

# FieldFinder™

Patent Pending

## User Guide



**Eakes Research, Inc.**

## ***Thank You for Purchasing***

### ***FieldFinder™***

*Your Personal EMF Monitor*

The *FieldFinder* has been carefully calibrated and quality tested to provide quick, accurate detection of electromagnetic field (EMF) radiation. EMF emissions are generated by electric power lines, household wiring, everyday appliances, TVs, computer displays — anything that carries or uses electricity.

Scientific studies have linked EMF to childhood and adult cancer, reproductive disorders, and other serious health problems. The extent of danger is as yet undetermined, and research continues. For now, the wisest course is to become aware of the risks and control your exposure.

*FieldFinder* makes it easy to identify the potentially hazardous EMF sources you need to avoid, modify, or eliminate.

Elaine A. Eakes,  
President  
Eakes Research, Inc.

## OPERATING INSTRUCTIONS

	Low ○ Green	Moderate ○ Yellow	High ○ Red
VLF	0.100	0.175	0.250
ELF	1.00	1.75	2.50

Electromagnetic Field Exposure (Measured in Milligauss)

1. Flip the switch at the front of the unit to the ON position. The green battery light will illuminate.
2. Hold the *FieldFinder* between you and a suspected EMF source.
3. Rotate *FieldFinder* slowly as you move toward the suspected source.
4. Watch the color-coded display to determine whether EMF levels are acceptable (green), precautionary (yellow), or high (red), according to internationally recognized exposure guidelines.
5. Move away from the source, once again watching the progression of lights, to establish how much distance to put between yourself and the potential health hazard.
6. Replace the included 9 volt battery if the "battery" indicator fails to light up or appears dim. Slide off the battery compartment cover at the front of the unit, remove the old battery, and insert the new one, making sure the positive and negative poles are properly aligned.

Note: Rotating *FieldFinder* too rapidly causes its sensitive circuitry to register the earth's magnetic field. This will result in inaccurate monitoring of the suspected EMF source.

## TO REDUCE YOUR EXPOSURE TO EMF...

Detect EMF source and strength with the *FieldFinder*. Wiring in particular should be checked, as wiring connections may deteriorate over time.

Practice "prudent avoidance" and limit risk by keeping your distance from the fields you have identified.

Take corrective action. Move EMF sources from high-use areas like kitchens, playrooms, and bedrooms. Have your electrician and/or power company investigate wiring problems.

Inform management about high field environments in the workplace.

Common sources of EMF radiation include:

- TV Sets
- Electric Blankets
- Hair Dryers
- Kitchen Appliances
- Computer Displays
- Electric Service Panels
- Power Lines
- Digital Clocks
- Electric Razors
- Fluorescent Lights
- Computer Displays
- Auto Ignition Systems

## FACTS ABOUT THE *FIELDFINDER*™

The *FieldFinder* personal EMF monitor is a useful device that can be used to detect electromagnetic fields within a home, school, work, or outdoor environment. Its purpose is to provide information to you, the consumer, concerning the existence of electromagnetic fields emitted from common electrical devices. The *FieldFinder* detects levels of EMF in accordance with guidelines established in Sweden, MPRII.

The indicator lights on the face of the *FieldFinder* will illuminate to correspond to the level of EMF from the source. The consumer should not assume that green translates to a safe zone since each person is different and may react differently to exposure to electromagnetic fields. Conversely, an EMF level indicating high when the red light is lit may ultimately prove not to pose a health risk.

Use of the *FieldFinder* is solely at the user's discretion to identify that electromagnetic fields may exist from a given source and at the milligauss level designated by either the green, yellow, or red light. The *FieldFinder* is used as a first step to detect electromagnetic fields from a source. The consumer should not take drastic steps based on the readings from the *FieldFinder*. The second step, upon detecting EMF, may be to receive further information and advice from a trained EMF consultant.

## EMPOWERMENT THROUGH TECHNOLOGY

Eakes Research, Inc, is dedicated to technology development with a difference.

The company believes that people should have access to *empowering* technology that makes their lives safer and work more satisfying. The objective of Eakes Research, therefore, is to provide technically advanced products that are efficient, easy to use, and readily affordable.

The *FieldFinder* EMF monitor embodies the commitment to people-oriented innovation. Additional technology empowering products are currently under development by Eakes Research, Inc.

Founded in 1991, Eakes Research is based in southern New Hampshire.

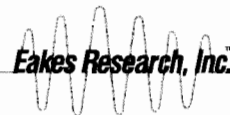
Eakes Research, Inc.

P.O. Box 1947

Merrimack, NH 03054-1947

Phone: (603) 595-4955 or (800) EAKES-11

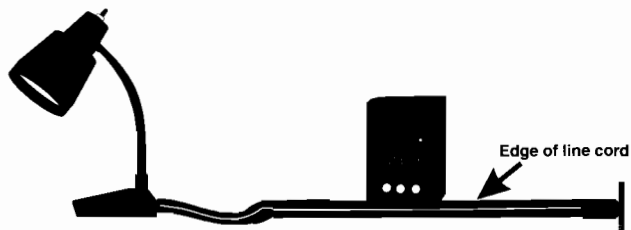
Fax : (603) 595-3393

**Eakes Research, Inc.™**

## CALIBRATING THE *FIELDFINDER*™

As with any electrical device, it is possible the *FieldFinder* may malfunction. It is the user's responsibility to determine if the *FieldFinder* is working properly by using it to measure a known reference. To ensure that your *FieldFinder* is calibrated properly, you should perform the following test:

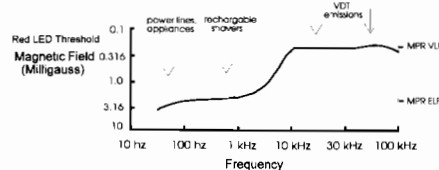
1. Find an appropriate lamp to use. The line cord from the lamp (the cord you plug into the wall socket) should measure 3/16 inches in width.
2. Make sure you are using a standard incandescent bulb in the lamp.
3. After turning the lamp on, bring the *FieldFinder* up to the line cord, as illustrated in the picture below. The edge of the line cord must be in the center of the top of the *FieldFinder*.
  - a) When using a **60 watt bulb**, the *FieldFinder* should turn red when almost or actually touching the edge of the line cord.
  - b) When using a **100 watt bulb**, the *FieldFinder* should turn red about 1/4 inch from the line cord.



*Note:* You may have to move the *FieldFinder* up and down slightly before it is centered properly with the edge of the cord.

## TECHNICAL DESCRIPTION

The *FieldFinder* utilizes a dual band transfer function from about 30 Hz to 100 kHz. No switching from VLF to ELF is necessary as both bands are present simultaneously. As the fields from power lines, appliances, and VDT's fall into two distinct bands (VLF and ELF), the cross-over portion of the transfer function occurs where there are no fields of interest. If ELF and VLF are present simultaneously, the *FieldFinder* is sensitive to the weighted sum of the fields in both bands.



*FieldFinder* Dual Band Nominal Transfer Function

## *FieldFinder* SPECIFICATIONS

Frequency Bands	VLF: 10kHz - 100kHz ELF: 40Hz - 2kHz
Normal Magnetic Field Sensitivity	VLF: 0.1 - .025 mG ELF: 1.0 - 2.5 mG
Power Consumption	9 volts / 12 ma

(For detailed technical information, call Eakes Research, Inc.)

### WARRANTY INFORMATION

Eakes Research, Inc. warrants *FieldFinder* against defects in materials and workmanship for 90 days from the date of original purchase. Eakes Research, Inc. will repair or replace, at its option, the *FieldFinder* unit if the defective product is return within the 90-day period. Return unit to:

Eakes Research, Inc.  
Attn: Customer Service  
P.O. Box 1947  
Merrimack, NH 03054-1947  
1-800-EAKES-11

Note: This warranty does not apply to commercial use, unreasonable use, or damage not resulting from defect or malfunction while the product is in the possession of the consumer. Battery replacement is not included in this warranty.

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