Groove Tubes™ **Vipre**™

www.groovetubes.com

Variable Impedance Preamp

Vipre

FAQs

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What's the Groove Tubes Vipre?

Vipre stands for **V**ariable **I**mpedance **Pre**amp. It's a mono-block, fully-differential Class A, all-tube preamp with variable input impedance and adjustable rise time.

What's "variable impedance" – and why do I need it?

Altering the input impedance changes the load against which the microphone has to push – this dramatically alters the performance of any mic, from classic ribbons, vintage and modern condensers – even dynamic mics.

All microphones will respond similarly in that the apparent proximity gets 'closer' when the impedance is lowered, but since you're changing the load on the mic – you're altering the performance of the microphone, not the preamplifier.

A transformer-less, balanced bridging input selection is also available.

Bottom line: You haven't heard your micro-phones until you've heard them loaded at different impedances. Anyone with even a modest mic selection can multiply the selections by using Vipre.

Don't other mic preamps offer this feature? (I've seen impedance matching before.)

Avalon's 2022 and Joe Meek's VC-1 both have an "impedance matching" circuit, consisting of a resistor network placed AFTER the load is already terminated. This is NOT at all the same thing.

Some vintage mic preamps (like Neve modules) can be internally hard-wired to one of two different impedances. Vipre is the only preamp we know of with a front-panel selectable, truly variable impedance transformer.

What's a "fully-differential, Class A" design?

Class A means that the same amplification device (in this case, tubes) are doing the entire waveform, both the maxima and minima of the wave.

Class AB and Class B use separate amp devices to do the maxima (or top side) and minima (low side) of the wave. Those are more efficient, but not nearly as accurate or true.

The Groove Tubes Vipre FREQUENTLY ASKED QUESTIONS

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Fully-differential means that the signal remains balanced throughout, never becoming unbalanced or single-ended.

Almost all amp circuits break the balance. (In a console, the signal is single ended from the time it comes into the preamp, until bridged at the output.) This is accomplished by using identical, mirror-image signal paths throughout – and why we use ceramic deck attenuators instead of potentiometers for gain adjustments.

Common mode-rejection ratios are significantly improved, as are signal-to-noise ratios.

Aren't there a lot of tube microphone preamps available now?

What's the difference?

Why is yours so much more expensive than, say, the ART Tube MP, or the Peavey?

Most “tube” preamps really aren't. They use a tube as an effect in a transistor-based circuit.

Many times the plate voltage is severely starved to add distortion, which is what many people think gives the "tube sound."

Very few preamps on the market today are all-tube throughout – and all are priced similarly or higher than the Groove Tubes Vipre – and none with the features that the Vipre has.

What's this “rise-time” stuff all about?

Rise-time is very much the same as “slew-rate” – the rate of speed at which the amplification circuit can amplify the signal.

You can't go from zero to five volts in no time – and how fast a circuit can amplify is part of what imparts its sound. Vintage circuits were much slower than are today's, and – in theory – faster is better.

Faster amplification circuits retain the leading edge of the transient signal, especially apparent on the higher frequencies. But slowing the rise time down can mellow or smooth out the signal, often rounding-out harsh sibilants from vocals or edgy tones of instruments.

In a way, you can think of rise-times as a “time machine” for preamplifiers – the slower the rate, the more vintage the sound. No other preamp has this special feature.

Is there a stereo Vipre available?

Sure. It's six rack spaces, retails at about $6000, and looks very much like two Vipres.

Wait a minute... it IS two Vipres! (No stereo model is planned.)

Because of the precision of the components and gain staging, you should be able to get identical results from two units. Finding two as precisely matched microphones would be far more challenging.

Are there line or instrument inputs available?

Both. A 470K-ohm instrument input is conveniently located on the front panel just below the input selector switch, with a -20dB pad available for "active" guitars and basses with hotter outputs. This input doesn't go through the variable impedance transformer. A balanced XLR line-level input is also available on the rear panel, with all the same options available as for microphones.

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