STETZER ELECTRIC INC.

STETZERiZER Microsurge Meters

Designed to measure home and office Power Quality

Microsurge Meter Operating Instructions
The intellectual property behind the Microsurge meter belongs to the individual who conceived and designed the meter: Professor Martin Graham. The Microsurge meter:

- Works for 60 Hz/120 Volt North American and 50 Hz/240 A.C. Volt European systems.
- LCD display reads the Volts per second present, which is an approximation for the high frequency energy. High frequencies are the frequencies which are most harmful to equipment, animals, and humans.
- The good, marginal, and undesirable range of meter readings are conveniently listed on the back of the Microsurge meter.

Electrosensitive people have reported sensitivities with readings as low as 27 on the Microsurge meter. However, medium or even low Microsurge meter readings should not be interpreted as a guarantee that there is no harmful health impact; only a medical expert can determine that. Caution is required. Some harmful health effects of high frequency energy on humans appear to be cumulative, and possibly non-reversible. Science is inconclusive in this area, although the body of empirical evidence available for guidance continues to expand and stabilize.

Microsurge Meter Design Criteria
Microsurge meters were specifically deigned as a companion to the STETZERiZER filters. The meters measure the level of harmful electromagnetic "energy" present, and their primary use is to guide effective filter installation.
Microsurge meters are low cost, robust, and easy to use by non-technical people. The meters were designed to measure harmonics and other high frequency "energy" present, which are the frequencies most detrimental to human health. The meters effectively ignore the effects of 60 Hz power and other lower, less harmful frequencies. Specifically, the meter measures the average magnitude of the changing voltage as a function of time (dV/dt), which naturally emphasizes transients and other high frequency phenomena that change rapidly with time. The measurements of dV/dt read by the meter are defined as G-S (Graham-Stetzer) units (since no standard term is available). The G-S units are a measure of "harmful energy" which is a function of frequency, or more generally, rate of change of voltage or dV/dt.

Using the Microsurge Meter for a Typical Home Installation
Microsurge meters measure the levels of safe, borderline, or dangerous levels of "energy" present. These levels are conveniently shown on the back of the meter for reference. These levels have been developed through research (much of it in Russia and neighboring countries) and confirmed by experience in North America. The levels have been adopted by the Sanitory Stations (Health Departments) of the Republic of Kazakhstan.

Starting from points that typically have the highest readings such as the power input panel, computers, and televisions, the meter is used to measure the initial levels of G-S energy and reduction as filters are added. Once the G-S levels are acceptable at one location, the process should be repeated at the next location. After the installation of the filters is complete, a final confirmation of the G-S levels should be performed throughout the house.

Meter Characteristics

- 1 in. x 2.75 in. x 4.25 in.
- Encased in an off-white plastic covering that fits naturally with home or office decor
- Certified by the Government of Kazakhstan as the official means of measuring RF Energy on building wires
- Simply plug into a normal electrical outlet to use