

EXTERNAL OR INTERNAL? - DETECTING ENVIRONMENTAL NOISE WITH BASIC TOOLS

By Henrik, September 2018

For people suffering from “the Hum” the most important thing is to determine whether what they hear or perceive is an actual environmental (acoustic) sound or noise, or whether what they perceive is an internally generated hum, or a mix of both.

If it can be determined that what you hear is an environmental sound, it can be traced with the right instrumentation, and the source can possibly be remedied, unless it comes from a local factory, power plant or military base, etc.

However, suffering from an internally generated hum does not make anyone deaf! It is therefore very possible that in one location you hear an environmental noise that is within the normal hearing range, maybe a power substation or a refrigerator compressor, while in a totally quiet location you may only hear your internal hum. Anything internally generated will vary in intensity, just like headaches come and go. I believe many of the confusing observations reported about hearing the/a hum in several but not all locations and worse in certain seasons, etc. stem from the fact that people may hear both environmental noises and an internally generated sounds in a random mix in different situations.

The definitive test is this: **If it can be determined with reasonable certitude that no environmental noise above the hearing threshold can be measured or recorded when you hear “the Hum”, then, at that moment, the source is internal.** This is what we call “the real Hum”. Additionally, you may hear environmental noises at other times and in other places.

Thanks to the extensive assistance of one of our blog participants, who would prefer to remain anonymous, we have during the past few months managed to establish two low-cost methods to execute this “definitive test”, one using a regular smartphone and one using a low-cost audio recorder.

The descriptions are collected in a separate paper under the name “**DETECTING ENVIRONMENTAL NOISE WITH BASIC TOOLS**” on the home page.