

AlphaLab Line EMI Meter User Guide:

The Line EMI Meter measures electromagnetic interference in a single-phase AC power line. It plugs into a wall outlet (mains socket) and requires no battery. It immediately displays total line noise in millivolts (range 1999 mV, resolution 1 mV) in the frequency range 10 KHz – 10 MHz. A speaker plays the sound of the EMI, amplitude demodulated, in order to identify the EMI source (such as an AM or shortwave radio station vs. a motor vs. an electric arc).

SPECIFICATIONS:	
Operating Voltage:	85-250 VAC 50/60 Hz.
Voltage Reading:	85-250 VAC; Accuracy +/- 1 VAC
Line Noise Range:	1-1999 mVAC (differential)
Line Noise Accuracy:	+/- 5% @ 1MHz; +5% to -50% @ 10 KHz TO 10MHz.
Size:	5.2 x 3.6 x 1.6 inches; 132 x 91 x 41 mm
Weight:	8 oz
Power Cable:	Detachable 2-wire cord (appropriate to country)

Precautionary Guideline:

Dirty Electricity milliVolt (mV)	No Concern	Slight Concern	Severe Concern	Extreme Concern
	<60	60 - 500	500 – 1000	>1000

Operation:

1. Turn on as many devices, lights, computers etc as possible to ensure problematic sources are visible.
2. Plug Line EMI Meter into various wall sockets, keep note of values in each location.
3. Determine the location or locations of concern throughout the home. Begin to power off/unplug devices and monitor the change on the Line EMI Meter. Some common sources of Dirty Electricity: Switching-Mode Power Supplies (Device Chargers), Solar Panels, CFL's, Computer Desktops, Home Appliances, Etc.
4. Once sources are identified, remove and re-measure with the Line EMI Meter. Follow the Precautionary Guideline found above for best results.
5. If source is needed or unable to be removed, turn off the source when not in use, or replace the source with a known clean source. For example, changing a CFL light bulb with a 120VAC halogen or incandescent light bulb. In some scenarios, the source is located externally and out of your control, in this scenario you may require the use of filters.