

# Installing the AARP Foundation Tax-Aide Generic Windows 10 Professional System Image for Tax Year 2017

August 10, 2017

## Summary

This document provides instructions for installing an AARP Foundation Tax-Aide “Generic” Windows 10 Professional hard disk drive system image for Tax Year 2017.

The intended audience for this document is AARP Foundation Tax-Aide Technology Specialists and Technology Coordinators.

## Hints for using this document

**Instructions appear to be complex.** These instructions appear to be horrendously long and could scare people away from the imaging process as too complicated or not worth the effort. But, several pages consist of background data that can be quickly read or skimmed; the appendices consist of many pages, of which only 1 will be necessary for each computer model; and there are several pages of possible responses from the computer, and their explanation, of which only one or two may apply to your situation. Only a few of these many pages are absolutely necessary for an individual imaging process.

**Read instructions on separate computer.** Reading the instructions on another computer may be advantageous. This document contains many hyperlinks to help you jump from place to place in the document. Thus, having a second computer available to read the instructions as you are installing the images on the target computer may speed things up and make the instructions easier to follow.

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## Background

A Generic Windows 7 Professional image for AARP Tax-Aide was developed and provided by the NTC for use starting with Tax Year 2010. Windows 7 Professional remains the operating system of choice for older laptop models for the AARP Tax-Aide program for Tax Year 2017. Windows 10 Professional is the operating system of choice for newer laptop models for Tax-Aide for Tax Year 2017. See [Appendix A](#) for model-specific recommendations.

The Lenovo B590 systems purchased by the National Office starting in the fall of 2013 were the first computers purchased by the program that were built for Windows 8. Those computers, and the subsequently shipped Lenovo E540, E550, and E560 models, were shipped to the field with a tailored AARP Tax-Aide 32-bit Windows 7 Professional image installed. They are also capable of and already licensed to run the 64-bit Windows 8 Professional edition (B590, E540, E550) or the 64-bit Windows 10 Professional edition (E560). They can operate in either BIOS or UEFI firmware modes, or both.

The Generic Windows 10 Professional image for AARP Tax-Aide was developed for use on any 64-bit architecture Windows computer with 2GB or more of RAM. It will not install on a 32-bit architecture computer. It is installed using Windows PE running in BIOS firmware mode. The

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installer configures Windows 10 to run in UEFI firmware mode on specific AARP-purchased models that are UEFI-capable. It configures Windows 10 to run in BIOS firmware mode on all other computer models.

## Prerequisites

### **DATA/PROGRAM LOSS WARNING**

Installing the image completely wipes out ALL data and settings, including printer drivers, which must be re-installed. **SAVE ALL DATA BEFORE INSTALLING THE IMAGE!** Any programs that were on the computer prior to imaging, and that are not included in the image, will need to be reinstalled.

### **2 GB RAM**

The computer you are imaging must have a minimum of 2 GB of RAM.

### **Windows 10 Product Key**

The AARP Tax-Aide Generic Windows 10 image DOES NOT include a Windows Product Key that can be used to activate Windows. Windows may complain that it requires activation and may not be fully functional until it is activated with a valid Product Key from another source, as described below.

### Windows 10 Activation and Product Key Sources

Before installing the Generic Windows 10 Professional image, be sure that one of the following 4 cases applies to the specific Target Computer:

1. The Target Computer contains a BIOS-embedded Windows 8 or Windows 10 Professional Digital Product Key.

The manufacturer (Original Equipment Manufacturer – OEM) of the computer may have purchased a license for Windows 8 or 10 Professional for that computer. If so, the Product Key representing that license is embedded in the BIOS of the computer, written

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there by the OEM. An entry in the BIOS Setup Program System Information page will say something like the following:

Pre installed OS License: WIN 8 Pro DPK IPG (or the equivalent for Windows 10)

This key can be extracted from the BIOS by the Windows Activation program and used to activate the AARP Tax-Aide Generic Windows 10 Professional image. For this to happen, the computer must be connected to the Internet and the Windows 10 Professional Retail setup product key ending in 3V66T must be installed. Tax-Aide System Validation will install this setup key when appropriate.

**The “Pro” part of the above license identifier is important.** If the pre-installed license is for the Windows 8 “Core” edition, that embedded key cannot be used to activate the AARP Tax-Aide Windows 10 Professional image. In this case, a separate Windows 10 Professional license and Product Key must be obtained in order to use any Windows 10 Professional image.

2. There is a valid (as defined below) Windows 7 or 8 Professional Product Key for the Target Computer stored in the AARP Tax-Aide National Inventory Database (NIDB).

Product keys for Windows home or core editions are also NOT valid for this purpose.

If you have a product key that is valid for a computer but is not stored in the NIDB, you can open a OneSupport Help Center request to have that key added to the NIDB. Please use the category “Hardware Technology” and the subtopic “Inventory Database Addition/Change.”

3. The Target Computer has been upgraded in place from a Windows 7 or 8.1 Professional edition to the Windows 10 Professional edition.

In this case, no Product Key is needed. The AARP Tax-Aide Generic Windows 10 Professional image will be activated automatically using the digital entitlement that belongs to the computer because it was upgraded in place from a previous Professional edition of Windows.

Computers that were upgraded in place from a Windows 7 Home edition or a Windows 8/8.1 Core edition to a Windows 10 Core or other non-professional edition of Windows 10 do NOT have a digital entitlement that can be used to activate a Professional edition of Windows 10.

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You can open a OneSupport Help Center request to have a pro edition product key added to the NIDB for this system. Please use the category “Hardware Technology” and the subtopic “Inventory Database Addition/Change.”

4. You have a valid Windows 10 Professional Product Key for the Target Computer in your possession, so that you can type it in when requested.

Your state or local AARP Tax-Aide leaders may have purchased a Windows 10 Professional Volume License Key and allocated one of its copies to this computer. This kind of key is called a “Volume:MAK” type of Product Key. The most common and cost-effective source of these keys is from the TechSoup organization, <http://www.techsoup.org/stock/>. Your state Technology Specialist may be a registered purchaser with TechSoup. Your district Technology Coordinator can give you more information on particular state/district procedures for acquiring a Product Key under a TechSoup license.

You can check the Windows license status of a computer in the NIDB by clicking on this link: [http://taxaidearp.org/main/LicenseCheck/LC\\_home.php](http://taxaidearp.org/main/LicenseCheck/LC_home.php).

## Preparing to Install an Image

### Release Notes

The Generic Windows 10 Image Release Notes contain:

- any known usage issues
- a list of changes since the last release
- a list of the installed software components
- any Windows settings that may differ from the Windows Professional out-of-the-box default settings

Release Notes can be downloaded from the same web site that is used to download the image, as described next.

### Obtaining the image

A disk-image file can be downloaded from the **NTC Resource Image Download** website, <http://www.taxaidearp.org/>. This website contains instructions for downloading an image .iso file and for using it to create a bootable DVD or USB flash drive.

Important Notes:

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- This image is larger than the capacity of a single-layer DVD. It can only be burned to a double-layer DVD.
- A bootable USB Flash Drive used to install this image must be at least 8 GB in size and must be formatted with the NTFS file system. A UFD formatted with the FAT32 file system will not work.

Image download can take a considerable amount of time – from about 1 ½ hours to 4 or more hours depending on your Internet connection and the size of the image you are downloading. You may want to plan for this and, perhaps, download the image overnight.

## Installing an image

The following sections describe in detail how to configure a machine for image application, apply the image, answer the setup prompts, and check for Windows updates.

### A Note on DVD drives

Installation from DVD may stop at some point prior to full installation. This can be caused by a failing/failed DVD drive on the computer being imaged or a failing/failed DVD drive on the computer that burned the image. If the DVD has been used to successfully image other computers, then the problem is most likely with the target computer DVD drive and it should be replaced or the installation should be accomplished from a flash drive. If the DVD has not successfully been used on other computers, then the problem could also be with the computer that created the DVD image. In that case, try burning the image with another computer or change DVD drives and try burning the image again. Failure messages like, “Boot manager not found,” stopping at a certain percentage of completion, e.g., 59% showing and the installation has stopped, are indicative of a bad target computer DVD drive or a bad imaging computer DVD drive. An alternative to these procedures is to just reboot the computer and see if the installation will proceed. If so, good; if not, try the above procedures.

### Configuring BIOS settings for imaging

There are two kinds of BIOS settings that can affect the success of an image installation: boot settings and device enable/disable settings.

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For an image installation to get started, the computer's firmware startup mode must be set appropriately and the boot device that you want to use, either DVD-ROM or USB Flash Drive, must be enabled and selected as the active boot device.

For the image installation to be completely successful, all of the hardware devices whose drivers you want to install need to be enabled. If a hardware device is disabled in the BIOS setup program during installation of the image, the disabled device may not be detected during Windows setup and the driver for the device may not be installed. To prevent this from happening, make sure that all hardware devices that you may ever want to use are enabled in the BIOS Setup program.

In general, what you want to do with the BIOS settings is:

- Enable Legacy BIOS firmware startup mode
- Set up the required boot order for the model, as specified in Appendix A
- Enable the boot device that you plan to use: CD/DVD ROM or USB Flash Drive
- Enable the boot device selection menu at startup
- Configure the hard disk drive controller's SATA Mode, if applicable (model-specific)
- Enable all of the network adapters and other devices that you may ever want to use

Each laptop model has BIOS/UEFI firmware settings to accomplish these tasks that differ in detail from the settings of other models. Specific settings for each AARP-purchased laptop model are provided in [Appendix A](#).

When Windows 8 or 10 is installed in UEFI firmware mode, it may be impossible to gain entry to a computer's BIOS/UEFI Setup program in the customary manner. This is because when you shut down Windows 8 or 10 in UEFI mode, the computer by default only does a fast Hibernate, not a full Shut Down as we have always known it in Windows 7 and before. When the computer is powered on from this Hibernated state, it just *resumes* Windows, without offering the opportunity to hit various keys on the keyboard to alter the startup sequence.

To gain access to the BIOS/UEFI Setup program on a Windows 8 or 10 computer running in UEFI mode, you can force a real Shut Down by holding down the Shift key when you request the Shut Down. When the computer is next powered on, the opportunity to alter the startup sequence will be available. You can also hold down the Shift key while clicking Restart in the Shut Down menu to restart your computer using the boot options menu. This menu allows you to configure the next startup from within Windows, so that you do not have to hit a key at a specific time during the startup sequence.

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## Applying the image

After preparing your bootable DVD or USB Flash Drive (UFD) containing the image that you want to install, you can apply the image to a Target Machine, as follows:

## Preparing the Target Machine

1. Connect the machine to AC power. Remove all connections other than power and the Ethernet cable from the machine, including:
  - a. any optical media
  - b. all USB devices, including the mouse
2. If you want a product key to be automatically installed during the image installation process, ensure that there is an Internet connection by Ethernet cable. This is particularly important if your machine will be using a National License Key (NLK) or if you entered a product key for retention in the AARP Tax-Aide National Inventory Database during a previous imaging process. Windows updates and device drivers may also be installed during Windows Setup if an Internet connection is available.
3. Based on your choice of boot device, insert either the Imaging flash drive or the Imaging DVD.
4. Before configuring the BIOS
  - a. If you are using a DVD, read the list in step 5 and determine if your DVD is auto-detected.
  - b. If your DVD is auto-detected read the section [Booting from a DVD in an auto-detected optical drive](#).
  - c. If you are using a USB device or a DVD in a machine where the DVD is not auto-detected, read the section [Booting from a USB or an optical drive that is not auto-detected](#). If your machine requires you to press a key when booting to bring up the boot menu, remember or write down that key. When the machine reboots after configuring the bios you will immediately be at step 4 of the appropriate boot from USB instructions.
5. Configure the machine's BIOS settings for imaging, as described in the model-specific section of [Appendix A](#) of this document for the specific model. The supported models are listed below:

[HP Compaq 6715b](#) – internal optical drive does not work for double-layer DVD. The AARP Tax-Aide Windows 10 Professional 64-bit image is not supported on this model unless it has 2GB or more of RAM. These computers were shipped with 1GB of RAM.

[HP Compaq 6735s](#) – double-layer DVD works in internal optical drive and is auto-detected

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[HP Compaq 6910p](#) – internal optical drive only works for double-layer DVD when explicitly selected from the pop-up boot menu

[Dell Vostro 1520](#) – double-layer DVD works in internal optical drive and is auto-detected

[Dell Vostro 3500](#) – internal optical drive only works for double-layer DVD when explicitly selected from the pop-up boot menu

[Dell Vostro 3550](#) – double-layer DVD works in internal optical drive and is auto-detected. **A BIOS upgrade is required for this model; see details in Appendix A.**

[Lenovo B560](#) – double-layer DVD works in internal optical drive and is auto-detected

[Lenovo B590](#) – double-layer DVD works in internal optical drive but cannot be auto-detected when installing the AARP Tax-Aide Generic Windows 10 Professional image

[Lenovo E540](#) – double-layer DVD works in internal optical drive but cannot be auto-detected when installing the AARP Tax-Aide Generic Windows 10 Professional image

[Lenovo E550](#) – double-layer DVD works in internal optical drive but cannot be auto-detected when installing the AARP Tax-Aide Generic Windows 10 Professional image

[Lenovo E560](#) – double-layer DVD works in internal optical drive but cannot be auto-detected when installing the AARP Tax-Aide Generic Windows 10 Professional image.

**A BIOS upgrade is recommended for this model; see details in Appendix A.**

6. After inserting the UFD or DVD with the image and configuring and exiting the BIOS, the machine will reboot.
7. On reboot, select one of the next two sections, based on your choice of boot device.

## Booting from a DVD in an auto-detected optical drive

To boot Image Apply from a DVD in an internal optical drive, for models that auto-detect the double-layer DVD:

(Skip to step 4 if you just configured the BIOS and the machine rebooted)

1. Insert the Imaging DVD into the Optical Drive
2. Power off the system
3. Press Power On
4. Wait for the system to display this prompt:  
“Hit any key to boot from CD or DVD.”

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5. Promptly press any key on the keyboard
6. Continue below at [Interacting with Tax-Aide System Validation](#).

## Booting from a USB Flash Drive or an optical drive that is not auto-detected

To boot Image Apply from a USB Flash Drive or from a USB or internal optical drive that is not auto-detected:

(Skip to step 4 if you just configured the BIOS and the machine rebooted)

1. Power off the system
2. Insert the Imaging Flash Drive or optical drive into a USB Port
3. Press Power On
4. Select one of the sub-sections below, based on the laptop model:
  - a. For an HP 6715b, 6735s, or 6910p
    - i. Promptly press F9 to display the Select Boot Device dialog
    - ii. Arrow down to the “USB Hard Drive” entry or the optical drive entry
    - iii. Press Enter
    - iv. If booting from a DVD,
      1. Wait for the system to display this prompt:  
“Hit any key to boot from CD or DVD.”
      2. Promptly press any key on the keyboard
  - b. For a Dell Vostro 1520
    - i. Promptly press F12 to display the Boot Menu
    - ii. Arrow down to “USB Storage”
    - iii. Press Enter
  - c. For a Dell Vostro 3500
    - i. Promptly and repeatedly press F12 to display the Boot Menu
    - ii. Arrow down to “USB KEY” or the optical drive entry
    - iii. Press Enter
    - iv. If booting from a DVD,
      1. Wait for the system to display this prompt:  
“Hit any key to boot from CD or DVD.”
      2. Promptly press any key on the keyboard
  - d. For a Dell Vostro 3550
    - i. Promptly and repeatedly press F12 to display the Boot Menu
    - ii. Arrow down to “USB Storage Device”
    - iii. Press Enter
  - e. For a Lenovo B560, B590, E540, E550, or E560

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- i. Promptly and repeatedly press F12 to display the Boot Menu
- ii. Arrow down to “USB HDD” or the optical drive entry
- iii. Press Enter

## Interacting with Tax-Aide System Validation

While Windows is starting up from the Imaging DVD or flash drive, you will see a black screen with a blue Windows icon. Then the AARP Tax-Aide System Validation program will run before the Image Apply prompt asks for permission from the operator to erase the hard drive.

During this process it is possible to get a variety of responses based on the presence and type of an embedded Digital Product Key; the computer not being connected to the Internet; the image website not being available; the computer not being present in the database; etc. This section explains those messages and what the user response should be.

### *Optional: Product Key Copy Source*

In some circumstances, described below, the System Validation program will offer the operator the option of typing in a Windows Product Key that will be installed into the Windows image and may be stored in the AARP Tax-Aide National Inventory Database for automatic retrieval when the target computer is subsequently reimaged. Since typing the 25-character Product Key is tedious and potentially error-prone, the Image Apply process provides support for an optional text file that can be used as a source for copying the Product Key, then pasting it into the waiting System Validation dialog box. This procedure only works when imaging from a UFD. If not using this text file, be meticulous when entering the Product Key and carefully verify your entry.

To use this optional feature, include a file with the name PKCopySource.txt in the \SCRIPTS\ directory of the Imaging UFD. If this file is present, the Image Apply process will open it in a minimized Notepad window before launching the System Validation program. If a Product Key needs to be entered into a System Validation dialog box, the minimized Notepad window can be restored and used as a source from which to copy the requested Product Key.

## System Validation Messages

### *Embedded Windows 8 or 10 Pro DPK Detected*

If the System Validation program detects that the computer has a BIOS-embedded Windows 8 or 10 Professional Digital Product Key, it will report this finding and exit. The image will be installed with a generic product key that cannot be used to activate Windows. Windows Setup will detect and use the BIOS-embedded product key. The message will say this:

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This system has an embedded Windows 8 [or 10] Professional Product Key. Windows Setup will automatically use this product key following imaging for activation.

[OK]

Proceed to “[After System Validation](#),” below.

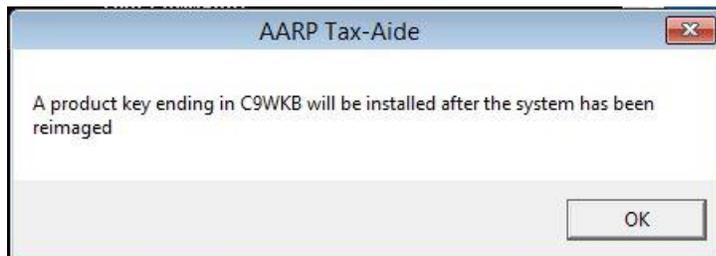
### *No Windows 8 or 10 Pro DPK was detected*

If no embedded Windows 8 or 10 Professional Digital Product Key was detected, then in order for a Product Key to be installed, either the System Validation program will need to obtain the appropriate key from the AARP Tax-Aide National Inventory Database (NIDB), or the operator will need to type it in.

System Validation will first attempt to look up this computer in the NIDB.

### *Product Key usable for Windows 10 Pro Present in the database*

If this computer and a Product Key that is usable to activate Windows 10 Pro for it are found in the NIDB, a message like this one will be displayed:



Unless the operator terminates the installation, the Windows 10 image will be installed and the Product Key from the NIDB will also be installed.

Proceed to “[After System Validation](#),” below.

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## ***No Usable Product Key for Windows 10 Pro available***

There are several reasons for not finding a Product Key usable for Windows 10 Pro for this computer in the NIDB. Each of them is described below. In all cases, the operator is given an opportunity to type in a valid W10 Pro Product Key for this computer that will be installed after the AARP Tax-Aide Windows image is applied to the computer. In some cases, this key can also be saved to the NIDB for use in future reimaging sessions.

One of the following messages may be presented:

[No network driver found](#)

[Not connected to the Internet](#)

[Validation website not available](#)

[Target Computer not found in the database](#)

[Target Computer found, but not Eligible for Product Key upload](#)

[W10 Product Key not Present in the database; may be uploaded](#)

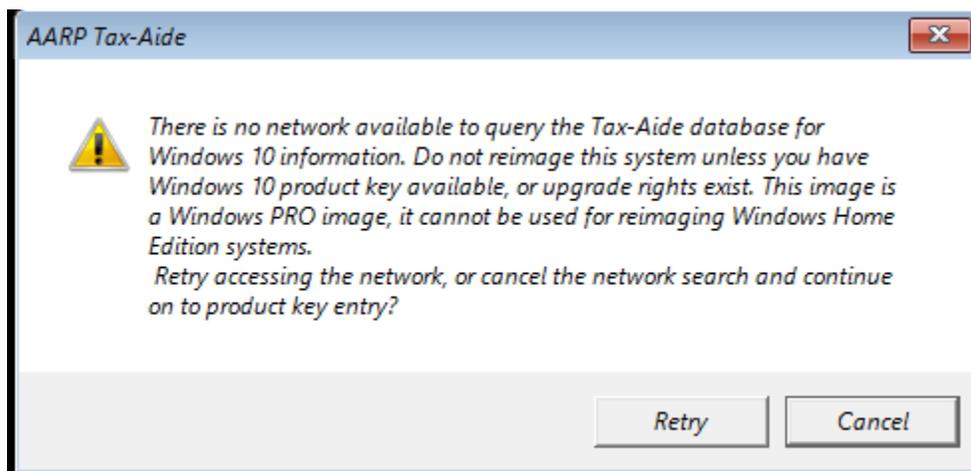
The following paragraphs explain these messages and the appropriate responses to them.

## ***No network driver found***

## ***Not connected to the Internet***

## ***Validation website not available***

If the Target Computer cannot connect to the NIDB, this message will be presented:

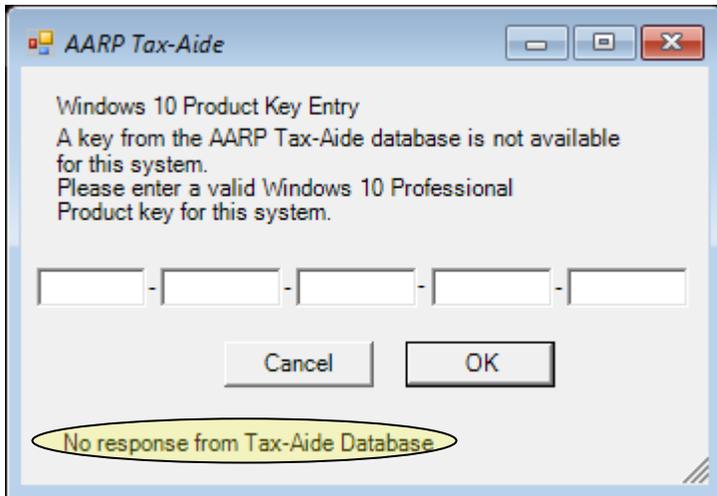


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System Validation does not support wireless Internet connections. Use an Ethernet cable to attach the Target Computer to the Internet; then choose “Retry.” If this condition persists, contact [TaxAideTech@aarp.org](mailto:TaxAideTech@aarp.org) for assistance.

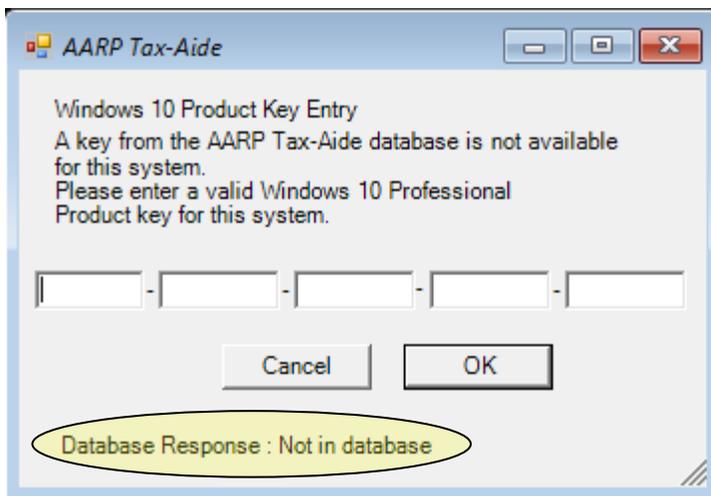
If you do not need to obtain a Product Key from the AARP Tax-Aide System Validation website, you can continue with installation of the Windows image by clicking ”Cancel.” This message will be presented:



Proceed to “[Windows 10 Product Key Entry](#),” below.

## *Target Computer not found in the database*

If the System Validation website is available, but the Target Computer is not found in the NIDB, this message is displayed:



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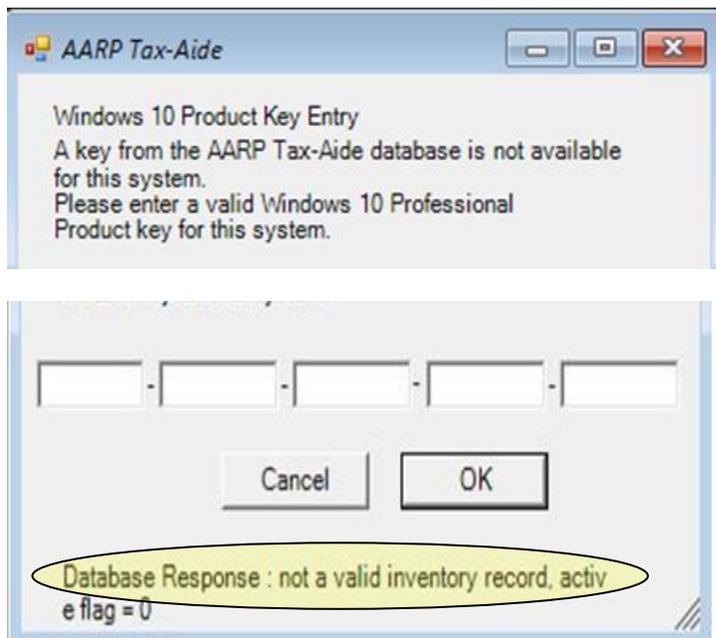
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If you do not need to obtain a Product Key from the AARP Tax-Aide NIDB, you can continue with installation of the Windows image.

Proceed to “[Windows 10 Product Key Entry](#),” below.

### *Target Computer found, but not Eligible for Product Key upload*

If the System Validation website is available, but the Target Computer is not eligible for uploading a Product Key to the NIDB, a message like this one (updated for Windows 10) may be displayed:



If you do not need to obtain a Product Key from the AARP Tax-Aide NIDB, you can continue with installation of the Windows image. If you enter a valid Product Key, it can be installed into the applied Windows 10 image; but it will not be saved in the NIDB.

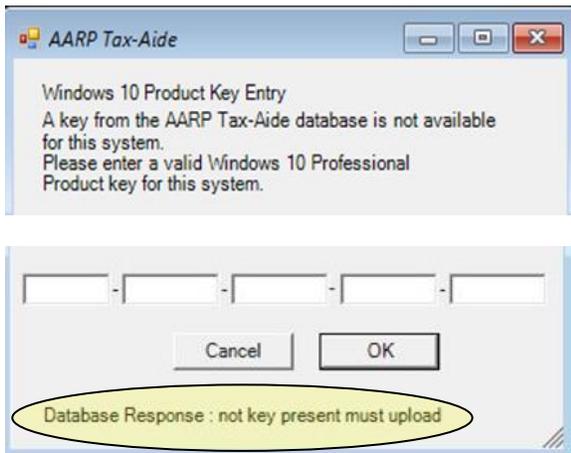
Proceed to “[Windows 10 Product Key Entry](#),” below.

### *W10 Product Key not present in the database; may be uploaded*

If the Target Computer is found in the NIDB, and is eligible for uploading a Product Key to the database, a message like this one may be displayed:

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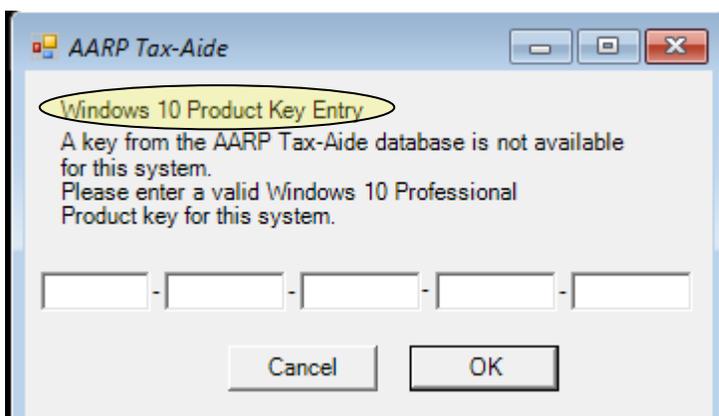
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If you do not need to obtain a Product Key from the AARP Tax-Aide NIDB, you can continue with installation of the Windows image. If you enter a valid Product Key, it can be installed into the applied Windows 10 image and saved in the NIDB.

## Windows 10 Product Key Entry

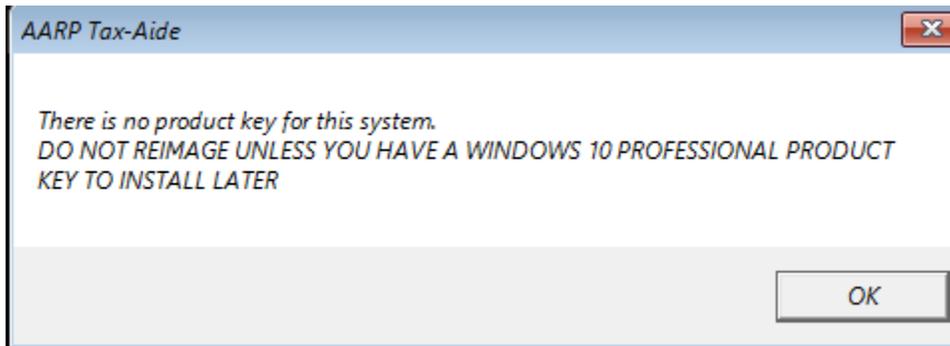
A variant of the following screen is displayed when it may be appropriate to type in a Windows 10 Product Key:



**If the operator chooses Cancel**, this message will be displayed:

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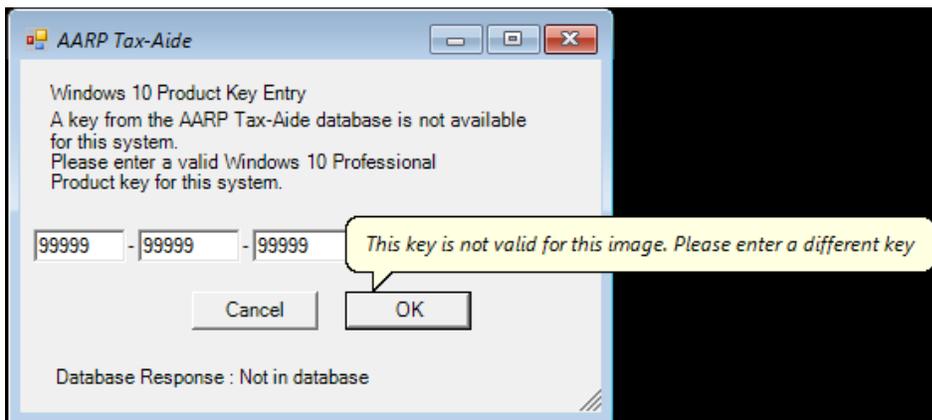
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If the operator clicks OK, the Windows 10 image may be installed (if allowed by a later operator choice), but the installed image will have a generic Product Key installed that cannot be used to activate Windows. Upon start up, Windows will ask for the Product Key to be changed so that Windows can be activated. You will have to provide a valid Windows 10 Professional Product Key to activate Windows.

Proceed to "[After System Validation](#)," below.

**If the operator types in a Product Key that is not a valid key** for the target computer or is not a valid type of key for the AARP Tax-Aide Windows 10 Professional image, and clicks OK, an error message like this one will be displayed:



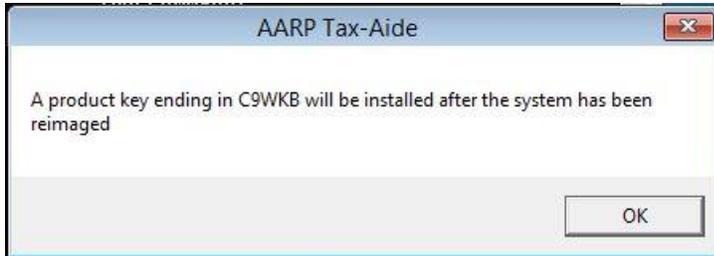
To try again, the operator can type a different key and click OK.

**If the operator types in a valid Windows 10 Professional Product Key** for this computer and the AARP Tax-Aide Windows 10 Professional image and clicks OK, that key will be saved

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temporarily and installed after the AARP Tax-Aide Windows image has been applied to the computer. A message like this one will be displayed:



Unless the operator terminates the installation, the Windows 10 image will be installed and the saved Product Key will also be installed. The saved Product Key may also be saved permanently in the NIDB, if the computer is eligible.

## After System Validation

### Responding to the Image Apply prompt

When the System Validation program finishes its work, the image apply sequence will pause at an operator message warning that all files will be erased.

If you haven't backed up your data, and wish to save it, press CTRL-C and then answer Y to the question "Terminate batch job (Y/N)?" Doing so will abort the installation. To continue with the image installation, press any key on the keyboard.

### Responding to Windows Setup dialogs

Windows Setup will automatically install device drivers, then restart the computer. The Installer user will be automatically logged on.

1. You may want to change the Computer Name at this time, or do it later.  
If you do change it now, do not allow Windows to restart just yet – see below.
2. The Tax-Aide Inventory Agent will ask for the Asset Tag, split-state, and district, unless these data can be carried forward from the previously installed Windows image.
3. Verify or change the Time Zone, Date, and Time when requested.
  - o Ignore the black windows.
  - o When you click OK or Cancel in this window, the computer will restart.
4. The Windows logon screen will be displayed. The UFD can now be safely removed.

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## Logging on for the first time

You can now logon to Windows. You may want to logon first as the Installer user to make any system-level configuration changes that require Administrator access. The Installer user is a member of the Administrators group. You can subsequently logon as either the Volunteer or the Installer user.

The Volunteer user is configured as a Standard user, NOT a member of the Administrators group. You can change it to an administrative user; but we recommend that you do not do so. Running the Volunteer user as a Standard user is our best defense against malware. The Volunteer user password is the current year IRS depot laptop “taxes” user password. This password changes each year in the August/September timeframe. The Installer user password is initially the same as the Volunteer password. You can change it, as you like.

The Administrator user is disabled, by default. Its password is no longer the AARP Tax-Aide standard value that was used in many previous years. The Administrator user password now changes each year and is not disclosed. You do not need to use this account; but if you want to use it, you can enable it. When you are logged on as the Installer user, you can enable the Administrator user by right clicking on the This PC icon on the desktop and selecting Manage from the context menu. Navigate to Computer Management > System Tools > Local Users and Groups > Users. Double click on Administrator, uncheck the box “Account is disabled,” and click OK. You can change this user’s password to a value of your choosing when logged on as the Installer user. Navigate to START > Control Panel > User Accounts > User Accounts > Manage Another Account > Administrator > Change the password.

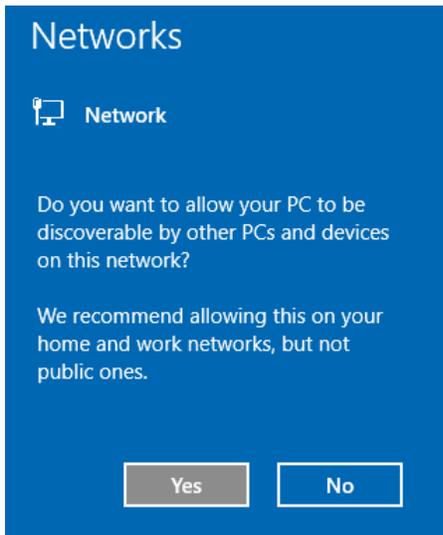
**Connect the machine to the Internet.** If wireless networking will be used, turn on the WLAN radio button or switch and verify that the blue wireless LED lights are lit. The locations of these controls and lights for AARP-purchased laptop models are described in [Appendix A](#).

## Selecting “Network Discovery” status for a Network

When a re-imaged Target Machine is first connected to a network, Windows may present the “Network Discovery” dialog:

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Respond Yes or NO based on whether the current network is a secure network.

## Activating Windows 10

Windows 10 activation is usually automatic, once the computer is connected to the Internet. If you get a warning that your Windows is not genuine or needs to be activated, you can perform the following procedure:

- a. Connect the computer to the Internet
- b. Right-click the “This PC” icon on the desktop
- c. Click “Properties” to display the System Properties page
- d. Go to the “Windows activation” section near the bottom of the page
- e. If it says “Windows is activated,” no action is necessary
- f. If it says “Windows is not activated,” click the “Activate Windows” link to activate it
- g. The Settings > Update and Security > Activation app will be displayed.
- h. After a short period it should indicate that Windows is activated or provide information about why Windows is not activated.

**More about Windows activation.** If a Windows 10 image was applied but no Product Key was installed that can be used to activate Windows, you must eventually install **your [Windows 10 Professional Product Key](#)**. Windows will ask you to do this on each startup as long as Windows is not yet activated.

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Installing a Product Key is not the same thing as activating Windows. But if the computer is connected to the Internet when you enter the Product Key, Windows will immediately attempt to activate itself using the installed key. If you like, you can prevent this from happening by disconnecting the computer from the Internet before entering the Product Key. In this state, the Product Key can be successfully installed without also activating Windows.

If a Product Key was installed with the Windows 10 image, or manually installed later as described above, Windows will immediately attempt to activate itself automatically using the installed Product Key. If you do not want Windows to be activated automatically with the installed key, you can change the key to a different value, any time before activation takes place. Windows activation can only happen when the computer is connected to the Internet so that it can access the Microsoft Windows Activation Server.

### **Windows Updates**

Use Windows Update to apply any new Windows and Microsoft Windows Defender updates and to search for any missing or more appropriate device drivers. Navigate to START > Settings > Update and Security > Windows Update and click Check for Updates.

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## Appendix A - Model-specific BIOS Settings

Each AARP-purchased laptop model has BIOS settings that must be correct for successful image application. The settings for each model differ in detail from those of other models. Specific settings for each AARP-purchased model are provided in the following sections.

HP Compaq nc6000 – no longer supported for Tax-Aide

HP Compaq nx6110 – no longer supported for Tax-Aide

HP Compaq nc6120 – no longer supported for Tax-Aide

HP Compaq nx6310 – no longer supported for Tax-Aide

[HP Compaq 6715b](#) – 2GB RAM required - BIOS firmware mode only – not recommended

[HP Compaq 6735s](#) – BIOS firmware mode only – not recommended

[HP Compaq 6910p](#) – BIOS firmware mode only – not recommended

[Dell Vostro 1520](#) – BIOS firmware mode only – not recommended

[Dell Vostro 3500](#) – supported in BIOS firmware mode only

[Dell Vostro 3550](#) – supported in BIOS firmware mode only

[Lenovo B560](#) – supported in BIOS firmware mode only

[Lenovo B590](#) – supported in UEFI firmware mode

[Lenovo E540](#) – supported in UEFI firmware mode

[Lenovo E550](#) – supported in UEFI firmware mode

[Lenovo E560](#) – supported in UEFI firmware mode

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## HP Compaq 6715b – BIOS date 11/25/2008 Revision F.0E (not recommended)

1. Power off the system
2. Press Power On
3. Press F10 to enter the BIOS setup program
4. System Configuration
  - a. Boot Options
    - i. F9, F10 and F12 delay (Sec) – 10
    - ii. USB Device Detection Delay (Sec) - 1
    - iii. CD-ROM Boot – Enable
    - iv. MultiBoot – Enable
    - v. Express Boot Popup Delay (Sec) - 0
    - vi. Boot Order
      1. Optical Disk Drive – First
      2. Notebook Hard Drive – Second
      3. USB Hard Disk – Third
    - vii. F10
  - b. Device Configurations
    - i. USB Legacy Support – Enable
    - ii. F10
  - c. Built-in Device Options
    - i. Embedded WLAN Device Radio – Enable
    - ii. Network Interface Controller (LAN) - Enable
    - iii. LAN/WLAN Switching – Disable
    - iv. Optical Disk Drive – Enable
    - v. F10
  - d. Port Options
    - i. USB Ports including Express Card slot – Enable
    - ii. F10
5. File
  - a. Save Changes and Exit
  - b. F10

### Locations of Wireless Network (WLAN) Button and Lights

The WLAN button is located above the keyboard; it is a spot in the black plastic strip to the right of the silver power button. The spot is indicated by a radio antenna icon.

One blue WLAN light is located in the WLAN button.

Another blue WLAN light is located on the front of the case and below the keyboard, on the far left side.

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## HP Compaq 6735s – BIOS date 9/14/2009 Revision 68GPP Ver. F.0E (not recommended)

1. Power off the system
2. Press Power On
3. Press F10 to enter the BIOS setup program
4. Tab to System Configuration
  - a. Boot Options
    - i. Startup Menu Delay (Sec) - 10
    - ii. CD-ROM Boot – Enabled
    - iii. MultiBoot - Express Boot Popup Delay (Sec) - 0
    - iv. Boot Order –
      1. Notebook Upgrade Bay (CD/DVD ROM) – First
      2. Notebook Hard Drive – Second
      3. USB Hard Drive – Third
  - b. Device Configurations
    - i. USB Legacy Support – Enabled
    - ii. SATA Device Mode – IDE (NOT AHCI)
  - c. Built-in Device Options
    - i. Wireless Button State – Enabled
    - ii. Embedded WLAN Device – Enabled
    - iii. Network Interface Controller (LAN) – Enabled
    - iv. LAN/WLAN Switching – Disabled
    - v. Notebook Upgrade Bay (CD/DVD ROM) – Enabled
  - d. Port Options
    - i. USB Port - Enabled
5. File
  - a. Save Changes and Exit
  - b. Save Changes - Yes

### Locations of Wireless Network (WLAN) Button and Light

The WLAN button is located above the keyboard to the left of the power button.

The blue/amber WLAN light is located in the WLAN button.

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## HP Compaq 6910p – BIOS date 9/13/2007 Version F.0A (not recommended)

1. Power off the system
2. Press Power On
3. Press F10 to enter the BIOS setup program
4. Tab to System Configuration
  - a. Boot Options
    - i. F9, F10 and F12 Delay (Sec) - 10
    - ii. CD-ROM Boot – Enable
    - iii. MultiBoot – Enable
    - iv. Express Boot Popup Delay (Sec) - 0
    - v. Boot Order –
      1. Notebook MultiBay (CD/DVD ROM) – First
      2. Notebook Hard Drive – Second
      3. USB Hard Drive – Third
  - b. Device Configurations
    - i. USB Legacy Support – Enable
    - ii. SATA Native Mode – Enable
  - c. Built-in Device Options
    - i. Embedded WLAN Device Radio – Enable
    - ii. LAN/WLAN Switching – Disable
    - iii. Notebook MultiBay (CD/DVD ROM) – Enable
  - d. Port Options
    - i. USB Ports including Express Card slot - Enable
5. File
  - a. Save Changes and Exit
  - b. Save Changes - Yes

### Locations of Wireless Network (WLAN) Button and Light

The WLAN button is located above the keyboard to the right of the power button.

The blue/amber WLAN light is located in the WLAN button.

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## Dell Vostro 1520 – BIOS Version A08 (not recommended)

1. Power off the system
2. Press Power On
3. Press F12 to display the Boot Menu
4. Arrow down to <Enter Setup>
5. Press Enter to enter the BIOS setup program
6. Advanced
  - a. Integrated NIC – Enabled
  - b. WLAN Control – Enabled
  - c. USB Outside Port – Enabled
  - d. USB BIOS Legacy Support – Enabled
7. Boot – All Enabled
  - a. First – CD/DVD/CR-RW Drive
  - b. Second – Hard Drive
  - c. Third – USB Storage
8. Exit
  - a. Exit Saving Changes
9. Save Configuration Changes and Exit now?
  - a. Yes

### Locations of Wireless Network (WLAN) Switch and Lights

The WLAN switch is located on the left side of the case on the right corner. When the switch is moved toward the front of the case it is ON.

The blue/amber WLAN light is located above the keyboard to the right of the power button. Its icon is a radio transmitter emitting radio waves.

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## Dell Vostro 3500 – BIOS Version A08

1. Power off the system
2. Press Power On
3. Press F2 to Enter Setup
4. Advanced – System Configuration
  - a. Integrated NIC – Enabled
  - b. SATA Mode – IDE Model
  - c. External USB Ports – Enabled
  - d. Module Bay – Enabled
5. Boot
  - a. First – CD/D Rom
  - b. Second – Hard Disk
  - c. Third – USB Key
6. Exit
  - a. Save Changes and Reset
7. Save Configuration and Reset?
  - a. Yes

### Locations of Wireless Network (WLAN) Switch and Lights

The WLAN switch is located on the front edge of the case. When the switch is moved toward the left and the red is NOT showing, it is ON. Red showing means it is OFF.

The white WLAN light is located above the keyboard in the cluster of icons on the left side. Its icon is a radio transmitter emitting radio waves.

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## Dell Vostro 3550 – BIOS Version A12 required for Windows 10 – see Note 2

1. Power off the system
2. Press Power On
3. Press F2 to Enter Setup
4. Advanced – System Configuration
  - a. Integrated NIC – Enabled
  - b. SATA Operation - AHCI
  - c. USB Emulation – Enabled
  - d. Miscellaneous Devices
    - i. External USB Ports – Enabled
    - ii. Optical Device – Enabled
    - iii. Boot Disable - Disabled
5. Boot – Set Boot Priority
  - a. 1<sup>st</sup> Boot Priority – CD/DVD/CD-RW Drive
  - b. 2<sup>nd</sup> Boot Priority – Hard Drive
  - c. 3<sup>rd</sup> Boot Priority – USB Storage Device
6. Exit
  - a. Save Changes and Reset
7. Save Configuration and Reset?
  - a. Yes

### Locations of Wireless Network (WLAN) Switch and Lights

The WLAN toggle is Fn+F2.

The white WLAN light is located on the left side of the front edge of the case. Its icon is a radio transmitter emitting radio waves.

### **IMPORTANT NOTES:**

1. There are 3 USB ports on this model.
  - The port on the right side is a fast, USB 3.0 port.
  - The port on the back is a hybrid port, not fully understood at this time.
  - The port on the left side is a standard USB 2.0 port.

The ports on the right side and the back may not work with our ImageApply software and some kinds of USB Flash Drives. If not, use the port on the left side.

2. BIOS Version A09 was shipped on these computers. Windows 10 will not run (black screen) with this BIOS version. The upgrade to BIOS version A12 is available for download from the Dell support website, [here](#). You must install it while Windows 7 is still running on the computer.

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## Lenovo B560 – BIOS Version 39CN21WW

1. Power off the system
2. Press Power On
3. Press F2 to Enter Setup
4. Configuration
  - a. Legacy USB Support – Enabled
5. Boot – Boot Priority order
  - a. 1. IDE ODD [internal CD/DVD/CD-RW Optical Disk Drive]
  - b. 2. IDE HDD [internal Hard Disk Drive]
  - c. 3. USB HDD [USB Hard Disk Drive]
  - d. 4. USB KEY
  - e. 5 And above - Don't care
6. Exit
  - a. Exit Saving Changes
7. Save Configuration changes and exit now?
  - a. Yes

## Locations of Wireless Network (WLAN) Switch and Lights

The WLAN switch is located on the front edge of the case. When the switch is moved toward the left, it is OFF.

The white WLAN light is located on the left side of the front edge of the case. Its icon is a laptop emitting radio waves to the left and right.

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## Lenovo B590 – BIOS Version H5ET73WW (1.16)

1. Power off the system
2. Press Power On
3. Press F1 to Enter Setup
4. Config
  - a. Network
    - i. Wireless LAN Radio [On]
  - b. USB
    - i. USB UEFI BIOS Support [Enabled]
    - ii. USB 3.0 Mode [Smart Auto]
  - c. Serial ATA (SATA)
    - i. SATA Controller Mode Option [AHCI]
5. Security
  - a. I/O Port Access
    - i. Ethernet LAN [Enabled]
    - ii. Wireless LAN [Enabled]
    - iii. USB Port [Enabled]
    - iv. Optical Device [Enabled]
  - b. Secure Boot
    - i. Secure Boot [Disabled]
6. Startup
  - a. Boot
    - i. Boot Priority order
      1. ATA HDD0 HGST ... [internal Hard Disk Drive]
      2. ATAPI CD1 PLDS DVD-RW ... [internal Optical Disk Drive]
      3. USB HDD [USB Hard Disk Drive]
      4. and above - Don't care
    - b. UEFI/Legacy Boot [Both]
      - i. UEFI/Legacy Boot Priority [Legacy First] or [UEFI First]. **[UEFI First] is required for a Windows 10 install** and will also work for a Windows 7 install
      - ii. CSM Support [Yes]
    - c. Boot Mode [Quick]
    - d. Option Key Display [Enabled]
    - e. Boot Device list F12 Option [Enabled]
    - f. Boot Order Lock [Disabled]
7. Restart
  - a. OS Optimized Defaults [Disabled]
  - b. Exit Saving Changes
8. Save Configuration changes and exit now?
  - a. Yes

This model does not have a Wireless Network (WLAN) Switch or Light.  
The 2 USB ports on the left side are (blue) “Super Speed” USB 3.0 ports.  
The 2 USB ports on the right side are slower USB 2.0 ports.

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## Lenovo E540 – BIOS Version J9ET88WW (2.08)

1. Power off the system
2. Press Power On
3. Press F1 to Enter Setup
4. Config
  - a. Network
    - i. Ethernet LAN Option ROM [Enabled]
  - b. USB
    - i. USB UEFI BIOS Support [Enabled]
    - ii. USB 3.0 Mode [Auto]
  - c. Serial ATA (SATA)
    - i. SATA Controller Mode Option [AHCI]
5. Security
  - a. I/O Port Access
    - i. Ethernet LAN [Enabled]
    - ii. Wireless LAN [Enabled]
    - iii. USB Port [Enabled]
    - iv. Optical Device [Enabled]
  - b. Secure Boot
    - i. Secure Boot [Disabled]
6. Startup
  - a. Boot
    - i. Boot Priority order
      1. ATA HDD0 TOSHIBA ... [internal Hard Disk Drive]
      2. ATAPI CD0 HL-DT-ST ... [internal Optical Disk Drive]
      3. USB HDD [USB Hard Disk Drive]
      4. and above - Don't care
    - b. UEFI/Legacy Boot [Both]
      - i. UEFI/Legacy Boot Priority [Legacy First] or [UEFI First]. [UEFI First] is required for a Windows 10 install and will also work for a Windows 7 install
      - ii. CSM Support [Yes]
    - c. Boot Mode [Quick]
    - d. Option Key Display [Enabled]
    - e. Boot Device list F12 Option [Enabled]
    - f. Boot Order Lock [Disabled]
7. Restart
  - a. OS Optimized Defaults [Disabled]
  - b. Exit Saving Changes
8. Save Configuration changes and exit now?
  - a. Yes

This model does not have a Wireless Network (WLAN) Switch or Light.

The 2 USB ports on the left side are faster USB 3.0 ports.

The USB port on the right side is a slower USB 2.0 port.

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## Lenovo E550 – BIOS Version J5ET44WW (1.15)

1. Power off the system
2. Press Power On
3. Press F1 to Enter Setup
4. Config
  - a. USB
    - i. USB UEFI BIOS Support [Enabled]
    - ii. USB 3.0 Mode [Auto]
5. Security
  - a. I/O Port Access
    - i. Ethernet LAN [Enabled]
    - ii. Wireless LAN [Enabled]
    - iii. USB Port [Enabled]
    - iv. Optical Device [Enabled]
  - b. Secure Boot
    - i. Secure Boot [Disabled]
6. Startup
  - a. Boot
    - i. Boot Priority order
      1. ATA HDD0 ... [internal Hard Disk Drive]
      2. ATAPI CD0 HL-DT-ST ... [internal Optical Disk Drive]
      3. USB HDD [USB Hard Disk Drive]
      4. and above - Don't care
    - b. UEFI/Legacy Boot [Both]
      - i. UEFI/Legacy Boot Priority [Legacy First] or [UEFI First]. [UEFI First] is required for a Windows 10 install and will also work for a Windows 7 install
      - ii. CSM Support [Yes]
    - c. Boot Mode [Quick]
    - d. Option Key Display [Enabled]
    - e. Boot Device list F12 Option [Enabled]
    - f. Boot Order Lock [Disabled]
7. Restart
  - a. OS Optimized Defaults [Disabled]
  - b. Exit Saving Changes
8. Save Configuration changes and exit now?
  - a. Yes

This model does not have a Wireless Network (WLAN) Switch or Light.

The 2 USB ports on the left side are faster USB 3.0 ports.

The USB port on the right side is a slower USB 2.0 port.

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## Lenovo E560 – BIOS Version R00ET45W (BIOS Version 1.29 recommended for Windows 10 – see Note)

1. Power off the system
2. Press Power On
3. Press F1 to Enter Setup
4. Config
  - a. USB
    - i. USB UEFI BIOS Support [Enabled]
5. Security
  - a. I/O Port Access
    - i. Ethernet LAN [Enabled]
    - ii. Wireless LAN [Enabled]
    - iii. USB Port [Enabled]
    - iv. Optical Device [Enabled]
  - b. Secure Boot
    - i. Secure Boot [Disabled]
6. Startup
  - a. Boot
    - i. Boot Priority order
      1. ATA HDD0 ... [internal Hard Disk Drive]
      2. ATAPI CD0 HL-DT-ST ... [internal Optical Disk Drive]
      3. USB HDD [USB Hard Disk Drive]
      4. and above - Don't care
    - b. UEFI/Legacy Boot [Both]
      - i. UEFI/Legacy Boot Priority [Legacy First] or [UEFI First]. [UEFI First] is required for a Windows 10 install and will also work for a Windows 7 install
      - ii. CSM Support [Yes]
    - c. Boot Mode [Quick]
    - d. Option Key Display [Enabled]
    - e. Boot Device list F12 Option [Enabled]
    - f. Boot Order Lock [Disabled]
7. Restart
  - a. OS Optimized Defaults [Disabled]
  - b. Exit Saving Changes
8. Save Configuration changes and exit now?
  - a. Yes

This model does not have a Wireless Network (WLAN) Switch or Light.  
All 3 USB ports are USB 3.0 ports that cannot be run in USB 2.0 mode.

**IMPORTANT NOTE:** BIOS Version 1.20 was shipped on these computers. Windows 10 will not run well with this BIOS version; NumLock and CapsLock On Screen Displays may not work. The upgrade to BIOS version 1.29 is available for download from the Lenovo support website, [here](#).

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