

e-pre Application Notes

e-pre Benefits

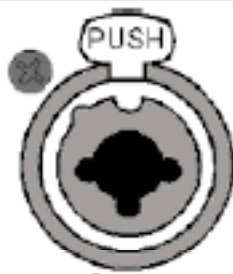
- Professional Balanced XLR mic input
- True 48v phantom power
- Runs into the Line input of ANY sound card - uses the card you've already paid for
- High headroom = clean recordings
- Smart EQ
- Compatible with non-computer audio equipment
- Professional performance and specs in a user friendly package

The ARX **e-pre** represents a new way of looking at how we bring audio into the computer for hard disk recording.

It's been designed by pro audio professionals for the highest possible sound quality, not by computer engineers for the lowest possible cost! While modern computers usually come with a sound card that has an input for a microphone, the quality of sound it delivers leaves most people wanting something better. Professional sound cards realise this and have line inputs only, leaving the pre-amp option open.

Previously this has meant using an external mic preamp designed to fit into a 19" rack, plus external equalization and all the extra cabling required to connect to the computer. But now all this has changed with the launch of the **e-pre** from ARX. A truly professional microphone pre-amp, with all the sound qualities you'd expect from a 'State-of-the-art' design using the same components as high end mixing consoles, yet one that fits in a spare 5¼" drive bay in your computer!

Ruler flat response, ultra-low noise, input gain and output level matching to suit all sound cards and microphones, as well as true 48V Phantom power for condenser microphones.



Input

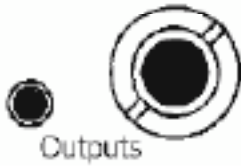
Contour
flat



The Input 'combo' connector allows you to use the 3 pin balanced XLR section for the Mic pre-amp, and the ¼" balanced jack input for Line.

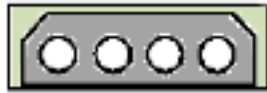
An added bonus is the **Contour** control. This deceptively simple feature provides fast, easy access to a whole range of useful EQ curves, ranging from midrange boost for stringed instruments, through to the classic Low and High frequency 'smile' curve favoured by radio stations. 50 million car stereos can't be wrong!

ARX[®]
e-pre[™] microphone pre-amp



Outputs

From computer's supply



From external supply



Multiple output connectors on the *e-pre* suit all possible sound card requirements: mini-jack, 1/4" jack, RCA (phono) connectors, plus an MPC3 socket for connecting to the internal Audio input (CD in) of the sound card if fitted.

While the *e-pre* needs no external power supply by using a spare connector from the computer's power supply, we haven't forgotten mobile/laptop users. An extra DC input socket on the rear lets you connect up an external 12V DC power supply (either wall-wart or battery) for recording in the field.

Connecting a microphone



A **Condenser** microphone needs Phantom power to make it work, so press in the Phantom switch on the front panel



A **Dynamic** microphone needs no phantom power and will just plug into the front panel

Choosing which outputs to use

If you have the lead and a CD audio in connector on your sound card, then this is a useful option, although it will stop your CD playing audio through the sound card (but should play OK through the CD ROM's headphone out)

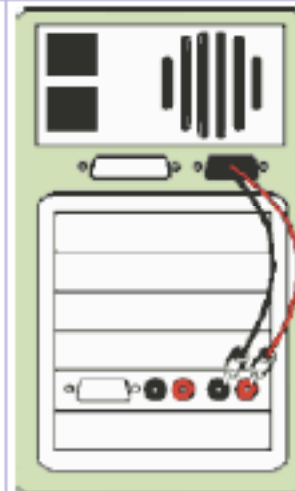


If you have a Sound card with RCA (phono) connectors on it, then use the RCA outputs on the back of the e-pre. You will need to find a hole to route the leads out of the back of the computer.

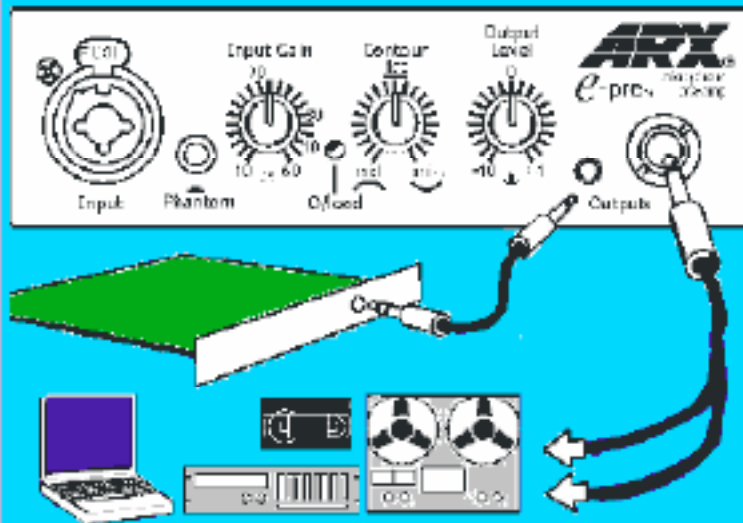
Audio Out



Suggestions are - use one of the punch out serial/parallel port holes on the rear of the computer chassis; or the PS-2 port next to the mouse serial port (if you use a PS-2 mouse, then use the unused serial port 1 hole after removing the connector)



If you have a sound card with a mini jack Line Input, then the e-pre Front panel mini jack output is ideal. Just make sure you connect it to the LINE input of the card, not the MIC.



The front panel 1/4" jack can be used with an adaptor lead to suit any kind of input, or to a recording unit (eg DAT, ADAT, MiniDisk, Cassette, Reel to reel recorder) if you are not using the e-pre with a computer.

It's a Single channel unit, so why left and right outputs?

Multitrack recording lays down a series of mono tracks that are mixed and panned to stereo at the mixdown stage. This is not what audio for computers is historically designed to do. Both the Windows and Macintosh generic audio drivers are stereo, so will require an input into both the Left and Right channels unless you want a lot of wasted disk space (half of every sound file will be blank, but still gobbling up disk space). However, most audio software programs offer the option of converting each stereo track to a mono either during or after recording, reducing both the disk space required and processing demands on the CPU.

Using the e-pre with a laptop/notebook computer

Inspiration doesn't always strike when you're at home in front of your desktop machine, and a lot of people like to do recordings in the field, well away from it all - sound effects, interviews, live music and more. The mini jack output on the front panel of the e-pre matches up with the mini jack LINE input found on most audio-ready notebook computers.

We've included a DC input jack for a 12V DC power supply (either a wall-wart or battery) so that the e-pre can be used mobile. Its compact size and light weight means that the e-pre is the perfect tool for the audio-recordist on the go.

Using the e-pre without a computer

The e-pre is a true professional Microphone pre-amp, and has the flexibility that audio professionals expect. Although it is in a compact, computer friendly package, it does not have to be used with a computer.

It can be used to record to any recording media - DAT, ADAT, Audio for Video, MiniDisk, reel-to-reel or cassette. The 1/4" (6.5mm) stereo output jack on the front panel, or the dual RCAs on the rear, can be used with a number of adapter leads to link to any piece of recording equipment, and deliver the same flawless sound that it would to a computer's hard disk.

A word about Sound Cards

Nearly every computer these days comes with a sound card. They vary immensely in sound quality, features and input/output options. Obviously a computer manufacturer wanting to provide sound at the lowest possible price will choose to bundle the cheapest possible sound card with the computer. Many have sound card functions built into the motherboard to further lower costs.

Sound cards fall into two distinct groups - consumer and professional.

The card that comes with the computer would slip into the consumer group. It's usually the cheapest card that the computer manufacturer can find, and is put there to make noises for computer games.

Professional (or 'prosumer' - an in between category) cards often have multiple inputs and outputs, a much higher price and are usually bought later as an add-on.

As an audio professional, your audio needs are rather different from someone who just needs sound to enhance computer games. Do some hard disk recording and pretty soon you'll find out the problems with using the MIC input on your generic sound card - lots of noise, plus lack of headroom, lumpy frequency response, thin sound. You start to realise why people can pay very large amounts of money buying microphone preamps!

Professional audio equipment runs at a nominal level of +4dB, consumer at -10dB. Sound cards that are designed to link to other pro equipment will run at +4dB, and have greater headroom (accept a louder signal without clipping) than a -10dB consumer card. Pro cards usually have LINE inputs only, leaving the Mic pre-amp option open for users to choose.

But no matter what type of card you have, the e-pre will work with it

You'll never compromise on Quality when you choose ARX