

# ARX Audibox range

ARX has devised a range of ‘get out of jail free’ devices.

Text / Graeme Hague

**EVERY AV TECHNICIAN** has a collection of ‘special’ cables and plugs. They’re hoarded over the years for their ability to solve all manner of connection problems. There always seems to be something that needs a little ingenuity to get the show on the road.

For a while now ARX has been offering a range of Audiboxes that will get you out of trouble every time. They’re not just glorified adapters. These boxes all feature isolation transformers that clean up any signal noise or earth loop you might be risking when you start getting desperate in your cabling. It’s well worth a look at the entire line, but before we examine the individual units more closely there are some things worth mentioning that are common to all.

Every Audibox model comes in a standard metal case that’s 135mm deep, 98mm wide and 45mm high (ie. 1RU high including the feet). They’re all uniformly powder-coated an attractive blue with labelling in an epoxy screen-print that won’t scratch off in a hurry. The old salts will recognise this steel casing as the same that just about every DI box and talkback headset used during the entire decade of the ‘80s. It’s built to withstand serious mishandling. I was very pleased to see that all the connections and pots are mounted to the metal chassis, too — they’re not PC board-mounted components poking through holes in the casing. The units that require power don’t come with a PSU of any kind — unless you buy the multiple-out Audibox PSU. That’s probably to keep the product line as uniform as possible. The Audiboxes mostly have flat non-slip rubber feet to keep them inside the 1RU profile, however, a few models have the chocolate-block-style feet that sit higher. The significance is that a rackmount kit is available that lets you install four Audiboxes in each single rack space and in some racks cases each millimeter counts, so bear that in mind. Finally, some of the

Audioboxes are available in a single or double-header format. I’ll explain what that means later.

My studio now looks like the aftermath of Christmas morning — empty cardboard boxes and packaging everywhere. There’s a dog under there somewhere. Here’s what I found out.

## 1\ EARDRIVER

The EarDriver is a headphone amplifier that provides some interesting options. Firstly, it provides four channels of stereo headphones from either a pair of balanced ¼-inch inputs (left and right) or a mini-jack stereo input such as you’d get from a computer audio card. Then it gets tricky by having identical connections on the rear that convert the four outputs to two pairs of stereo channels now driven by either of two stereo inputs. In other words, you can have all four headphones fed by one stereo input or Channels 1 and 2 driven by Stereo Input 1 and Channel 3 and 4 by Stereo Input 2 (feel free to read that a few times). Plugging in the extra input automatically switches the signal routing. The individual volume controls follow the patching, too.

The headphone amp would be ideal for sitting in the middle of a messy studio setup and supplying extra monitor headphone lines without fear of it being trodden on or kicked. It’ll take the punishment. The outputs are rated at ‘1W @ 8Ω maximum’, which isn’t the standard professional 600Ω or domestic 32Ω type of figure. I can tell you that with my studio AKG K240 cans the signal level was plenty loud, but it was also easy to overload the inputs and there was no indication of when these began to clip. The only method was to turn the outputs to maximum then adjust the input until things got ugly — and back it off a little. A clip light would have been nice. Similarly there isn’t a power indicator. A small thing, but if your wall-wart died,

I guarantee you’re going to waste time checking out everything else, before you figure the EarDriver isn’t getting any juice. And I must point out that the actual sound of the EarDriver is quite bright. That’s a good thing for cutting through any ambient noise outside of your headphones, but hearing fatigue might soon become a problem. You’ll want to apply some prudent EQ on your signal source.

These minor niggles aside the EarDriver has a strong, clear signal and a very handy versatility with that dual input/output choice.

Applications: Squeezing extra headphones channels from existing lines or creating individual headphone splits. RRP: \$325.

## 2\ ISO OPTIMIZER

The ISO Optimizer is a straightforward, but very useful, bit of gear. It provides a link between either a pair of balanced ¼-inch jacks or RCA connectors on one side to identical connections on the other with an input attenuation between. Input is from +12dB to ‘Off’ (good!) and the transformer gives you complete galvanic isolation to avoid even the worst of pesky hums and buzzes while always keeping the signal clean. The idea is to allow you connect almost any piece of equipment you need to another and precisely adjust the signal level. Audio dubbing from one media type to another comes instantly to mind and, of course, patching into a mixing desk. I say ‘almost’, because turntables don’t get a guernsey unless they have a line output. The ISO Optimizer is passive — it doesn’t need any power. When you’re scratching your head and trying to patch disparate signal levels this Audibox will be the answer.

Applications: Dubbing from one line source to another (CD to CD-R) or matching a line input on a mixer that has no gain control. RRP: \$249.

“no one needs to madly solder up a ‘magic’ cable at the last minute to get rid an earth loop or connect an odd piece of equipment”

## 3\ ISO BALANCER

RCA connections were never meant to be soldered onto two-core shielded cable and XLR plugs just look silly on the end of thin single-core shield wire. So do it properly and use this ISO Balancer that has a left/right pair of RCA inputs converting to two balanced XLR outputs. This lets you connect any unbalanced source such as a DVD or CD deck into a professional mixing desk and keep things clean with the transformer. Now, we can put a man on the moon (or did we?), but this signal chain apparently can’t be simply reversed — there are no XLR inputs in case you want to go the other way. For that you need the ISO DeBalancer (see below). By the way, the instructions point out that signal earth can be lifted internally with a jumper pin if you’re keen to break out a screwdriver and remove the cover. Tear that page up — ARX improved the design and forgot to update the manual.

Applications: DVD player to balanced mixer or pro soundcard XLR. RRP: \$225.

## 4\ ISO DEBALANCER

This does the reverse of the ISO Balancer — no surprises there. However, because you’re converting a balanced signal with a hot, neutral and earth connection into an unbalanced connection this provides the means to have two outputs for each channel (sourced from the hot and neutral). ‘Waste not, want not,’ as they say. A pair of XLR inputs are converted into two pairs of RCA outputs incidentally giving you a signal split, if you need it.

Applications: Dubbing an audio mix from balanced XLR outputs to any line input such as CD-R, MiniDisc, etc for archiving or transcribing later. RRP: \$225.





### 5\ ISO LATER

An electrician responsible for wiring a major theatre installation once said to me, “It’s all Mother Earth, lad. Ground is ground”. This is probably why we spent the next 10 years trying to avoid earth loops in the audio rig. Having a cupboard filled with these ISO Later Audiboxes certainly would have helped. This is one of the boxes that come in a single channel or ‘double header’ unit meaning the second channel is at the opposite end of the box rather than the inputs and outputs being side-by-side. It also means you get completely separate channels with a transformer each inside, lifting the signal earth. It doesn’t get any better, cleaner or easier than that.

Applications: Some venues (the town hall, the local library) can’t supply dedicated power. Problem solved. RRP: Single \$225 or Duo \$315.

### 6\ ISO SPLITTER

The ISO Splitter takes the ISO Later a step further by splitting the signal to a second XLR output. Otherwise they do the same thing and it probably makes the best sense to invest in these and give yourself the option of that channel split, if you need it. Again the unit can be a single channel or double-header. For the cynics out there — I checked — the split channel B isn’t just piggy-backed off the A channel, it’s driven from the transformer.

Applications: A clean split to the OB van, conference break-out areas or pro recording media like CD-R with XLR input. RRP: Single \$235 or Duo \$328.

### 7\ AV DI

The designers at ARX have come to terms with the inevitable. The mini-jack stereo input is ‘a must’ thanks to the prevalence of laptops and iPods used as audio sources these days. The AV DI box has a mini-jack stereo input as well as a pair of RCA connectors and there’s a 20dB pad switch to tame any loud signals. Outputs are balanced XLR that will accept phantom power (there is an LED indicator) from a mixing desk on one or both lines. Otherwise a power supply is needed. Remember, this is a Direct Injection box too, not just a converter so it’s suitable for sending signals down lengthy multicores. These kinds of DI boxes with RCAs have been around a while, but that mini-jack input is a nice touch.

Applications: Any domestic-type CD or DVD audio output (RCA) to balanced XLRs for simple conversion or driving down a multicore. RRP: \$299.

### 8\ USB DI

ARX are going to sell these things by the truckload. Simply explained — the USB DI

is an audio output from your computer’s USB port that doesn’t require any specific drivers or software to operate. Even better, although with the digital-to-analogue converters the internal circuitry is a different kettle of fish to the other Audiboxes, the balanced XLR outputs are still transformer isolated. Anyone who’s jiggled and bashed a mini-jack in a computer soundcard output — especially a laptop — will know just what a stroke of genius this USB DI box is. I’d like to rave on for pages, but the simplicity of its design and purpose put a stop to that. The USB DI doesn’t need power, because it gets that from the PC’s USB bus. Talking of ‘PC’, while the instructions make no mention whatsoever of any Mac OS, my G4 loaded with Tiger happily saw the USB DI and worked a treat. Even Windows 98SE is supported! I do have one gripe though. I would like to have even just parallel-wired ¼-inch jack outputs beside the XLRs. That’s because so many mixers don’t provide XLR connections on their stereo return channels.

Applications: Either live or during dubbing from your computer of choice to balanced XLR. RRP: \$275.

### 9\ PRO DI

The Pro DI box is everything you’d expect from ARX after looking at the rest of the range and that includes one of those sneaky extras the Audiboxes seem to specialise in. In this case it’s a –40dB connection for a ‘Speaker Level’ input, normally a signal too hot for a standard DI. An example would be the external speaker output on a guitar amplifier or a bass head. In many cases it would give you quite an edgy, raw sound without it being affected by the impedance of any driver, but it’s still a thoughtful addition that will no doubt save the day on many occasions. A –20dB pad switch for the normal input also attenuates the Speaker Level jack further. If the combined –60dB isn’t enough, just punch the guitar player on the nose. A ground lift and phantom power indicator are there beside the balanced XLR output and there’s a DC input for a wall-wart power supply. The Pro DI doesn’t have a facility for any internal battery — that’s quite a common omission now that phantom power is standard on the smallest of mixing desks, but it’s worth noting. The Pro DI is available as a double-header model, too.

Applications: Standard band instrument to mixing desk via a multicore. RRP: Single \$225 or Duo \$315.

### 10\ DI PRE

How many times have you set up a small mixing desk simply to make a single microphone work? The DI Pre is a preamplifier that makes these situations a thing of the past. It’s also a great way to control a microphone input into a computer audio card, which are notorious for

being fickle. The DI Pre has an XLR input with a clip indicator, a 20dB pad and phantom power switch that needs a wall-wart supply. If you’re still ultimately going into some kind of console or an interface that has its own phantom power note it will not pass through the DI Pre. The output tricked me for a moment, because it’s a balanced ¼-inch RTS jack and not a line output. Presumably space was too tight for an XLR out connection. It’s possible some new owners will take the DI Pre home only to be slightly flummoxed by the RTS jack. The sound of the DI Pre is very clean and a little bright without adding sibilance — useful for making dynamic mics cut through the mix a little better. The review unit was a double header, and on both channels the 20dB pad switch caused a nasty crackle when you pressed it if phantom power was enabled, but that’s always one of the perils of using phantom power. The DI Pre is one of those gadgets you’ll end up using so often, you’ll wonder how you ever survived without it.

Applications: Powering single lectern microphones without a mixer, boosting any balanced microphone signal (e.g. video camera) or simply providing phantom power. RRP: \$315 single or Duo \$445.

### AUDIBOX PSU

Lastly there is an Audibox PSU box. This provides up to six lines of 15V DC power for your rackmounted collection of Audiboxes. RRP: \$295.

### RACK MOUNTING

Rackmount kit for four Audiboxes RRP: \$55 and individual brackets to suit same \$13.

### OUT OF THE BOX

I’m sure ARX would love to see every AV technician with a roadcase of Audiboxes in the van to cover any eventuality, and that’s where the PSU comes in. But more likely a production house is going to keep their Audiboxes separate and in a cupboard for anyone to grab when the need arises — especially the more specialised problem-solvers like the ISO Later.

The beauty of these Audiboxes is they work. That might sound silly, but their transformer-based design means they’ll do the job every time and no one needs to madly solder up a ‘magic’ cable at the last minute to get rid an earth loop or connect an odd piece of equipment. And they’ll last a long time. In 10 years time you’ll still be grabbing a battered ISO Splitter to save the day.

Any of the Audibox range isn’t just a smart buy — it’s a good investment. Hell, spoil yourself and buy ‘em all. 🐣

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