

## Using your USB VSR-I/O

The **USB Variable Sample Rate (VSR)-I/O** is a Digital/Analog Audio Interface box. It is a self contained, stand alone stereo unit designed to interface stereo digital audio with professional balanced low impedance inputs and outputs, via the Industry Standard USB protocol.

The **VSR-I/O** will convert Analog audio from a mixer into a digital signal for mixing on a computer, and convert digital computer audio into a Transformer Balanced analog signal.

## Analog style headroom

Analog 0dB In = -18dB, FS Digital, providing Analog style headroom when recording in the digital domain. The signal then reverts to 0dB Analog Out, giving you the best of both worlds.

## Plug and Play Option

We recommend running Win XP or later, or Mac OS X. Plug the **VSR-I/O** into an unused USB port on the computer and it will be recognised as **ARX Systems USB**, and ready to use.

## About Variable Sample Rate

The **VSR-I/O** has a default sample rate of 44.1KHz, the same as used for audio CDs. This is the sample rate you get when you Plug and Play with the **VSR-I/O**.

But, by installing the ARX ASIO driver you can sample the music at 48KHz or 96KHz, for even greater definition.

Full Download and Installation instructions are on the ARX website.

Click on this link :

<http://www.arx.com.au/drivers.htm>  
**Operating instructions**

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

Connect the USB connector on the **VSR-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 **VSR-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 **VSR-I/O**.

## Output Connections

Connect a balanced audio lead from the Left and Right 3 pin XLR output connectors on the **VSR-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.

To RECORD with the **VSR-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 **VSR-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 **VSR-I/O**...

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room and clean Digital Output the **VSR-I/O** from ARX is the USB pro audio interface that Audio Professionals have been waiting for!

## Did you know...

As well as the **VSR-I/O** and other USB devices, ARX manufacture a complete range of unique Audibox products:

The **ISO-Balancer** for balancing unbalanced signals, and also the **ISO De-Balancer**, which will de-balance a signal when required to connect to an unbalanced input.

The **ISO-Later** is a Dual channel Unbalanced to Balanced Low Impedance transformer isolated converter, and the **ISO Splitter** is a transformer isolated 1

input to 2 outputs splitter for splitting 1 input 2 ways in applications where complete Galvanic isolation is required.

Both available in Single Channel or Double Header format.

The **Ear Driver** is a Headphone Amplifier with 2 pairs of Stereo inputs each feeding two channels of headphone level outputs. It has individual Level controls plus a 12 - 15VDC power connector. A compact, flexible unit

The **Pro-DI** is an ultra compact Active Direct box, with normal High Impedance input as well as a separate speaker level input for connection to instrument amplifiers.

Other features include -20dB Pad and Audio Ground Lift switches, plus Phantom or DC power options.

Available in Single Channel or Double Header format

Latest information and product updates are always available on the comprehensive ARX website:

[www.arx.com.au](http://www.arx.com.au)



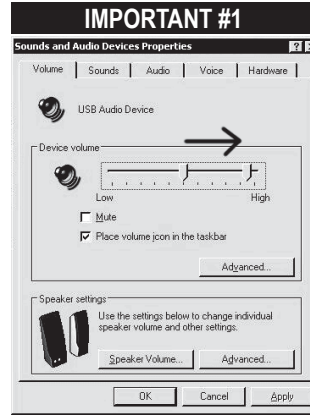
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Manufactured in Australia

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The Windows default output volume setting for USB Audio Devices is 50% of maximum. In many cases this will be too low, inducing noise and hum as excessive gain may need to be applied to deliver the level required. We suggest increasing the output volume setting to 100%.

Once the **VSR-I/O** is installed, go to **Control Panel**, then **Sounds and Audio Devices**, then **ARX Systems USB**, then the **Output Volume** tab, and move the slider to the right. This will give you the optimum signal to noise ratio.

Recording volume will be controlled by both your software and Windows.

Right click on the Volume Control Icon on the Toolbar, then Adjust Audio Properties/Audio/ Sound Recording/ Options/ Properties then select the Line box. A tick will show it has been selected.

Depending on your software, the Input

volume may also be adjustable in the Recording window of the software.

## IMPORTANT #2

Computers are very electrically noisy environments, and USB is a very popular Plug and Play protocol for lots of computer devices.

For fastest and quietest audio operation you **must** plug the **VSR-I/O into its own USB port, and not a hub**. Experiment on your computer to find the quietest USB port, and **keep it only** for the **VSR-I/O** - don't have anything else on the same buss.

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

## IMPORTANT #3

- The sensitive audio circuitry in the **VSR-I/O** is carefully shielded. Even so, do not place it within 2 metres/8 feet of a power amplifier. Their power supplies radiate large amounts of hum which could find its way into your audio.
- Keep mobile/cellular phones well away (at least 2 metres/8 feet) from the computer and the **VSR-I/O**. The "Dut dut-dah-dut dut-dah-dut dut-dah-dut" sound of a mobile/cell phone connecting is not one that audiences care to hear!

And that's really all there is to it.

With its transformer balanced and isolated XLR Inputs, Analog style head-

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## INTERNATIONAL LIFETIME WARRANTY

ARX Systems (ARX) warrants to the first purchaser of this Audibox product that it is free from defects in materials and workmanship under normal use and service. ARX's sole obligation under this warranty shall be to provide, without charge, parts and labour necessary to remedy defects, if any, which appear within twelve (12) months from date of purchase; and to supply parts only for the life of the product to the original purchaser.

This is our sole warranty. It does not cover finish or appearance items, nor does it apply if the Audibox has been, in ARX's sole judgement:

- Subjected to misuse, abuse, negligence or accident;
- Repaired, worked on, or altered by persons not authorized by ARX,
- Connected, installed, adjusted or used otherwise than in accordance with the instructions supplied by ARX.

This warranty gives you and us specific legal rights, and you may also have other rights which can vary from state to state.

To obtain warranty service for your Audibox, call, write, or Email to ARX or the dealer you purchased it from. They will give you the correct address to send your unit to. Have your sales receipt showing date of purchase handy, and include a copy of it with your Audibox. Please pack the unit well - we are not responsible for any damage caused by unsuitable packing during shipment. Send the unit to us pre-paid, by a delivery service like FedEx, UPS, or any other service that can track the shipment. We will return it to you freight paid. If you have any questions, or any part of this is unclear, please write to ARX Systems Pty Ltd, PO Box 15, Moorabbin, Victoria 3170, Australia, or to the address below.

PO Box 15, Moorabbin, Victoria 3170  
9555 7859 Fax: +61 (0)3 9555 6000

You can also Email the factory at [info@arx.com.au](mailto:info@arx.com.au)

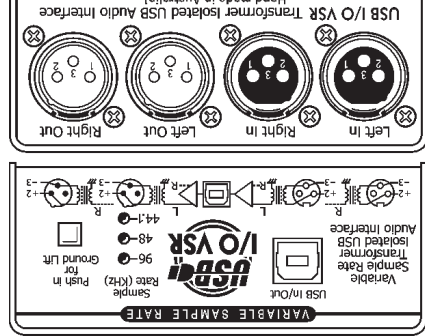
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The VSR-I/O is a true Plug-and-Play Analog to Digital, Digital to Analog interface. It has Transformer Balanced dual XLR Input and Output connectors supplying Balanced audio input and output from a USB connection. Full transformer balanced output isolation eliminates earth loops / ground hum and other interaction noise and distortion. Please note that the VSR-I/O will need to be connected before the driver will install.

**About the USB VSR-I/O**

No external power is required - all power for the VSR-I/O is supplied by the USB bus. Drivers are required for Plug and Play-operation under Windows XP and later, or Mac OS X. But, for 48 or 96kHz operation, the ASIO driver will need to be downloaded and installed from the ARX website: <http://www.arx.com.au/drivers.htm>

**Connections and Controls:**



**USB I/O VSR**  
"The Variable Sample Rate interface that Audio professionals have been waiting for!"

VARIABLE SAMPLE RATE

Note: Unit's sample rate will default to 44.1 KHz if ARX ASIO Driver is not used  
ARX ASIO Driver loaded <http://www.arx.com.au/drivers.htm>  
Audio software installed  
USB port

Windows PC running Windows XP later, Mac running OS X or later  
**System Requirements**

All-steel polyurethane coated chassis, fibreglass PCB, non-slip rubber base pad  
**Construction**

2 x Female XLR, wired Pin 2 + Hot, Pin 3 - Cold. Pin 1 via ground Lift switch  
**Output Connectors**

2 x Female XLR, wired Pin 2 + Hot, Pin 3 - Cold. Pin 1 via ground Lift switch  
**Input Connectors**

Power Operating current via USB Port 80mA  
**Frequency Response** 20 - 20 KHz ± 0.5 dB

Input/Output Noise USB System dependent  
**Maximum Output Level** Nominal 0 dB with ASIO driver

Output Impedance 300 Ohms Transformer Balanced  
**Input Impedance** 10 KOhms Transformer Balanced

Maximum Analogue Output Level 18 dB  
**Maximum Analogue Input Level** +12 dB

Digital recording and playback level for 0dB analog in -18dBFS (full scale)  
**ASIO Driver** <http://www.arx.com.au/drivers.htm>

Selectable Buffers Streaming Buffer 1ms, 2ms, 4ms, 8ms, 12ms, 16ms, 32ms.  
ASIO Buffer 17.6ms, 24ms, 32ms, 48ms, 64ms

Codec 16 bit, 44.1 KHz Plug and Play; switchable sample rates of 48 and 96 KHz with ASIO driver

Connector USB type B port  
**Broadcast standard USB Audio Interface**

**USB VSR-I/O Specifications**

Now you can register your product warranty online at: [www.arx.com.au](http://www.arx.com.au)



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