

### Using your ARX USB Ultra-I/O

The **USB Ultra-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 **USB Ultra-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.

### Plug and Play

We recommend a computer running Windows 10 or Mac OS X. Plug the **USB Ultra-I/O** into an unused USB port on the computer and it will be recognised as **ARX USB Device**, and ready to use.

### Operating instructions

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

Connect the USB connector on the **USB Ultra-I/O** to the USB port on the computer.

### 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 Ultra-I/O**.

### Output Connections

Connect a balanced microphone lead from the Left and Right 3 pin XLR output connectors on the **USB Ultra-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 **USB Ultra-I/O**, open your audio software, ensure that **ARX USB Device** is selected as the default audio device, and follow the record instructions as you would normally.

To **PLAY**, open your audio software, ensure that **ARX USB Device** 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 Ultra-I/O**

### IMPORTANT #1

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

For fastest and quietest audio operation you **must** plug the **USB Ultra-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 **USB Ultra-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 #2

- The sensitive audio circuitry in the **USB Ultra-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 **Ultra-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. Put simply, the **USB Ultra-I/O** is the USB pro audio interface that Audio Professionals have been waiting for!

If this is the first USB audio device you have used, we strongly recommend you have a look at the extensive help and advice information on the comprehensive ARX website:

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

### Did you know...

As well as the **USB Ultra-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 **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

The **Blue DI** is a new wireless audio interface that uses our BT Wireless Audio protocol.

### What does it do?

With this useful device you can wire-

lessly use your Smartphone, Tablet, PC / Mac to effortlessly bring pre-recorded audio into professional audio systems. Power to drive the **Blue DI** is derived from either Phantom Power at the XLR connectors, or 9 to 15 VDC from an external power supply.

Electronically Balanced Outputs with 200 Ohms impedance let you drive long cable runs without signal loss.

Precision circuitry provides ultra low distortion (.01% nominal) with a Frequency response of 20Hz to 20 KHz  $\pm 1$ dB.

For the latest information on the complete **Audibox** range, visit our website: [www.arx.com.au/worldwide/audibox.htm](http://www.arx.com.au/worldwide/audibox.htm)

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Manufactured in Australia

## INTERNATIONAL LIMITED 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 replace faulty parts only (if still available) for two years from purchase to the original purchaser. Original sales receipt will be required.

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 country to country and state to state.

To obtain warranty service for your Audibox, please contact ARX or the dealer you purchased it from. If it is necessary to return the unit to the factory, they will give you the correct return 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, DHL 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 contact ARX Systems as below:

Email : [info@arx.com.au](mailto:info@arx.com.au)  
or mail to: PO Box 15, Moorabbin,  
Victoria 3189, Australia.

**USB Ultra-I/O Specifications**

**Connector :** USB type B port

**Codec :** Hi! Resolution 24 bit 192 KHz

**Sample Rate :** Software selectable : 44.1 KHz, 48 KHz, 88.2 KHz, 96 KHz and 192 KHz

**Input Impedance :** 10 Kohms  
Transformer Balanced

**Output Impedance :** 300 Ohms  
Transformer Balanced

**Maximum Input Level :** Nominal 0 dB

**Maximum Output Level :** Nominal 0 dB

Audio software installed  
Mac running OS X or later  
Windows 10

**System Requirements**  
download at: [www.asio4all.org](http://www.asio4all.org)

**Recommended ASIO Driver (if required or desired) :** ASIO4all

**USB-A to USB-B cable**  
Package includes a premium quality Slip-resistant rubber base.

**USB Ultra I/O chassis grounded via USB connection**  
USB Ultra I/O chassis grounded via USB connection

**Construction :**  
All-steel polyurethane coated chassis, fiberglass PCB, epoxy printing, slip-resistant rubber base.

**Output Connectors**  
Channel 1 / Left and Channel 2 / Right  
2 x Male Amphenol XLR, wired Pin 2 + Hot, Pin 3 - Cold, Pin 1 screen/shield via ground Lift switch

**Input Connectors**  
Channel 1 / Left and Channel 2 / Right  
2 x Female Amphenol XLR, wired Pin 2 + Hot, Pin 3 - Cold, Pin 1 screen/shield via ground Lift switch

**All models in the AudioBox range feature the same heavy duty all-steel chassis finished in attractive matt blue textured powdercoat, with hard-wear-impact and portable; to protect your investment we've added the option of a permanent table mounting kit.**

**ISO transformer - Environment sensitive**  
USB - System dependent  
As with all ARX equipment, it has undergone extensive factory testing and burn in before shipping.  
To ensure continued trouble free use, please familiarise yourself with the contents of this manual before using.

**Power Consumption :** via USB Port - typically 0.8W

**Frequency Response :** 20 - 20 KHz  $\pm 0.5$  dB

**Input/Output Noise :** USB - System dependent  
ISO transformer - Environment sensitive

**About the USB Ultra-I/O**  
The USB Ultra-I/O is a true Plug-and-Play Analog to Digital, Digital to Analog audio 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.  
Note: if an ASIO driver is required or desired we recommend: **ASIO4all** - download at: [www.asio4all.org](http://www.asio4all.org)


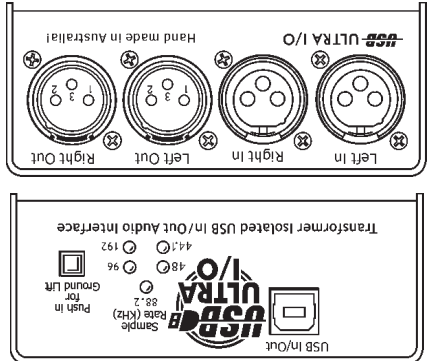
**Connections and Controls:**  
Type B USB input/output port; Audio Ground Lift switch, and Transformer Balanced XLR Inputs and Outputs. Software selectable Sample rate LED array indicates which sample rate the unit is using: 44.1 KHz, 48 KHz, 88.2 KHz, 96 KHz or 192 KHz

**The USB Ultra-I/O is supplied by ARX for the USB Ultra-I/O is supplied by No drivers are required for operation under Windows 10 or Mac OS X. The Input and Output connectors supplying Balanced audio input and output from a USB connection, requiring no special driver program installation.**

**Device**, requiring no special driver program installation.  
Note: if an ASIO driver is required or desired we recommend: **ASIO4all** - download at: [www.asio4all.org](http://www.asio4all.org)

No external power is required - all power is supplied by the USB bus.

**"The USB pro audio interface that Audio professionals have been waiting for!"**

The diagram shows the front panel of the USB Ultra I/O interface. It features four XLR ports: Left In, Right In, Left Out, and Right Out. There are also two USB ports: USB In/Out and a Transformer Isolated USB In/Out Audio Interface. A Ground Lift switch is located near the USB ports. The diagram includes labels for each port and control, along with a note: "Hand made in Australia!".

