



The microphone unit is in three parts:

- the piezoelectric disc ("pickup")
- TRS-XLR 'balanced' cable
- preamplifier circuit ("preamp")

The innovation I am claiming is the combination of two things:

- 1) the usage of two identical piezoelectric crystal discs soldered back-to-back, providing an electrically balanced differential audio signal referenced to ground, in conjunction with
- 2) the usage of a powered preamplifier circuit to act as an electrical 'buffer' or 'voltage follower', which prevents *impedance mismatch* between the piezoelectric discs and the audio input.

Please note that the 'pickup' and 'preamp', while they are separate components, should be considered in their application as one complete unit, for the purposes of the patent search.