

Check out what else you can get from Martindale:

- 17th Edition Testers
- Accessories
- Calibration Equipment
- Continuity Testers
- Electricians' Kits
- Environmental Products
- Full Calibration & Repair Service
- Fuse Finders
- Digital Clamp Meters
- Digital Multimeters
- Labels
- Microwave Leakage Detectors
- Motor Maintenance Equipment
- Multifunction Testers
- Non-trip Loop Testers
- Pat Testers & Accessories
- Phase Rotation Testers
- Proving Units
- Socket Testers
- Thermometers & Probes
- Test Leads
- Voltage Indicators
- Specialist Metrohm Testers (4 & 5kV)
- Specialist Drummond Testers



Martindale Electric Company Limited
Metrohm House, Penfold Trading Estate, Imperial Way, Watford WD24 4YY, UK
Tel: +44 (0)1923 441717 Fax: +44 (0)1923 446900
E-mail: sales@martindale-electric.co.uk
Website: www.martindale-electric.co.uk



© 2016 Martindale Electric Company Ltd.
Registered in England No. 3387451. LITSPC70 rev1

SPC70 SOUND LEVEL CALIBRATOR

INSTRUCTION MANUAL





ALWAYS READ THESE INSTRUCTIONS BEFORE PROCEEDING

Thank you for buying one of our products. For safety and a full understanding of its benefits please read this manual before use. Technical support is available from 01923 441717 and support@martindale-electric.co.uk.

CONTENTS

1	Safety Information	1
1.1	Meaning of Symbols and Markings	1
1.2	Precautions	1
2	Introduction	3
2.1	Inspection	3
2.2	Description	3
2.3	Accessories	3
2.4	Battery Installation	3
3	Operation	4
3.1	SPC70 Elements	4
3.2	Low Battery Indication	4
3.3	Testing / Adjusting a Sound Level Meter	4
3.4	Testing Considerations	5
4	Maintenance	6
4.1	Battery Replacement	6
4.2	Calibration	6
4.3	Cleaning	6
4.4	Repair & Service	7
4.5	Storage Conditions	7
5	Warranty	8

Specifications



Specification

SPC70

Sound Level Calibrator



Output sound pressure levels: 94dB and 114 dB rel 20 μ Pa under reference conditions
Output frequency: 1000Hz \pm 2%
Accuracy of sound pressure level: \pm 0.5dB
Total harmonic distortion: <3%

Reference conditions:

Temperature: 23°C
Relative humidity: 50%
Atmospheric pressure: 1013hPa

Influence of ambient conditions:

Temperature coefficient: 0.005dB / °C
Humidity coefficient: 0.005dB / % R.H.

GENERAL

Power: 1 x 9V, PP3 alkaline battery (IEC 6LR61, NEDA 1604A)
Battery life: 40 hours approx. (alkaline battery)
Low battery indication: Power ON/Low Battery LED illuminates red
Dimensions: 113 x 63 x 44mm
Weight: 170g approx including battery
Includes: 1 x 9V battery, ½ inch microphone adaptor, carry case, instructions

ENVIRONMENTAL

Operating conditions: Temperature: 0°C to 40°C
Relative humidity: 10 to 90% R.H.
Atmospheric pressure: 650 to 1080 hPa
Storage conditions: Temperature: -10°C to 50°C
Relative humidity: 0 to 70% R.H.

FUNCTIONALITY

Conforms to BS EN 60942 Class 2

EMC

Conforms to BS EN 55011, BS EN 61000-6-2

5. WARRANTY AND LIMITATION OF LIABILITY

This Martindale product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is 2 years and begins on the date of receipt by the end user. This warranty extends only to the original buyer or end-user customer, and does not apply to fuses, disposable batteries, test leads or to any product which, in Martindale's reasonable opinion, has been misused, altered, neglected, contaminated, or damaged by accident or abnormal conditions of operation, handling or storage.

Martindale authorised resellers shall extend this warranty on new and unused products to end-user customers only but have no authority to extend a greater or different warranty on behalf of Martindale. Martindale's warranty obligation is limited, at Martindale's option, to refund of the purchase price, free of charge repair, or replacement of a defective product which is returned to Martindale within the warranty period.

This warranty is the buyer's sole and exclusive remedy and is in lieu of all other warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. Martindale shall not be liable for any special, indirect, incidental or consequential damages or losses, including loss of data, arising from any cause or theory.

Since some jurisdictions do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any part of any provision of this warranty is held invalid or unenforceable by a court or other decision-maker of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision or other part of that provision.

Nothing in this statement reduces your statutory rights.

1. SAFETY INFORMATION: Always read before proceeding.

REMEMBER: SAFETY IS NO ACCIDENT

These instructions contain both information and cautions that are necessary for the correct operation and maintenance of this product. It is recommended that you read the instructions carefully and ensure that the contents are fully understood.

Particular attention should be paid to the Precautions and Technical Specifications.

Please keep these instructions for future reference. Updated instructions and product information are available at: www.martindale-electric.co.uk

1.1 Meaning of Symbols and Markings



Caution - refer to instructions



Equipment complies with relevant EU Directives



End of life disposal of this equipment should be in accordance with relevant EU Directives

1.2 Precautions

This product has been designed with your safety in mind, but please pay attention to the following warnings and cautions before use.



Cautions

The SPC70 must only be used by a skilled and competent person who is familiar with the relevant regulations, the safety risks involved and the consequent normal safe working practices, and under the conditions and for the purposes for which it has been constructed and specified.

Before use check the unit for cracks or any other damage. Make sure the unit is free from dust, grease and moisture. **Do not** use if damaged.

The microphone cavity in particular must be protected from exposure to water or dust as dust or contamination can alter the performance characteristics of the unit. Always replace the unit in its carry case when not in use.

Avoid severe mechanical shock or vibration and extreme temperature.

To avoid possible corrosion from a leaking battery, remove the battery if discharged, or when the unit is not in use for an extended period.

4.4 Repair & Service

There are no user serviceable parts in this unit other than those that may be described in section 4. Return to Martindale Electric if faulty. Our service department will quote promptly to repair any fault that occurs outside the guarantee period.

Before the unit is returned, please ensure that you have checked the unit and battery.

4.5 Storage Conditions

The instrument should be kept with the battery removed, in warm dry conditions away from direct sources of heat or sunlight, and in such a manner as to preserve the working life of the unit. It is strongly advised that the unit is not kept in a tool box where other tools may damage it.

4. MAINTENANCE

4.1 Battery Replacement

The battery compartment is underneath the unit.

Undo the screw securing the battery cover and lift off the battery cover.

Remove the old battery and replace with a new 9V battery (IEC 6LR61, NEDA 1604A), observing correct polarity.

Replace the battery cover and secure with the screw.

4.4 Calibration

To maintain the integrity of measurements made using your instrument, Martindale Electric recommends that it is returned at least once a year to an approved Calibration Laboratory for recalibration and certification.

Martindale Electric is pleased to offer you this service. Please contact our Service Department for details.

Email: service@martindale-electric.co.uk

Tel: 01923 650660

4.3 Cleaning

If contamination is found, clean with a damp soft cloth and if necessary a mild detergent or alcohol. Do not use abrasives, abrasive solvents, or detergents which can cause damage to the unit. If a mild detergent is used, the unit should subsequently be thoroughly cleaned with a water dampened soft cloth. After cleaning, dry and allow to remain in a dry environment for 2 hours before use.

2. INTRODUCTION

2.1 Inspection

Examine the shipping carton for any sign of damage. Inspect the unit and any accessories for damage. If there is any damage then consult your distributor immediately.

2.2 Description

The Martindale SPC70 has the following functions and features:

- ◆ Complies with BS EN 60942, Class 2
- ◆ 94dB and 114dB output at 1kHz
- ◆ Fits 1 inch and ½ inch (using adaptor) diameter microphones
- ◆ Low battery indication

2.3 Accessories (included)

The SPC70 comes with the following accessories:

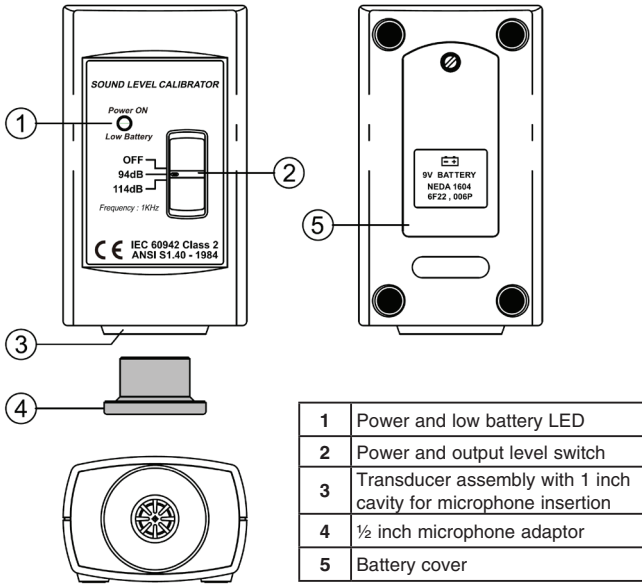
- ◆ 1 x 9V PP3 battery
- ◆ ½ inch microphone adaptor
- ◆ Carry case
- ◆ Instructions

2.4 Battery Installation

Refer to Section 4.1 (Battery Replacement) for the battery installation instructions for the SPC70.

3. OPERATION

3.1 1 SPC70 Elements



3.2 Low Battery Indication

If the **Power ON/Low Battery** LED illuminates RED, the battery needs replacing as output sound pressure level accuracy can no longer be guaranteed (See section 4.1 Battery Replacement).

3.3 Testing/Adjusting a Sound Level Meter

Insert the cavity of the SPC70 over the microphone of the sound

level meter being tested / adjusted.

If the sound level meter has a ½ inch microphone, the ½ inch microphone adaptor should first be inserted into the cavity of the SPC70.

Set the SPC70 switch to the 94 dB or 114 dB position as required, and set the controls of the sound level meter being checked / adjusted in accordance with the manufacturer's instructions and power it on.

If required make any adjustment to the sound level meter in accordance with the manufacturer's instructions.

Switch off the SPC70 after use to conserve the battery.

3.4 Testing Considerations

Make sure the sound level meter microphone is properly seated into the SPC70 microphone cavity. If the ½ inch microphone adaptor is used make sure it is properly seated.

High ambient sources of noise or vibration may cause incorrect readings. In such circumstances it is advisable to make any tests with the SPC70 set to the 114 dB output sound pressure level.

Always use the certified values for the SPC70 when testing or adjusting a sound level meter.