

Operating instructions USB-DI and USB-DI VC

Input Connections

Connect the USB connector to the **USB-DI** and to the USB port on the computer. On **Windows XP, Vista or Windows 7**, Macs running **OS X or later** it will be available immediately and the LED on the front of the USB-DI will light up. On 98SE follow the previous instructions. You will need the 98 SE install CD Rom.

Adjust the Audio Level as described in the **Important #1** note below.

Output Connections

Connect a balanced microphone lead from each 3 pin XLR connector on the USB-DI to a pair of input channels on the mixing console. Set the Input Gains on the channels, and Pan the channels Left or Right as required.

To check that the USB-DI is set up correctly, open your audio software, ensure that USB Audio Device is selected as the default audio device. Then either open a music file and play, or put an audio CD into your CD drive and play it.

And yes, that's really all there is to it. But we strongly suggest you read the following important things ensure that your ARX Audibox USB device delivers 100% quality, 100% of the time.

Operating instructions USB-I/O

Firstly, make sure you have some audio recording/playback software installed on your computer.

Connect the USB connector on the USB-I/O to the USB port on the computer. On XP and later it will be available immediately and the LED on the front of the USB-I/O will light up.

Input Connections

Connect a balanced microphone lead from the Left and Right outputs of a mixer to the Left and Right 3 pin XLR Input on the USB-I/O. ***You cannot plug microphones directly into the USB I/O - you need a preamp or mixer. The inputs on the USB I/O are Line level, not Mic level***

Output Connections

Connect a balanced microphone lead from the Left and Right 3 pin XLR output connectors on the USB-I/O to a pair of input channels on the mixing console. Set the Input Gains on the channels, and Pan the channels Left or Right as required. ***Outputs of the USB I/O are Line level***

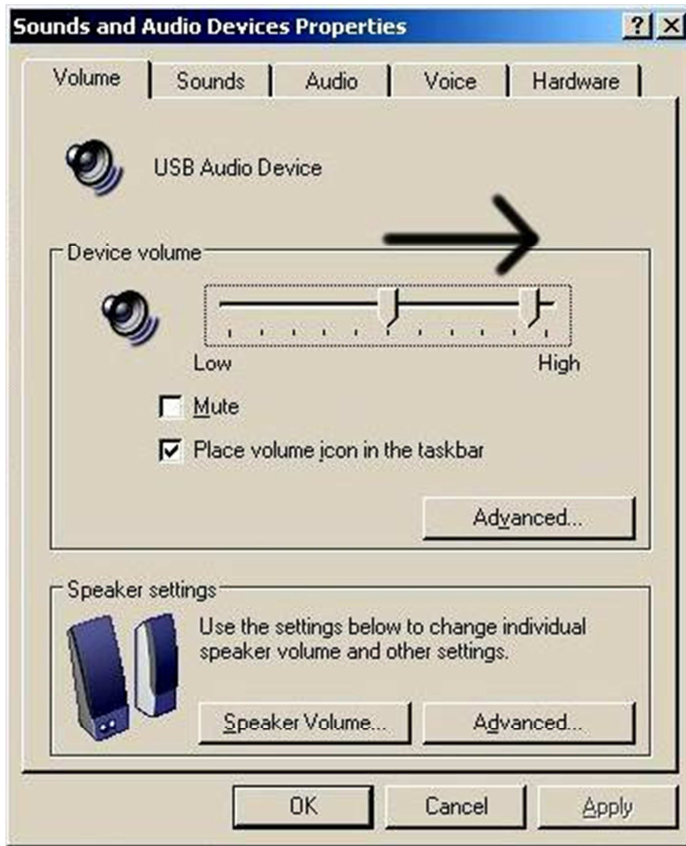
To **RECORD** with the USB-I/O, open your audio software, ensure that ARX Systems USB is selected as the default audio device, and follow the record instructions as you would normally.

When the USB-I/O has audio passing through it, either In or Out, the LED on the front panel will start flashing.

To **PLAY**, open your audio software, ensure that ARX Systems USB is selected as the default audio device, open a music file and play.

BUT – before you do, there are a few very important things you should know before starting out with the USB-I/O

IMPORTANT # 1



Move Volume slider to the right

The Windows default volume setting for USB Audio Devices is 50% of maximum. For our purposes this will be too low, inducing noise and hum as excessive gain may need to be applied to deliver the level required.

We recommend increasing this volume setting to 100%, on both PCs and Macs.

No matter which operating system you are using, once the USB-DI is installed, go to **Control Panel**, then **Sounds and Audio Devices**, then **USB Audio Device**, then the **Volume** tab, and move the slider to the right.

This will give you the optimum signal to noise ratio.

<<< See panel at left

NOTE: This still needs to be done even if you are using the USB DI-VC model. The volume control only affects the analog outputs, and you'll need to increase the digital volume first.

NOTE 2: This will need to be done each time you plug the USB-unit in after removing it.

IMPORTANT # 2

Laptops and Power

If you are using a laptop/notebook computer with the Audibox **USB-DI / USB DI-VC / USB I/O**, we strongly recommend that where possible you run the computer from its battery - fully charged, of course!

We have done extensive research on grounding and signal isolating techniques on our USB series of products, and have incorporated all of it into their design.

While it may be more convenient to run a laptop from its external power supply, the sad truth is that not all external power supplies are created equal; in fact many of them are just not up to the standard required for any kind of audio.

Many often come with the surprise addition of a pink noise, digital noise and hum generator built in, a feature which unfortunately cannot be disabled!

Price and brand also have very little bearing on the quality of the laptop power supply! It's a very good idea to carefully check your laptop and power supply combination prior to any kind of audio use, and if in doubt, stay

with the battery.

Another alternative is one of the aftermarket generic power supplies, as sold by many computer shops. However, try before you buy is the name of the game!

Desktop Computers and Power

The Grounding layout of Desktop PCs, Macs and their Power Supplies is also sadly not one of life's great constants, as they all feature widely varying grounding arrangements. To compensate for this, and to assure you of the lowest possible system signal to noise ratio, we've fitted the whole USB Series with a Ground lift switch that allows connection or isolation between your Computer's ground, and the grounding pin 1 on the units XLR connectors. Simply select the setting, in or out, that removes any audible hum when using your Computer USB DI or I/O combination.

Stay Alive!

And remember, **never ever** remove, snap or cut off the Safety Earth pin on any Power Lead associated with your Computer, its Power Supply or any of your Audio Equipment, as this could expose you and those around you to a potentially fatal risk of electric shock.

If after switching your USB unit's ground lift switch in and out and comparing hum levels your system is still noisy, consult a Technician as your problem lies elsewhere.

IMPORTANT # 3

Computers are very electrically noisy environments, and USB is a very popular Plug and Play protocol for lots of Windows devices. It's quite likely that you will already have various USB devices in use on your computer.

For fastest and quietest audio operation you **must** plug the **USB-DI / USB DI-VC** into its own USB port. Experiment on your computer to find the quietest USB port, and keep it only for the **USB-DI** - don't have anything else on the same buss. ***So don't plug it in to a spare port on a 4 or 6 way hub that you have connected to the computer!***

Otherwise you may get a hissing and clicking noise every time you move the mouse, touch the keyboard, or click on the screen.

IMPORTANT # 4

Keep mobile/cellular phones well away (at least 2 metres/8 feet) from a computer when using it for audio. The "**Dut-dut-dah-dut dut-dah-dut dut-dah-dut**" sound of a mobile phone connecting is not one that many audiences care to hear!

IMPORTANT # 5

Audibox USB units contain multiple transformers, double shielded for ultra low noise. However, they are still transformers, and as such they are always looking for something electrical to transform! Do not sit any of your USB devices on top of an amplifier, as these can spray out Radio Frequency (RF) interference, digital 'zipper' noise, hum and buzz inducing noise in large amounts that may force their way into the transformers inside the USB devices. Keep them as far away as necessary to avoid this happening.