Bluetooth®
Sound Meter

850019

Instruction Manual

SPER SCIENTIFIC

Environmental Measurement Instruments

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INTRODUCTION

Sper Scientific's Bluetooth® Sound Meter is small, light, and simple to use with results clearly displayed on the meter's large 1-½" backlit display. Choose A or C decibel frequency weighting scales and manual or auto ranging. Indicates readings over or under range and features a bar graph display, minimum and maximum hold (peak) and data hold functions. The meter offers the convenience of Bluetooth® for wireless communication with free iOS and Android Apps. Results can also be remotely viewed on your smartphone in real time, saved and exported. Comes ready to use with a windscreen, tripod screw, instructions and a 9V battery.

PANEL DESCRIPTION

1. Microphone
2. LCD Display
3. HOLD/💡 button
4. MAX/MIN button
5. Power button
6. Range / A/C button
7. Bluetooth button

MEASUREMENT PROCEDURES

Keep the microphone dry and avoid strong vibrations. Use the **WINDSCREEN** at wind speeds over 10m/sec.

1. Turn the meter on by pressing the **POWER** button.

2. Point the microphone at the sound source. The decibel level is displayed.

3. If "UNDER" or "OVER" (range) appear on the display press the **RANGE** button repeatedly until they disappear.

4. Press the **POWER** button to turn the meter off.

A/C WEIGHTING SCALES

Press the **A/C** button for 2 seconds to switch between A & C frequency weighting scales. The A scale is displayed as "dBA" and the C scale is shown as "dBC" Select the A scale to simulate the human ear's response.

See Note on next page......

Note…A scale is generally used for environmental measurements. The C scale approximates a flat response and is typically used to measure low-frequency machinery noise where the target sound level is already known.

BACKLIGHT

Press 💡 for 2 seconds to turn the illuminated display on/off.

HOLD FUNCTION

With the meter on, press the **HOLD** button to display "HOLD" and the last dB reading. Press **HOLD** again to exit this function.

MAX/MIN FUNCTION

Max/Min dB readings are continually updated as soon as you enter the Max/Min mode. These readings are reset when you exit the Max/ Min mode, or when the meter is turned off.

1. Press the **MAX/MIN** button once to display "MAX" and the maximum (peak) recorded dB level. The display will be updated only when the max (peak) dB level is exceeded.

2. Press the **MAX/MIN** button again to display "MIN" and the minimum recorded dB level. The display will be updated only on reaching a lower dB reading..

3. Press the **MAX/MIN** button again to exit Max/Min mode. The current reading is now displayed and continually updated.

AUTO POWER OFF

1. If no buttons are pushed for about 10 minutes, the meter will automatically turn off.

2. While the meter is on, press the power button for 2 seconds to override Auto Power Off: "⟲"disappears from the display indicating that Auto Power Off is disabled.

Note…The meter defaults to Auto Power Off each time it is turned on.

BLUETOOTH® COMMUNICATION

Download and Settings

1. Download the iOS or Android "Meterbox Pro" APP to your smartphone.

2. Select **Setting** at the bottom of the home screen.

Recording: Choose your test sample rate and duration.

Alarms:

1. Select Instrument Type: **Environmental Meter**.

2. Press **Next** then **Choose Function** and select your alarm parameter.

3. Insert your **Hi** and **Low** alarm values.

4. Repeat steps 3 & 4 for additional alarm parameters you wish to set for your meter.

5. Use the **Alarm** switch at the bottom to enable / disable the alarm for the parameter shown. Use the **Allow Alarm** switch at the top to enable / disable alarms on all parameters.

BLUETOOTH® COMMUNICATION

Pairing your meter and APP

1. Press the ✻ button on the meter to activate Bluetooth®.

2. Press "Connect Device" on the APP.

3. Now choose "850019" from the device list that now appears. The meter will immediately begin displaying a real time graph of your meter's readings.

Saving your results

To begin recording data press the red button on screen. You will now be asked to name and save the file. The data will now start recording. Press the red button again to stop recording.

Viewing saved Data

1. Press **<** at the top of the screen to view saved data. Next, choose "Files" at the bottom of the screen, then choose the file you wish to view. A graph of the entire record will now appear.

2. ▪ ▪ ▪ enables you to choose your recorded sound graphs.

3. ✎ (saved data file graph) enables you to add notes and photos to your data file.

4. Press ∝⟨ at the top of the screen to export the data to your computer for further analysis or storage.

5. Press ≔ to see the data including recording times, maximum, minimum and average readings.

6. ⇄ toggles between Min Max Ave data.

BATTERY REPLACEMENT

• Turn off the meter when ⊟ is displayed.

• Open the battery compartment and insert a fresh 9V battery.

• Replace the cover.

SPECIFICATIONS

Display	½" high digits, 4-digit LCD, display updates every 0.5 seconds.
Range	Auto-ranging: 35-130dB LO: 35 to 80dB Med: 50 to 100dB Hi: 80 to 130dB
Resolution	0.1dB
Accuracy	±1.5dB @94dB, 1kHz
Frequency	31.5 HZ - 8KHZ
Microphone	½" electret condenser microphone
Operating Environment	32 to 104°F (0 to 40°C) 10 to 90% RH
Storage Environment	13-140°F (-10°C - 60°C) 10 to 75% RH
Low Battery	⊟ will flash when battery voltage drops below 7.2V. When battery voltage drops below 6.5V the backlight and ⊟ will flash twice and the meter will auto power off.
Dimension	7 ¼" x 2" x 1 ½" (185 x 54 x 36 mm)
Weight	6.5 oz (184 g)

OPTIONAL ACCESSORIES

840093 Field Tripod

NOTES

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WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for **one (1) year** from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover damage resulting from accident, misuse, or abuse of the product. To obtain warranty service, ship the unit postage prepaid to:

SPER SCIENTIFIC LTD,
8281 E. Evans Rd., Suite 103
Scottsdale, AZ 85260
(480) 948-4448

The defective unit must be accompanied by a description of the problem and your return address. Register your product online at www.sperwarranty.com within 10 days of purchase.

8/20/2020