



## OPERATING INSTRUCTIONS

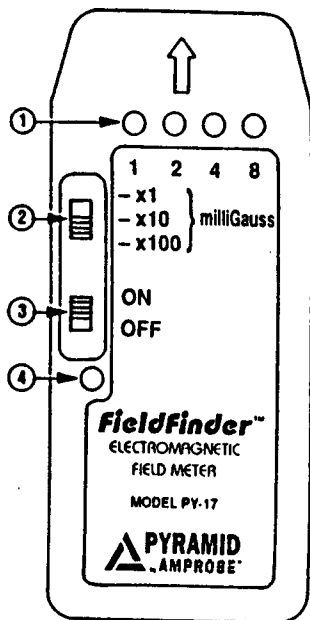
### FOR FieldFinder™

PATENT PENDING

MODEL PY-17

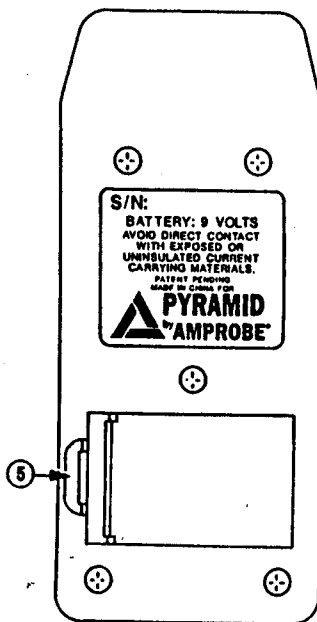
## GENERAL

The FieldFinder™ is a portable hand held instrument designed and calibrated to measure low level 60Hz electromagnetic field radiation (EMF). The FieldFinder is specifically designed to determine the magnitude of electromagnetic field radiation generated by high voltage power lines, transformers, televisions, computers and many other electrical appliances and devices.



FRONT VIEW

1. **Red Indicating Lamps:** Each light has a corresponding number which, when the light is on, indicates the EMF milliGauss exposure level.
2. **3 Setting Range Switch:** x1, x10, x100
3. **On/Off Switch**
4. **On/Off Indicating Lamp:** In the on position, the lamp will be on.



REAR VIEW

5. **9 Volt Battery Access Door:** Do not remove any screws. The battery door opens and will accept the battery in only one position. Do not try to force the door closed. If this happens it means the battery was improperly installed.

**NOTE:** All readings are measured in milliGauss (mG)

## OPERATING INSTRUCTIONS

To operate the "FieldFinder", hold it between you and the suspected EMF source with the → arrow pointing directly at the source.

**WARNING!** Avoid direct contact with exposed or uninsulated current carrying materials.

1. Switch to the "ON" position and observe that the red lamp comes on. If the lamp does not come on, change the battery.
2. The display lamps will light sequentially as the strength of the magnetic field increases. Try moving very slowly towards the source and notice the increase of the field. As you back away from the source, the reading should decrease.
3. Start with the range switch in the x100 position and observe if a lamp is lit. If no indication, move the range switch to the x10 range and observe if a lamp is lit. If no indication, switch to the lowest range, x1 and observe lamp indication.  
ie: In the x10 range position the #2 lamp is on steadily, your reading is  $2 \times 10 = 20$  milliGauss. If in the x100 range position, the #4 lamp is on, your reading is 400 milliGauss.

4. Position the "FieldFinder" at different angles to the object and observe how this may effect your reading. As soon as the point of highest reading has been determined, record the results. It is recommended to take at least 3 readings in order to determine a consistent reading. Try to keep the monitor as steady as possible until the reading has stabilized

## SPECIFICATIONS

**Size:** 2.54"W x 5.83"L x 1.16"D  
(64.7mm x 148.0mm x 29.4mm)  
**Weight:** 4.20oz. (119.07gms)  
**Battery:** 9V (not supplied)  
**Ranges:** All ranges measured in milliGauss x1, x10, x100, measurements of 1mG to 800mG  
**Frequency:** 60Hz  
Patent Pending

## GENERAL INFORMATION ON ELECTRO- MAGNETIC FIELDS (EMF)

Every time electricity runs through a wire or turned on appliance, it produces an electromagnetic field (EMF). In today's world you are touched by EMFs no matter where you are.

*NOTE: Harmless electrostatic fields occur any time an appliance is plugged in; electro-magnetic fields occur any time an appliance is operating.*

EMFs are silent, invisible waves that weaken with distance from their source, so a blow-dryer in your hand might expose you to a much higher field than a power line across the street. Ambient fields in most homes are 0.5 milliGauss; experts set a safe limit at 1-2 milliGauss.

## POTENTIAL HEALTH HAZARDS OF ELECTRO- MAGNETIC FIELDS

There is contradictory evidence in studies regarding elevated rates of leukemia, cancer and birth defects for people who live near power lines. Because research findings are contradictory, additional research is needed before conclusive findings can be reached. The U.S. Department of Energy as well as countries like Sweden and Great Britain are currently conducting epidemiological studies and the results will be discussed and analyzed for many years to come.

Enclosed are some suggested ideas to help reduce exposure to EMF's, by practicing "Prudent Avoidance" techniques or taking "Prudent Precautions" to avoid magnetic field exposure.

Even though the scientific data is not conclusive, respected experts believe that 1 to 2 milliGauss levels are probably safe, 3 to 6 milliGauss probably exceeds the safe level and levels above 6 milliGauss should cause a real health concern.

## AT HOME

- Keep your distance from appliances.
- Sit at least 6 feet from your TV set.
- Don't place beds near circuit breakers, fuse boxes or major appliances, even with a wall in between. Place beds away from where power lines enter your house.
- Don't sleep under electric blankets, (especially pregnant women and children.) Or pre-heat the bed and unplug before you get in. Electric wires should not run under your bed.
- Keep a waterbed heater away from your body.
- Stand back when microwave ovens, electric stoves and other electric appliances are on.
- Move the alarm clock, clock radio and telephone answering machine at least 4 feet away from your pillow or buy a battery-powered digital clock.
- Don't blow dry your child's hair and limit your own use of hair dryers.

## AT WORK

*NOTE: EMF's Travel Through Walls*

- Keep your desks away from electrical utility closets, even on the other side of the wall.
  - Sit at least arms length from VDT (computer screen) and even further from the back and sides of the VDT where fields are much higher.
- NOTE: Be aware of computers in offices next to you.*
- Reduce time at a photocopy machine.

Find out the levels of EMF's in your home and office and where hot spots might occur. Background fields in most homes are around 0.5 milliGauss. Some EMF experts set a safe limit at 1 to 2 milliGauss.

## REFERENCE MATERIAL

Focus on Electric and Magnetic Fields -  
Edison Electric Institute,  
701 Pennsylvania Ave. N.W.,  
Washington D.C. 20004-2696

Department of Engineering and Public Policy -  
Carnegie-Mellon University  
Pittsburgh, PA 15213  
(P) (412) 268-2670

Biological Effects of Power Frequency Electric and Magnetic Fields - Prepared for the Office of Technology Assessment of the U.S. Congress and available from: Government Printing Office, Washington, DC 20402-9325  
(P) (202) 783-3238  
GPO Stock No. 052-003-01152-2

Electric Power Research Institute -  
Palo Alto, CA - Technical Publications  
Dept. (415) 855-2281

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