



TX900

**Microwave Leakage
Detector**



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Users Manual



TX900

Microwave Leakage Detector

Users Manual

English

TX900_Rev001

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Limited Warranty and Limitation of Liability

Your Amprobe product will be free from defects in material and workmanship for 1 year from the date of purchase. This warranty does not cover fuses, disposable batteries or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Amprobe's warranty obligation is limited, at Amprobe's option, to refund of the purchase price, free of charge repair, or replacement of a defective product. Resellers are not authorized to extend any other warranty on Amprobe's behalf. To obtain service during the warranty period, return the product with proof of purchase to an authorized Amprobe Test Tools Service Center or to an Amprobe dealer or distributor. See Repair Section for details. This warranty is your only remedy. All other warranties - whether express, implied or statutory - including implied warranties of fitness for a particular purpose or merchantability, are hereby excluded. Neither Amprobe nor its parent company or affiliates shall be liable for any special, indirect, incidental or consequential damages or losses, arising from any cause or theory. Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

Repair

All test tools returned for warranty or non-warranty repair or for calibration should be accompanied by the following: your name, company's name, address, telephone number, and proof of purchase. Additionally, please include a brief description of the problem or the service requested and include the test leads with the meter. Non-warranty repair or replacement charges should be remitted in the form of a check, a money order, credit card with expiration date, or a purchase order made payable to Amprobe® Test Tools.

In-Warranty Repairs and Replacement – All Countries

Please read the warranty statement and check your battery before requesting repair. During the warranty period any defective test tool can be returned to your Amprobe® Test Tools distributor for an exchange for the same or like product. Additionally, in the United States and Canada

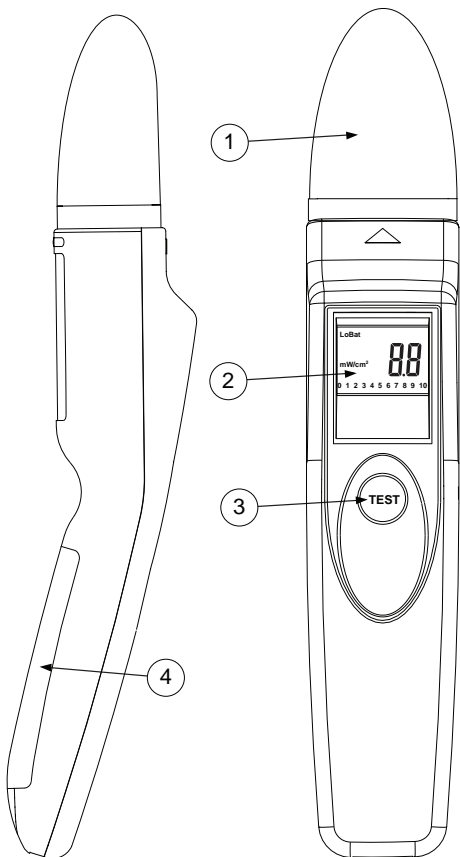
In-Warranty repair and replacement units can also be sent to a Amprobe® Test Tools Service Center (see below for address).

Non-Warranty Repairs and Replacement – US and Canada

Non-warranty repairs in the United States and Canada should be sent to a Amprobe® Test Tools Service Center. Call Amprobe® Test Tools or inquire at your point of purchase for current repair and replacement rates.

Non-Warranty Repairs and Replacement – Europe

European non-warranty units can be replaced by your Amprobe® Test Tools distributor for a nominal charge.









- ① Sensor Nose
- ② LCD display
- ③ Test Button
- ④ Battery cover

CONTENTS

Symbols	5
Safety Information	5
⚠ Warnings and Precautions	5
Contents.....	5
Introduction.....	5
Operation	5
RF Power Leakage testing	5
Maintenance and Repair	6
Battery Replacement	6
Specification	6

SYMBOLS

	Battery		Refer to the manual
	Conforms to relevant Australian standards.		Complies with EU directives
	Do not dispose of this product as unsorted municipal waste.		Audible tone

SAFETY INFORMATION

Warnings and Precautions

- Inspect the RF detector before every use. Do not use a damaged unit.
- Do not operate the instrument in an explosive atmosphere.
- To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.
- To avoid false readings, which could lead to possible personal injury, replace the batteries as soon as the low battery indicator (LoBat) appears.

CONTENTS

- 1 TX900 Microwave Leakage Detector
- 2 500 ml Plastic Beakers
- 1 Spirit (alcohol) Glass Thermometer
- 1 9V PP3 type battery
- 1 Carrying case
- 1 Sample set of "RF Emission Labels"
- 1 Registration card
- 1 Certificate of Conformance

INTRODUCTION

The TX900 is a microwave radiation detector for checking RF power leakage in microwave cooking ovens. The TX900 has temperature compensation and Auto-zero for the display.

OPERATION

WARNING

1 mW/cm² Threshold: If a signal level greater than 1 mW/cm² is detected, a beeper will sound and remain on until the signal level falls below 1 mW/cm².

Overload: If a signal level greater than 10 mW/cm² is detected during testing, an "Overload" condition will be indicated by the display showing the letters "OL".

Linear display: In the event that the signal is a high, rapidly varying value, it may be useful to refer to the 10 point linear display to give an indication of the average rather than the rapidly changing alpha numeric display.

RF Power Leakage testing

1. Fill a beaker with 275 cc ±15cc of water and place it in the microwave oven to act as a load for the magnetron.
2. Point the instrument away from the potential RF source and depress the TEST button. This turns ON the instrument and sets 'Auto Zero' the LCD display for '0.0' mW/cm².
3. Setup the microwave oven for full power and switch ON.
4. The TEST button must be held down during testing.
5. Move the tip of the instrument cone (almost touching) at about 5 cm / second around possible leakage areas - door seals, hinges, door seams, windows, welds and rivets.
6. Leakage should not exceed 5 mW/cm² at a distance of 5 cm (1.96 inches). Many manufacturers have lower emission levels from their ovens. Consult the microwave oven manufacturers data for specifications.
7. Write down the highest reading displayed during the test and location on a suitable label, which should then be affixed to the oven.

MAINTENANCE AND REPAIR

If there appears to be a malfunction during the operation of the meter, the following steps should be performed in order to isolate the cause of the problem:

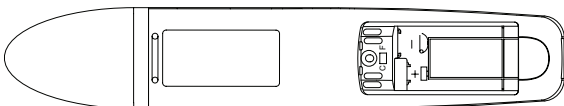
1. Check the battery.
2. Review the operating instructions for possible mistakes in operating procedure.

Except for the replacement of the battery or test probes, repair of the multimeter should be performed only by a Factory Authorized Service Center or by other qualified instrument service personnel. The front panel and case can be cleaned with a mild solution of detergent and water. Apply sparingly with a soft cloth and allow to dry completely before using. Do not use aromatic hydrocarbons or chlorinated solvents for cleaning.

Battery Replacement

⚠ WARNING

Battery replacement should be performed in a clean environment and with appropriate care taken to avoid contaminating the meter's interior components.



1. Depress latch and lift the battery cover.
2. Replace the battery with the same type, 9V battery. Note polarity of the battery.
3. Replace the rear case.

SPECIFICATION

General

Display: 2¹/₂ Digit LCD with 10 point bargraph display

Power Source: 9 Volt NEDA 1604A \ IEC 6LR61 Battery

Low Battery: approx. 6 V

Nominal current: 10 mA

Sensor - Source Spacing: circular - 5 cm

Environmental: Indoor operation; below 6,562ft (2000m)

Operating Temperature: 0°C to 50°C (32°F to 122°F), < 80% RH

Storage Temperature: -20°C to 50°C (-4°F to 122°F), < 80% R.H. (with battery removed)

Dimensions: 23 x 4.2 x 4.4 cm (9.1 x 1.7 x 1.7 in.)

Weight: 0.15 kg (0.33 lb)

CE EMC: EN 61326-1:2006 This product complies with requirements of the following European Community Directives: 2004/108/EC (Electromagnetic Compatibility) and 2006/95/EC (Low Voltage) as amended by 93/68/EEC (CE Marking). However, electrical noise or intense electromagnetic fields in the vicinity of the equipment may disturb the measurement circuit. Measuring instruments will also respond to unwanted signals that may be present within the measurement circuit. Users should exercise care and take appropriate precautions to avoid misleading results when making measurements in the presence of electronic interference

Electrical

RF Power Sensing Range: 0 to 10 mW/cm²

Nominal Detecting Frequency: 2.45 GHz

Calibration Accuracy: ± 1dB in plane wave - circular polarization

Response to step input: < 1 sec.

Resolution: 0.1 mW/cm²