

USB Phono Preamp for
professional vinyl & tape transfers



User's Guide



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www.esi-audio.com

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1. Introduction

Thank you for choosing the ESI PHONORAMA.

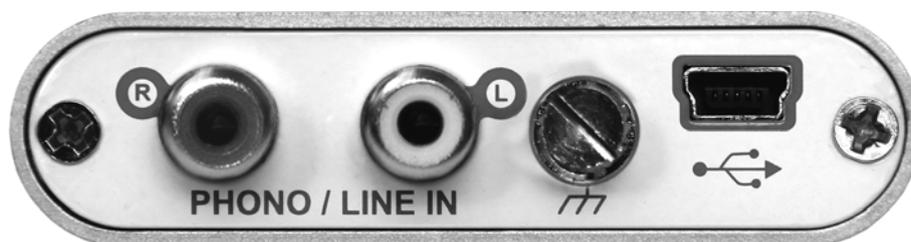
The stylish USB audio adapter allows you to record, transfer and edit your record and tape collection. Simply connect your turntable to the adjustable phono input and hook it up with a ground connection wire, and then start recording.

The powerful audio restoration software BIAS SoundSaver Express for Mac and PC is included. It allows you to easily record your audio collection with unparalleled results. Record signals, clean them and then export them to iTunes, save them as uncompressed WAV files or export them as MP3. Archiving your LPs and tapes has never been easier. This package delivers pro-quality results at an affordable price.

PHONORAMA easily connects to your tape deck or CD player (Line In) and to your turntable with either moving coil (MC) or moving magnet (MM) systems. It also easily connects to any modern PC or Mac computer system.

2. Description of PHONORAMA

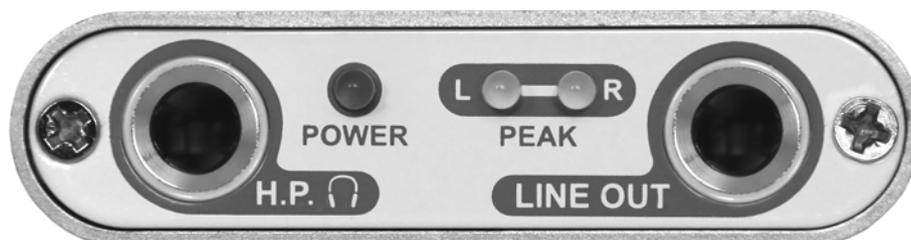
2.1 Front Panel



The front panel of PHONORAMA contains the following items from left to right:

- right (**R**) and left (**L**) channel of the **phono & line in**; connect this to the output of your tape deck or turntable
- **ground connection**; use this connection screw to fix the ground lead of your turntable
- mini **USB connector**; use this connector to connect PHONORAMA to your PC or Mac using the supplied USB cable

2.2 Rear Panel



The rear panel of PHONORAMA contains the following items from left to right:

- **headphone**; use this output to connect PHONORAMA to a pair of stereo headphones
- **power LED**; this LED will show the operation status of PHONORAMA
- left (**L**) and right (**R**) **peak LED** to show when the input signal of the phono & line input reaches 0dB input level
- **line level output**; use this output to connect PHONORAMA to your amplifier or active monitors a using a 1/4" TRS stereo cable

2.3 Minimum System Requirements

PC

- Intel CPU (P4 or greater) or compatible AMD CPU with SSE instructions (min. 1.5 GHz processor recommended)
- Windows 7/Vista/XP (SP3)
- 2 GB RAM for Windows 7 / Vista or 1 GB RAM for Windows XP
- 55 MB available disk space
- hard drive with 8ms (or faster) access time
- 10MB/minute available disk space for recordings
- QuickTime 7 or greater

Mac

- G5 oder Intel Mac (mind. 1 GHz Prozessor empfohlen)
- Mac OS X 10.5 oder neuer
- 25 MB available disk space
- hard drive with 8ms (or faster) access time
- 10MB/minute available disk space for recordings
- QuickTime 7 or greater

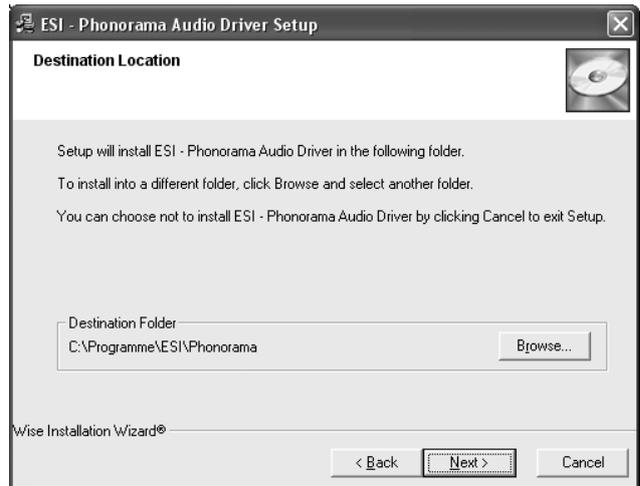
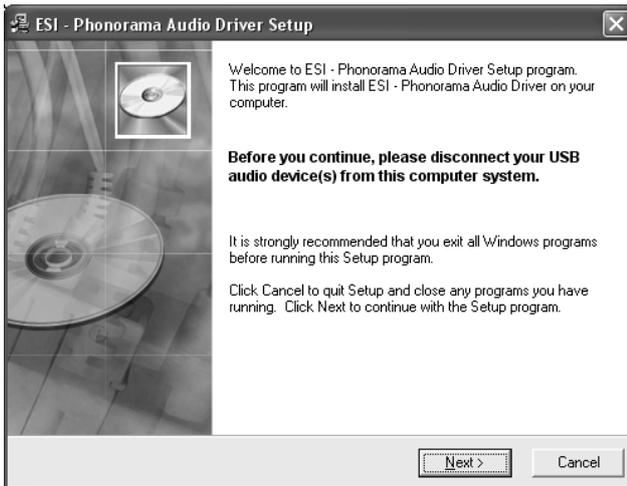
3. Installation

Before installing the drivers of PHONORAMA, we recommend to check on the download section of www.esi-audio.com for updated drivers.

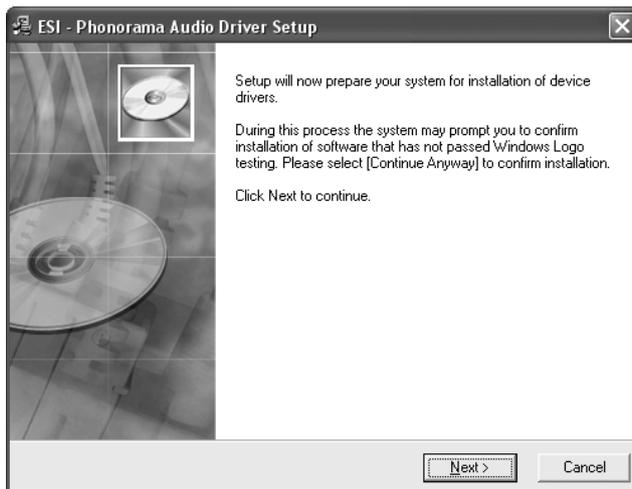
3.1 Windows XP

Disconnect PHONORAMA before you install the driver if it has been connected already. Then launch *setup.exe* from the *Windows* folder of the included Installation CD or from a download of a recent driver from our website.

You will now see a dialog as shown on the left picture below. Click *Next*. You can define the target directory for the installation now. Confirm it with *Next*.



The installer now informs you that the driver installation will start as shown on the left picture below. Confirm this with *Next*. During the following process you will see a dialog box once or several times that informs you that the driver software has not passed Windows Logo testing. Please be assured that our drivers have been tested in various different ways and are OK to be used. Confirm any such dialog with *Continue Anyway*.



You will now be prompted to connect the hardware on the next dialog that is shown below on the left. Plug in PHONORAMA. Do not click *Next* yet. During the driver installation, Windows might again prompt you to confirm the Windows Logo testing dialog once or several times with *Continue Anyway* before the driver installation is finalized.



You can now finally click *OK* on the *Information* dialog. The installation is now finished. To confirm this, please check if the ESI icon is displayed in the taskbar notification area as shown below.

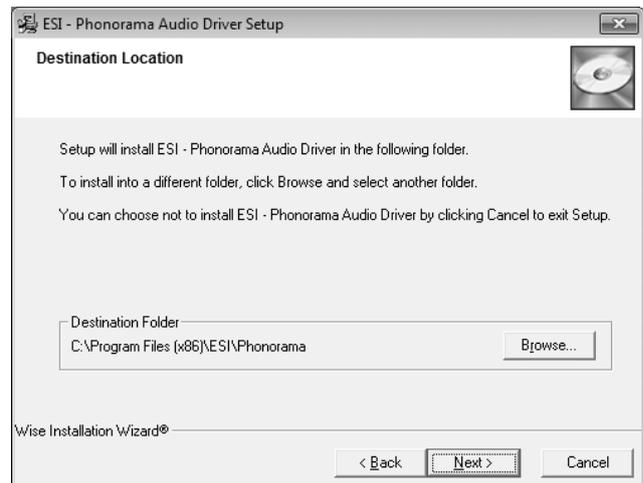
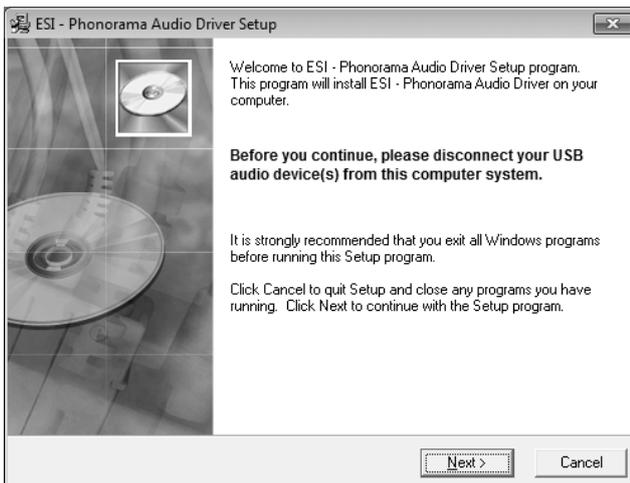


If yes, the driver installation has been completed successfully.

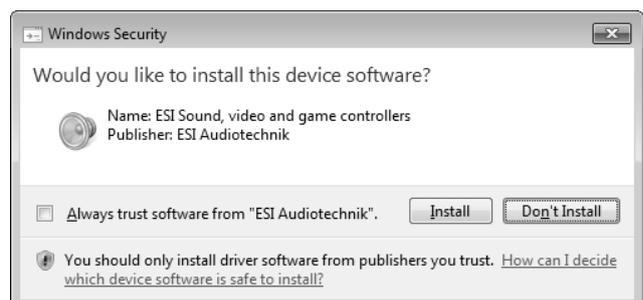
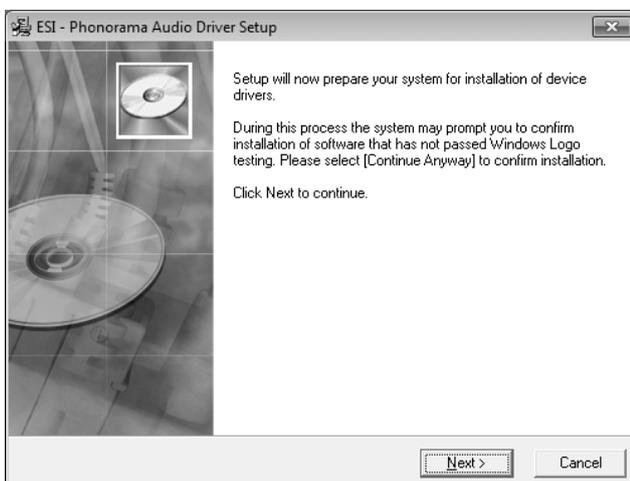
3.2 Windows Vista / 7

Disconnect PHONORAMA before you install the driver if it has been connected already. Then launch *setup.exe* from the *Windows* folder of the included Installation CD or from a download of a recent driver from our website.

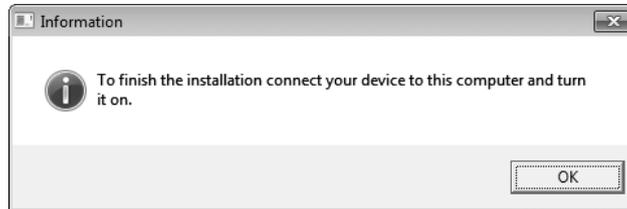
When launching the installation, Windows Vista / 7 might prompt a security message. Make sure to allow the installation. You will then see a dialog as shown on the left picture below. Click *Next*. You can define the target directory for the installation now. Confirm it with *Next*.



The installer now informs you that the driver installation will start as shown on the left picture below. Confirm this with *Next*. During the following process you will see a *Windows Security* dialog box once or several times that asks you for confirmation to install the driver software. Confirm any such dialog with *Install*.



You will now be prompted to connect the hardware on the next dialog that is shown below on the left. Plug in PHONORAMA. Do not click *Next* yet. Instead, wait a few seconds for the automatic device driver installation. You can monitor this in the task notification area where Windows Vista / 7 informs that the driver is installed via a bubble message box.



You can now finally click *OK* on the *Information* dialog. The installation is now finished. To confirm this, please check if the ESI icon is displayed in the taskbar notification area as shown below.



If yes, the driver installation has been completed successfully.

3.3 Mac OS X

Mac OS X already provides support for class compliant USB audio devices such as PHONORAMA. This means that no software or driver needs to be installed to use PHONORAMA under Mac OS X. Simply connect the unit with the supplied USB cable to your Mac and you can start using it.

To make the usage more simple, we provide a control panel application that can be installed from the included CD (*Mac OS X* folder) or downloaded on our website. To install it, open the .dmg file and then drag the *PHONORAMA Panel* icon into your *Applications* folder.

Controlling some of the basic options of PHONORAMA under Mac OS X can also be done via the *Audio MIDI Setup* utility from Mac OS X.

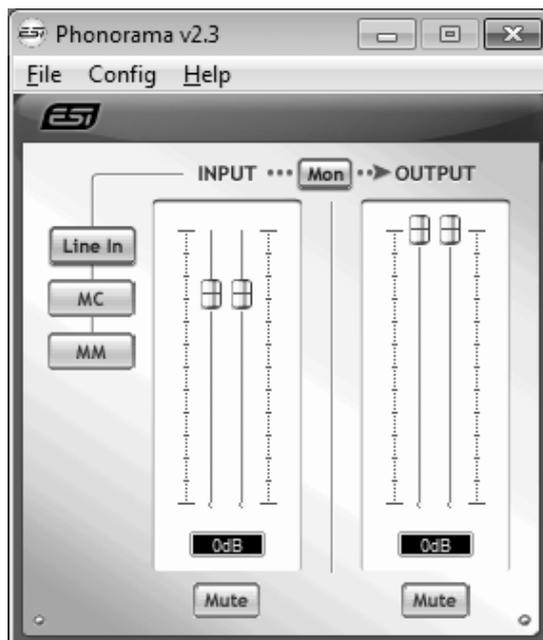
4. PHONORAMA Control Panel

This chapter describes the PHONORAMA Control Panel. To open the control panel under Windows double click on the ESI icon in the task notification area.



Under Mac OS X you can launch the control panel from your *Applications* folder.

The following dialog shows the control panel:



The panel has the following functions and sections:

INPUT section: this section controls the input monitoring volume of the incoming signal from the hardware. A pair of mono faders can be controlled together or individually depending on your mouse position. The *Mute* button at the bottom allows you to mute the signal. A red *Mute* button indicates that the mute function is enabled. When disabled, the button is gray.

Left of the *INPUT* section is the **Line In / MC / MM switch** that allows you to select the recording input source. When *Line In* is selected, a line level signal (e.g. from a tape deck) is expected. When *MC* is selected, a turn table signal with a moving coil system is expected on the input instead. When *MM* is selected, a turn table with a moving magnet system can be used.

OUTPUT section: this section controls the playback volume of the playback signal from your audio applications. The pair of mono faders can be controlled together or individually depending on your mouse position – perfect for stereo signals. The *Mute* button at the bottom allows you to mute playback. A red *Mute* button indicates that the mute function is enabled. When disabled, the button is gray.

Between *INPUT* and *OUTPUT* is the **Mon** button that enables the input monitoring. When enabled, the input signal is audible via the output of PHONORAMA.

Under Mac OS X the *Link* button in the upper right corner defines if the channels are controlled individually as mono or as stereo pairs.

5. Audio Applications

This chapter contains basic configuration examples for some popular software applications. Please also refer to the manual of the audio software you use for detailed information.

5.1 Windows Multimedia setup

The Windows Multimedia setup is required if you want to use your PHONORAMA as the main sound device for Windows multimedia applications. Go to *My computer*-> *Control panel* -> *Sounds and Audio Device Properties* -> *Audio*. Select the PHONORAMA entry as your playback device to make sure that all standard signals are played via the PHONORAMA hardware.

5.2 Latency setting and ASIO applications under Windows

Via *Config* > *Latency* in the Control Panel under Windows it is possible to change the latency setting (also called “buffer size”) for the ASIO driver of PHONORAMA. A smaller latency is the result of a smaller buffer size. Depending on the typical application (e.g. for playback of software synthesizers) a smaller latency is an advantage. At the same time, the best latency setting indirectly depends on the performance of your system. For recording applications, a typical latency buffer size between 128 and 288 samples is standard. The default value is 256.

The *Config* > *Buffer Number* setting in the Control Panel provides an important fine tuning setting that allows you to tweak system performance. Depending on your computer hardware, you might need to adjust this setting if you have problems with noise or drop-outs during playback or recording . Typically on a modern computer system a value of 4 or slightly more or less is perfect but you might need to check what is best for your computer as every PC is different.

Note that these values have to be setup before launching any audio application using PHONORAMA.

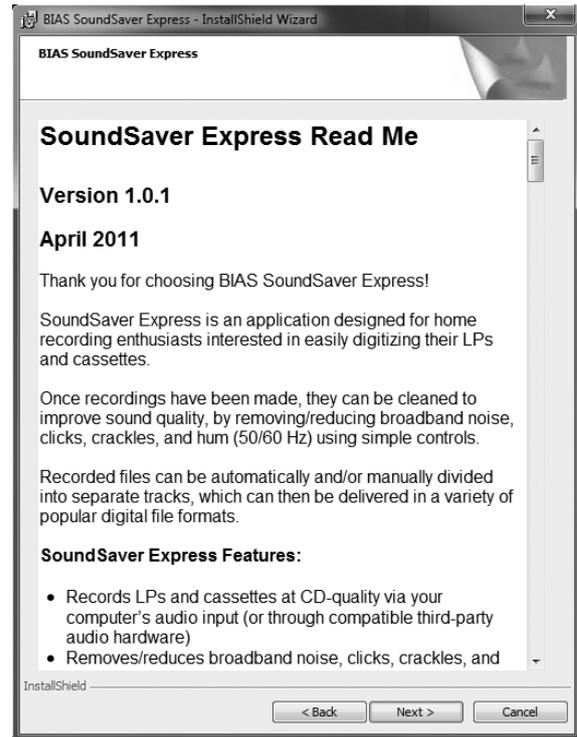
6. BIAS SoundSaver Express

PHONORAMA ships with SoundSaver Express from BIAS. Use this software to record and restore your audio material from vinyl and tape.

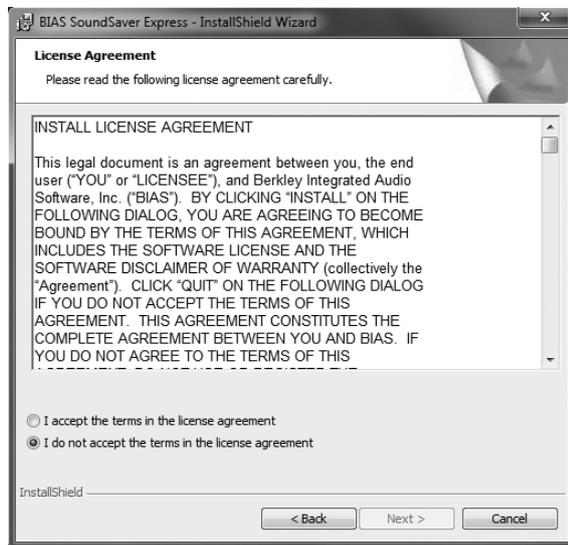
Before using the software, you need to install it and activate / authorize the installation. This requires an email address and an active internet connection for your system. Only with authorization you can use the software.

6.1 Installation under Windows

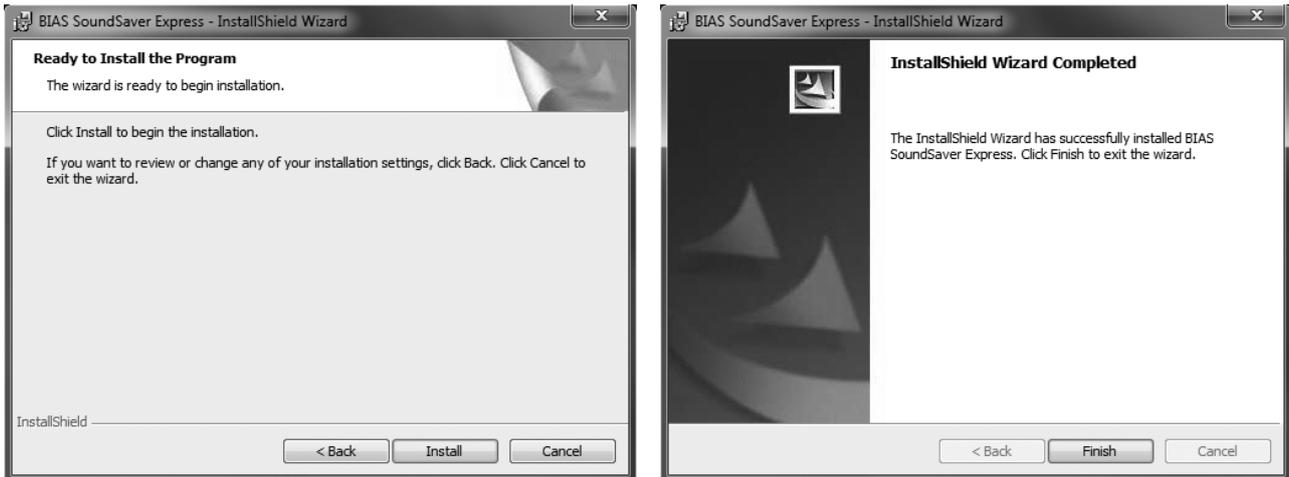
To install the software under Windows, launch *BIAS SoundSaver Express Installer.exe* in the *SoundSaver Express* folder of the included CD. Then follow the instructions on the screen. After a short waiting time, the first dialog will be displayed which should be confirmed by clicking *Next*. The following information page should also be confirmed with *Next*.



In the next dialog, choose *I do accept the terms of the license agreement* and confirm this with *Next*. After that you can choose if you want to install SoundSaver Express completely or in portions only. We recommend to select *Complete* and then proceed with clicking *Next*.



The next dialog asks you to proceed with the installation process by clicking *Install*. Now the files will be copied to your system (which may take a while) and the finished installation will be confirmed with the final dialog that you can close by clicking *Finish*.



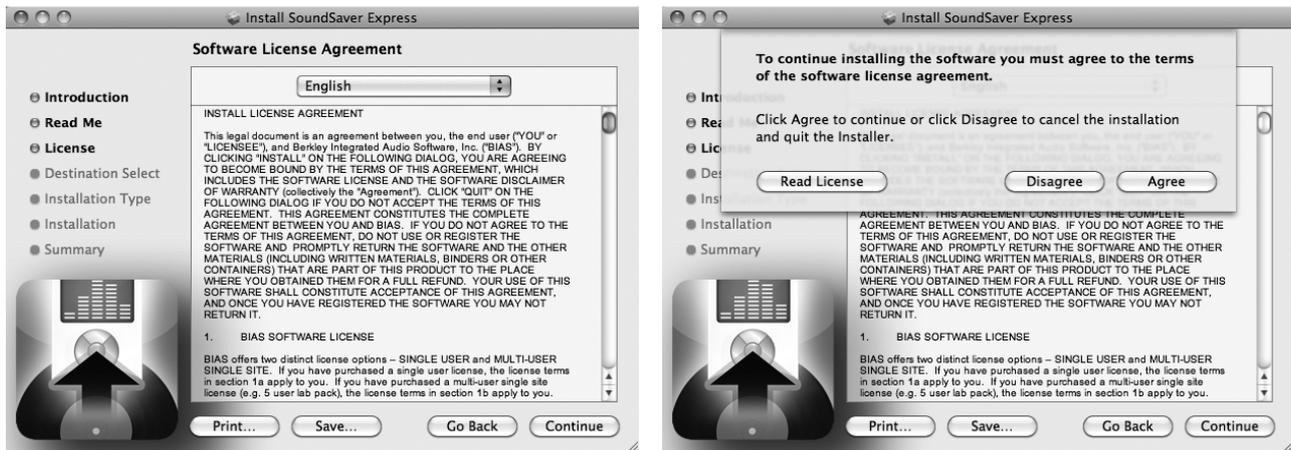
The installation is now finished and you can launch SoundSaver Express via its entry in the Windows start menu.

6.2 Installation under Mac OS X

For the installation under Mac OS X, open the file *BIAS SoundSaver Express.dmg* in the *SoundSaver Express* folder of the included CD. Then launch the contained installer by double clicking on it. Then follow the instructions on screen. The first two dialogs should each be confirmed with *Continue*.



In the dialog that appears now, choose *Continue* again, so that you can confirm the license agreement with *Agree* and proceed with the installation on your system.



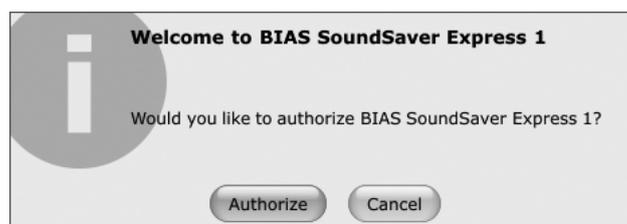
The following dialog allows you to change the destination folder (*Change Install Location*). We recommend the installation on the *Macintosh HD* partition by clicking *Install*. After the files are copied (which can take some time), the installation will be completed – which can be confirmed with *Close*.



Now the installation is completed and you can launch SoundSaver Express via its icon in the *Applications* folder of your system.

6.3 Authorization

The activation & authorization process for SoundSaver Express is identical under Mac OS X and Windows. When you launch it for the first time, the following message appears:



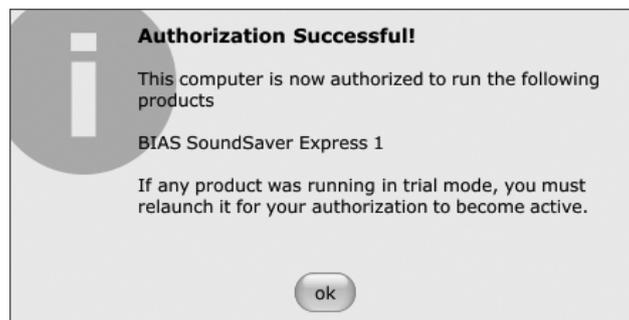
Once you click *Authorize*, the *BIAS Authorization Manager* will be opened, showing a list of BIAS applications. Make sure to select and click on *BIAS SoundSaver Express 1* in the list in the top section:



Enter your email address under *Email Address* and then under *Serial Number*, enter the serial number that is included on the postcard of the original retail box of PHONORAMA. Confirm this with *Submit*.

Important: you need an active internet connection when you go through with this!

The program will now confirm the authorization with the following message:



After clicking *OK*, you can close the *BIAS Authorization Manager* with *Done* and then start using SoundSaver Express together with PHONORAMA on your system.

If you intend to stop using SoundSaver Express on your system for a longer time, then it is recommended to de-authorize the software with the *BIAS Authorization Manager*. This makes it possible to use SoundSaver Express with the same serial number on a different computer. You can use an installation of SoundSaver Express with one license and serial number max. on 2 authorized systems simultaneously.

6.4 Audio Setup

After launching SoundSaver Express for the first time, you need to select PHONORAMA as audio device. This makes sure that the application will not access the integrated audio hardware of your PC or Mac instead.

To do that, click on *Audio Settings ...* under *START* and then select *PHONORAMA* (as USB audio device) under Input and Output.

Now you can use SoundSaver Express to make your first recording by going through the steps and dialogs listed on the top of the window after each other.

7. Technical Specifications

LINE IN	
Type	RCA
Max Input Level	+8dBu max.
THD + N	0.0025% A-weighted
Impedance	10K ohm

MM	
Type	RCA
Gain	40dB
THD	0.03%
Impedance	47K ohm / 200pF

MC	
Type	RCA
Gain	60dB
THD	0.08%
Impedance	47K ohm / 200pF

ANALOG OUTPUT		
Type	Stereo TRS jack 1/4" x 2	
Max Output Level	+8dBu	
THD + N	0.0022% A-weighted	
Headphone Output	Output Power	100mW Max @32ohm
	Impedance	32~600ohm

CONVERSION		
A/D Converter	Type	24bit
	Dynamic Range	102dB (@ -60dBFS A-weighted)
	S/(N+D) Ratio	-92dB (@ 0dBFS, measurement method)
D/A Converter	Type	24bit
	Dynamic Range	108dB (@ -60dBFS A-weighted)
	S/(N+D) Ratio	-97dB (@ -1dBFS, measurement method)
	Interchannel Isolation	100dB

POWER	
Power Consumption	1.1W (typical)
USB Bus Powered (500mA maximum)	

8. General Information

Trademarks

ESI and PHONORAMA are trademarks of ESI Audiotechnik GmbH. Windows is a trademark of Microsoft Corporation. Other product and brand names are trademarks or registered trademarks of their respective companies.

The FCC and CE Regulation Warning

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. Caution : Any changes or modifications in construction of this device with are not expressly approved by the party responsible for compliance, could void the user's authority to operate equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. If necessary, consult an experienced radio/television technician for additional suggestions.

Correspondence

For technical support inquiries, contact ESI support online at www.esi-audio.com.

Disclaimer

All features and specifications subject to change without notice.

Parts of this manual are continually being updated. Please check our web site www.esi-audio.com occasionally for the most recent update information.