

Certified Wireless USB Host & Certified Wireless USB Hub Software Installation



1.0 INTRODUCTION

Alereon's Certified Wireless USB HWA USB Adapter and 4-port DWA USB Hub achieve data transfer rates comparable to USB 2.0 without the need for cables between the PC and peripherals.

USB devices can simply be plugged into the 4-port DWA Hub and then controlled wirelessly by the PC through the HWA USB adapter at distances of up to 3 meters.

This document describes the installation procedure for the software that runs on the HWA USB Adapter and the 4-port DWA Hub.

2.0 FEATURES

- Wireless USB 2.0 speed through wireless medium
- Simple hardware interface
- Easy installation

3.0 REQUIREMENTS

- Available ac outlets in the room
- Available USB ports
- PC System requires Windows XP with Service Pack 2 and .NET Framework 2.0
- Software requires Windows and CD-ROM drive

4.0 INSTALLATION

Before we get started, please NOTE:

- Do not place Wireless USB devices under direct sunlight or near high heat emitting devices;
- Do not place Wireless USB devices near water or wet surfaces to avoid electric hazards;
- Do not place Wireless USB devices on any moving or unstable surfaces.

4.1 Hardware Setup

1. Remove the Wireless USB Host, Wireless USB hub, USB 2.0 A to Mini B Cable, power adapter, antenna, extension/swivel adapter (if provided), and the installation CD from the package(s).
2. Allocate a space for the Wireless USB Host's placement, utilizing the extension/swivel adapter (if provided), as well as the Wireless USB Hub. Make sure you avoid the places mentioned above. It is important to verify that the Wireless USB Host is connected to the extension/swivel adapter if using the USB dongle.
3. Attach the power adapter connector to the hub. Do Not plug in to an ac outlet at this time.
4. Attach the antenna to the Wireless USB Hub.

4.2 Software Installation

To install the UWB software, insert the included CD into your computer. The following menu should appear automatically. If not, navigate to the CD-ROM drive containing the installation CD and double-click on *CD_Start.exe* to bring up the user menu. Click on **Software Installation** to begin the installation process. A detailed user's manual can also be accessed by clicking on the **User's Manual** button.

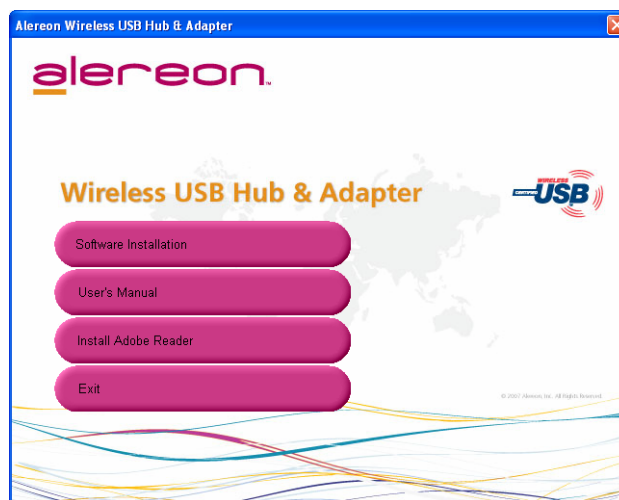


Figure 1. Initial Menu

Microsoft .NET Framework 2.0 is required for the UWB software. Once you begin the software installation, if .NET Framework 2.0 is not installed on your PC, the software will automatically download this from the internet. Please verify that the computer is connected to an internet connection.

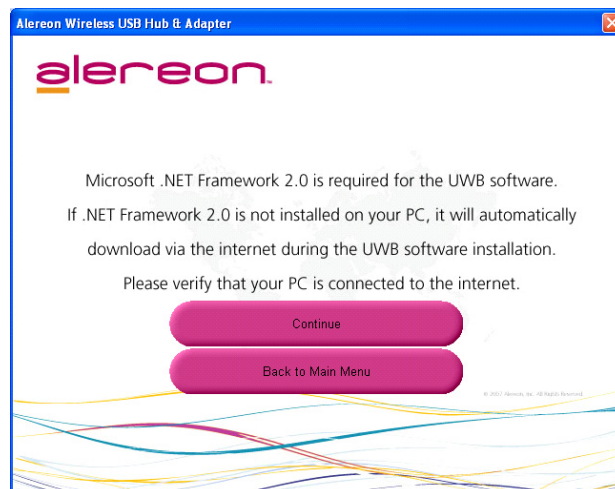


Figure 2. Microsoft .NET Framework 2.0 Requirement

The first window will explain that WiCenter software is going to be installed on your computer. This software will control the devices so select **Next**.

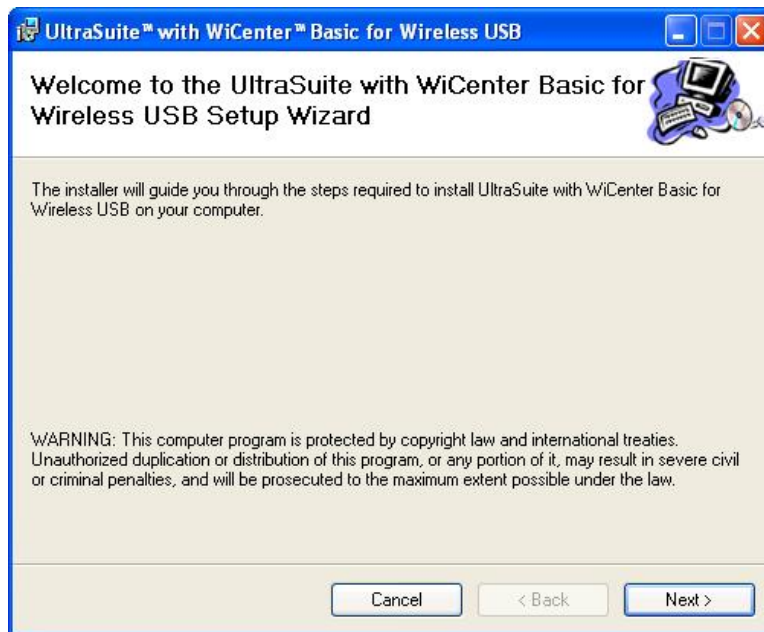


Figure 3. Wireless USB Setup Wizard

The following window will request that you agree to the License Agreement before proceeding with installation. Select **I Agree** and select **Next**.



Figure 4. License Agreement

The window shown below allows you to select where the files for WiCenter are installed and stored. You also have the option to select which users will be able to utilize the software. Once you have made your selections, select **Next**.

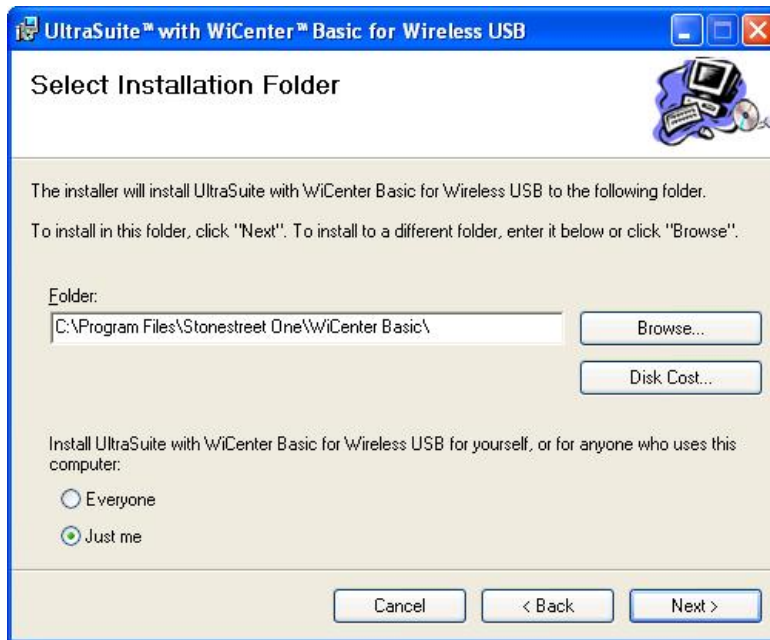


Figure 5. Installation Options

The follow window confirms that you are approving installation. Select **Next**.

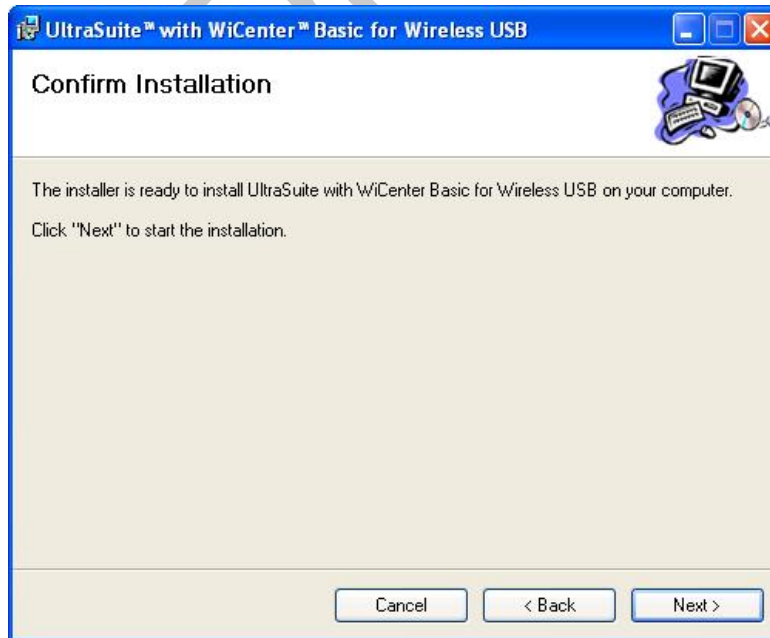


Figure 6. Confirm Installation

Once you have selected **Next**, the WiCenter software will begin installation and show the status in a window similar to the one shown below.



Figure 7. Installation Status

If at anytime during the installation process a Software Installation window appears referring to compatibility with Windows XP, select **Continue Anyway** as shown in the following image.



Figure 8. Windows XP Compatibility

Once you have installed all the software properly, you will come to a window similar to the one below stating that installation has been completed. Select **Finish** to finalize the software installation.

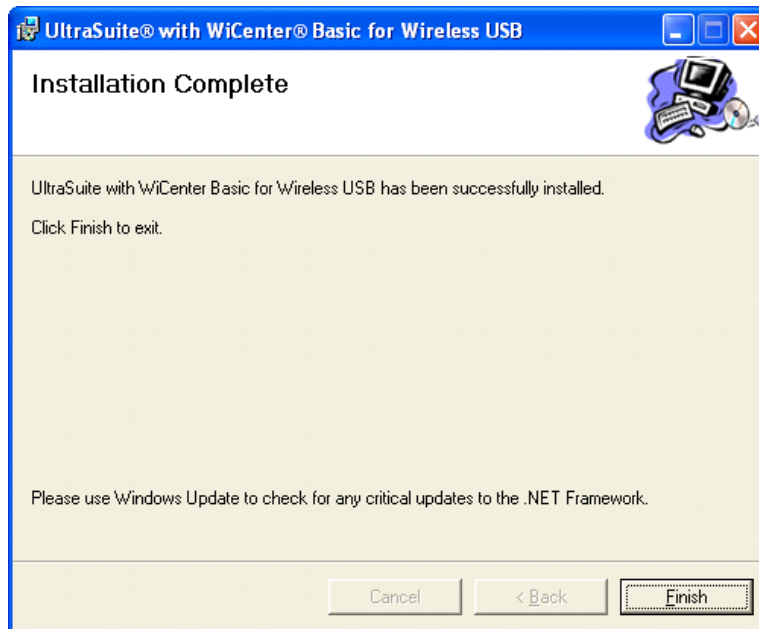


Figure 9. Installation Complete

4.3 Software Installation Reference

If at anytime during the installation process a Found New Hardware Wizard window appears asking for permission to connect to Windows Update to search for the software, select **No, not this time**, and click **Next** as shown through the following set of images and instructions.



Figure 10. Found New Hardware Wizard (1 of 2)

The following window will ask whether you want Windows to try and automatically locate the software for the device or if you'd like to manually try and locate the files. Select **Install the software automatically (Recommended)** and click **Next**.

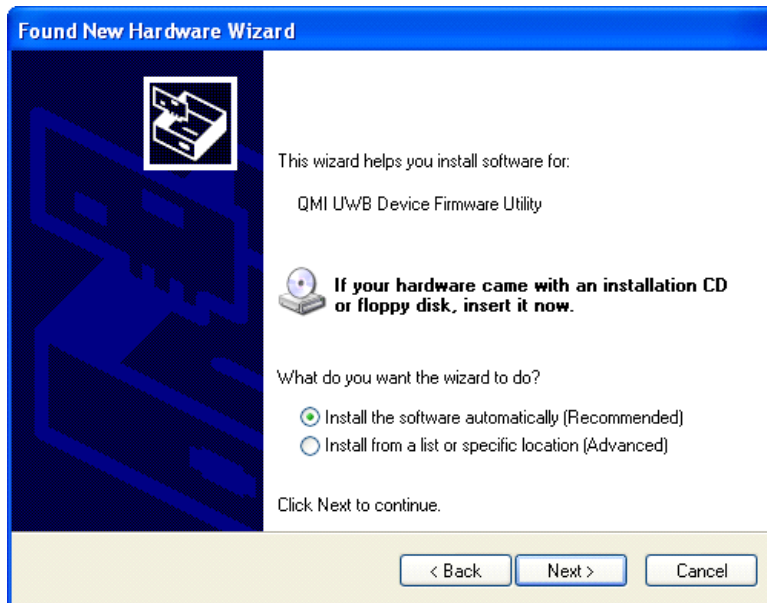


Figure 11. Found New Hardware Wizard (2 of 2)

Once you have completed the steps above, the following window will confirm that the driver has been properly installed. Select **Finish**.



Figure 12. Completing the Found New Hardware Wizard

5.0 DRIVER INSTALLATION

Verify that WiCenter is running by double-clicking on the WiCenter icon that was created on the desktop. Plug-in the Wireless USB Host (power up USB Host), making sure that the extension/swivel adapter is adjusted to a 45 degree angle to maximize range if using the Wireless USB dongle. Windows will recognize a new device has been detected and install the drivers automatically for the Wireless USB Host. Remember that if the Found New Hardware Wizard window appears, follow the steps highlighted in the previous section.

Once the Wireless USB Host has finished installing, connect the Wireless USB hub to your computer with the USB cable supplied. Make sure the hub is set to Wireless Mode and Automatic Association in order to properly install the drivers. Power on the hub at this time, be sure that the power adapter is connected to the hub and plugged into an ac outlet. If the hub is set to wired mode it will not install drivers and treat it as a generic wired hub.

Once connected, you will see that Windows has found new hardware in the system tray and the driver will be installed automatically. Remember that if the Found New Hardware Wizard appears, follow the steps highlighted in the previous section. This associates the wireless hub with your system and will only have to be done once in order to gain proper wireless connectivity. Once the drivers have been installed for the hub, the system should automatically detect an association request and the following window will become visible.

There are two options available for the Wireless USB association. Select **Allow permanent wireless connection** and click **OK**.



Figure 13. Wireless Confirmation

You should see the following window now stating that the association with the wireless hub was successful. Select **OK**.

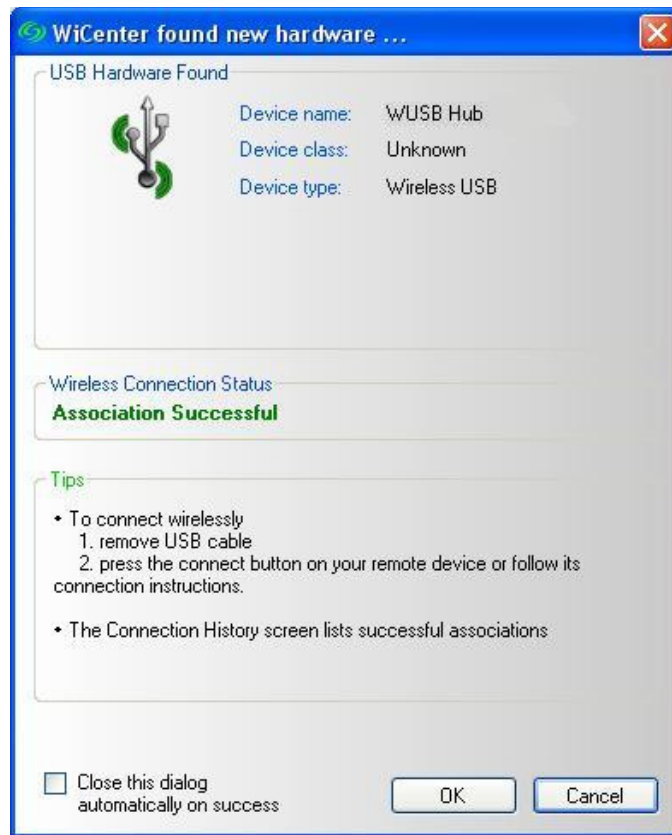


Figure 14. Association Successful

Once association is successful and the HOST LED on the wireless hub has stopped flashing, you may unplug the USB cable from the wireless hub and the following popup will show up above your system tray. A solid LED Host light on the hub will indicate that the wireless link has been established.

At this point, a found new hardware window will appear in the system tray and the final driver will be installed automatically for the Wireless USB hub. Remember that if the Found New Hardware Wizard window appears, follow the steps highlighted in the previous section.

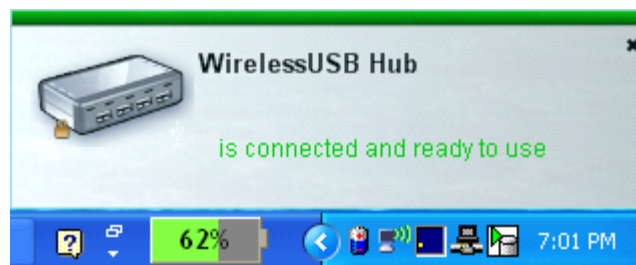


Figure 15. Ready-to-use Popup

Open the WiCenter software and select the **View Console** option to view all available and connected Wireless USB devices in range.

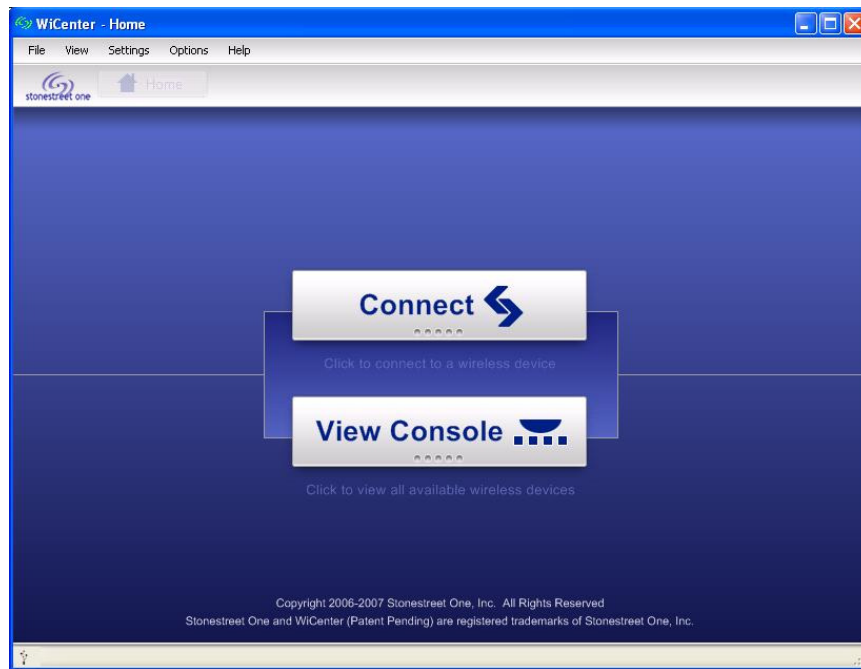


Figure 16. WiCenter Home

The Wireless USB hub should now be visible and if you connect any devices to the hub you will be able to view them through the dropdown menu shown below or through My Computer. In order to view devices connected to the hub, click the [+] and it will display a dropdown list of all peripherals currently connected and available.

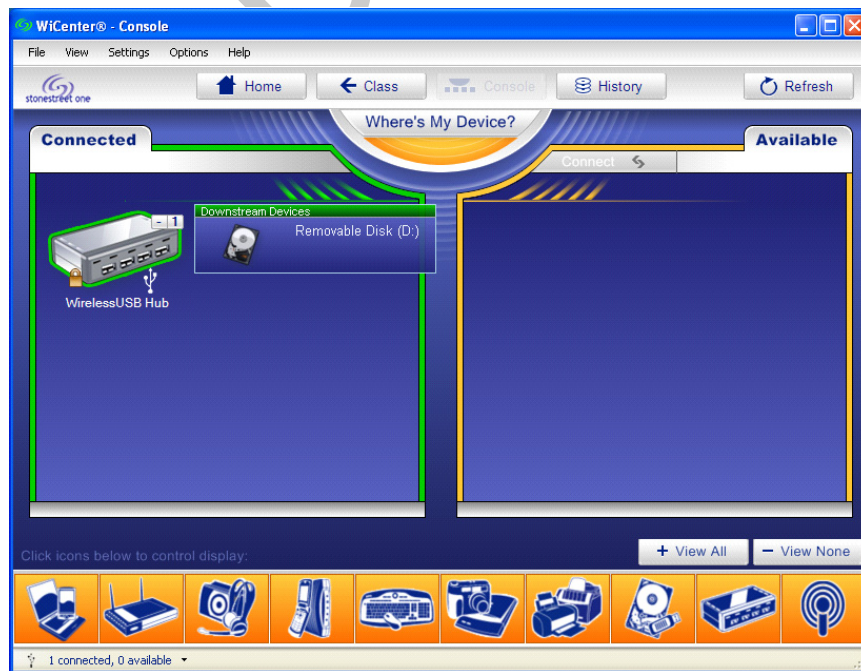


Figure 17. WiCenter Console

6.0 ADVANCED SETTINGS

The advanced settings of WiCenter allow you to make changes related to the Channel that data is being transmitted on. The following shows the Advanced Settings tab which can be accessed by clicking on Settings→My Wireless USB Radio Settings, and then selecting the Advanced tab on the window that appears. The following shows the default and recommended settings. The Speed (PHY Rate) will be automatically set by WiCenter in order to achieve the best range and throughput performance.

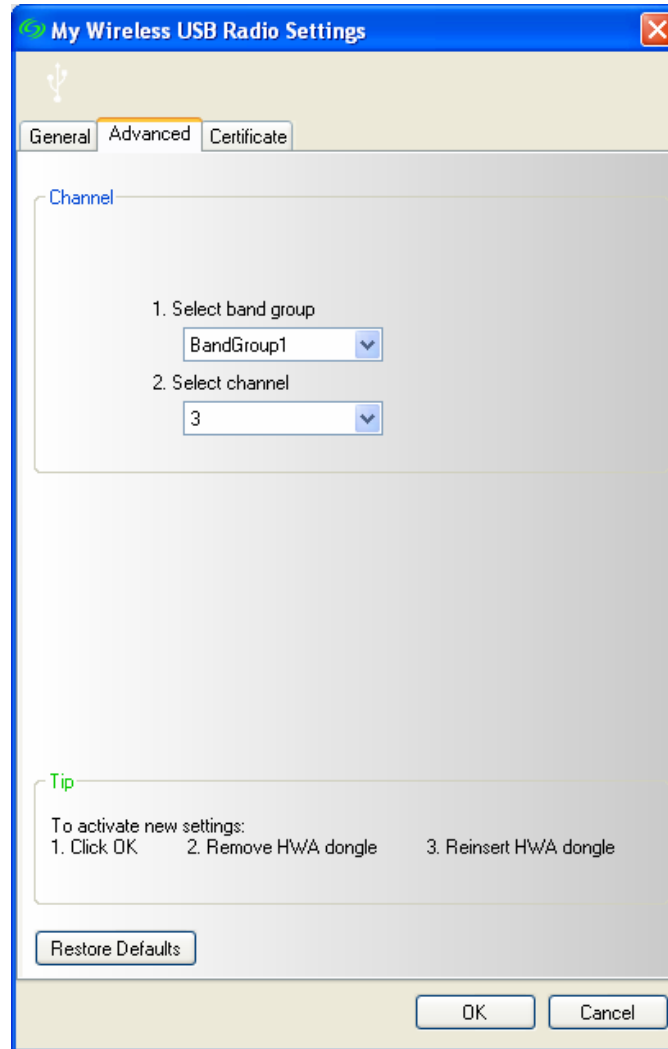


Figure 18. Wireless USB Radio Settings

It is important to note that if any changes are made, select **OK** to accept changes then remove (power-down) Wireless USB Host and then re-insert (power-up) Wireless USB Host for the new settings to take effect, as described at the bottom of the Advanced Settings window.

If the Channel needs to be changed manually, the following figure shows the available channels for selection.

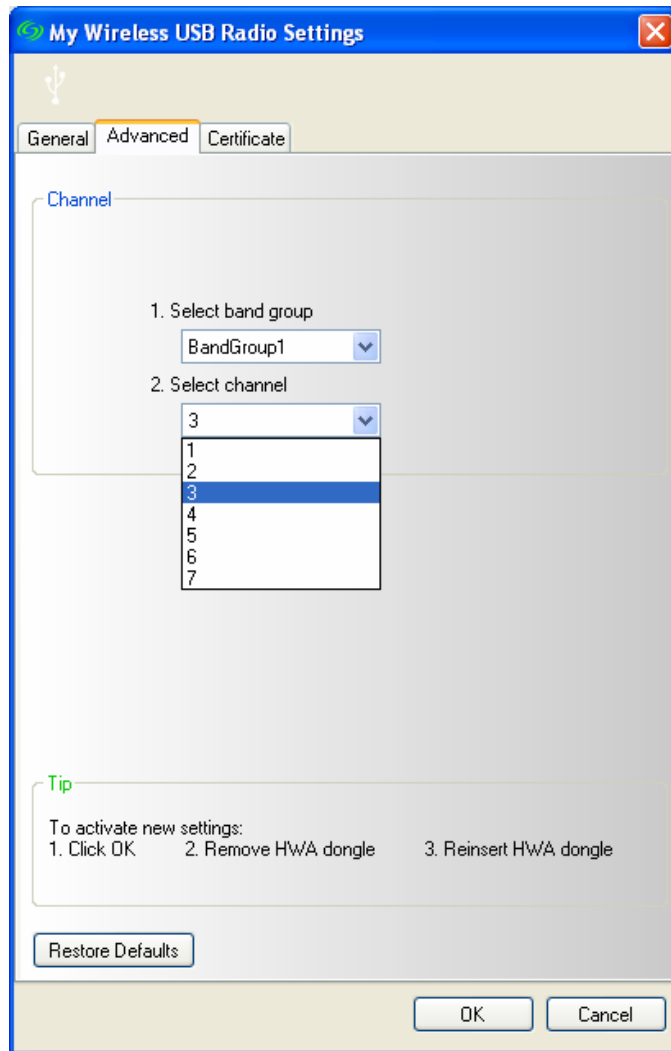


Figure 19. Channel Selection

7.0 FREQUENTLY ASKED QUESTIONS

Problem: No LEDs lighting up on Hub.

Solution: Check the power supply's connection to the hub.

Problem: No LED on the Wireless USB Host.

Solution: Re-insert the Wireless USB Host into USB port or power-cycle the Wireless USB Host.

Problem: LED does not light up after inserting a USB device into a peripheral port on the Hub.

Solution: Remove the Wireless USB Host from the PC (power down Host) and disconnect the power supply from the Hub. Re-insert the Wireless USB Host (power on Host) and reconnect power to the Hub.

Problem: Host LED blinking on hub.

Solution: Remove the Wireless USB Host (power down Host) from the PC and disconnect the power supply from the Hub. If still blinking, check the History window on WiCenter which will indicate if the Wireless USB Hub was associated. If not, associate the Wireless USB Host with the hub using the mini-USB cable provided.

Problem: Poor/Diminished range with the Wireless USB Host and Hub.

Solution: Verify that the Wireless USB Host is utilizing the extension/swivel adapter at a 45 degree angle if using the Wireless USB dongle. Verify that the Hub antenna is properly secured and is positioned vertically.

Problem: Certain USB devices will not work with the Wireless USB Hub.

Solution: Verify that the USB device has the ability to operate when connected to a hub of any kind by checking with the product documentation. If the USB device does not have the functionality to operate with a wired hub, then it will not work with the Wireless USB Hub.

8.0 FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device is authorized under 47 CFR 15.519 (the FCC Rules and Regulations). The operation of this device is subject to the following restriction:

This UWB device shall transmit only when it is sending information to an associated receiver. This UWB device shall cease transmission within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received.

An acknowledgement of reception must continue to be received by the transmitting device at least every 10 seconds of operation or the UWB device must cease transmitting.

Warning: Changes or modifications to this device not expressly approved by Alereon could void the users authority to operate the device under the FCC Equipment Authorization.

Interference control: Electromagnetic Interference (EMI) is any signal or emission, radiated in free space or conducted along power or signal leads, that endangers the function of radio navigation or other safety service (the telephone and cellphones are considered to be safety services) or seriously degrades, obstructs or repeatedly interrupts a licensed radio communications service. Radio communications services include but are not limited to: AM/FM commercial broadcast, television, cellular services, radar, air traffic control, pager and personal communications services (PCS). These licensed services, along with unintentional radiators such as digital devices, including computer systems, contribute to the electromagnetic environment.

Electromagnetic Compatibility (EMC) is the ability of items of electronic equipment to function properly together in the electromagnetic environment. While this device has been designed and determined to be compliant with regulatory agency limits for EMI, there is no guarantee that interference will not occur in a particular installation. If this device does cause interference with radio communications services, which can be determined by turning the device on and off, you are encouraged to try to correct the interference by one or more of the following measures:

- Re orient the receiving antenna.
- Relocate the device with respect to the victim receiver.
- Move the device away from the victim receiver.
- Plug the device host into a different power outlet than the victim receiver so that the device system and receiver are on separate branch circuits.

If necessary, consult your system service representative or an experienced radio/television technician for additional help in resolving interference.

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