

# Too Loud? Put a PLUG in it!



# The Power Plug™ 100 Attenuator

The response curve of the speakers at low volumes has more to do with perceived tonal changes than any fault of an attenuator. To help compensate for the speaker response at very low power levels we recommend using an EQ pedal when using the attenuator. You will find excellent tone at incredibly low volumes.

## Attenuator Uses:

Turn your tube amp UP to drive your power tubes. This is where tube amps blossom and where players get in trouble. Use the attenuator to drop your overall volume to more tolerable levels. You can dial in your breakup, which may be too loud, then attenuate to lower the overall volume. So you can adjust your amp as usual and use the attenuator as an overall Master volume.

Maybe you just love that little 25-watt speaker cab with your 50-watt head? Use the attenuator to reduce your wattage so you don't blow that speaker. Maybe you own a vintage combo amp and don't want to blow the original speaker(s). Use the attenuator!

A word about potential damage to your amplifier! If your amp has been run "dimed" or nearly wide open for long periods of time, without damage, you should be fine! An attenuator won't change that! When you run a tube amp hard there is always potential for problems, especially in vintage amps that weren't really made to be cranked all the way up. So bear that in mind when you use attenuation. Besides, an amp doesn't usually sound its best when fully cranked. Shoot for keeping it under 3/4 volume. We recommend that when in the -10 to -30db mode, you set your amp to 16 ohm, if possible, no matter the impedance of your cab. Impedance rises with heavy attenuation. **DON'T FORGET** to switch it back to 8 ohm (if that's what your using) when you return to less than -10db

Volume vs. Power - The *Power Plug 100* can achieve "bedroom level" volume when the small knob is placed in the -10db-30db position. Further attenuation is achieved by turning the BIG dial toward the "-" position. -30db is a significant reduction, as I'll try to explain. Doubling an amplifier's power or reducing it by half is a difference of just 3dB. Decreasing a power level of 100 watts to 50 watts would be a -3dB reduction. Reducing 100 watts to 25 watts would be a -6dB reduction. While reducing the output power by half seems to be a lot, it might be hardly noticeable by ear. Decreasing the power by half (-3dB) does not lower human audio perception (volume) by half. To hear a 50% drop in the audio loudness level, the power would have to be cut by 90% or -10dB. So a 100-watt amplifier would have to be reduced to 10 watts for your audio perception of a sound level to be cut in half. You might do an Internet search for an explanation called the Fletcher-Munson Curve, among others.

## Operation:

The *Power Plug 100* lives between your amp and your speaker(s). **Using SPEAKER CABLES (not guitar cables):** Plug the amp into the jack marked IN, your speaker into the jack marked OUT. That's it, no batteries required! Rotate the dials to your desired level of attenuation.

Using a 100-watt amp for example: Rotate the small knob to -2, -4, -6, -8 to reduce the volume to an equivalent of approx. 15 watts (at-8). Setting it the -10-30 position allows the use of the BIG knob, from which you can adjust up to -30db. That would get a 100 watt amp down to approx. 1/10 watt, giving you maximum control of your volume!

**CAUTION!** When used at high power for long periods of time, the case of the unit will get warm at least and **HOT** with extreme use. Exercise **CAUTION** in handling the unit and be aware of what you set the unit on top of in these circumstances. The unit may be damaged if used with a fully cranked 100 watt or more amp, especially with Booster or Distortion pedals. Try to keep your amp at 3/4 volume or less. The Power Plug 100 can take 100 watts. Just remember Tube amps can put out TWICE the rated wattage! Use **CAUTION:** Your cranked 100 watt amp can put out 150 watts, or more!

We cannot offer warranty on any Power Plug that has been exposed to excessive wattage, resulting in damaged power resistors within the unit.

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