ML1 finds power lines

**Detecting mains power lines with an audio analyzer?
Sounds strange, but with a Minilyzer ML1 at hand it's a very simple task!**

The ML1 is a very accurate measurement tool and able to measure levels as low as -130 dBu (0.3uV) in a 1/3rd octave spectrum. At this high sensitivity, power lines or AC voltages may be detected without making electrical contact.

How does it work?

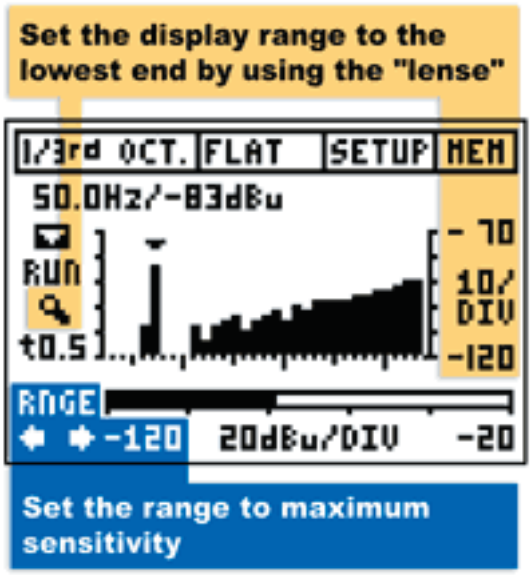
Use the ML1 as a power line finder by using a simple XLR connector with a 1 inch long wire soldered to pin 2, acting as an antenna.

With the 1/3rd octave spectrum of the ML1 being set to the most sensitive range, power lines within a distance of up to 10 inches may be localized by monitoring the level of the 50 Hz band (USA: 63 Hz band), even if the lines are behind a wall. Precondition: The line must be energized (a current flow is not necessary).

A short wire act as antenna, the plastic part of the XLR plug as isolator

Useful in the audio business?

Finding power lines in walls is (hopefully) a seldom task for an audio engineer. Noise on power lines generated from improper filtered dimmers is more interesting. Dimmer noise can be quantized by measuring the harmonic bands of the fundamental frequency e.g. 100Hz, 150Hz in the 1/3rd octave spectrum (USA: 125 Hz and 200 Hz band). The higher the level then the worse is the problem...



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