



OWNER'S MANUAL

V1.0

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Introduction

UASC-1 is an USB audio interface featuring all the audio inputs & outputs required by a small studio. Indeed, UASC-1 will provide to any audio application a high quality sound rendering, as well as the possibility to acquire different audio sources in different audio formats (Analog, Digital, Optical).

UASC-1 is plug & play with both Mac & PC computers, without any additional audio driver, IRQ or DMA configuration. Simply plug UASC-1 to your computer and enjoy a new sound quality.

Requirements

Macintosh

- Power PC G3 - 233 MHz or higher
- 64 MB RAM
- USB ready Apple Macintosh
- USB port
- Audio application

Windows

- Processor 200 MHz or higher
- 32 MB RAM or more
- USB port
- Audio application

Features

Analog

- Up to 48 kHz sampling rate
- Stereo inputs on RCA gold plugs
- Stereo outputs on RCA gold plugs
- Line levels inputs & outputs for direct connection to an amplifier
- Digital Volume control (Vol up & down) for both analog & Headphone
- Full duplex operation (simultaneous playback & record)
- THD+N < 0.005%
- Signal to Noise Ratio > 96 dB
- Integrated enhanced audio front-end for a high dynamic range
- Built-in stereo headphone amplifier (can drive as low as 8 Ohms headphones)
- 20 Hz - 20 kHz bandwidth

Digital & Optical

- ▶ Up to 48 kHz sampling rate
- ▶ Digital S/PDIF input & output on RCA gold plugs
- ▶ Optical S/PDIF input & output on RCA gold plugs
- ▶ Input signal auto detection
- ▶ Full duplex operation
- ▶ No quality loss due to analog conversion
- ▶ Bit to bit true conversion

Other

- ▶ Simultaneous audio output through analog, digital & optical
- ▶ Headphone output can be used as a second analog output
- ▶ Ultra-robust aluminium case
- ▶ Extreme portability
- ▶ Dim 100 x 80 x 30 mm
- ▶ Works fine with all standard USB audio drivers (Mac & 98/Me/2000/Xp)
- ▶ Full ASIO, DirectSound and MME support
- ▶ 1 Year warranty
- ▶ Delivered with Wave Idea CD-Rom

Supported audio formats

	Analog In	Analog Out	S/PDIF In	S/PDIF Out
Sampling rate (kHz)	8 / 11.025 / 16 22.05 / 32 / 44.1 / 48	32 / 44.1 / 48	32 / 44.1 / 48	32 / 44.1 / 48
Channel(s)	Mono / Stereo	Mono / Stereo	Stereo	Stereo
Bits	8 / 16	8 / 16	16	16
Full duplex	yes	yes	yes	Yes
Other	-	-	Auto detected	-

Hardware installation

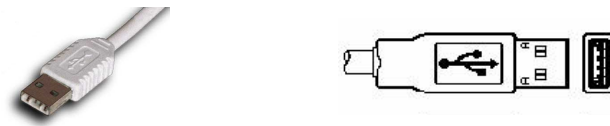
As all other USB devices, UASC-1 is very easy to install, turning off your computer is not required.

- ▶ Locate a free USB port on your computer

You should find on your computer a standard USB connector, as the following



The delivered USB cable is a standard cable that should fit the USB connector of your computer, the computer side connector is a A type USB plug, as follow, simply plug it into the above connector :



- ▶ Connect the USB cable to the UASC-1 USB port

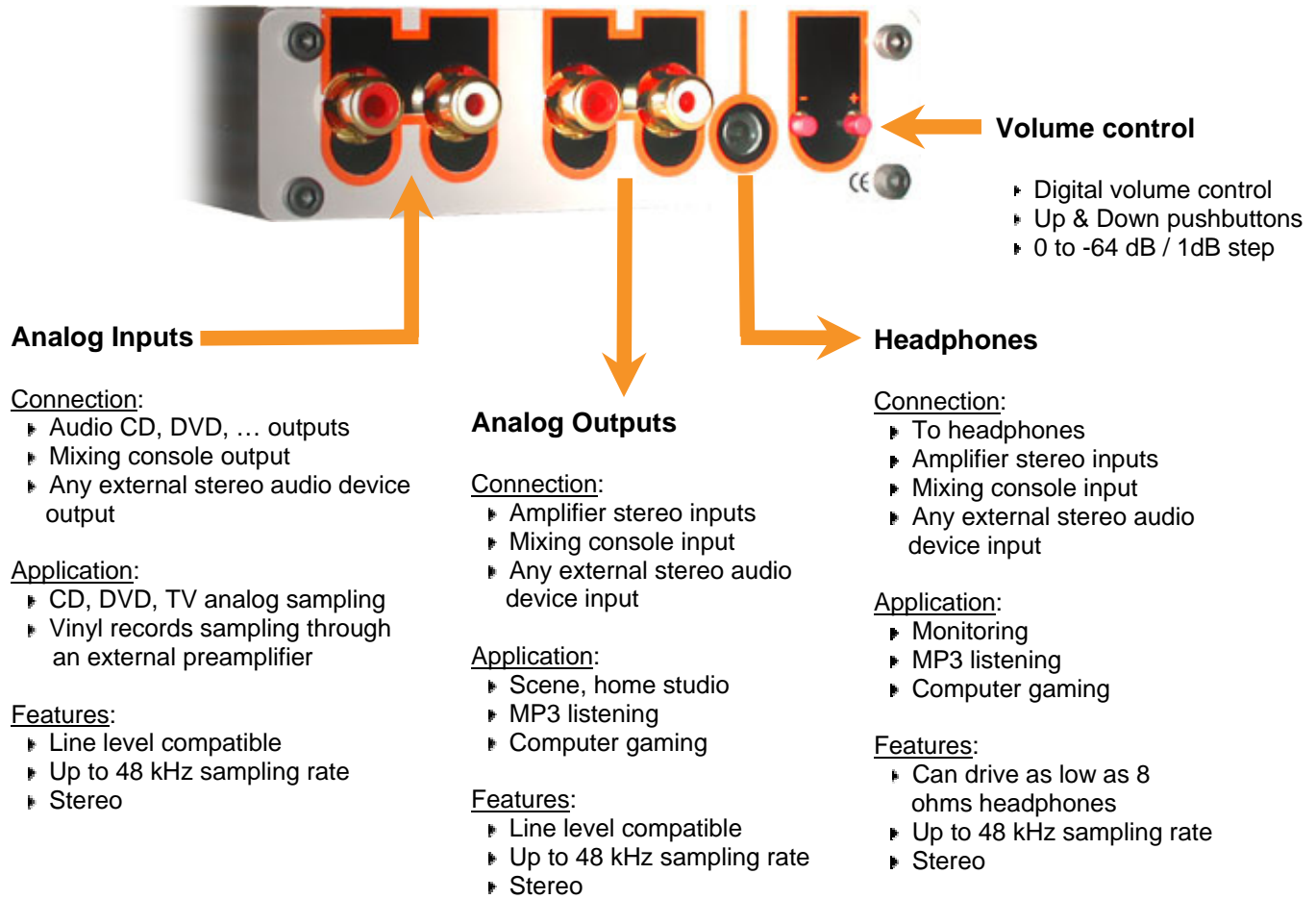
If your computer is on, you should see the UASC-1 red power led on. This means the computer is providing the power supply to the UASC-1 via the USB port. Note that no external power supply is required.

The hardware installation is now complete, the computer will automatically detect a new USB device connected and should automatically install the required generic drivers for UASC-1.

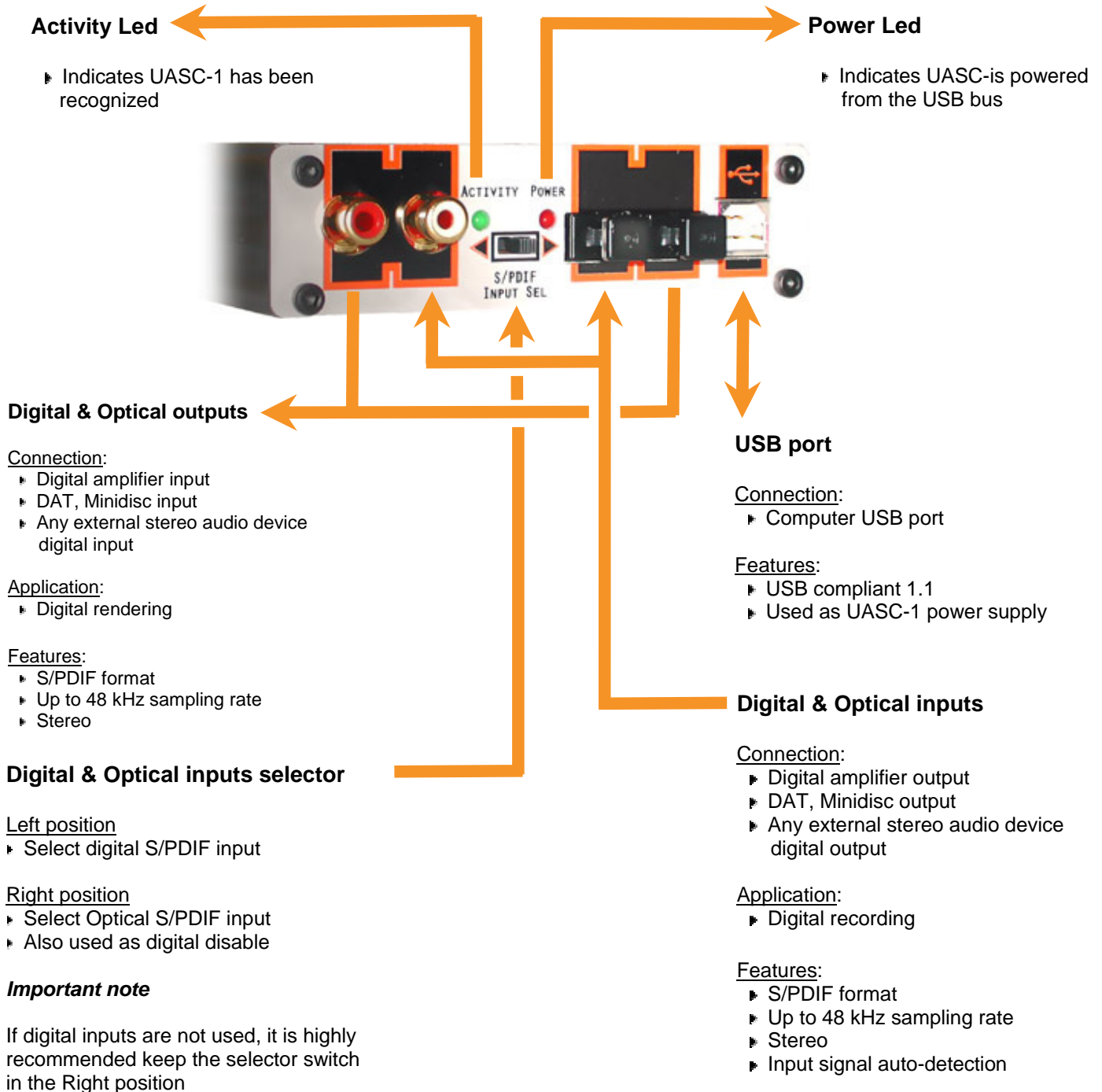
Audio connections

UASC-1 features all the audio inputs and outputs that cover the major audio applications. In order to achieve better performances, UASC-1 has been designed with fully separated analog and digital "worlds", this results in two distinct sides, as follow :

Analog side



Digital side



Using the generic Win / Mac drivers

The UASC-1 is plug & play with all generic Mac & Window drivers, if low audio latency is not mandatory (MP3, Gaming, DVD, CD audio, ...), it is then not necessary to install any additional audio driver. In the above situation, the UASC-1 is known as "USB audio device" in the audio devices list. Simply select this device from your audio application, and the UASC-1 will be your default soundcard.

ASIO driver installation



Wave Idea developed additional audio drivers that allows to reach very low audio latencies, these drivers are ASIO compatible, and should work with all audio applications supporting ASIO.

Note

MacOS X does not require any additional ASIO driver since the audio latency produced by the generic MacOS X USB audio driver is already very low (from 2 to 4 ms measured using Live)

PC Version

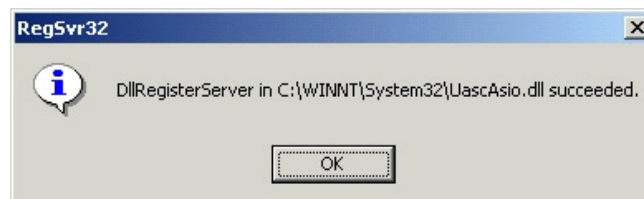
Step 1 : Download the zip package from Wave Idea website, download area

Step 2 : Unzip the above file to your hard drive, then launch the installer: UascSetup.exe

Step 3 : Once executed, the following window should appear:



Step 4 : Click on Install button, then the following window will indicate the ASIO driver has been successfully recognized.



Once finished, the last window confirms the ASIO driver is ready to be used:



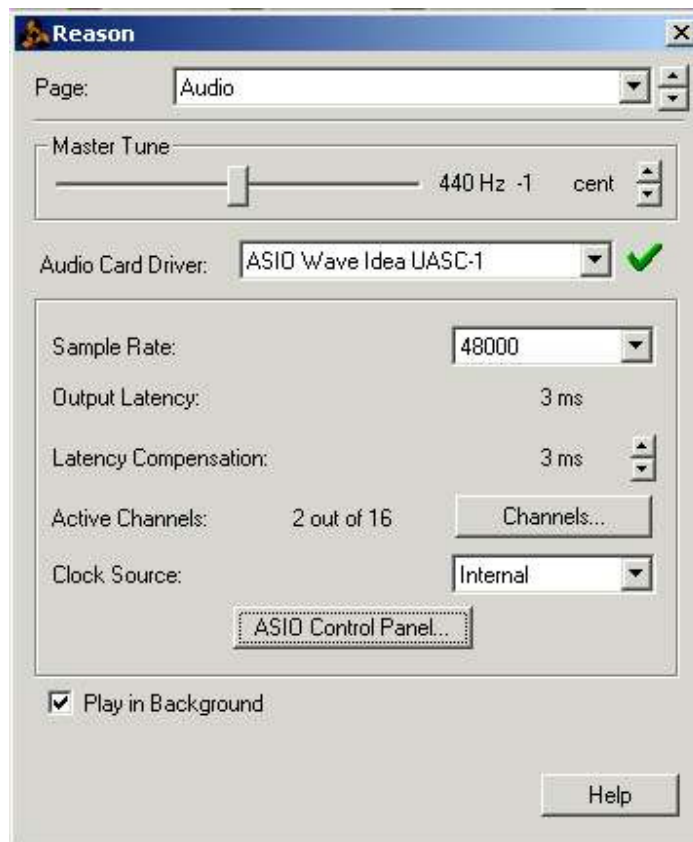
Mac Version

Please refer to the Propagamma installation instructions, at <http://www.usb-audio.com>

Using the Wave Idea UASC-1 ASIO Driver

We will not describe here all the applications that use ASIO, however, we will provide a rough guide on how to set the ASIO latency from the Wave Idea dedicated ASIO panel, shown below:

Once the ASIO driver installed, the UASC-1 is listed as "ASIO Wave Idea UASC-1" ASIO device. Simply select this device from your ASIO application. The following screenshot (from propellerheads Reason) illustrates this point:



On all audio ASIO applications, there should be a "preference" menu where all the audio devices are listed.

UASC-1 ASIO Control panel

In addition to the ASIO driver, an ASIO control panel is available, allowing to set latency, depending on the computer performances, and OS.

To access to the ASIO control panel, the ASIO application should feature a "control panel" button. Once clicked, the UASC-1 ASIO control panel appears:



The ASIO control panel is divided into three sub functions.

- Latency selection
- Input monitor
- Volume control

Latency selection

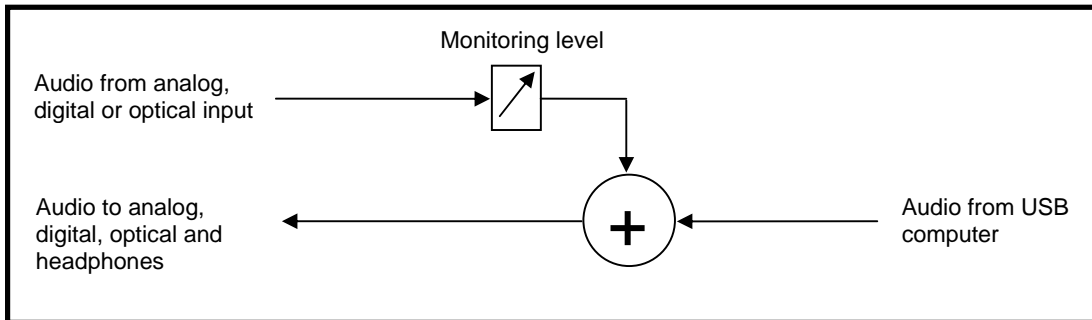
Wave Idea highly recommends to start with a high latency, then reduce it until some audio plops appear, once the limit found, press ok and this setup will be conserved the next time you use ASIO.

The latency setting mainly depends on the computer OS, the ASIO application, as well as the CPU performances.

Input monitoring

Monitoring the audio input becomes possible using the ASIO control panel. Monitoring means that a portion of the input signal is mixed with the output signal. This function allows pre-listening the audio signal to record, or listening what is currently recorded.

A simple block diagram of the monitoring function is represented below:



Since the monitoring function is performed at the driver level, an ultra low audio latency can be reached.

Volume control

In addition to the standard audio mixer available in window, the UASC-1 ASIO control panel allows controlling both playback and record volumes.