

Fireface UC Setup for Windows

Always use the approved driver from the SoundCheck DVD or from our website:

<https://support.listeninc.com/hc/en-us/sections/200370694-Drivers>

Make sure the Fireface UC is set to Windows PC Mode:

Disconnect the **Fireface UC** from your computer and double click the rotary encoder button. Check the display for the correct firmware:

PC = Windows and AP = Mac.



Figure 1-1: PC Mode

Mixer

The TotalMix application for the **Fireface UC** should be configured as shown **Figure 1-2**. A preset for this has been saved with the driver package supplied by Listen, Inc.

From the mixer screen click "File" then click "Load Workspace". Navigate to the "SoundCheck Settings" folder in the driver folder for the audio interface. Open "**SoundCheck Config FF UC.tmws**".

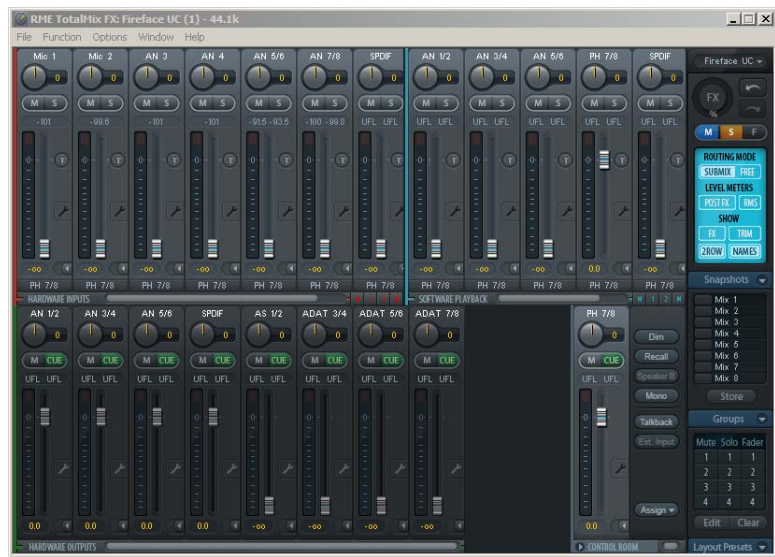


Figure 1-2: Mixer Screen

The mixer is then set to:

- Hardware Inputs: All channels used in SoundCheck must be turned down
- Hardware Outputs: All channels used in SoundCheck set to 0 dB - Unity Gain
- Software Playback: All channels used in SoundCheck set to 0 dB - Unity Gain

You must click on a Hardware Output in order to set the Software Playback for that channel. In **Figure 1-2**, the arrow shows PH 7/8 selected and set to 0dB in Hardware Outputs. The Software Playback is also set to 0dB for that channel.

- Control Room channel is used for the Headphone output level and set to 0 dB
- Routing set to "Free"
- Gain range should be set as shown on page 2 on the Gain Range Tab of the USB Settings panel

Matrix

The Matrix allows for routing of software playback channels to the necessary output channels to create a one to one relationship.

The Matrix page of the mixer is set as shown in [Figure 1-3](#). This is also included in the workspace file:

“**SoundCheck Config FF UC.tmws**”.

- Software Playback channels (vertical) are routed to Hardware outputs (horizontal). (Green cells set to 0dB.)

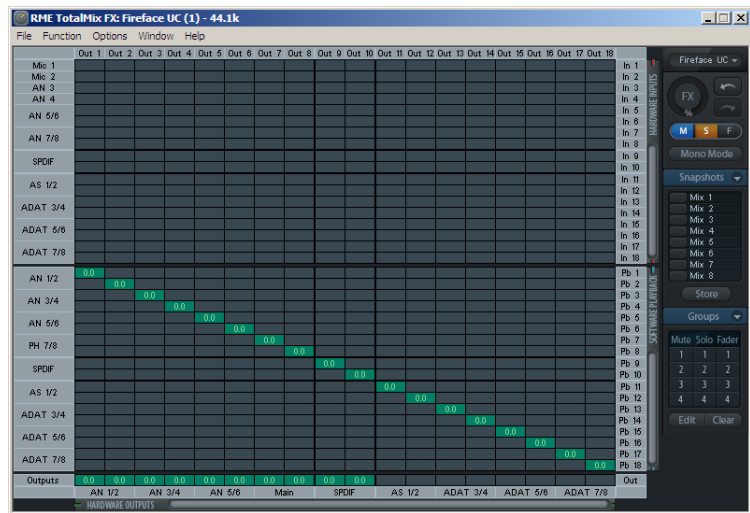


Figure 1-3: Matrix Screen

ASIO Buffer

The ASIO buffer is set in the Settings Utility which is launched separately from the Mixer Utility.

- The ASIO control panel can be opened by right clicking on a **Fireface UC** Channel Name in the SoundCheck Hardware Editor - Audio Tab
- The Sample Rate will automatically update when changed in the SoundCheck Hardware Editor
- Clock Source should be set to Internal when the **Fireface UC** is used as the only audio interface
- Optical format can be switched to SPDIF
- The sample rate of the **Fireface UC** automatically updates to the rate set in the SoundCheck Hardware Editor and the **Fireface UC** mixer updates when the sequence runs
- The ASIO buffer value will automatically update according to the selected Sample Rate.

This could cause performance problems with SoundCheck. If SoundCheck performance decreases, change the ASIO Buffer to a lower value. Follow the steps in [Latency Changes on page 4](#) to get the new Latency Value for the Hardware Editor fields.

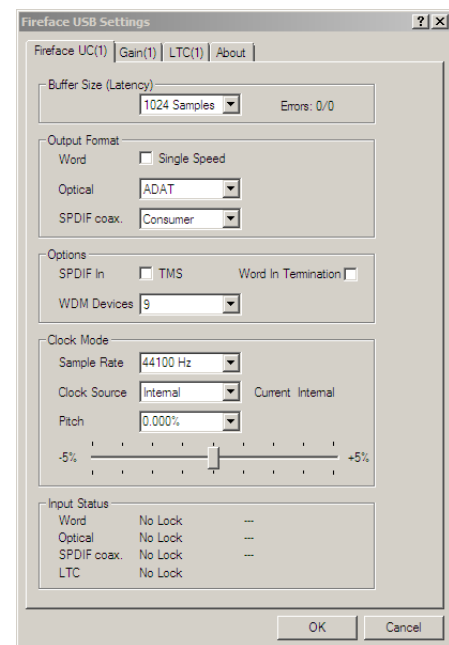


Figure 1-4: USB Settings

The default buffer size of the **Fireface UC** driver at 44.1 kHz and corresponding Hardware Editor Latency is shown in [Figure 1-7](#). Use this chart as a guide when changing to other sample rates. You can verify that the latency is correct by following the steps in [Latency Changes on page 4](#).

Gain Tab

The default settings for the driver set the **Line In** gain to -10dBV, **Line Out** and **Phones** gain to +4dBu. Switching **Line In** gain to +4 dBu requires recalibration of channels 5-6. Refer to "Calibrate Audio Interface" in the SoundCheck manual Hardware chapter.

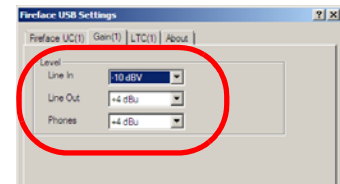


Figure 1-5: Gain Tab

SoundCheck Hardware Editor

The Hardware Editor in [Figure 1-6](#) shows the general settings for the Input and Output Vp values. Refer to [ASIO Buffer on page 2](#) and [Figure 1-7](#) for information on proper Latency values.

- Note that the default Calibration Configuration (.CAL) file in SoundCheck has only 2 signal paths of direct input and output. New signal paths will need to be created in Calibration if you plan to use the additional hardware channels.
- Sampling Rate:** Only one rate can be selected for all Input and Output channels of an interface

Interfaces sold by Listen include a data sheet with more precise Vp values that you can enter in the Hardware Editor.

Note: XLR Inputs 1 and 2 should not be used with external preamps. Use these inputs for testing microphones. The Vp values shown are for the TRS Line Inputs. Setup new channels and run the "Sound Card Calibration" process from the Hardware Editor to get the correct XLR Mic Input Vp values. Instructions are in the Hardware Editor chapter of the SoundCheck manual.

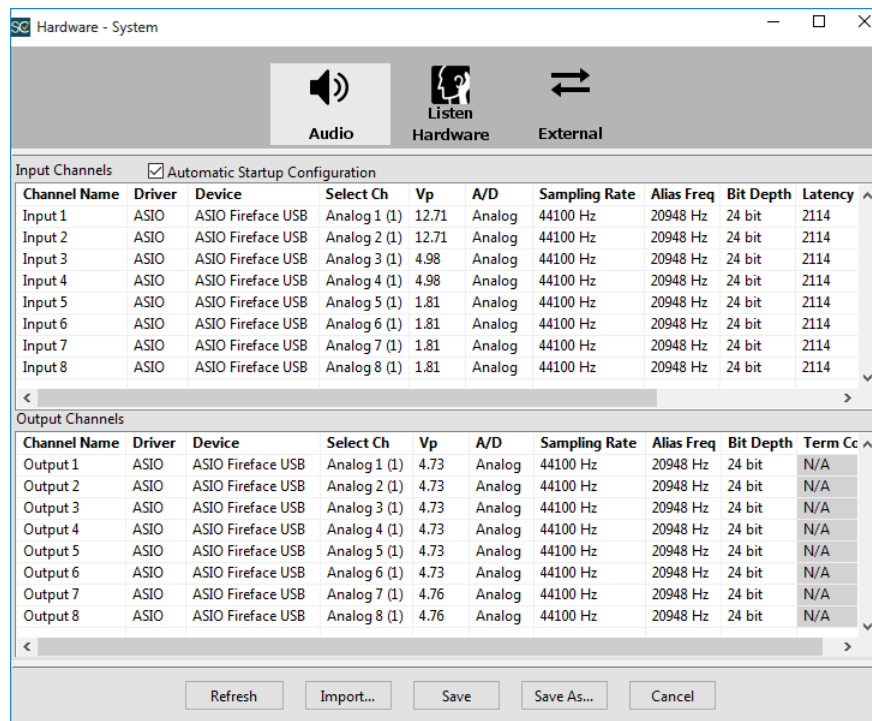


Figure 1-6: Hardware Editor

Important! Do not use different input and output driver types for an audio interface, e.g.: ASIO for Inputs and WASAPI for outputs. Doing so will result in an Acquisition Step error.

Note: The Fireface UC has two different pc board revisions. Units with serial number 23682169 and earlier will have a default latency of 2167 along with different Vp values. Units with serial number 23682170 and after will have a default latency of 2114. HAR files for both hardware versions are available in SoundCheck 16.01 and later. If you need to verify the Latency value follow the procedure noted below.

Latency Changes

Latency in Samples for Typical Sample Rate and Buffer Values				
USB Connection	44.1 kHz	48 kHz	96 kHz	192 kHz
ASIO	1024	1024	2048	4096
Samples (SN \geq 23682170)	2114	2114	4202	8380
Samples (SN \leq 23682169)	2167	2167	4255	8425

Enter the **Samples** value in the Hardware Editor Latency field for the selected Sample Rate.

Figure 1-7: Latency in Samples

1. Open the Hardware Editor. Change the Sample Rate to the value you need to measure Latency for. Click on the drop down arrow next to the value in the **Latency** field of the Hardware Editor. Select **Edit** and the Latency Table will open.
2. Set the **Latency** for the desired sample rate to 0 (zero) and click OK
3. Make sure the sample rate of the audio interface has updated. Change the ASIO Buffer/USB Streaming mode for the audio interface in the **ASIO Control Panel** (if applicable). Typically there is no buffer control for WDM / WASAPI.
4. Run the **Self Test** sequence from the Calibration folder in SoundCheck. The Result window shows the **Audio Interface Latency** for the new Buffer size or Sample Rate.
5. Enter this value in the Latency field of the Hardware Editor Sample Rate/ Latency Table. Repeat this for other required Sample Rates.
6. All channels, analog or digital, must have the same latency value per sample rate for that audio interface. This insures the system will work correctly if they are used simultaneously in a sequence.
7. Run the Self Test sequence again to verify that the Audio Interface Latency is 0 (zero)

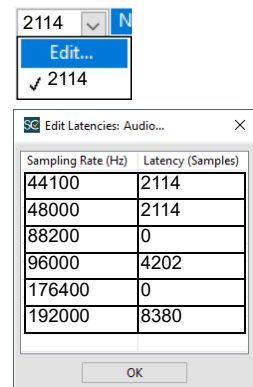


Figure 1-8: Edit Latency Table