

## Minimum Computer Requirements - Windows

Before buying a series of new computers for use with SoundCheck, we recommend that you purchase a single computer so it can be tested with all the related hardware, including the audio interface. Test the audio interface using the SoundCheck **Self Test** sequence to insure that it is compatible with the computer. We recommend that you purchase a high quality computer according to the guidelines below.

- Supported operating systems are: Windows® 7 - 64-bit and Windows® 10 - 64-bit
- To take advantage of using multiple virtual instruments, a multi-threaded processor is recommended, e.g.; Intel multicore processor / AMD multicore processor.
- 4 GB of RAM minimum (8 GB or more recommended for large WAV files or high resolution measurements below 50 Hz).
- 500MB of free hard-disk space required for complete software installation
- Do not connect audio interfaces through USB hubs. Connect directly to the USB port on the computer
- Listen only supports Thunderbolt audio interfaces on Windows® 10. Windows® 10 has superior support for Thunderbolt devices, hot-plugging is possible and no 3rd party software is required.
- Refer to the Hardware Compatibility List in the SoundCheck manual for details regarding audio interfaces and operating systems. The audio interfaces listed in the Hardware Compatibility List have been tested with SoundCheck on computer systems supplied by Listen. Note that some computers may not be compatible with all audio interfaces.
- Do not connect audio interfaces through USB hubs. Connect directly to the USB port on the computer

We offer an evaluation service to customers who would like to have their computer and hardware compatibility evaluated by Listen. Please contact [sales@listeninc.com](mailto:sales@listeninc.com) for pricing on this service.

## Windows Computer Setup Recommendations

### BIOS Settings: Hyper-threading, SpeedStep (Cool n Quiet) and C-States:

Problems may occur with audio and system performance on computers with Intel processors and motherboards using chipsets that employ Hyper-threading, SpeedStep (EIST) and/or C-State functions.

While these functions work to improve power management and energy saving, they can have detrimental effects on the performance of a computer used for SoundCheck.

If your system experiences performance issues, please follow the instructions below.

#### Speedstep:

Allows the system to dynamically increase/decrease its clock speed between its minimum clock and its normal operating frequency, as well as voltage, in order to optimize for power consumption. While this helps save energy, it can unfortunately result in audio dropouts.

#### C-states:

In order to save power, this reduces clock speed by adjusting the multiplier and to some extent, the processor voltage. With multicore processors this can result in a single core partially shutting down to multiple cores completely shutting down. This can cause large jumps in CPU usage as the processor adjusts to these changes while processing audio.

- In BIOS, turn off SpeedStep and all C-States (C1E; C3; C6). This may require a BIOS update.
- Dell computers do not always allow control of these functions in BIOS. Please contact Dell support for information on disabling Hyper-threading, SpeedStep and C-States.

#### Hyper-threading:

This can cause problems with system performance when SoundCheck is running. It can interfere with real-time audio processes on some motherboards. If the system is experiencing problems with performance we recommend that you shut off hyper-threading.

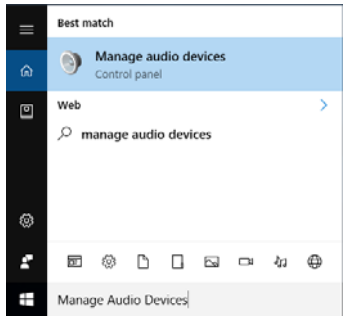
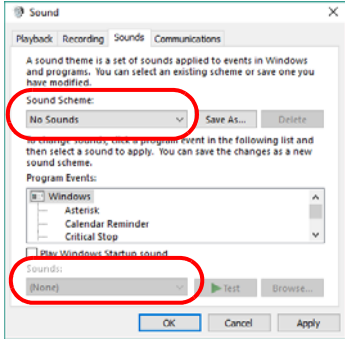
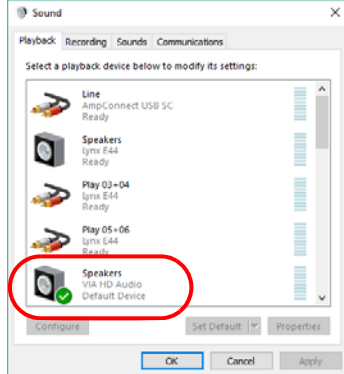
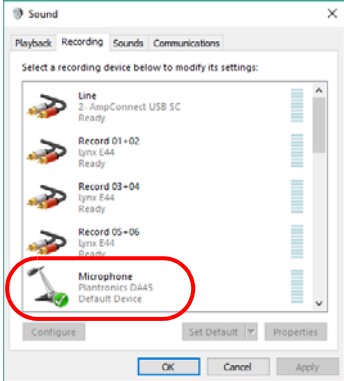
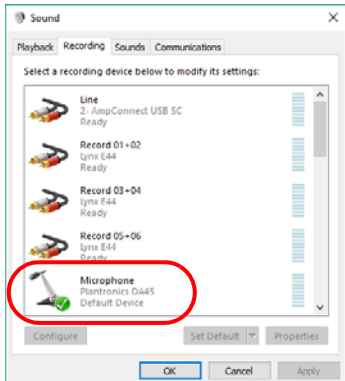
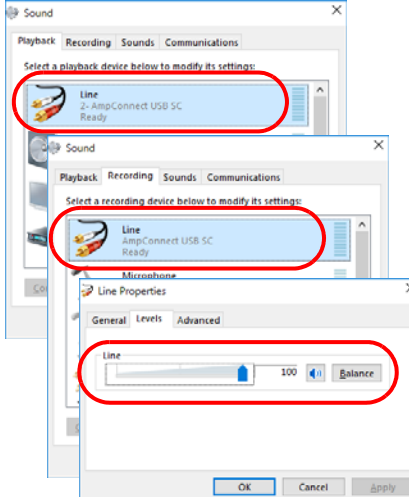
**AMD Processors** - Cool and Quiet is the equivalent to Speed Step and should be shut off along with C1E.

## Windows Settings

Set the Windows **Power Management** scheme to high-performance. When Windows tells the processor to go into low power mode, it can cause glitches in the audio stream. Please refer to: **Appendix - Computer Setup**, in the SoundCheck Instruction Manual for more recommendations.

## Audio Device System Settings

The following settings are recommended to prevent Windows systems sounds from inadvertently playing through a device under test or artificial mouth. Some system sounds are capable of damaging some transducers.

<p>1. Click <b>Windows Start</b>, Type <b>"Manage Audio Devices"</b> and hit Enter. This opens the Sound Control Panel.</p> 	<p>2. Click the <b>Sounds</b> tab and set the default scheme to No Sounds</p> <p>3. Uncheck "Play Windows Startup sound"</p> 	<p>4. Select the <b>Playback</b> tab and set the default device to the motherboard audio interface (no SoundCheck devices)</p> 
<p>5. Select the <b>Recording</b> tab and set the default device to the motherboard audio interface (or any other device that is not used for test and measurement)</p>  <p>6. Click <b>OK</b> and close the remaining Control Panel windows</p>	<p>7. Select the <b>Recording</b> tab and set the default device to the motherboard audio interface (or any other device that is not used for test and measurement)</p>  <p>8. Click <b>OK</b> and close the remaining Control Panel windows</p>	<p>9. On the <b>Recording</b> and <b>Playback</b> tabs set the levels for all WDM devices used with SoundCheck, such as AmpConnect and AudioConnect, to 100%.</p> 

For more information please refer to the **Appendix - Computer Setup** and **Hardware Compatibility List** chapters in the SoundCheck Manual.

**Problems or Questions?**  
 We're here to help you. Listen technical support is available from 8 AM to 5 PM EST. Outside these hours please contact your local rep for support.

**Ph: 617-556-4104 ext 200 Email: [support@listeninc.com](mailto:support@listeninc.com)**

Please visit our knowledgebase:  
<https://support.listeninc.com/hc/en-us/categories/200130720-Knowledgebase>

Ph 617-556-4104 • [www.listeninc.com](http://www.listeninc.com) • [support@listeninc.com](mailto:support@listeninc.com)  
 © Listen, Inc 2019. All rights reserved. SoundCheck® is a registered trademark of Listen, Inc.  
 REV 030119