

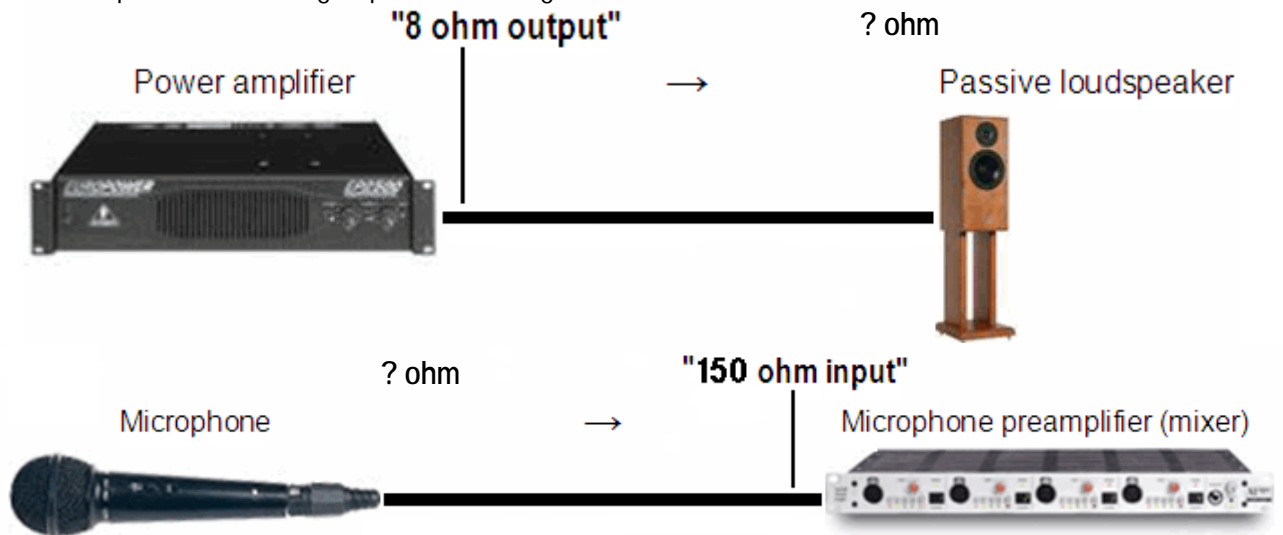


8 Ohm Output and 150 Ohm Input - What is that?

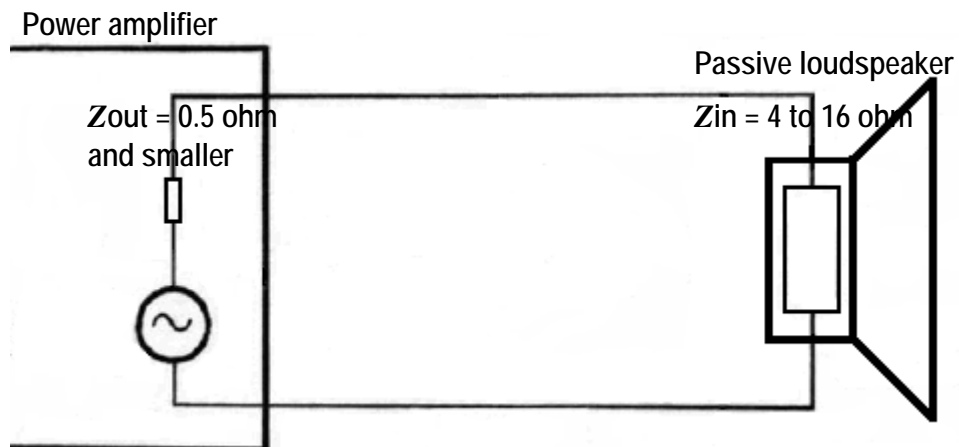
Deutsche Version: [8-Ohm-Ausgang und 200-Ohm-Eingang - Was ist das?](#)

On any given day you can hear manufacturers, distributors, sales people or even customers talking about amplifiers with a 4 ohm output or an 8 ohm output. You might even hear them refer to something called an "8 ohm amplifier" if they have a loudspeaker with this impedance (resistance) that they wish to connect. This is a rather unfortunate and also inaccurate use of technical language. In the same way people will say they need a 150 ohm microphone input on a preamplifier, if they see that a microphone with this impedance has to be connected. This is also inaccurate and creates a great deal confusion in the audio industry. There seems to be mocked impedance matching or power matching $Z_{out} = Z_{in}$.

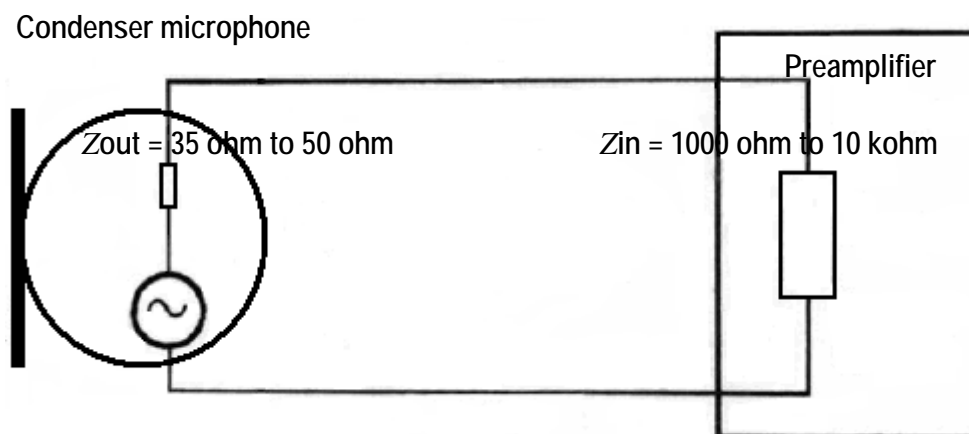
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The reality of the so-called "8 ohm output":



The reality of the so-called "150 ohm input":



In fact there is no "8 ohm output" on an audio power amplifier and there is no "150 ohm" input on a microphone preamplifier.

From these drawings you can see that in audio technology **voltage bridging** is the normal connection method where $Z_{out} < Z_{in}$.