

Z.VEX iMP AMP V1.0

Getting Started

Congratulations on your purchase of the World's Smallest Vacuum Tube hi-fi stereo amplifier. The iMP is a remarkable product that fuses 50's technology with modern electronics so you can put a 50's-style hi-fi right on your desktop, no matter how little room you have available.

What you'll need:

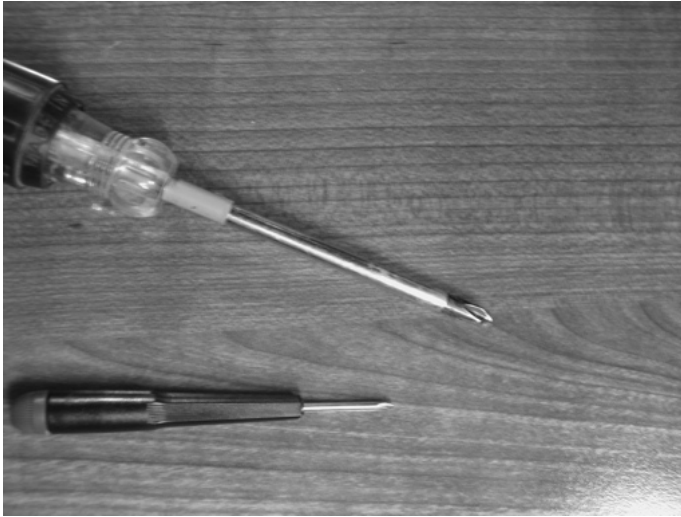


Figure 1. #0 or #00 Philips screwdriver, plus a regular-sized Phillips or straight-blade screwdriver for attaching the speaker wire (user-supplied.)

Cut and strip (and tin, if possible, but this is not necessary) your speaker wire to a suitable length. You'll need roughly 1/4" bare. Attach the speaker wire to the proper terminals. Minus "-" for both left and right is located nearest the middle of the unit. Plus "+" is located toward the outside. Connect RCA cables (user-supplied) that will mate with the source you have chosen... in this case, I'm using an iPod, so I purchased this y-cable at Best Buy or Radio Shack. Be sure to connect to Right and Left correctly.

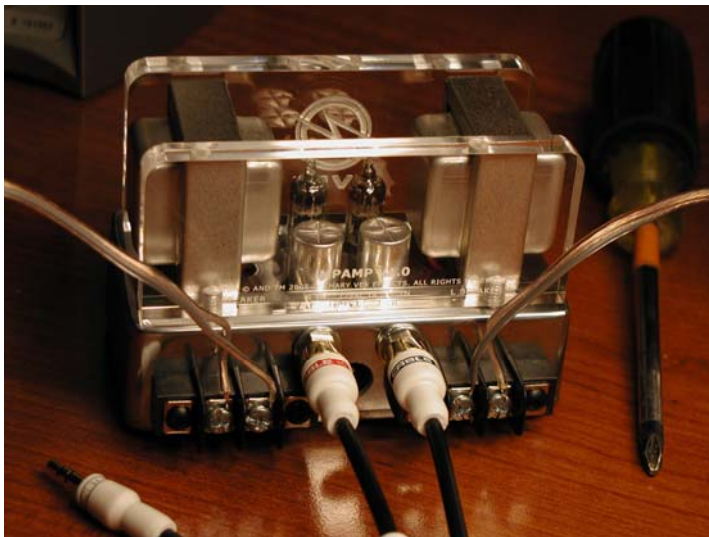


Figure 2. Connect the striped wires to - and the plain ones to +.

Connect your RCA cables for the source you are using. Note the headphone-style plug for iPod use.

Now connect the speaker wires to the proper speaker terminals...striped to black, plain to red. In this case, I've chosen Paradigm Cinema 90 v.3 speakers. They are less than \$200/pair, and for DVD use on either side of my laptop, it sounds like the voices are flying right off the screen!



Figure 3. Connect the speaker wires to the proper terminals. Red is +.

Next, connect the power cord from the 12VAC power adaptor (included.) DON'T use any other adaptor unless it is rated 12VAC 1000mA or more. If you have a Nano head amplifier, don't use the 12VDC power adaptor included with that unit to power the iMP... it won't work. You may damage the iMP by using the improper adaptor. DON'T connect the iMP to a 12V battery unless you are using a true sine-wave inverter such as the PST-15S-12A by Samlex, powering the iMP's own adaptor. Modified sine-wave inverters will make a lot of buzz!

If you accidentally connect a 12VDC power adaptor, the unit may overheat and be damaged. There is an internal fuse that will blow if it reaches dangerous temperatures or currents as a result of improper supplies or internal failure, but it may still be damaged. The fuse is self-resetting.

If you only intend to use your iMP with wall current, disregard the last paragraph and simply connect the iMP's power adaptor, 12VAC 1000mA, to the back of the iMP. The tubes should begin to glow orange and shortly both blue LEDs will illuminate within 30 seconds or so. If only one illuminates, or neither, unplug the unit and contact Z.VEX for service. Connect your sound source, in this case an iPod's headphone output, and play some music. If the iMP doesn't get loud enough, or is too loud for the range of the controls on the sound source, you may adjust the sensitivity of the iMP by turning it over on a soft surface (so as not to scratch the acrylic) and adjusting the proper trimpot using a Philips #0 or #00 screwdriver. Fully clockwise is -20dB or Consumer Level, good for iPods and other gear. Fully counter-clockwise is +4dB for pro gear such as recording studio consoles. Also, the +4dB setting works well for headphone use if you plan to make some sort of headphone breakout connector. If you bump some electrical connections inside with the screwdriver you may hear the volume jump around a little, but it's unlikely you could damage anything unless you go nuts with the screwdriver. 8^)

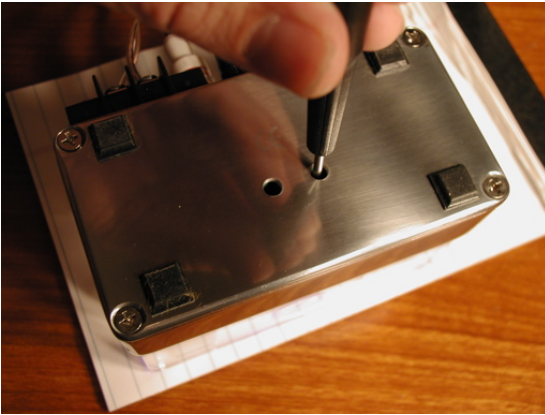


Figure 4. Adjusting the sensitivity.

If you cannot find or see the trimpots, you may open the unit, but **ONLY AFTER YOU HAVE DISCONNECTED THE POWER ADAPTOR**. There are dangerous voltages present inside the unit and Z.Vex Effects will not be held responsible for any injury if you leave the power connected while adjusting the level! The trimpots are easily seen with the unit open. Once you've found them, it's very easy to see them with the cover on, as long as the cover is oriented the right direction. Be careful when replacing it to put the holes over the trimpots. Turn them carefully, but don't worry too much, they're pretty tough. Note the OP275 op-amps, one for each channel. These audiophile favorites are chosen for their high rail voltage (I use 40 Volts) and high slew rate (22V/uS.) Also, you can see the twin independent toroidal power transformers. Each channel has its own B+ voltage for spectacular channel separation!

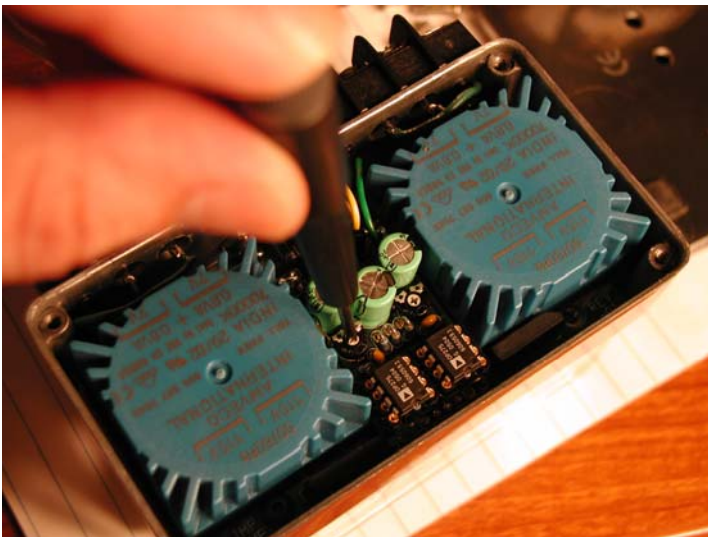


Figure 5. Don't do this with the power on! Disconnect the power cord first. There is high voltage in there when the power is on.

Now your desktop setup is complete. Relish that glass of wine (if you're of age, otherwise, that's grape juice) and enjoy your favorite tunes in true tube style!



Figure 6. Ahh, that's the life. Now if i could just get through my Logic Pro 7 manual... zzz....

Specifications:

Frequency response: 15Hz to 20kHz +0.5/-2.0 dB at 8 ohms, measured at 70 mW.
No, it's not a misprint. The iMP is DC-coupled (no capacitors!) for radical sub-frequency response.

-3dB points: -3dB@10Hz. -3dB@22kHz.

Output Power: 1 watt/channel at 12 ohms. .750 watts/channel at 8 ohms. About 80mW at 5V rms driving 300 ohm headphones (such as the famous Sennheiser MD600.)

Input: -20dB consumer to +4dB pro level via adjustable trimmers on bottom. Use +4dB (trimmers set counter-clockwise) for lower-impedance headphones for best noise specs.

Noise: Better than 80 dB S/N at 1kHz.

Residual Hum: Less than 0.2mVAC at 60Hz plus harmonics.

Power Supply: UL-listed 12VAC at 1A (1000mA).

Warranty information: Your iMP is warranted against manufacturer defect for 2 years parts and labor, including tubes. Unit must be returned to Z.Vex Effects for any servicing, including tube replacement. The military tubes are designed for long life, predicted at about 20,000 to 100,000 hours continuous use, and are ruggedized for rough handling and frequent-cycled turn-on, turn-off. Contact Z.Vex Effects via the zvex.com website for more information.
Enjoy!