

About Impedance:



Long recognized in technical circles, the impedance relationship between a microphone and preamp/interface affects sound greatly. Different mics and preamps/interfaces have a range of impedance values that contribute to sonic texture. It can affect warmth, sizzle, clarity, grit and many other aspects of sound.

Many classic microphone and preamp combos work well together because of their impedances. By inserting the VariOhm between the mic and the preamp/interface, you now control this important relationship. Impedance values can be matched for maximum output or altered for additional tone settings for all kinds of microphones

Microphones	Preamps	Interfaces
Neumann U87 200Ω	A Designs Pacifica 1500Ω	Digi 003 Rack 2000Ω
AKG 414 200Ω	Presonus Blue Tube 1300Ω	Digi Mbox2 9500Ω
AT4040 100Ω	UA 710 TwinFinity 2000Ω	E-MU 1616PCI 1500Ω
Shure SM57 310Ω	Millennia HV-3C 6750Ω	Mackie Onyx 400F 2400Ω
Royer 121 300Ω	Grace Design 8100Ω	Presonus Firebox 1300Ω

Warranty & Registration:

Magneto Audio Labs warrants the VariOhm for defects and covers parts and labor for 2 years for all customers who register their purchase with the company. To register either visit www.MagnetoAudioLabs.com/register , or email us the following:

- Name
- Address (including country)
- Serial #

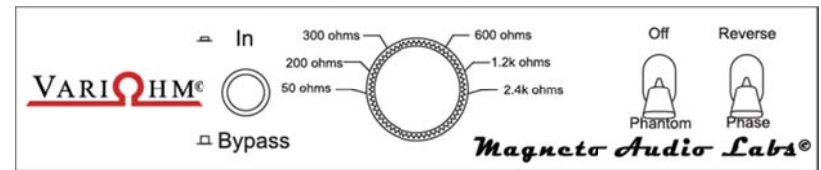
To : register@MagnetoAudioLabs.com ,

We welcome all productive comments, suggestions and of course stories of your audio exploits. (Especially interesting ones... we may contact you about sharing on line or in the press.)

Be well, trust your ears, make great audio and enjoy life.



"Analog warmth for a cold digital world."



Operation Manual

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Thank you for purchasing a *Magneto Audio Labs* **VARIΩHM**®

Your VariOhm is ruggedly built, made of the highest quality components and workmanship and with reasonable care will give you years of use. The key element VariOhm uses are custom built transformers; these impart much sought after audio characteristics associated with great analog sound.

The Concept:

The impedances of microphones and preamps vary considerably. The resulting impedance relationship is a key factor in determining the sound you get. Create the perfect match by inserting the VariOhm in between your mic and preamp, find the right setting in seconds and a new world of sonic possibilities are available. Try different settings for different colors and bite.

Microphone Compatibility:

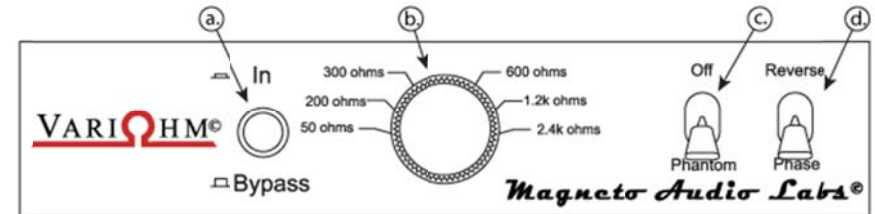
VariOhm may be used with all types of microphones; dynamic, FET or Tube condenser and ribbon. You will find that every microphone and preamp combination reacts differently and the optimum setting will vary.



Audio Connections:

Connect your microphone to the VariOhm input on the back panel, using a standard XLR cable; next connect the output of the VariOhm to any microphone level input, on a mixer or separate mic preamp. (All microphones require mic level inputs. They are not made to be connected to line level devices without the use of a mic preamp.)

The Controls:



- IN/ByPass:** The depressed or "in" position inserts the VariOhm into the circuit (display turns orange), the "out" position is a hard-wire bypass of the VariOhm. A hard-wire bypass guarantees that the bypass signal is uncolored, which allows for accurate comparison of processed and unprocessed signals. ** Please note that when phantom powered microphones are used there will be momentary loss of audio while the mic recharges it's phantom power, the duration of this depends on the efficiency of the phantom powering of the mic and varies from half a second (or less) to 2 seconds in some cases.
- Impedance settings:** The rotary knob selects between; 50, 200, 300, 600, 1.2K, 2.4k, ohms. Our testing has shown us that while, "science and analysis" can certainly be engaged referring to the specifications of our mic and preamp, the obvious and easy way to use VariOhm, is to listen to the settings and let your ears be your guide. You will easily find the most obvious setting in a few clicks and by checking bypass. You will also discover settings good for particular applications that will shape the tone and response of how the mic and preamp work together. Trust your ears.
- Phantom/Off:** The default is the Phantom position. The off position is provided to protect vintage Ribbon mics that can be destroyed by Phantom power. The off position can also be used for dynamic or tube mics that do not use phantom, though these are not typically damaged by the presence of Phantom. Because the Bypass is hard wired it always passes Phantom when present.
- Phase/Reverse:** The default position should be with the switch down in the "phase" position. This setting does not alter the phase of the signal. The Reverse position flips the phase 180 degrees and is provided for bidirectional mics (figure 8), & most ribbon mics (most are figure 8), as a handy feature.