AARP Foundation Tax-Aide National Technology Committee

#### **Summary**

This document provides instructions for installing an AARP Foundation Tax-Aide "Generic" Windows 7 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. Of these pages, only a few 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.

# **Table of Contents**

Summary	1
Hints for using this document	1
Table of Contents	1
Background	3
Prerequisites	4
DATA/PROGRAM LOSS WARNING	4
1 GB RAM	4
Windows 7 Product Key	4
Qualification for the National License Key	4
Windows 7 Product Key Sources	5

AARP Foundation Tax-Aide National Technology Committee

Preparing to Install an Image	7
Release Notes	7
Obtaining the image	7
Installing an image	8
Notes on DVD drives	8
Configuring BIOS settings for imaging	8
Applying the image	9
Preparing the Target Machine	9
Booting from a DVD in an auto-detected optical drive1	1
Booting from a USB Flash Drive or an optical drive that is not auto-detected1	1
Interacting with Tax-Aide System Validation12	2
Optional: Product Key Copy Source12	2
System Validation Messages 12	3
Less than 1GB RAM – W7 Image will not be installed 12	3
At least 1GB RAM – continue	3
W7 Product Key not available14	4
Windows 7 Product Key Entry 10	6
After System Validation	9
Responding to the Image Apply prompt	9
Responding to Windows Setup dialogs	9
Logging on for the first time	9
Selecting a "Location" for a Network	0
Windows 7 Activation	0
Windows 7 Updates and Microsoft Security Essentials Configuration	2
IEwelcome Screen	2
Windows Update	2
Found New Hardware	2
IMPORTANT "README FIRST" file	3
Re-configuring BIOS Settings for Normal Use	3

AARP Foundation Tax-Aide National Technology Committee

A	ppendix A - Model-specific BIOS Settings	. 24
	HP Compaq nc6000 – BIOS date 4/22/2004 Revision F.0E (no longer supported)	. 25
	HP Compaq nx6110 – BIOS date 9/16/2005 Revision F.0B (no longer supported)	. 26
	HP Compaq nc6120 – BIOS date 11/21/2005 Revision F.0C (no longer supported)	. 27
	HP Compaq nx6310 (Broadcom WLAN) – BIOS date 2/21/2008 Revision F.0E (no longer supported)	. 28
	HP Compaq 6715b – BIOS date 11/25/2008 Revision F.0E	. 29
	HP Compaq 6735s – BIOS date 9/14/2009 Revision 68GPP Ver. F.0E	. 30
	HP Compaq 6910p – BIOS date 9/13/2007 Version F.0A	. 31
	Dell Vostro 1520 – BIOS Version A08	. 32
	Dell Vostro 3500 – BIOS Version A08	. 33
	Dell Vostro 3550 – BIOS Version A09	. 34
	Lenovo B560 – BIOS Version 39CN21WW	. 35
	Lenovo B590 – BIOS Version H5ET73WW (1.16)	. 36
	Lenovo E540 – BIOS Version J9ET88WW (2.08)	. 37
	Lenovo E550 – BIOS Version J5ET44WW (1.15)	. 38
	Lenovo E560 – BIOS Version R00ET45W (1.20)	. 39

## Background

A Generic Windows 7 Professional image for Tax-Aide was developed and provided by the NTC for use in Tax Years 2010-2016. A significant enhancement for 2012 was the incorporation of the Tax-Aide System Validation service, which allowed for the conditional installation of the Tax-Aide National License Key (NLK) into the image. This image has been updated for Tax Year 2017. In addition, the System Validation Service now uses data from the 2017 Online Inventory System data to determine qualification for installing the NLK.

The Generic Windows 7 image is a 32-bit image and can be installed on any Windows 7-capable computer.

AARP Foundation Tax-Aide National Technology Committee

## **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.

Microsoft provides a program called Windows Easy Transfer that can be used to transfer some files and settings from your old Windows installation to your new image. You can open Windows Easy Transfer by clicking the **Start** button **Q**. In the search box, type **Easy Transfer**, and then, in the list of results, click **Windows Easy Transfer**. For more information, click <u>here - http://windows.microsoft.com/en-us/windows/transfer-files-settings-from-another-computer#1TC=windows-7</u>.

## 1 GB RAM

The computer you are imaging must have a minimum of 1 GB of RAM. Therefore, many of the older model computers will have to be upgraded with RAM before Windows 7 can be installed.

## Windows 7 Product Key

<u>The Generic Windows 7 image WILL NOT include the National License Key (NLK) if the</u> <u>computer is not **qualified** to receive the NLK, as specified below</u>. If a Product Key is not included, Windows will complain that it is "not genuine" and will not be fully functional until it is activated with a valid Product Key from another source, as described below.

#### **Qualification for the National License Key**

You can determine if a computer is qualified to receive the National License Key by going to the following website:

Product Key Availability - http://taxaideaarp.org/main/LicenseCheck/LC\_home2.php

AARP Foundation Tax-Aide National Technology Committee

You will need to enter the machine-readable computer serial number as determined by the Inventory Data Collection tool that was used for completing the 2013 or 2014 Tax-Aide Equipment Inventory Report, or that was reported by the Tax-Aide Inventory Agent.

The following section, Windows 7 Product Key Sources, explains the various scenarios.

#### Windows 7 Product Key Sources

Before installing the Windows 7 image, <u>be sure that one of the following 2 cases applies to the specific Target Computer:</u>

1. <u>The Target Computer is qualified</u> - **both eligible and registered** - to use the Tax-Aide <u>National License Key (NLK)</u>. If so, the NLK will be installed along with the Generic Windows 7 image.

In 2011, Microsoft donated a license for Windows 7 Professional to the AARP Foundation for use on AARP-Foundation-owned Windows 7-capable computers that were at that time running Windows XP. This donation allows qualified Tax-Aide computers to be upgraded to Windows 7 Professional. The NLK is the Volume:MAK type Product Key that represents a copy of that donated license.

To protect the NLK from theft, fraud and abuse, the NLK will not be made available for manual entry. It will only be installed on an eligible and registered computer as an integral part of the installation of the AARP Tax-Aide Generic Windows 7 image on that computer.

Here are the definitions of NLK-eligible and NLK-registered computers:

- a. <u>NLK-eligible</u> computers are those that:
  - i. Are owned by the AARP Foundation (purchased or donated)
  - ii. AND have working hardware capable of running Windows 7:
    - 1 gigahertz (GHz) or faster processor
    - 1 gigabyte (GB) RAM
    - 16 GB available hard disk space
    - DirectX 9 graphics device with WDDM 1.0 or higher driver
  - iii. AND have no other license available for an Tax-Aide-Qualified Windows 7 version/edition.

The Tax-Aide-Qualified versions/editions are:

- Windows 7 Professional
- Windows 7 Ultimate or Enterprise
- iv. AND have no Tax-Aide-Qualified Windows 7 edition currently installed:
  - Any Windows Vista, XP or earlier version may be installed

AARP Foundation Tax-Aide National Technology Committee

- OR Windows 7 Starter, Home Basic, or Home Premium may be installed
- OR no Windows installation may be found on the system

Regardless of the above requirements, any computer on which Windows 7 Professional is currently installed using the NLK is considered NLK-eligible by default.

b. <u>NLK-registered</u> computers are those on which the Tax-Aide Inventory Data Collection tool was run and the resulting data was included in the Equipment Inventory Report (EIR) for the split-state that was submitted to the National Office in May of 2013 or 2014, or those that were included in the EIR or the Online Inventory System beta test for 2015 and on which the Tax-Aide Inventory Agent is installed.

Computers that were pre-registered for the NLK during the Windows 7 National License System Validation Test in late 2011, using the Online System Registration Tool, are also NLK-registered, regardless of how those systems may have been reported on any EIR.

If a computer is both NLK-eligible and NLK-registered, it is qualified to receive the NLK. If a qualified computer is connected by an Ethernet patch cable (not wireless) over the Internet to the Tax-Aide System Validation service when the Generic Windows 7 image is being installed, the NLK will be installed along with the Windows 7 image.

- 2. <u>You have a valid Windows 7 Professional Product Key for the Target Computer in your</u> possession, so that you can type it in when requested.
  - a. Some computers were purchased with Windows 7 Professional installed by the Original Equipment Manufacturer (OEM), such as HP, Dell, or Lenovo. These computers have a Certificate of Authenticity (COA) label on the case (sometimes in the battery compartment) which contains the Windows 7 Professional Product Key specific to that computer. This kind of key is called an "OEM:COA" type of Product Key.

<u>Important Note:</u> A Windows 7 Starter, Windows 7 Home Basic, or Windows 7 Home Premium Product Key cannot be used to Activate Windows 7 Professional.

b. For other computers, your state or local Tax-Aide leaders may have purchased a Windows 7 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, <u>http://www.techsoup.org/stock/</u>. Your state Technology Specialist

AARP Foundation Tax-Aide National Technology Committee

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.

## **Preparing to Install an Image**

#### **Release Notes**

The Generic Windows 7 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**

There are two ways to obtain the Generic Windows 7 system image:

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

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.

Starting with the September, 2015, release, the Tax-Aide Generic Windows 7 image is larger than the capacity of a single-layer DVD. It can be burned onto a double-layer DVD; or it can be booted from a USB Flash Drive.

2. Alternatively, a bootable DVD containing the image can be mailed to you. The Image Download website also contains instructions for obtaining image DVDs by postal mail.

AARP Foundation Tax-Aide National Technology Committee

## **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 respond to the Found New Hardware wizard.

#### Notes on DVD drives

The DVD drives on many of the older computers are either failing or running on the ragged edge of their specifications. Consequently, the installation 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.

The DVD drives on some of the older laptop models that will work for single-layer DVDs either will not work at all or require special setup steps when used with a double-layer DVD. If the internal DVD drives cannot be made to work, alternatives include installing the image from a USB Flash Drive or from an external USB optical drive. Laptop model-specific information is provided below.

## **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.

For an image installation to get started, the boot device that you want to use, either DVD-ROM or USB Flash Drive, needs to 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

AARP Foundation Tax-Aide National Technology Committee

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.

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

- Set up the following boot order, regardless of which boot device you plan to use:
  - 1. CD/DVD ROM, also called the "Optical Drive" or "Notebook Upgrade Bay"
  - 2. Hard Disk Drive
  - 3. USB Flash Drive or USB optical drive, if you plan to boot from it
  - 4. [don't care after 3]
- Enable the boot device that you plan to use: CD/DVD ROM or USB Flash Drive
- If booting from a USB device, enable the boot device selection menu
- 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
- Disable the LAN/WLAN switching option, if available

Each laptop model has BIOS 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 <u>Appendix A</u>.

## 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 during a previous imaging process.
- 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 autodetected.

AARP Foundation Tax-Aide National Technology Committee

- b. If your DVD is auto-detected read the section <u>Booting from a DVD in an auto-detected optical drive</u>.
- c. If you are using a USB device or a DVD in a machine where the DVD is not autodetected, read the section <u>Booting from a USB or an optical drive that is not auto-</u> <u>detected</u>. 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 <u>immediately</u> 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 <u>Appendix A</u> of this document for the specific model. The models are listed below, together with an indication of how double-layer DVDs may be supported:

<u>HP Compaq nc6000</u> – this laptop model is no longer supported

<u>HP Compaq nx6110</u> – this laptop model is no longer supported

HP Compaq nx 6120 – this laptop model is no longer supported

HP Compaq nx 6310 – this laptop model is no longer supported

<u>HP Compaq 6715b</u> – internal optical drive does not work for double-layer DVD

HP Compaq 6735s – double-layer DVD works in internal optical drive and is auto-detected

<u>HP Compaq 6910p</u> – 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

<u>Dell Vostro 3500</u> – 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

Lenovo B560 – double-layer DVD works in internal optical drive and is auto-detected

Lenovo B590 – double-layer DVD works in internal optical drive and is auto-detected

<u>Lenovo E540</u> – double-layer DVD works in internal optical drive and is auto-detected

Lenovo E550 – double-layer DVD works in internal optical drive and is auto-detected

<u>Lenovo E560</u> – double-layer DVD works in internal optical drive and is auto-detected

AARP Foundation Tax-Aide National Technology Committee

- 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."
- 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
  - 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

AARP Foundation Tax-Aide National Technology Committee

- ii. Arrow down to "USB KEY" or the optical drive entry
- iii. Press Enter
- 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
  - i. Promptly and repeatedly press F12 to display the Boot Menu
  - ii. Arrow down to "USB HDD"
  - 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 trapezoidal Windows icon, to which will be added a rotating circle of white dots. Then a blue screen with a black text window will appear. The Tax-Aide System Validation program will run and will attempt to connect to the Tax-Aide National Inventory Database before the Image Apply prompt asks for permission to erase the hard drive.

During this process it is possible to get a variety of responses based on the eligibility of the computer to receive the National License Key; the computer not being connected to the Internet; the image website not being available, 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 7 Local Product Key that will be installed into the Windows image and stored in the System Validation 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 Local Product Key.

AARP Foundation Tax-Aide National Technology Committee

## System Validation Messages

#### Less than 1GB RAM – W7 Image will not be installed

If the Target Computer has less than 1 GB of RAM, the System Validation program will refuse to erase the hard drive and will unconditionally terminate the installation, with this message:

This system does not have enough memory to install Windows 7 Shutting Down

The target computer will then shut down. RAM must be added before you can proceed.

At least 1GB RAM – continue...

In order for a Product Key to be installed, either the System Validation program will need to obtain the appropriate key from the 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.

#### W7 Product Key Present in the database

If this computer and a Windows 7 Pro Product Key for it are found in the NIDB, a message like this one will be displayed:

AARP Tax-Aide	X
A product key ending in C9WKB will be installe reimaged	d after the system has been
	ОК

Unless the operator terminates the installation, the Windows 7 image will be installed and the Product Key from the NIDB will also be installed.

Proceed to "After System Validation," below.

AARP Foundation Tax-Aide National Technology Committee

#### W7 Product Key not available

There are several reasons for not finding a W7 Product Key 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 W7 Pro Product Key for this computer that will be installed after the 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

W7 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:



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, open a request for assistance on the OneSupport Help Center, using the topics Technology Software > How to install image.

AARP Foundation Tax-Aide National Technology Committee

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:

	AARP Tax-Aide	- • •
Window A key f for this Please Produc	vs 7 Product Key Entry rom the AARP Tax-Aide databa system. enter a valid Windows 7 Profe t key for this system.	ase is not available ssional
	-	·
	Cancel	ОК
No response from Tax-Aide Database		

Proceed to "Windows 7 Product Key Entry," below.

#### Target Computer not found in the database

Target Computer found, but not Eligible for Product Key upload

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

	AARP Tax-Aide	- • •
Windows A key fro for this s Please e Product I	7 Product Key Entry m the AARP Tax-Aide database ystem. nter a valid Windows 7 Professi key for this system.	is not available onal
	- [	-
	Cancel	ОК
<various feedbacks="" from="" nidb="" the=""></various>		

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. If you enter a valid Product Key, it can be installed into the installed Windows 7 image; but it will not be saved in the NIDB.

AARP Foundation Tax-Aide National Technology Committee

#### Proceed to "<u>Windows 7 Product Key Entry</u>," below.

#### W7 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:

	AARP Tax-Aide	
Window A key fi for this Please Product	rs 7 Product Key Entry rom the AARP Tax-Aide databas system. enter a valid Windows 7 Profest t key for this system.	e is not available sional
		-
	Cancel	ОК
KeyMgmt: Database Response : not Product Key, must upload		

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. If you enter a valid Product Key, it can be installed into the applied Windows 7 image and saved in the NIDB.

#### Windows 7 Product Key Entry

A variant of the following screen is displayed when it may be appropriate to type in a Windows 7 Product Key:

	AARP Tax-Aide		
<	Windows 7 Product Key Entry A key from the AARP Tax-Aide database is not available for this system. Please enter a valid Windows 7 Professional Product key for this system.		
	· · · · · · · · · · · · · · · · · · ·		
	Cancel OK		

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

AARP Foundation Tax-Aide National Technology Committee



If the operator clicks OK, the Windows 7 image may be installed (if allowed by a later operator choice), but the installed image will have no Product Key automatically installed. Upon start up, Windows will warn that it is "Not Genuine" and will ask for a Product Key to be entered. You will have to provide a valid Windows 7 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 Tax-Aide Windows 7 Professional image, and clicks OK, an error message like this one will be displayed:

🖳 🛛 AARP Tax-Aide 🗖 🗖 💌	
Windows 7 Product Key Entry A key from the AARP Tax-Aide database is not available for this system. Please enter a valid Windows 7 Professional Product key for this system.	
XXXXX - XXXXX - XXXXX This key is not valid for this	image. Please enter a different key
Cancel OK	
KeyMgmt: Database Response : not Product Key, must upload	

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

<u>If the operator types in a valid Windows 7 Professional Product Key</u> for this computer and the Tax-Aide Windows 7 Professional image and clicks OK, that key will be saved temporarily and installed after the image has been applied to the computer. A message like this one will be displayed:

AARP Foundation Tax-Aide National Technology Committee

AARP Tax-Aide	×
A product key ending in C9WKB will be installed reimaged	l after the system has been
	ОК

Unless the operator terminates the installation, the Windows 7 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.

AARP Foundation Tax-Aide National Technology Committee

## **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.

When image application is complete, the machine will reboot automatically. If a DVD was used, it can safely be removed at any point. But if a UFD was used, do not remove it yet; doing so may cause the system to hang.

#### **Responding to Windows Setup dialogs**

Set the correct Time Zone, Date, and Time when prompted.

Windows Setup will automatically install device drivers, then restart the computer, and display the logon screen. The UFD can now be safely removed.

#### Logging on for the first time

You can now logon to Windows. You should first logon as the Installer user, to configure any system-level settings or install software for use by all users. You can subsequently logon as either the Volunteer or the Installer user. The Installer user is a member of the Administrators group. As created by the Tax-Aide Windows 7 Image, the Volunteer user is a member of the Users group; it is therefore a Standard user, NOT configured as an Administrator. 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 password is sent by postal mail to all recipients of IRS Depot computers; it is also sent by postal mail to all TCSs by the Tax-Aide national office. If you do not have this password, please contact your TCS. The Installer user password is the same as the Volunteer password, unless you change it.

The Administrator user is disabled. The Administrator user 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 being disclosed. You can enable the Administrator account if you like, but you do not need to do so. You can change the Administrator user password to a value of your choosing when logged on as the Installer user by navigating to

AARP Foundation Tax-Aide National Technology Committee

START > Control Panel > User Accounts and Family Safety > User Accounts > Manage Another Account > Administrator > Change the password.

There is important information in the "IMPORTANT README FIRST yyyy\_mmdd.TXT" file on the desktop. After reading it and following any instructions pertinent to your computer, you can delete that file.

**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 <u>Appendix A</u>.

#### Selecting a "Location" for a Network

When a re-imaged Target Machine is first connected to a network, Windows 7 may present the "Select a Location for the <network> Network" dialog.

NEVER select "Home network"

NEVER Select "Work network"

ALWAYS Select "Public network"

Check the box "Treat all future networks that I connect to as public and don't ask me again."

#### Windows 7 Activation

<u>Activate Windows Immediately.</u> Double-click the "Activate ThisComputer.exe" icon on the desktop immediately after Windows is installed. That utility will be erased after it is used. If there was an error during activation, you will get the following notification and will have to use the alternate procedure, next.



Alternate procedure for activating. If the above action fails or you get a warning that your Windows is not genuine, you can perform the following procedure (a Product Key must be installed, first and Dell 3550 users will be requested to enter their Product Key again during the process):

a. Right-click the "Computer" icon on the desktop

AARP Foundation Tax-Aide National Technology Committee

- b. Click "Properties"
- c. Go to the "Windows activation" section near the bottom of the page
- d. If it says Windows is activated, no action is necessary
- e. If it says Windows is not activated, click the "Activate Windows" link to activate it
- f. After a short period it will indicate that Windows is activated

If the first attempt to activate Windows fails, try it again after restarting Windows. We have often seen the first attempt fail and the second attempt succeed

<u>About Windows Activation</u>. If a Windows 7 image was applied but no Product Key was installed, you must eventually install **your** <u>Windows 7 Professional Product Key</u>. Windows will ask you to do this on each startup as long as a Product Key is not yet installed. Each time, you can choose to "Enter the Product Key" or to "Remind Me Later." If you choose "Remind Me Later," be aware that you will have a black desktop background with a reminder that Windows is not genuine and frequent popup windows reminding you of that. Also, certain non-Windows upgrades will not be eligible for download, e.g., Microsoft Security Essentials.

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 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 7 image, or manually installed later as described above, you will have a 30-day grace period from the time of installation before Windows will demand that you activate it. But, Windows will attempt to activate itself automatically using the installed Product Key after a period of only 3 days. 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 normally only happen when the computer is connected to the Internet so that it can access the Microsoft Windows Activation Server.

**CAUTION**: When the images are installed, they are not activated. If they are connected to the Internet for a significant amount of time within the next three days, they will activate themselves. However, if Windows hasn't self-activated within those three days you will get warnings that you aren't running "genuine Windows" software. Because of this, we recommend that you take the extra step of manually activating Windows immediately after completing installation.

AARP Foundation Tax-Aide National Technology Committee

## Windows 7 Updates and Microsoft Security Essentials Configuration

You should receive a Welcome to the Microsoft Security Essentials Setup Wizard. Follow the prompts to configure Microsoft Security Essentials – a short process. You may receive a dialog box suggesting that "Microsoft Security Essentials might not have installed correctly." Select "This program installed correctly." A dialog box will open with a box checked that will cause a scan of the system. Uncheck that box, as a scan is not necessary at this point in the process.

#### **IEwelcome Screen**

An Internet Explorer "IEwelcome" screen may open, offering to perform several installation/configuration steps. If we could prevent Microsoft from presenting this IEwelcome screen, we would do so. At the time it is being presented, we have already done all the suggested steps, except that we have set irs.gov as the home page and Google as the default search provider. When you see this screen, please close the tab without clicking on the "Install Now" button. It may persist a time or 2 when starting IE 11; but we have found that it usually does go away after a few iterations, unless there is a problem with the date/time setting on the computer. To avoid this issue, it is important to set the time zone, date, and time correctly when the time control panel applet is first presented at the GUI during Windows Setup.

When you first launch IE 11, you will see a dialog box with the following message: "Internet Explorer reset your home page because the home page setting was corrupt. Do you want to change your home page to http://www.irs.gov/?" Please click the "Change" button here, and also in the next massage that will appear, asking if you want to change the default search provider to Google. These messages will appear briefly the first time IE 11 is launched **for each Windows user** (Installer and Volunteer).

#### Windows Update

Use Windows Update to apply any new Windows and Microsoft Security Essentials updates and to search for any missing or more appropriate device drivers. Select all Important updates and any Optional updates which apply to Devices, Drivers and Windows Update. Do not select any optional updates that contain the word "preview" in their name.

**CAUTION:** When the process is applying the MSE update it requires user input. It may appear to stall on the MSE update. If so, the dialog box that allows user input has opened behind the Windows Update window. Click the MSE icon on the Task Bar and follow the prompts in the dialog box. The remaining updates will be applied and a Restart requested. The restart will take several minutes as the updates are completed.

#### **Found New Hardware**

If a device was not detected during installation and the driver for the device was not installed, but the device is later enabled, Windows will launch the Found New Hardware wizard. If this

AARP Foundation Tax-Aide National Technology Committee

happens, but the wizard cannot automatically locate a driver for the device on the system, the best resolution is to connect the machine to the Internet and allow the wizard to use Windows Update to look for a driver to install.

When checking for optional updates, the Bing Desktop update may be offered as a choice. If so, we recommend that you do not install that useless and cluttering update. Instead, right-click on the link and select "Hide." The update will no longer be offered.

## **IMPORTANT "README FIRST" file**

Open the "IMPORTANT README FIRST yyyy\_mmdd.TXT" file that is located on the desktop. The file contains the following:

- Windows 7 activation instructions
- Procedures to assure you have complete and updated drivers for your particular computer.
- Procedures to change the screen resolution, should it be necessary or you desire to change it. On some systems the installed resolution will be defaulted to 800x600. A better resolution, based on your preferences, would be 1024x768.
- Instructions to deal with Microsoft Security Essentials cautions
- Optional HP nc6000 instructions to deal with a missing driver for a non-essential device

## **Re-configuring BIOS Settings for Normal Use**

If you set the BIOS setting "Express Boot Popup Delay" to other than 0 so that you could boot from a USB Flash Drive, you may want to change that value back to 0 for normal use of the laptop. This is applicable to models nc6000, nx6110, and nc6120.

AARP Foundation Tax-Aide National Technology Committee

# **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 Compag nc6000 – no longer supported HP Compag nx6110 - no longer supported<u>HP Compag nc6120</u> – no longer supported <u>HP Compag nx6310</u> – no longer supported HP Compaq 6715b HP Compaq 6735s HP Compaq 6910p Dell Vostro 1520 Dell Vostro 3500 Dell Vostro 3550 Lenovo B560 Lenovo B590 Lenovo E540 Lenovo E550 Lenovo E560

AARP Foundation Tax-Aide National Technology Committee

#### HP Compaq nc6000 – BIOS date 4/22/2004 Revision F.0E (no longer supported)

- 1. Power off the system
- If you will be booting from a USB Flash Drive, called a "USB Hard Disk" in this BIOS,
  a. insert a bootable flash drive into a USB port
- 3. Press Power On
- 4. Press F10 to enter the BIOS setup program
- 5. Security
  - a. Device Security
    - i. Wireless Network Button Enable
    - ii. CD-ROM Boot Enable
    - iii. F10
- 6. Advanced
  - a. Boot options
    - i. QuickBoot Enable
    - ii. F10 and F12 Delay (Sec) -10
    - iii. MultiBoot Enable
    - iv. Express Boot Popup Delay (Sec)
      - 1. If booting from a USB Flash Drive -10
      - 2. If not booting from a USB Flash Drive 0
    - v. Boot Order:
      - 1. Notebook MultiBay First
      - 2. Notebook hard drive Second
      - 3. USB Hard Disk Third
    - vi. F10
  - b. Device options
    - i. USB legacy support Enable
    - ii. F10
- 7. File
  - a. Save changes and exit
  - b. F10

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

The WLAN button is located above the keyboard; it is the middle button in the cluster of 3 buttons.

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

AARP Foundation Tax-Aide National Technology Committee

#### HP Compaq nx6110 – BIOS date 9/16/2005 Revision F.0B (no longer supported)

- 1. Power off the system
- 2. Press Power On
- 3. Press F10 to enter the BIOS setup program
- 4. Security
  - a. Device Security
    - i. CD-ROM Boot Enable
    - ii. F10
- 5. Advanced
  - a. Boot Options
    - i. F10 and F12 Delay (Sec) 10
    - ii. MultiBoot Enable
    - iii. Express Boot Popup Delay (Sec) 10
    - iv. Boot Order
      - 1. Optical Device Drive First
      - 2. Notebook Hard Drive Second
      - 3. USB Hard Disk Third
    - v. F10
  - b. Device Options
    - i. USB Legacy Support Enable
    - ii. Embedded WLAN Device Radio Enable
    - iii. F10
- 6. 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 the black button to the right of the silver power button.

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.

AARP Foundation Tax-Aide National Technology Committee

HP Compaq nc6120 – BIOS date 11/21/2005 Revision F.0C (no longer supported)

- 1. Power off the system
- 2. Press Power On
- 3. Press F10 to enter the BIOS setup program
- 4. Security
  - a. Device Security
    - i. CD-ROM Boot Enable
    - ii. F10
- 5. Advanced
  - a. Boot Options
    - i. F10 and F12 Delay (Sec) 10
    - ii. MultiBoot Enable
    - iii. Express Boot Popup Delay (Sec)
      - 1. If booting from a USB Flash Drive -10
      - 2. If not booting from a USB Flash Drive 0
    - iv. Boot Order
      - 1. Optical Device Drive First
      - 2. Notebook Hard Drive Second
      - 3. USB Hard Disk Third
    - v. F10
  - b. Device Options
    - i. USB Legacy Support Enable
    - ii. Embedded WLAN Device Radio Enable
    - iii. Embedded Bluetooth Device Radio Enable (if you ever want to use it)
    - iv. F10
- 6. 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 the second black button to the right of the silver power button.

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.

AARP Foundation Tax-Aide National Technology Committee

# HP Compaq nx6310 (Broadcom WLAN) – BIOS date 2/21/2008 Revision F.0E (no longer supported)

- 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. CD-ROM Boot Enable
    - iii. MultiBoot Enable
    - iv. Express Boot Popup Delay (Sec) 0
    - v. Boot Order
      - 1. Optical Disk Drive First
      - 2. Notebook Hard Drive Second
      - 3. USB Hard Disk Third
    - vi. F10
  - b. Device Configurations
    - i. USB Legacy Support Enable
    - ii. F10
  - c. Built-in Device Options
    - i. Embedded WLAN Device Radio Enable
    - ii. LAN/WLAN Switching Disable
    - iii. F10
  - d. Port Options
    - i. USB Port 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 the black button to the right of the silver power button.

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.

AARP Foundation Tax-Aide National Technology Committee

#### HP Compaq 6715b - BIOS date 11/25/2008 Revision F.0E

- 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.

AARP Foundation Tax-Aide National Technology Committee

#### HP Compaq 6735s - BIOS date 9/14/2009 Revision 68GPP Ver. F.0E

- 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.

AARP Foundation Tax-Aide National Technology Committee

#### HP Compaq 6910p - BIOS date 9/13/2007 Version F.0A

- 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.

AARP Foundation Tax-Aide National Technology Committee

## **Dell Vostro 1520 – BIOS Version A08**

- 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.

AARP Foundation Tax-Aide National Technology Committee

#### 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.

AARP Foundation Tax-Aide National Technology Committee

## Dell Vostro 3550 – BIOS Version A09

- 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
  - $c. \quad USB \ Emulation Enabled$
  - 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 NOTE:** 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. If not, use the port on the left side, which does work with ImageApply. We intend to address this issue in a subsequent release.

AARP Foundation Tax-Aide National Technology Committee

#### 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.

AARP Foundation Tax-Aide National Technology Committee

#### 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. ATAPI CD1 PLDS DVD-RW ... [internal Optical Disk Drive]
      - 2. ATA HDD0 HGST ... [internal Hard 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.

AARP Foundation Tax-Aide National Technology Committee

#### 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. ATAPI CD0 HL-DT-ST ... [internal Optical Disk Drive]
      - 2. ATA HDD0 TOSHIBA ... [internal Hard 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.

AARP Foundation Tax-Aide National Technology Committee

#### 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. ATAPI CD0 HL-DT-ST ... [internal Optical Disk Drive]
      - 2. ATA HDD0 ... [internal Hard 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.

AARP Foundation Tax-Aide National Technology Committee

#### Lenovo E560 – BIOS Version R00ET45W (1.20)

- 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. ATAPI CD0 HL-DT-ST ... [internal Optical Disk Drive]
      - 2. ATA HDD0 ... [internal Hard 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.