About the ARX USB-DI

   * The USB-DI is a true Plug-and-Play Digital to Analog audio interface using the Universal Serial Bus connector found on computers – a digital to analog version of the common Direct Injection (DI), or Direct box.
   * It is a self contained, stand alone stereo unit designed to interface stereo digital audio with professional balanced low impedance inputs.
   * It converts digital audio signals from your computer into analog ones that are happy to travel down a long line into a mixing console at the other end.
   * Transformer isolated dual XLR connectors supply Balanced audio output from a USB connection.
   * Full transformer balanced output isolation eliminates earth loops / ground hum and other interaction noise and distortion.
   * A front panel status status LED indicates that the USB DI is connected and will flash when it is operating.
   * It has many applications for Consumer audio, Live Sound, Studio or Broadcast use.

Power
No external power is required – all power for the USB-DI is supplied by the USB bus in the computer.

Drivers
No drivers are required for operation under Windows XP and Vista. The USB-DI is instantly recognized as a generic USB audio device, requiring no special driver program installation.

Plug and Play
If you are running Win XP or Vista, as soon as you plug the USB-DI into a spare USB port on the computer it will be recognized as a USB Audio Device, and will be ready straight away.

Windows 98 SE is also supported and can be installed as a USB composite device. You will need the 98SE CD Rom for driver installation.

With Win 98SE, as soon as you plug the USB-DI into a spare USB port on the computer it will be recognized as a USB Composite Device, and the Add New Hardware Wizard screen will pop up. Click NEXT on the first 2 screens, put in the 98SE CD Rom, then select CD Rom drive on the search screen and click NEXT. Click NEXT on the following pop up screen, then FINISH on the final screen.

It will then install the USB Device drivers, and repeat the install process for a USB Audio Device.

Operating instructions

Input Connections
Connect the USB connector to the USB–DI and to the USB port on the computer. On XP and Vista it will be available immediately and the LED on the front of the USB–DI will start to flash. 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, open a music file and play.

That's all there is to it.

The ARX USB–DI is the USB pro audio interface that Audio Professionals everywhere have been waiting for!

Move Volume slider to the right

IMPORTANT #1

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 at least 90% or 100%

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.

IMPORTANT #2

If you are using a laptop/notebook computer with the USB–DI / USB DI–VC, we strongly recommend that you run the computer from its battery – fully charged, of course!
While it may be more convenient to run it 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. They often come with the surprise addition of a pink noise, digital noise and hum generator built in, a feature which unfortunately cannot be disabled!
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, still 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!

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.

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!

T E C H N I C A L || S P E C I F I C A T I O N S
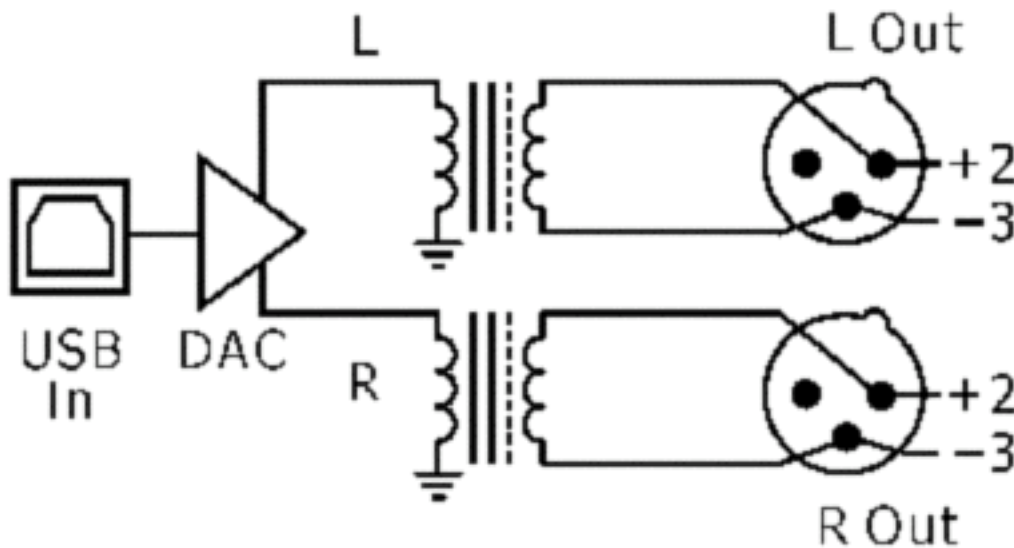
USB DI Schematic Diagram

USB-DI Specifications

Input Connector USB type B port

Output Impedance 300 Ohms Transformer Balanced

Output Level Maximum nominal output level 0dB

Output Noise
USB – System dependent
ISO transformer – Environment sensitive

Frequency Response 20 – 20 KHz ± 0.5 dB

Power Operating current via USB Port 80mA

Output Connectors
2 x Male XLR, wired Pin 2 + Hot, Pin 3 – Cold. Pin 1 Floating / not connected

Construction
All-steel powder coated chassis, fibreglass PCB, epoxy printing,
slip-resistant rubber feet

System Requirements
   * Windows PC running Windows 98SE, ME, XP or Vista
   * USB port
   * Audio software installed
   * 98SE will need the Win 98SE CD Rom to install driver.