



# SM-CAL1

## Sound Meter Calibrator

**Users Manual**



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Users Manual

English

SMCAL1\_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. 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 DISCLAIMED. MANUFACTURER SHALL NOT 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**

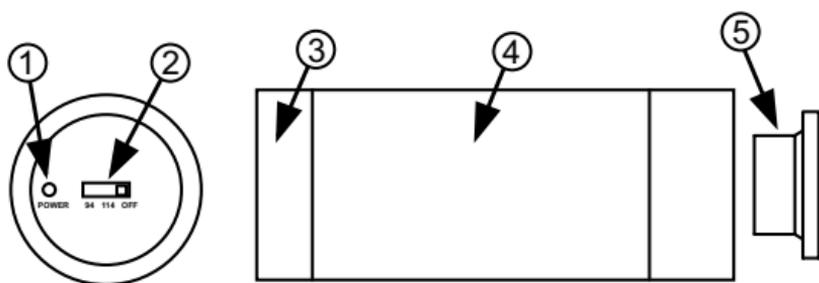
All test tools returned for warranty or non-warranty repair or for calibration should be accompanied by the following: your name, company's name, address, telephone number, and proof of purchase. Additionally, please include a brief description of the problem or the service requested and include the 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.

### **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.



- ❶ Low battery indicator
- ❷ Power and output level select switch.
- ❸ Battery cover
- ❹ Sound-Level Calibrator.
- ❺ 1/2" adapter.

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## SYMBOLS

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

### **Warning and Precautions**

- When using Sound-Level Calibrator, ambient noise level should > 10dB below the sound level being measured.

## UNPACKING AND INSPECTION

Your shipping carton should include:

- 1 SM-CAL1 sound generator
- 1 1/2" adaptor
- 1 9 volt battery
- 1 Manual

If any of the items are damaged or missing, return the complete package to the place of purchase for an exchange.

## INTRODUCTION

The SM-CAL1 generates a fixed sound level signals for calibration of sound level meters. The Amprobe SM-CAL1 will work with any sound meter.

## OPERATION

1. Turn on sound level meter and configure for 94 dB or 114 dB operation.
2. Plug the 1/2" adaptor into the SM-CAL1 Sound level calibrator.
3. Insert any sound meter microphone into the Sound-Level Calibrator.
4. Turn on power switch and set sound level to 94 dB or 114 dB.
5. Observe the sound level meter for proper operation.

## SPECIFICATIONS

### General

|                          |  |
|--------------------------|--|
| Battery:                 | 9V, 006P or IEC 6F22 or NEDA 1604.   |
| Low Battery Indicator:   | LED will not be on when switched ON.   |
| Battery Life:            | Approx 20 hours. (Alkaline battery)  |
| Environmental:           | Indoor operation; Altitude up to 2000 meters; Atmospheric Pressure: 1013 mbar. |
| Temperature and Humidity |  |
| Operation:               | 0 to 40°C (32 to 104°F), 10 to 70% RH.   |
| Storage:                 | -10 to 60°C (14 to 140°F), 10 to 90% RH.                                       |
| Dimension:               | 48 x 125 mm (1.9 x 4.9 in.)  |
| Weight:                  | 285g ( 0.6 lb.) including battery  |

**CE**-EMC: EN61326-1 This product complies with requirements of the following European Community Directives: 89/336/EEC (Electromagnetic Compatibility) and 73/23/EEC (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 (Sound)

|                     |   |
|---------------------|---|
| Standard:           | ANSI S1.40-1984 and IEC942 1988 Class2.   |
| Output Sound Level: | 94dB and 114dB re 20 uPa under reference. |
| Accuracy:           | ± 0.5 dB.                                 |
| Output Frequency:   | 1 kHz ± 4 %.                              |

## 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.

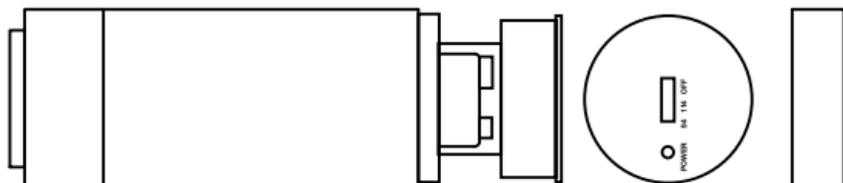
1. Check the battery. Replace the battery immediately when the LED does not come ON.
2. Review the operating instructions for possible mistakes in operating procedure.

Except for the replacement of the battery, repair of the generator 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**

1. Turn off the meter and unscrew the switch cap. Replace the battery with a NEDA type 1604 or equivalent 9V alkaline battery. Replace the cover.
2. Remove battery when the SM-CAL1 is not used for extended period.



Battery Replacement