

There have been many attempts over the years to eliminate the output transformer. The most successful is what is commonly called OTL, an abbreviation for "output-transformerless," and it is based on placing a sufficient number of tubes in parallel to be able to drive the required current into the loudspeaker. These amplifiers often have ten to twenty or more large-heater type tubes per monaural unit. Even though these amplifiers may have sufficient current to drive the loudspeaker, they are not sufficiently low in output impedance under large signal conditions to properly control back emf from many loudspeakers, and careful matching of amplifier to speaker is required.