Student Page

Common Household Appliances and EMF Emissions

Typical 60 Hz Magnetic Fields at Various Distances

Appliance	Room reading at 1.2 inches (mG)	Room reading at 12 inches (mG)
Microwave oven	750–2,000	40–80
Washing machine	8–400	2–30
Electric range	60–2,000	4–40
Electric shaver	150–15,000	1–90
Fluorescent lamp	400–4,000	5–20
Hair dryer	60–20,000	1–70
Television	25–500	0.4–20

Sources: Gauger, J. R. "Household Appliance Magnetic Field Survey."

IEEE Transactions on Power Apparatus and Systems, PAS–104, no. 9, Sept. 1985.

U.S. EPA. EMF in Your Environment: Magnetic Field Measurements of Everyday Electrical Devices, 1992.

Other Appliances	Room Reading in mG	
Other Appliances	(examples, not averages)	
Analog alarm clock	5,400–5,700	

Electric heater 56 @ 6 inches/15 @ 12 inches

Electric toothbrush 13,000 @ handle

Cassette recorder 52

AC adapter 2,300–2,700

Refrigerator 8.2 @ door

Vacuum cleaner 5,900 @ motor/22 @ handle

Electric dryer 39 @ front panel

Sources: Ledoux, Phil, Paper presented to the Science Research Department Staff at the New Jersey Department of Environmental Protection, Division of Sciences and Resources. Trenton, New Jersey, 1994.

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