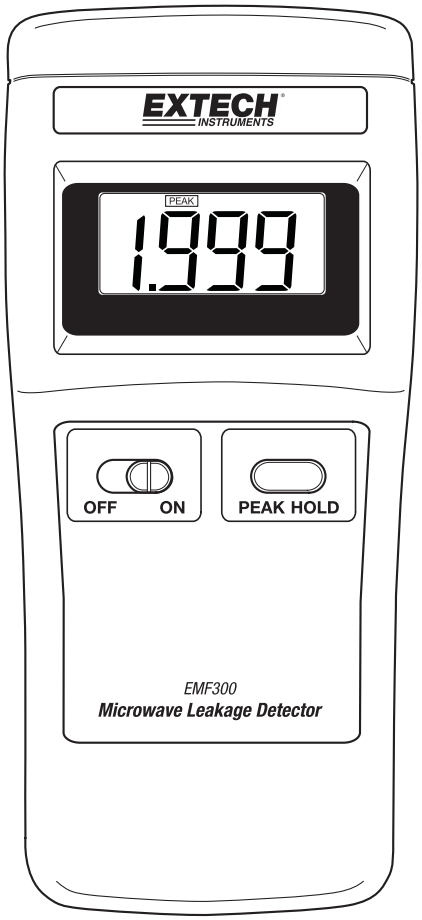
EXTECH INSTRUMENTS

USER GUIDE

Microwave Leakage Detector
Model EMF300



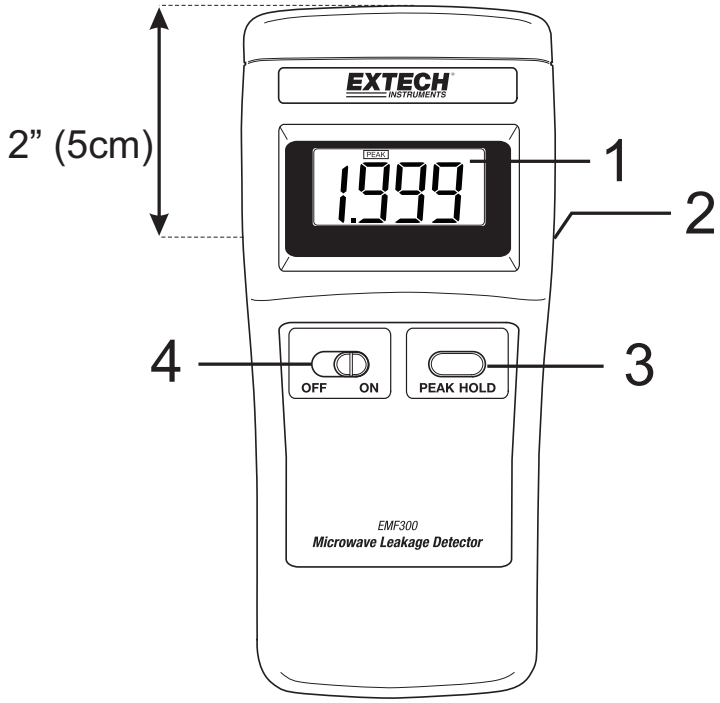
Introduction

Thank you for selecting the Extech Instruments Model EMF300. This device is a compact leakage detector designed to measure high frequency radiation levels emitted from household and commercial microwave ovens. This device is shipped fully tested and calibrated and, with proper use, will provide years of reliable service.

Meter Description

1. LCD display
2. Sensor located on rear of meter directly behind the LCD display 2” (5 cm) from the top of the meter on the plane represented by the left and right arrows shown under the display.
3. Peak Hold Button (freezes the highest reading)
4. Power ON/OFF switch

Note: Battery compartment located on the rear of the instrument.



Operation

Measurements

Slide the power switch to the ON position. The sensor is located on the rear of the meter 2 inches (5 cm) from the top of the meter on the plane indicated by the left and right arrows next to the word SENSOR on the front of the meter.

Touch the TOP of the meter to the microwave door and various spots on the microwave enclosure.

The display will indicate the EMF value that the sensor is reading. If the meter senses a reading outside the specified range of the instrument the 'OL' (overload) display symbol will appear on the LCD.

Alarm Limit

When the measurement is >1mW/cm^2 the meter's buzzer will sound to alert the user that the EMF value exceeds the alarm limit.

Peak Hold

To capture the highest value on the LCD display, momentarily press the Peak Hold key. The PEAK display icon will appear on the display and the meter will only display the highest reading. Momentarily press the Peak Hold key again to return to normal operation (the PEAK display icon will switch OFF).

Microwave Oven Safety Standards

In the U.S., please check with The Food and Drug Administration (FDA) for microwave oven safety standards with regard to leakage requirements. The microwave leakage limit in the U.S. at the time of this writing is 5mW/cm^2 at 2 inches (5cm). This may differ from country to country or may have been updated in the U.S. since the time of this writing. Be sure to obtain the appropriate and current standards and regulations for the appropriate country or location before using this device. Neither FLIR Systems nor Extech Instruments is responsible for damage to equipment or injury to persons with regard to the use of this meter or in the interpretation of the safety standards in question. Full safety responsibility is assumed by the user at all times.

Battery Replacement

When the battery icon appears on the LCD or if the meter does not switch ON, the 9V battery must be replaced.

The battery compartment is located on the rear of the instrument. Open the compartment to replace or install the battery and then secure the compartment before switching the meter ON.

Battery Safety Reminders

- Please dispose of batteries responsibly; observe local, state, and national regulations.
- Never dispose of batteries in a fire; batteries may explode or leak.

Never dispose of used batteries or rechargeable batteries in household waste.

As consumers, users are legally required to take used batteries to appropriate collection sites, the retail store where the batteries were purchased, or wherever batteries are sold.

Disposal: Do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment.

Specifications

Display	LCD display
	Display size 40 x 25mm (1.6 x 1.0”)
	Digit height 12mm (0.5”)
Peak Hold	Captures the highest reading when engaged
Measurement ranges	0 to 1.999 mW/cm^2
Accuracy	<2db (1mW/cm^2 @ 2.45GHz ±50MHz)
Alarm Setting	Audible alarm if level is >1mW/cm^2
Over range indication	"OL" appears on the LCD
Power supply	9V Battery
Power consumption	2.7mA DC approximate
Operating Frequency	2.45 GHz ±50MHz (30MHz to 3GHz for reference only)
Operating conditions	Temperature: 0 to 50°C (32 to 122°F); Humidity: < 80% RH
Dimensions	152 x 69 x 36.3mm (6.0 x 2.7 x 1.4")
Sensor size	50mm (2”); located on the rear of the instrument directly behind the LCD display
Weight	Approx. 202g (7.1 oz.)