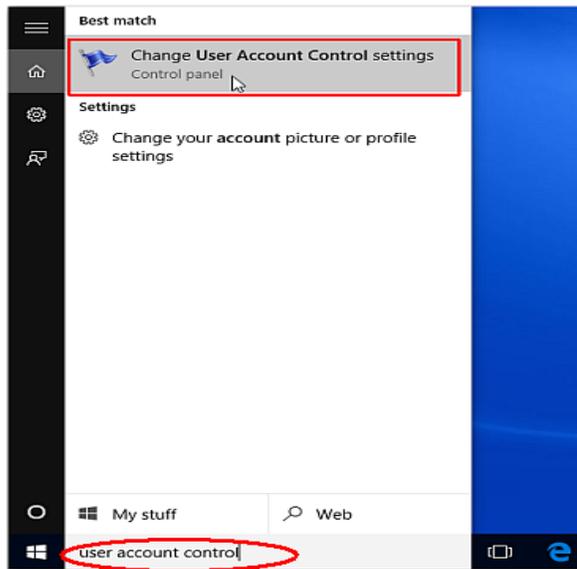


**** Note: Master switch is hidden. To change position, click [Change] button.**

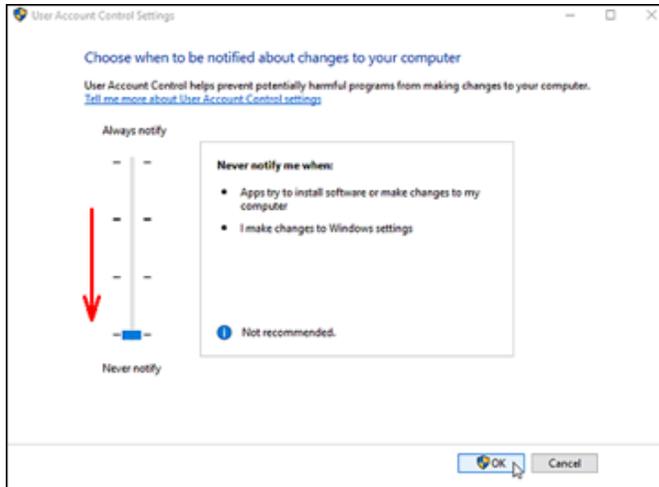


*Setup Guide***18. Preparing PC for Maccor use****A. Turn Off User Account Control Warning.**

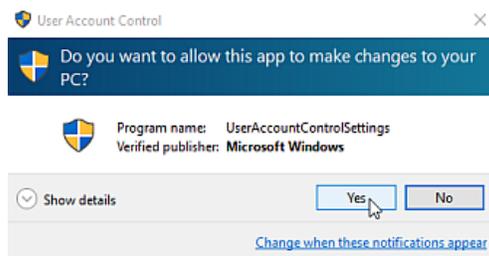
1. Type in “user account control” in desktop search box; click “Change User Account Control settings”.



2. Move Slider to “Never notify” position. Click “OK”



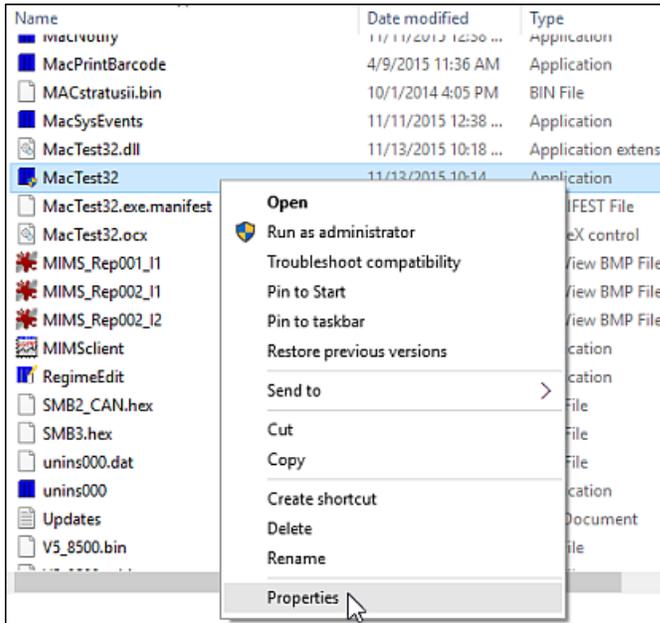
3. Click “Yes” to allow the change



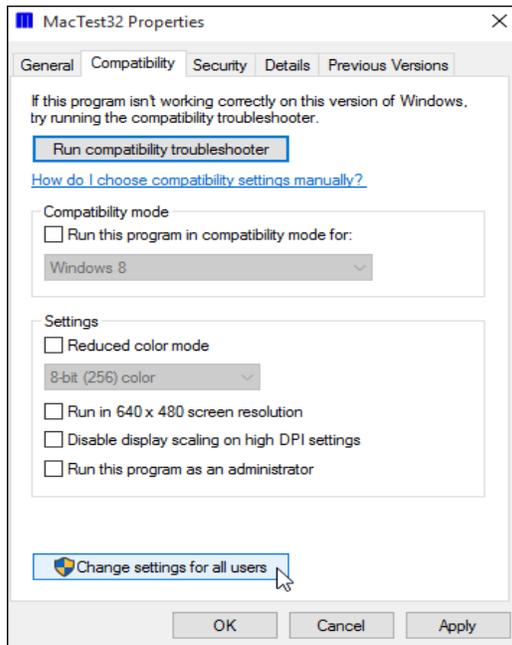
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B. Set Maccor Program (MacTest32.exe) to *Run as Administrator*.

1. Locate MacTest32.exe program within C:\Maccor folder
2. Highlight MacTes32, right-click and select Properties.

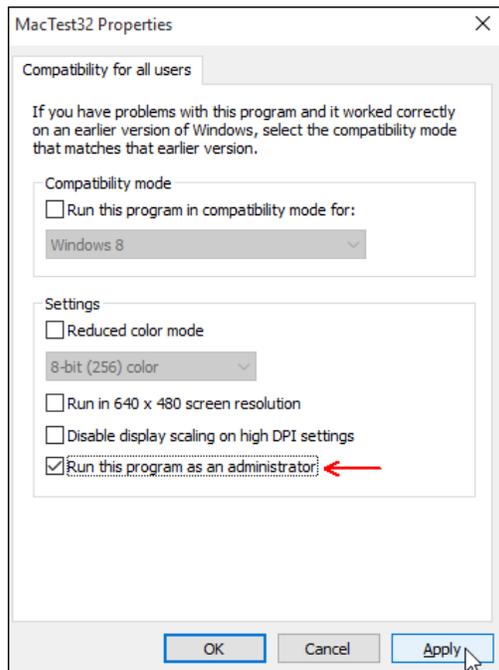


3. Select "Compatibility" tab, click "Change settings for all user".



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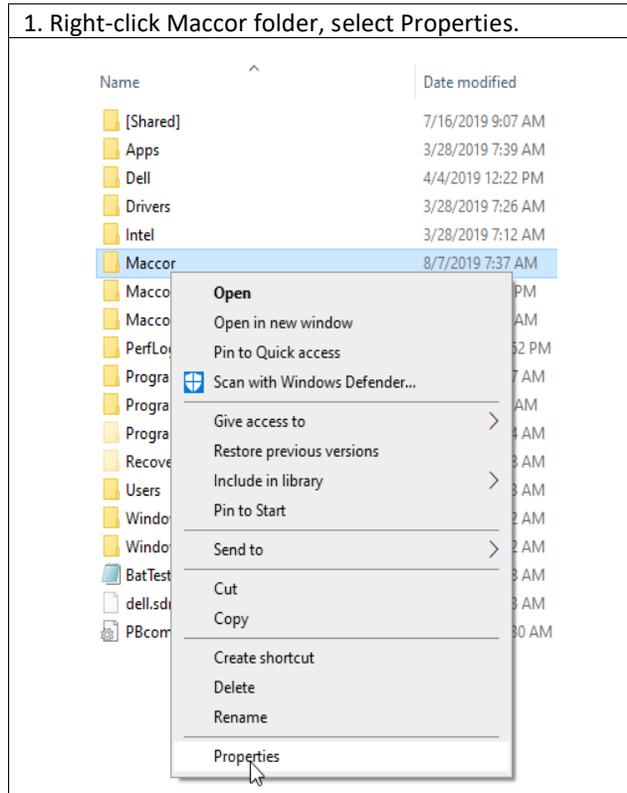
4. Checkmark “Run this program as an administrator”. Click “Apply”, then “Ok”.



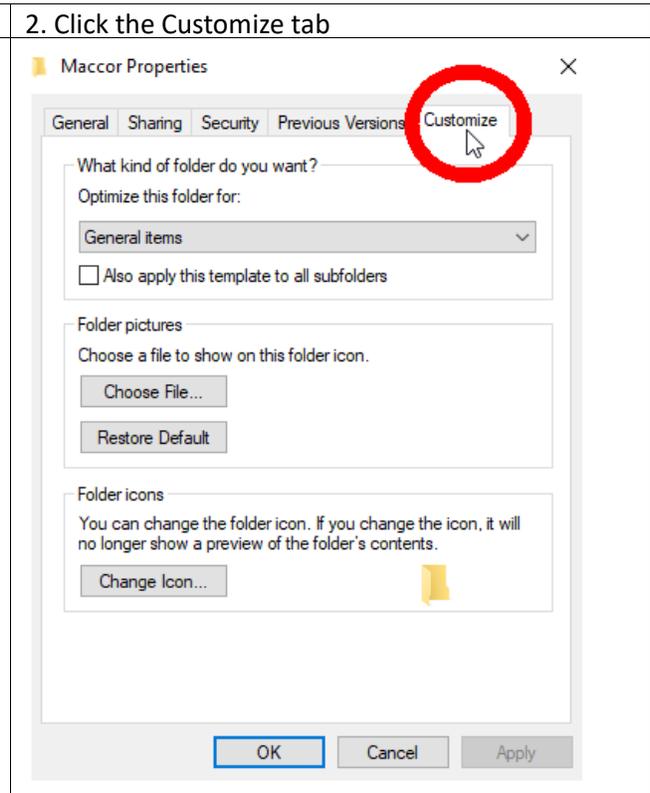
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C. Change Maccor Icon

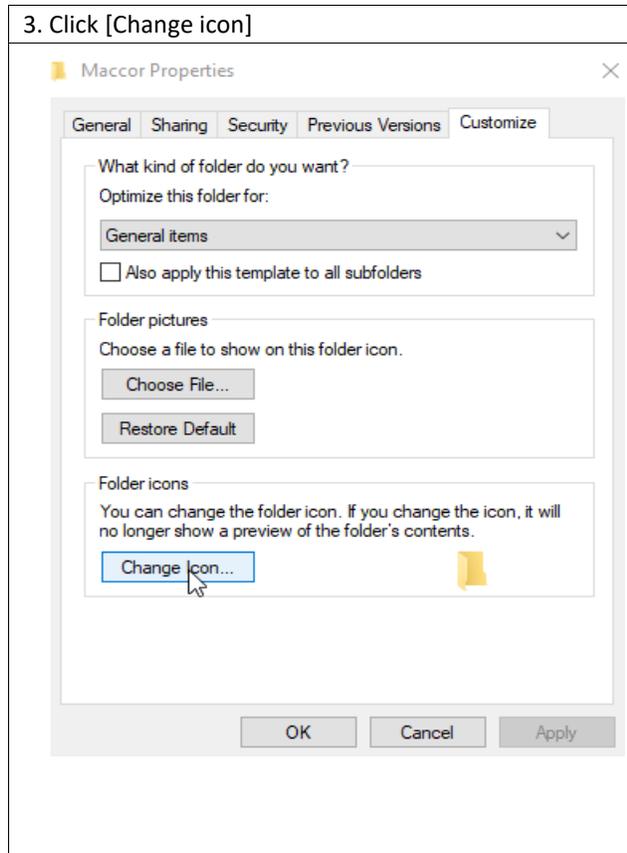
1. Right-click Maccor folder, select Properties.



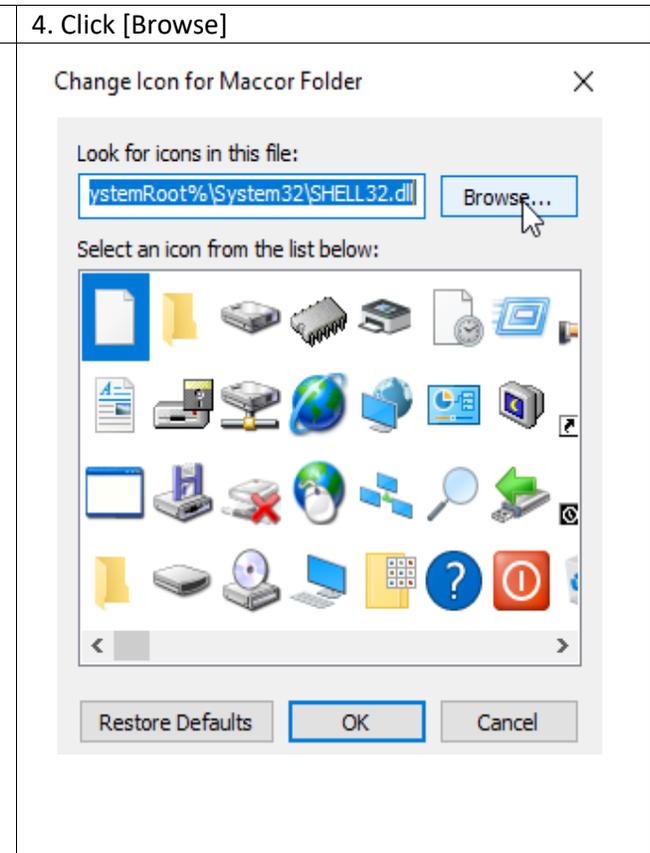
2. Click the Customize tab



3. Click [Change icon]

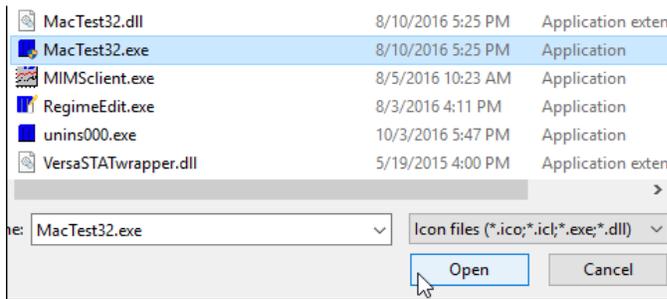


4. Click [Browse]

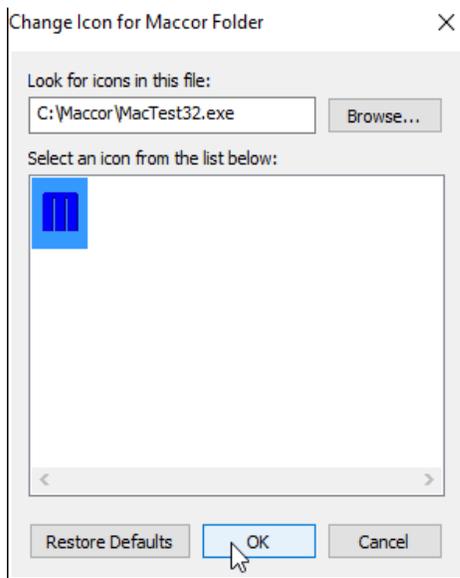


Setup Guide

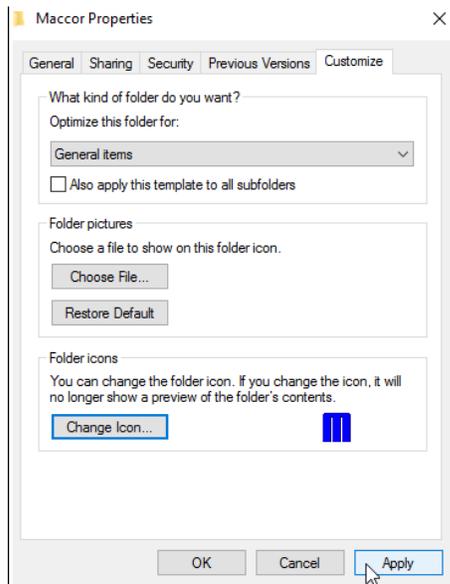
5. Browse to MacTest32.exe, click “Open”.



6. Select M, click “Ok”.

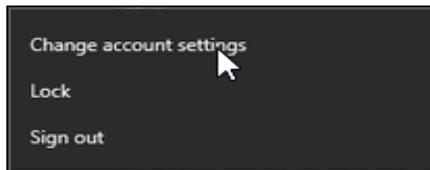
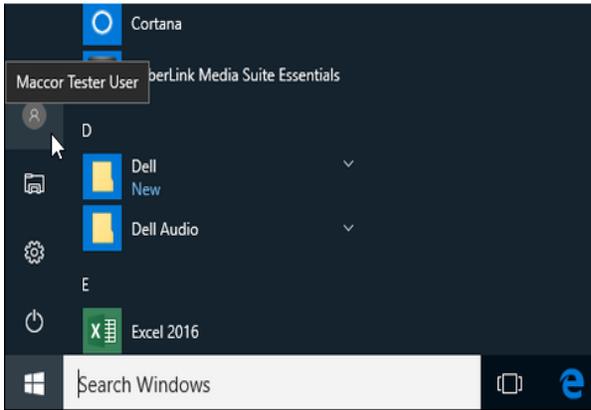


7. Click “Apply”, “Ok”

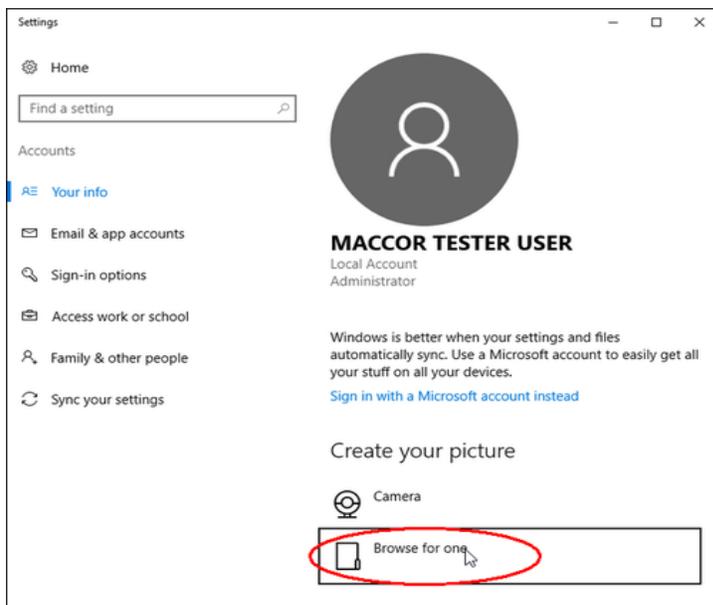


*Setup Guide***D. Change User Account Picture**

1. Left-click Windows Start button, then right-click “Maccor Tester User”, select “Change account Settings”.

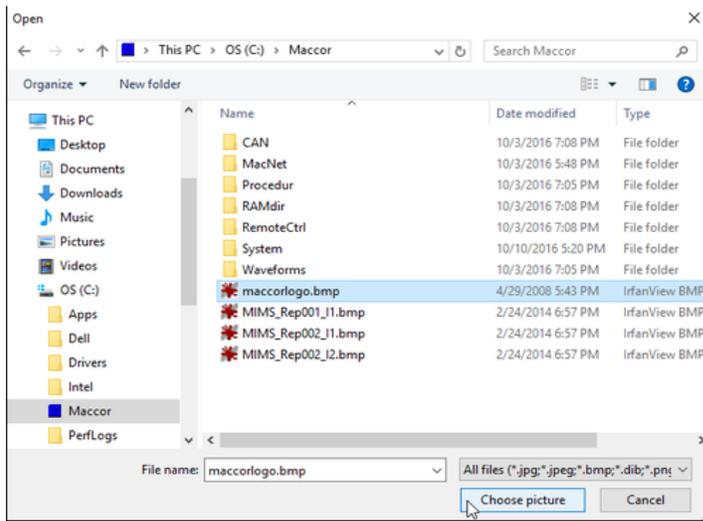


2. Click “Browse for one”.



Setup Guide

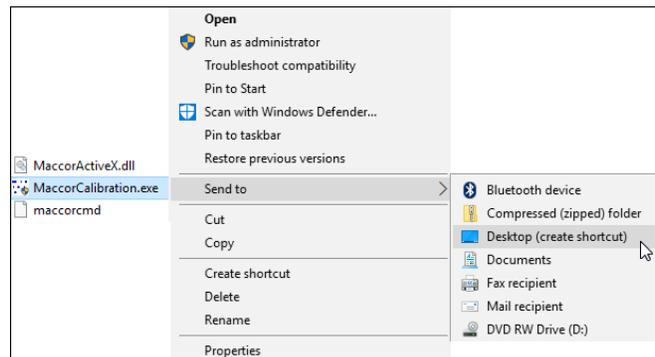
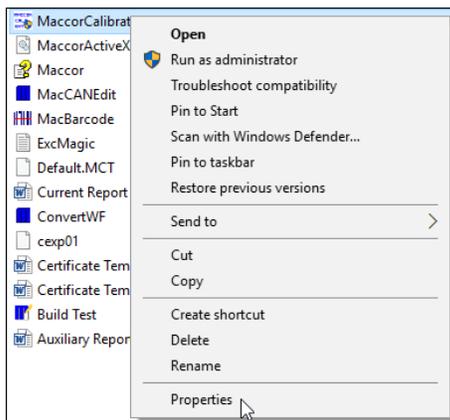
3. Browse to “maccorlogo.bmp” inside Maccor folder, click [Choose picture].



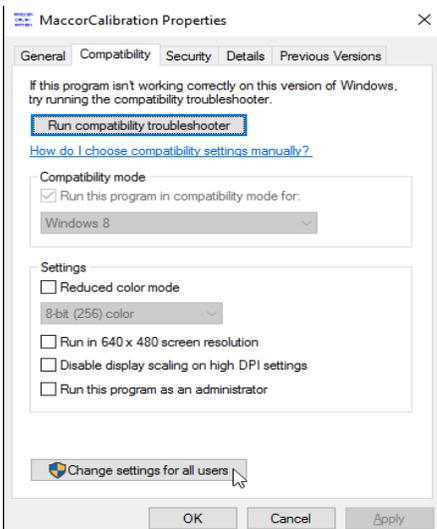
E. Set Maccor Calibration Program (MaccorCalibration.exe) to Run as Administrator

1. Locate MacTest32.exe program within C:\Maccor folder.

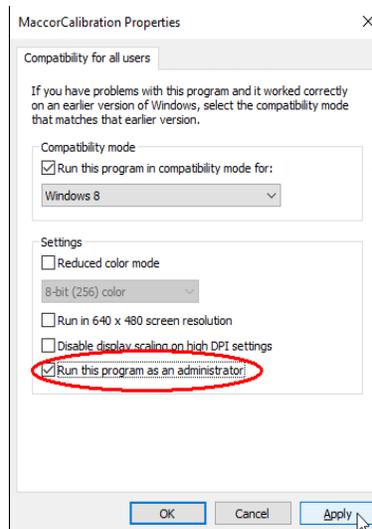
* Create desktop shortcut as option.



2. Click “Change settings for all users”.

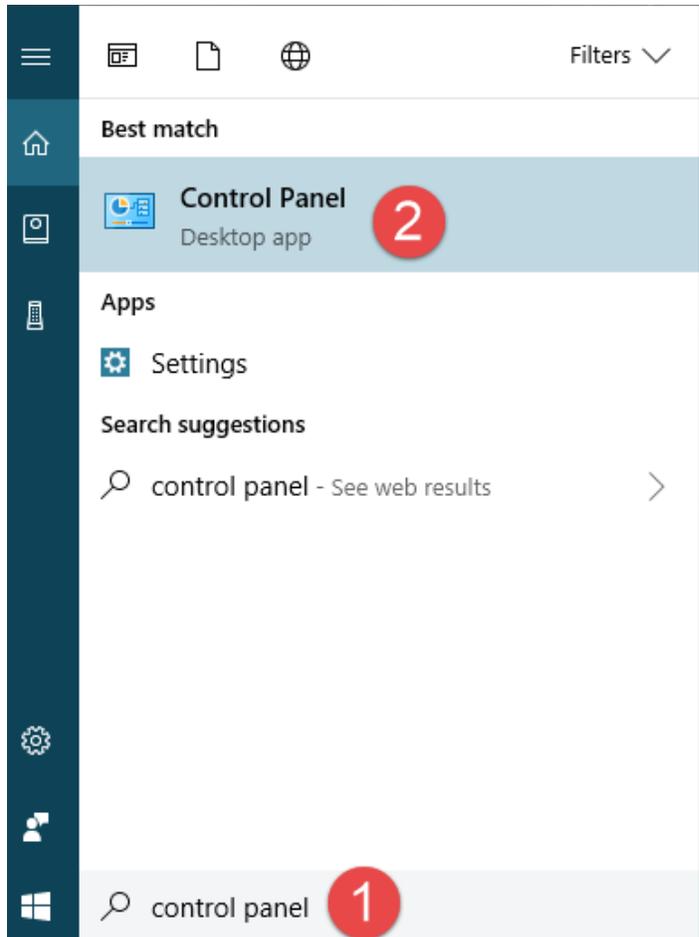


3. Check box to Run as administrator, Click “Apply”, “Ok”.



*Setup Guide***F. Maccor Tester - Network Connection: Setup and Configuration**

1. At desktop search bar, type “Control Panel”



2. View by Category and select “Network and Internet”



Setup Guide

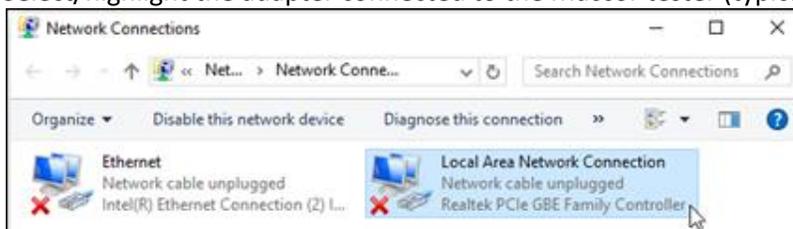
3. Select “Network and Sharing Center”.



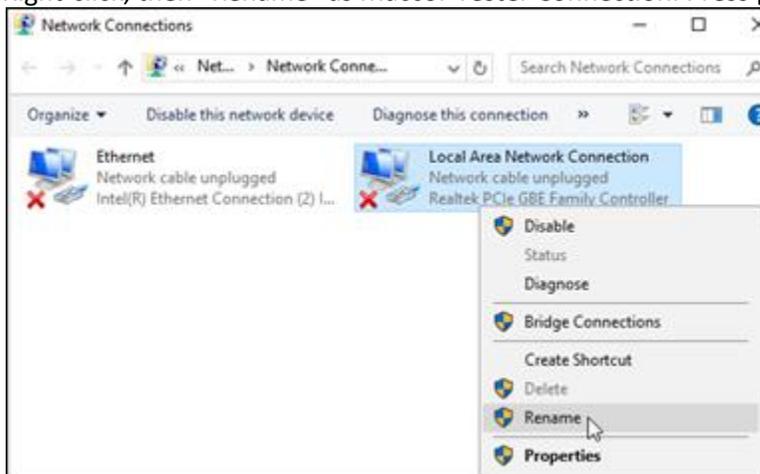
4. Click “Change Adapter Settings”



5. Select/highlight the adapter connected to the Maccor tester (typically the add-on Network card).

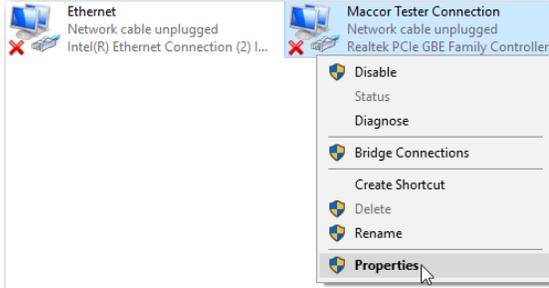


6. Right-click, then “Rename” as Maccor Tester Connection. Press [Enter] to save.

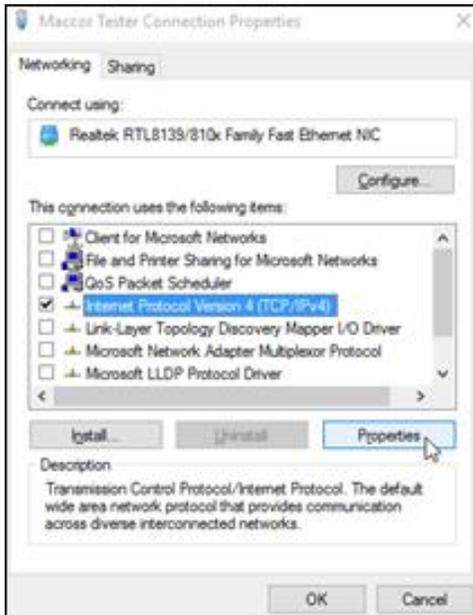


Setup Guide

7. Right-click again, this time select “Properties”.



8. Deselect all items except TCP/IPv4. Click “Properties” with IPv4 in focus.

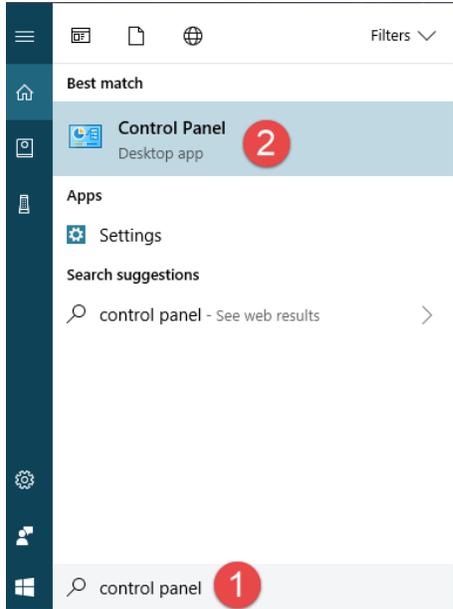


9. Change to fixed IP Address of **192.168.127.239** and Subnet mask of **255.255.255.0**



*Setup Guide***G. Firewall Exceptions**

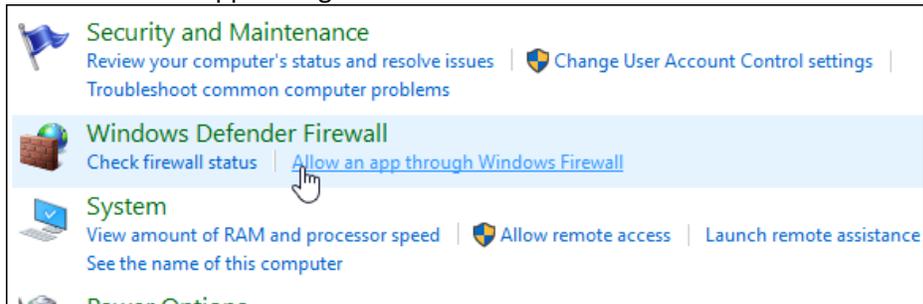
1. In desktop search bar, type “Control Panel”



2. Select [System and Security]

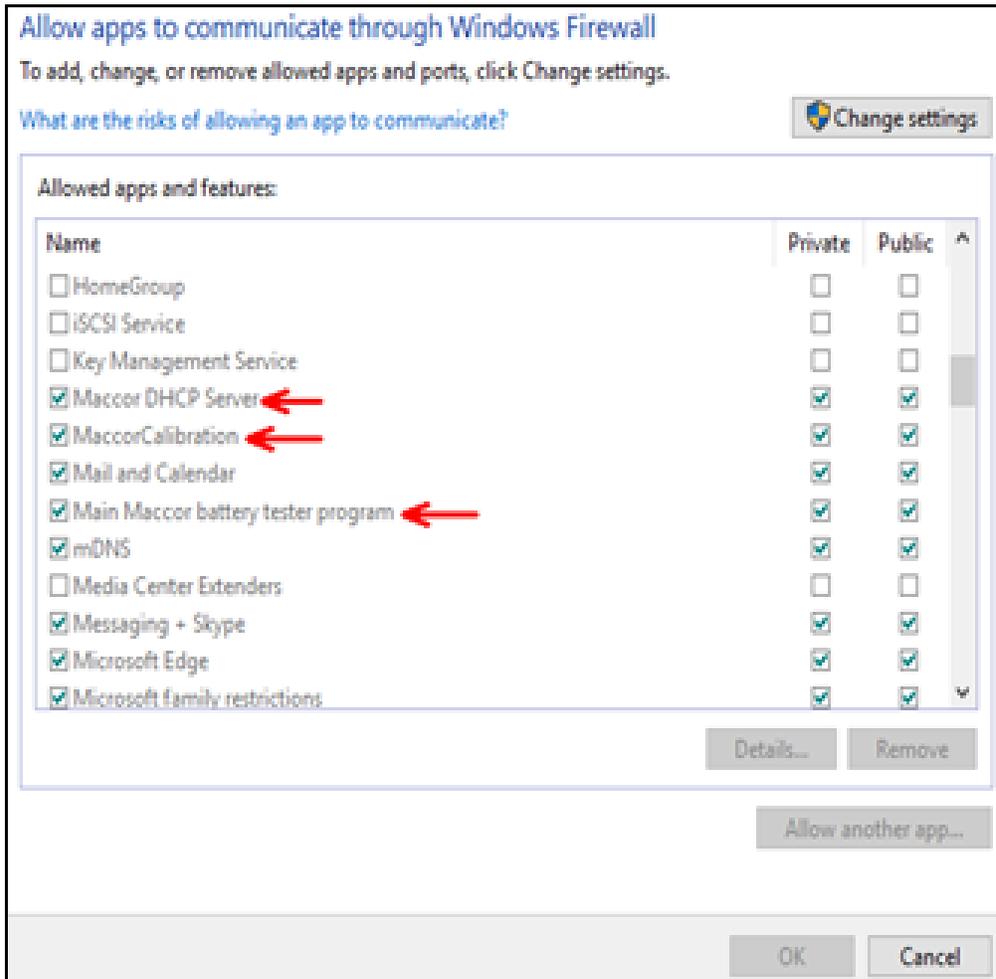


3. Select “Allow an app through Windows Firewall”.



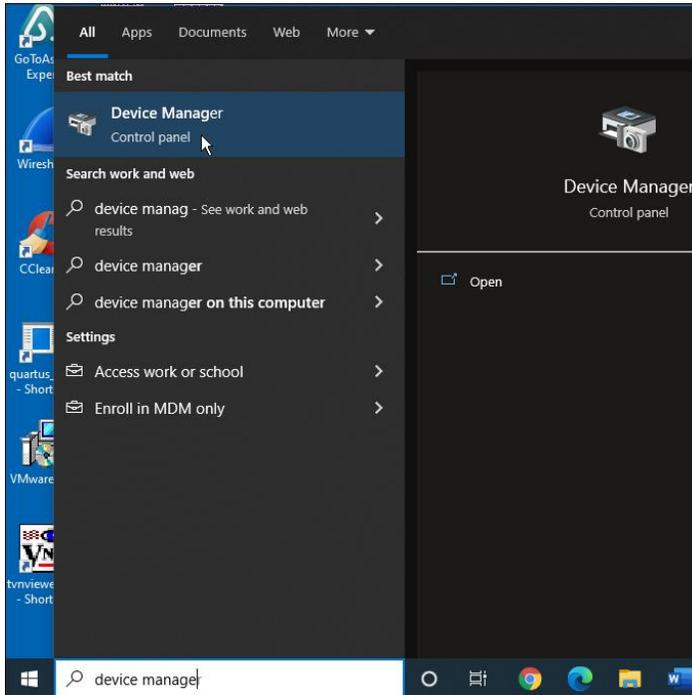
Setup Guide

4. Allow exceptions to Main Maccor battery tester program, Calibration program, and Maccor DHCP Server.

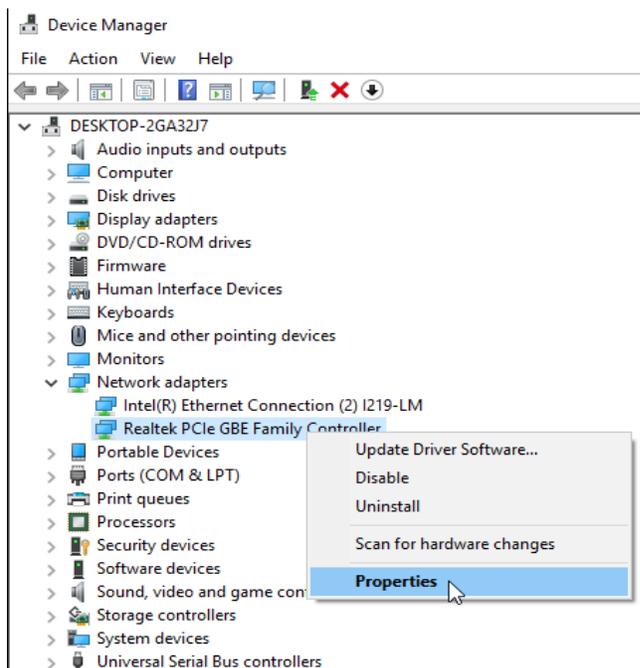


*Setup Guide***H. Maccor Network Card – Power Settings**

1. At desktop search bar, type “device manager”, then select with mouse under best match.

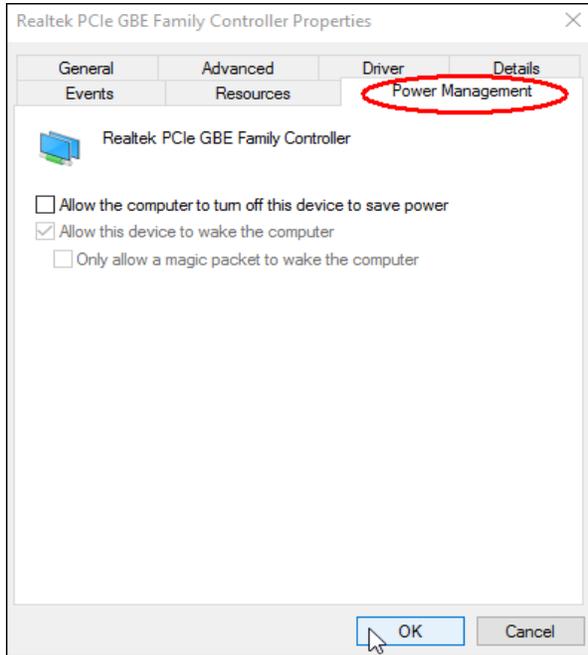


2. Expand “Network adapters”, right-click on Realtek (or appropriate network card), then select [Properties].
* *Appropriate network card is the one connected to Maccor Tester.*



Setup Guide

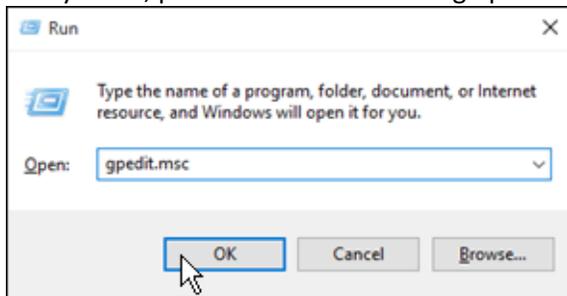
3. At “Power Management” tab, **un-check** the box “Allow the computer to turn off this device to save power”.



I. Disable Automatic Updates

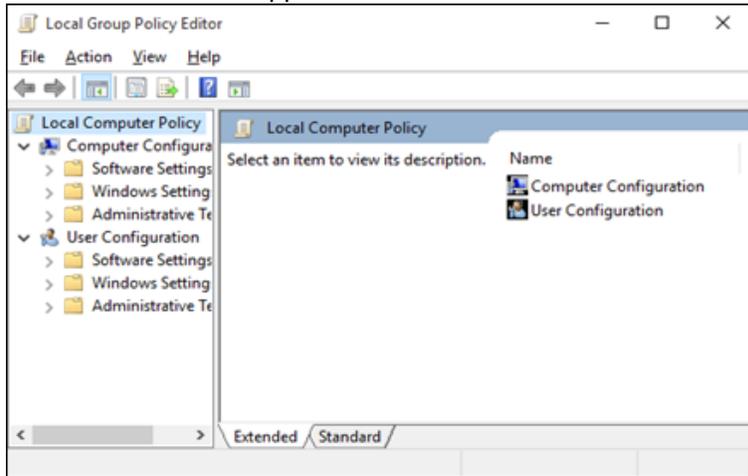
* The following method is only possible with Windows 10 Professional Edition under a Local Account.

1. On keyboard, press *Windows+R* to bring up the Run dialog, type in *gpedit.msc* then press [Enter]

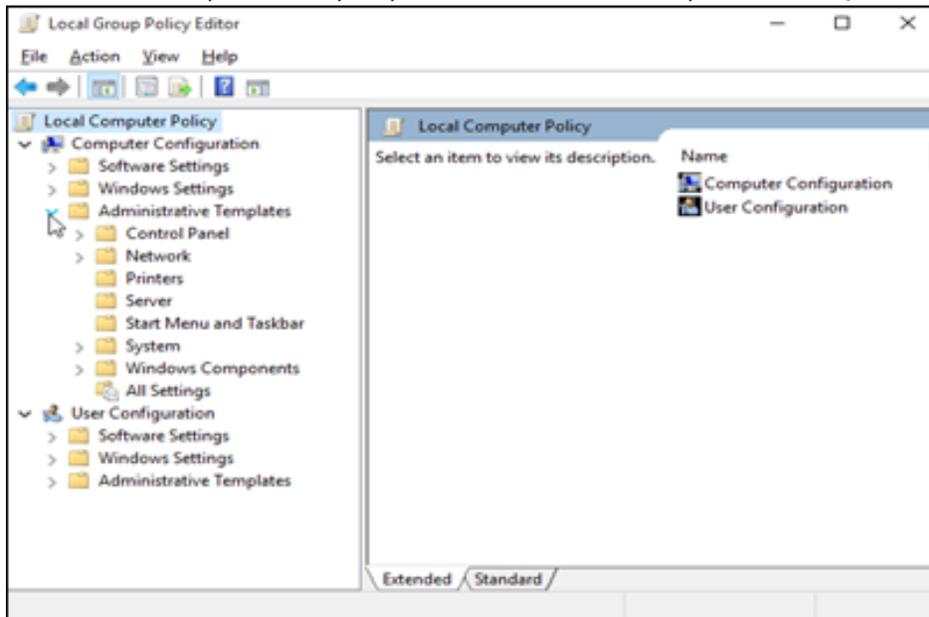


Setup Guide

2. Initial default screen appears.

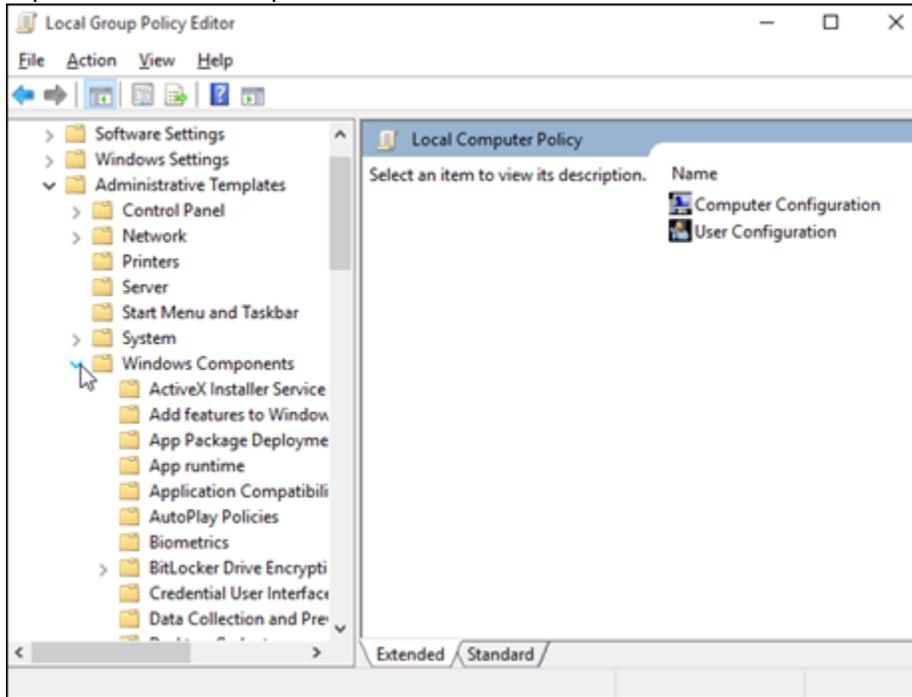


3. Under Local Computer Policy, expand Administrative Templates folder (on left).

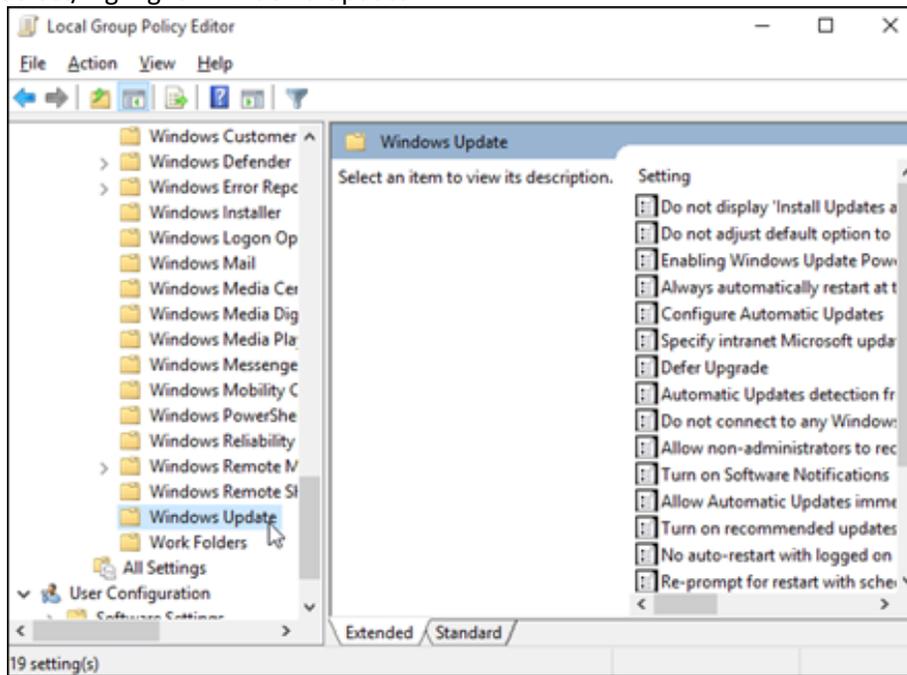


Setup Guide

4. Expand Windows Components.

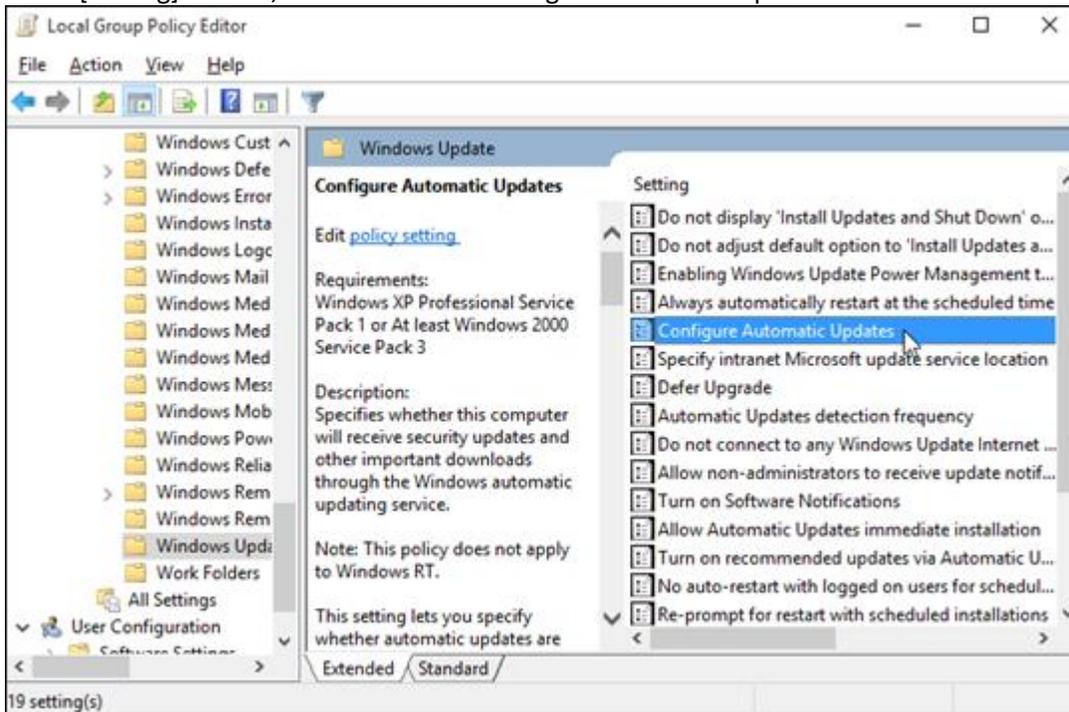


5. Select/highlight "Windows Update"

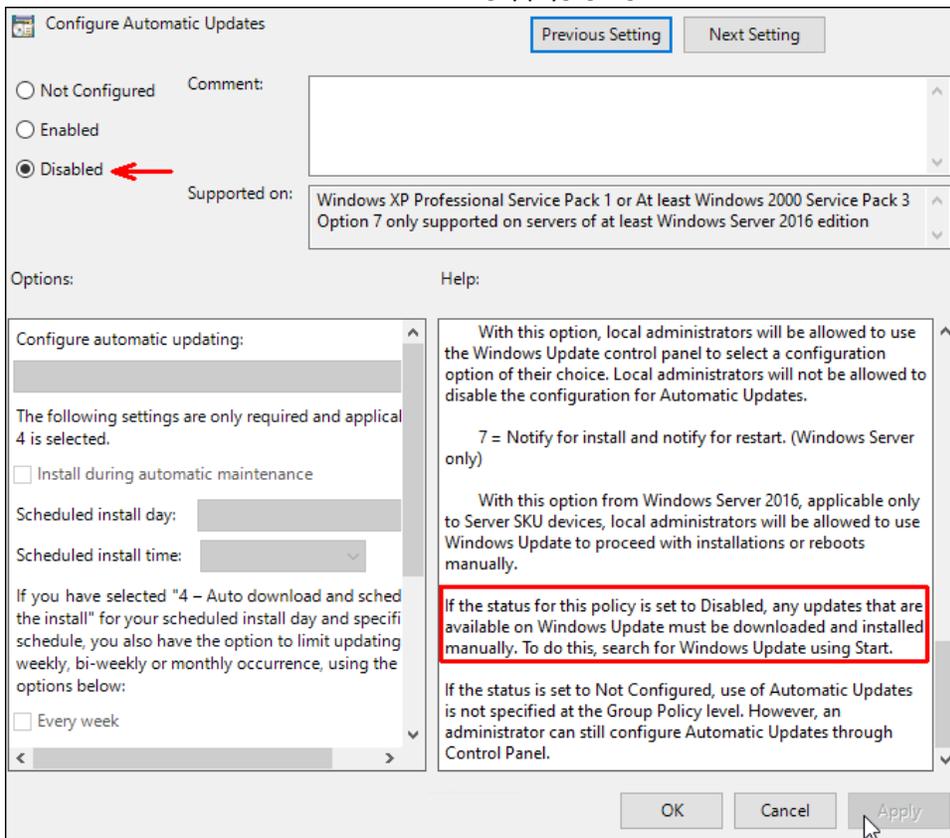


Setup Guide

6. Under [Setting] section, double-click on “Configure Automatic Updates”

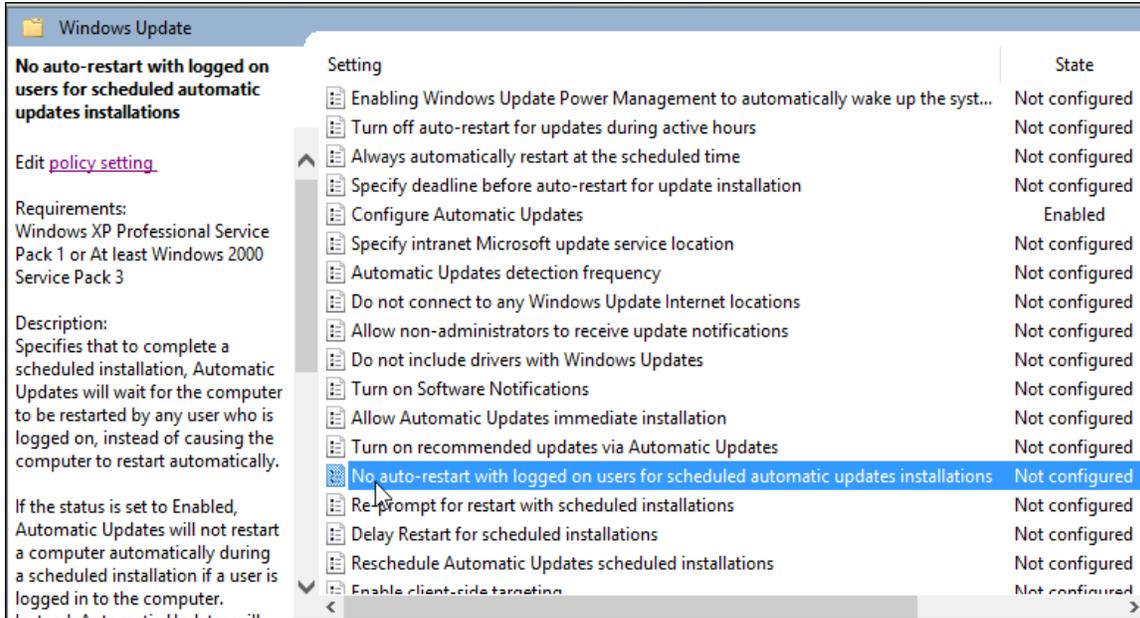


7. On left side screen, select Disabled. Click [Apply], [Ok].

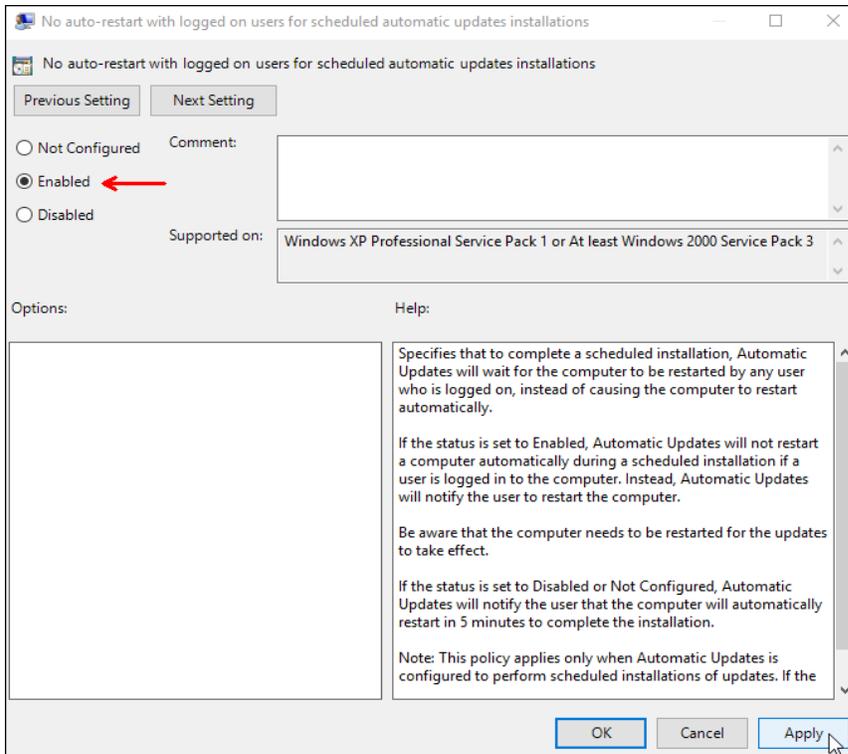


Setup Guide

- Double-click “No auto-restart with logged on users...”
** This is a fallback policy but should have no effect if [Configure Automatic Updates] is set to Disabled.*



- Enable the policy; click [Apply], [Ok]. Close Group Policy Editor.



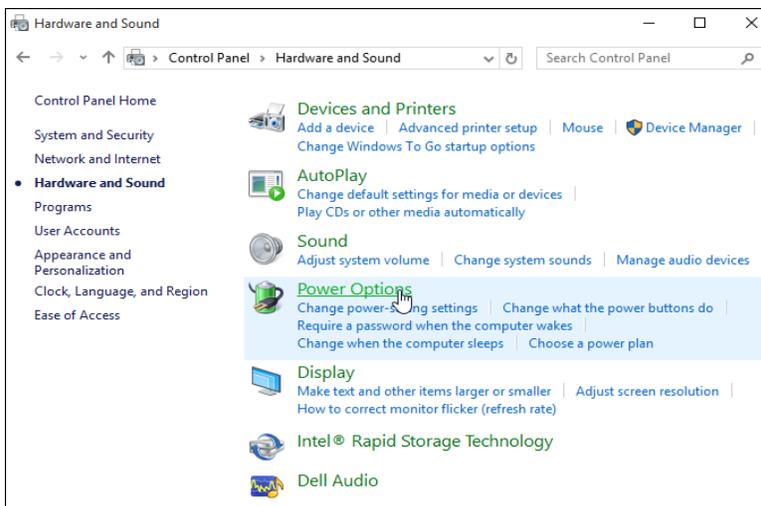
Setup Guide

J. Set Power Options for High Performance

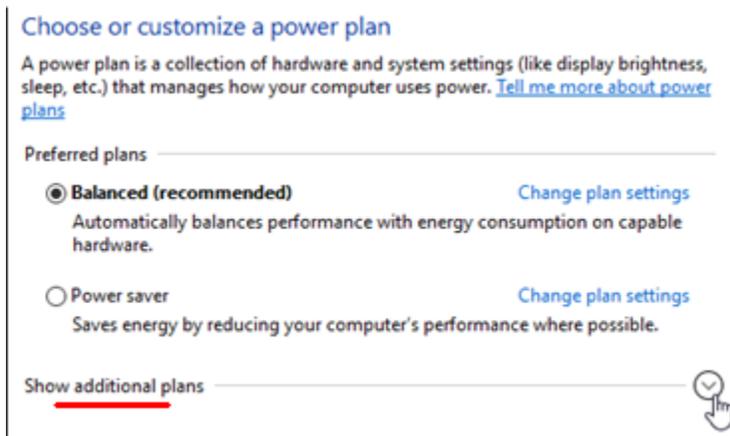
1. From Control Panel, Select “Hardware and Sound”



2. Select “Power Options”

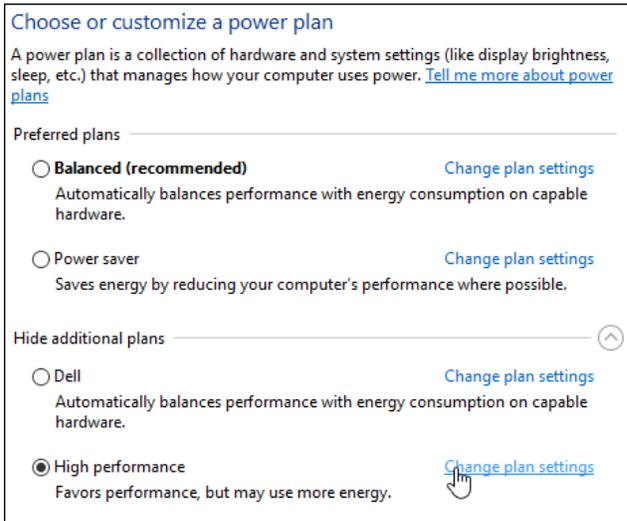


3. Expand hidden drop-down menu under “Show Additional plans”.

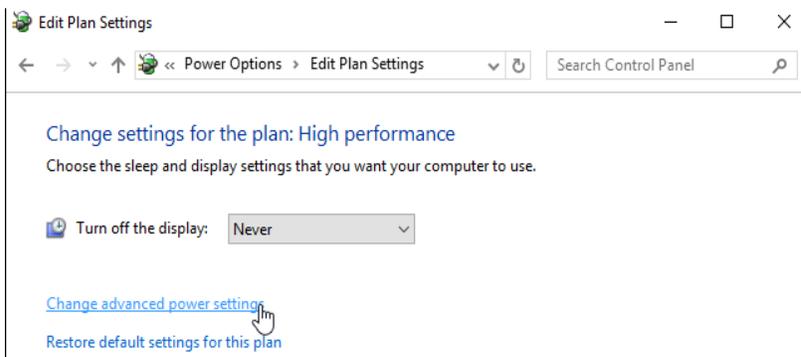


Setup Guide

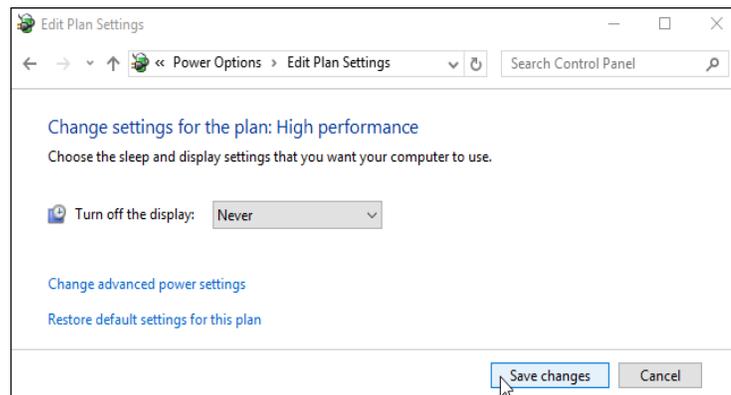
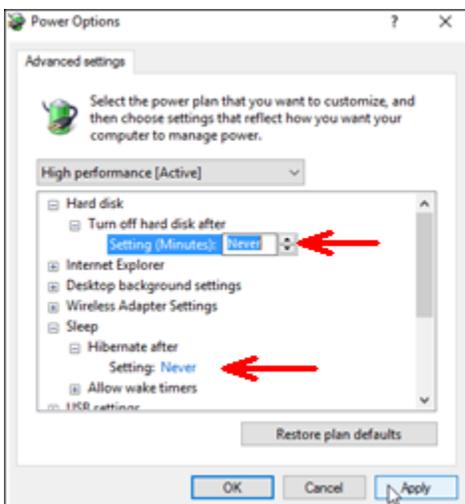
4. Change to “High Performance” and click “Change Plan Settings”.



5. Change to “Never”, then click “Change advanced power settings”.



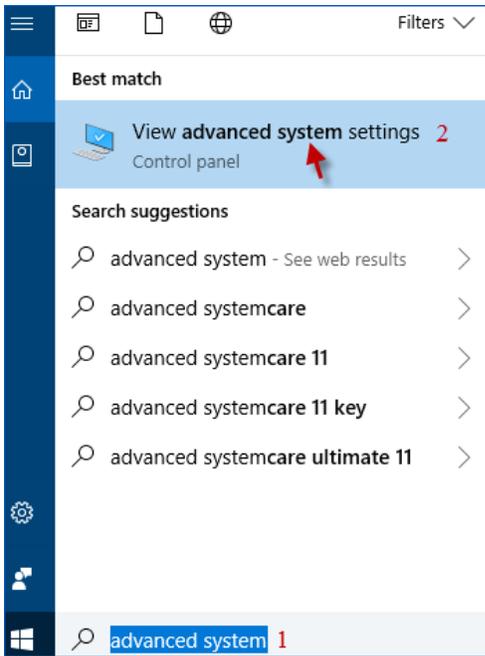
6. Change *Hard disk* and *Hibernate after* to “Never” by scrolling to 0 minutes. Click [Apply], [OK]. At next screen, [Save changes].



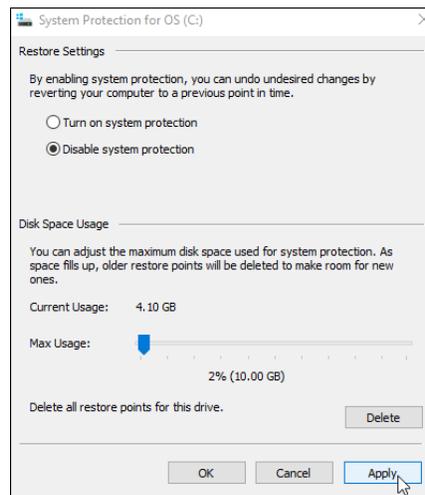
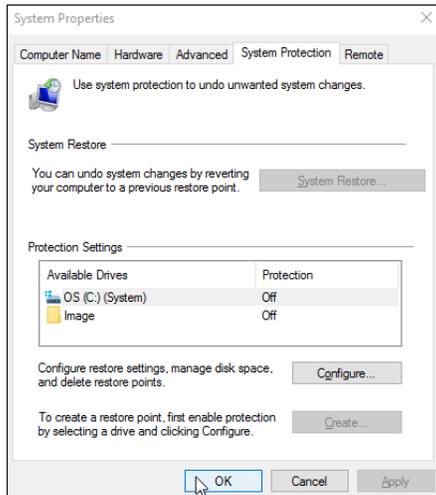
Setup Guide

K. Turn Off System Protection

1. At desktop search bar, type “Advanced System”

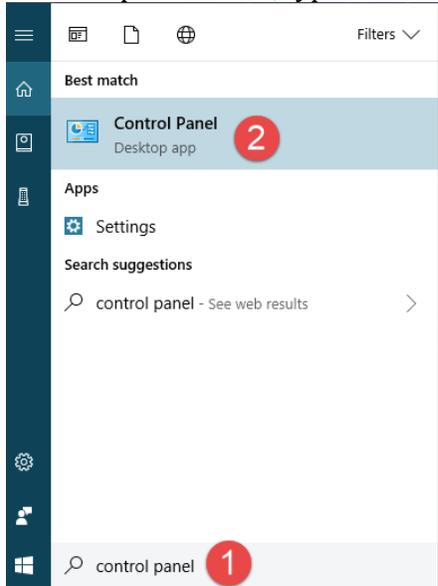


2. Click on “System Protection” tab, then verify C: drive and if present, recovery, are both set to “Off”. If not disabled, click “Configure” and disable the drive(s).

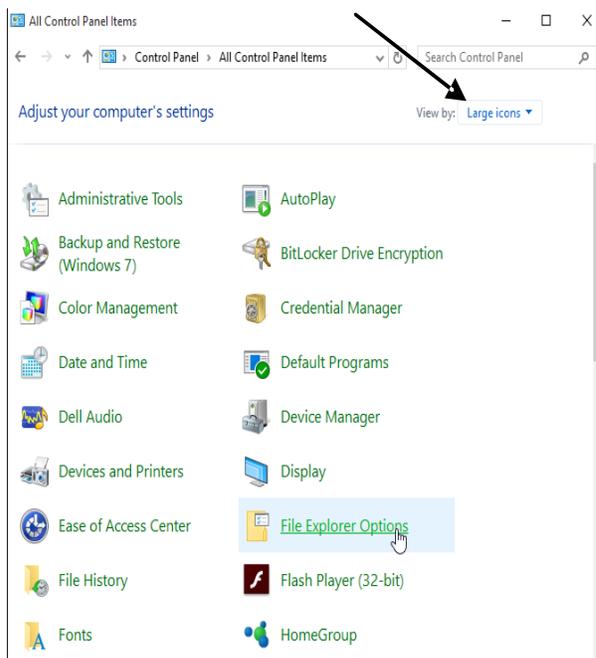


*Setup Guide***L. Modify “File Extensions and Hidden File” settings.**

1. In desktop search bar, type “Control Panel”

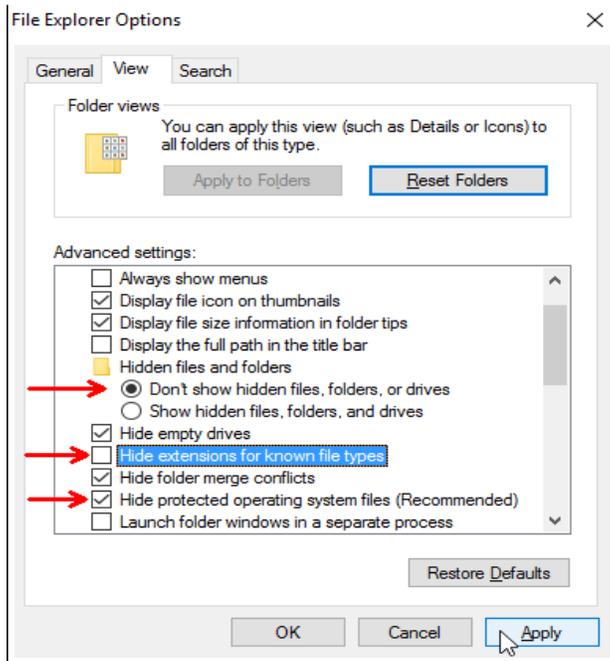


2. With View set to “Large” icons, select “File Explorer options”



Setup Guide

3. With “View” tab in focus, verify settings are as follows and click “Apply,” “Ok”
 - a. Don’t show hidden files folders or drives
 - b. Un-check box for “Hide extensions for known file types”
 - c. Hide protected operation system files (Recommended)



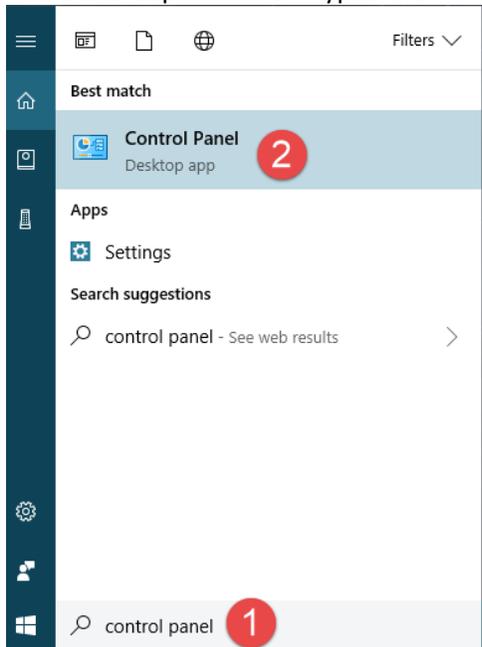
Setup Guide

Appendix A

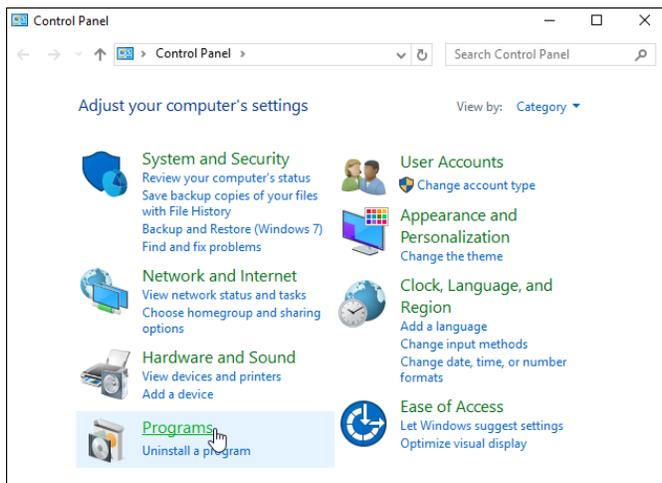
Installing Support for Parstat

The .NET Framework 3.5 must be installed on the PC or the VersaStudio USB driver installation will be prevented. Windows 10 does not have the .NET Framework 3.5 enabled by default. The instructions below will show how to first enable the feature which will then allow Windows update to retrieve the required software. After the .NET Framework (3.5) has been installed, Maccor Software Installation with support for Parstat will go smoothly.

1. In the desktop search bar type “Control Panel”.

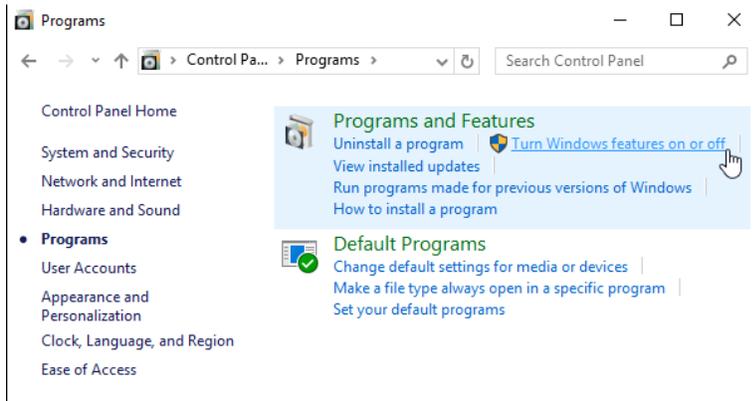


2. View by category, click “Programs”.

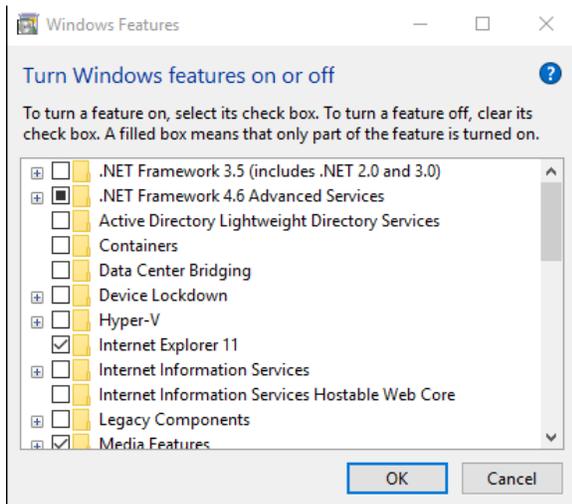


Setup Guide

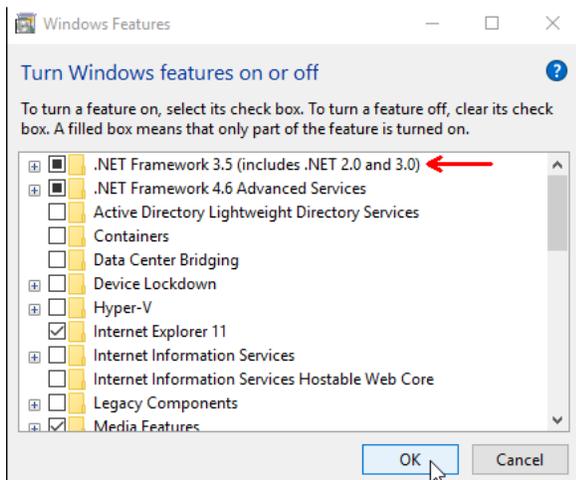
3. Click “Turn Windows features on or off”



4. Observe the features that are enabled by default with Windows 10

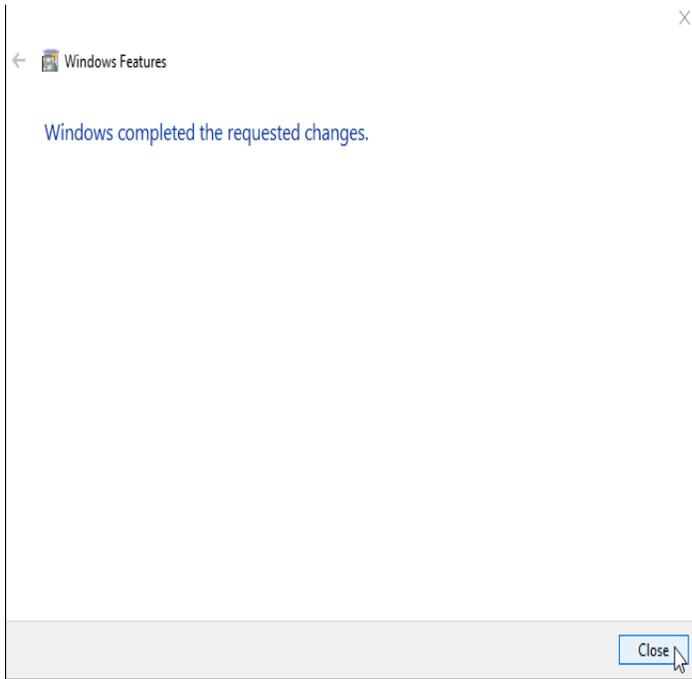


5. Enable the .NET Framework 3.5 and click “Ok”



Setup Guide

6. When prompted, click [Download files from Windows Update]. Windows will fetch the .NET Framework and complete the installation. There is no means of verifying the .NET Framework directly (in Win10) other than Windows registry.
7. After installation is complete, click “close”.



* Maccor Software with Parstat support can now be started.