EXTECH®

User Manual

SL250W Sound Meter

Bluetooth® Connectivity with the ExView® Mobile App

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1 Introduction

Thank you for selecting the Extech SL250W Sound Meter. This meter measures sound level with its built-in microphone, situated at the top of the meter. Sound level measurements are shown on the backlit LCD in decibel (dBa) units.

The meter includes Bluetooth connectivity, MAX/MIN memory, selectable Fast/Slow response, auto power off, data hold, backlit LCD, and tripod mount.

Using the Extech ExView mobile app, you can pair your smart devices with the meter using Bluetooth. The app and the W Series meters were developed together for seamless integration. Download the free app from the App Store (iOS®) or from Google Play (Android™).

This quality instrument is designed to provide years of reliable service, high accuracy and simple operation. Please visit the Extech website for additional information and world-class support.

2 Safety

Please read all safety information before using this device

CAUTION

- Check for damage to the device's housing, sensor, display, and battery compartment before use. If obvious damage or abnormalities are noticed, please discontinue use and return the device for service.
- Do not attempt to open the meter housing or access the sensor module. There are no user-serviceable components in this device.
- Replace the batteries immediately after the low battery symbol appears. If the device is to be stored for a period of months, please remove the batteries and store separately.
- Do not store the device in high temperature or humidity environments, in flammable or combustible areas, or where a strong electromagnetic field is present.
- This device is designed and produced following the strict requirements of SJ/T 10423 *General Specification for Sound Level Meters*.
- This device is CE certified.

3 FCC Compliance

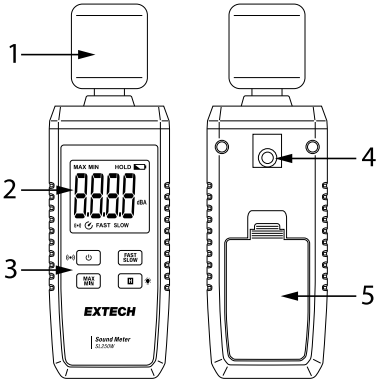
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

⚠	**WARNING**
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.	

4 Product Description

4.1 Meter Description



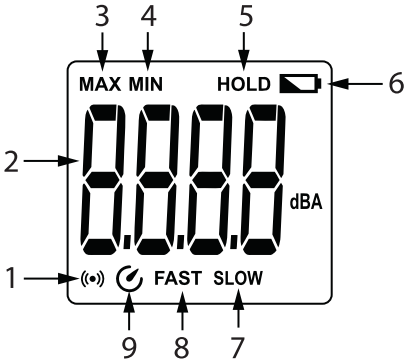
1. Microphone with wind screen attached
2. Backlit LCD (detailed below)
3. Function buttons (detailed below)
4. Tripod mount
5. Battery compartment

4.2 Function Buttons

((•)) ⏻	**Power / Bluetooth button** Long press to switch the device on. Short press to switch off. With the meter powered, long press to switch Bluetooth on/off. Short press to switch the meter off directly from the Bluetooth mode.
MAX MIN	**MAX/MIN button** Short press to cycle through MAX/MIN readings. The memories are cleared each time meter power is cycled.
H	**Data Hold / Backlight button** Short press to freeze/unfreeze the displayed reading. *HOLD* will display when data hold is active. Long press to switch the LCD backlight on/off.

FAST SLOW	**FAST / SLOW button** Short press to toggle the Fast and Slow modes. In Fast mode (125 ms) sounds that peak very quickly, such as a firework ignition or a rifle discharge, can be captured. Slow mode (1 second) is intended for sounds that are continuous, such as the drone of machinery.
APO ON/OFF	With the meter on, long press the power and *H* buttons to switch APO on/off. The APO symbol is displayed when APO is enabled. APO is reset each time the meter power is cycled.

4.3 Display Symbols



1. Bluetooth active
2. A-weighted (dBa) sound level reading
3. Maximum reading
4. Minimum reading
5. Data Hold mode
6. Battery status icon
7. Slow response mode
8. Fast response mode
9. Auto Power Off (APO) symbol

5 Operation

5.1 Powering the Meter

The meter operates on three (3) 1.5 V (AAA) batteries, installed in the rear compartment.

Long press the power button ⏻ to switch the meter on. Short press the power button to switch the meter off. If the meter does not switch on, check the batteries for proper orientation.

When the battery icon appears on the display, replace the batteries immediately to ensure accurate readings.

5.2 Auto Power Off (APO)

The meter switches OFF automatically five (5) minutes after the last button press.

The default mode for APO is ON (the APO symbol ⏲ on the display indicates that APO is enabled).

To switch the APO function off, with the meter switched on, long press the power ⏻ and *H* buttons. The APO symbol will switch off, indicating that the function is disabled. APO is reset each time the meter's power is cycled.

Repeat this process to switch APO back on manually.

5.3 Taking Measurements

1. Long press the power button ⏻ to switch the meter on.
2. Hold the meter in hand, set it on a desk or table, or mount it on a tripod in the area under test.
3. Read the sound level measurement on the LCD. Sound level measurements are presented in A-weighted decibel units. A-weighted measurements simulate the response curve of the human ear to sound.
4. If the measurement is over range, *OL* will appear on the display in place of a typical reading. If the measurement is under range, *UN* will appear.

⚠ **CAUTION**
Do not touch or otherwise obstruct the microphone. Do not allow liquids to come in contact with the microphone. Do not allow dust or other particles to enter the microphone. Use the windscreen to cover the microphone in windy environments.

5.4 Fast/Slow Response

Short press the *Fast/Slow* button to toggle the meter's response time. Use the Fast response mode (125 ms) to capture sounds that peak very quickly such as fireworks. Use the Slow response mode (1 second) to monitor consistent sounds such as the hum, or drone, of machinery.

5.5 Data Hold Function

Short press the Data Hold (*H*) button to freeze/unfreeze the displayed readings. While Data Hold is active, *HOLD* will appear on the LCD.

5.6 LCD Backlight

Long press the backlight button to switch the display backlight on or off. Excessive use of the backlight will shorten battery life.

5.7 MAX/MIN Readings

When the device is switched on, it begins tracking the highest (MAX) and lowest (MIN) readings.

Short press the *MAX/MIN* button to step through the MAX/MIN memories. The memories are cleared each time the meter power is cycled.

Press the *MAX/MIN* button again to exit this mode (*MAX* and *MIN* symbols switch off when you exit).

5.8 Bluetooth Operation

Long press the Bluetooth button with the meter on, to switch Bluetooth on or off. This communication symbol is shown when Bluetooth is on.

The Bluetooth utility allows you to remotely monitor readings on an iOS or Android smart device using the Extech ExView mobile app designed for use with this meter.

Download the ExView mobile app from the App Store for iOS devices or from Google Play for Android devices. Instructions for mobile app use are available from the ExView product page on the Extech website (link below).

http://www.extech.com

Switch APO off when using Bluetooth by pressing and holding the power and *H* buttons for 2 seconds (the APO symbol will switch off). This will prevent the meter from automatically switching off while you are logging data or monitoring readings in real time on your smart device.

6 Maintenance

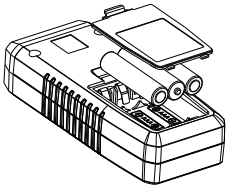
⚠	**CAUTION**
Warning: Do not open the housing or microphone module. Service should only be performed by factory personnel, there are no user-serviceable components in this device.	

6.1 General Cleaning

Wipe the housing with a damp cloth as necessary to clean. Do not use abrasives or solvents to clean this device. Do not allow moisture to enter the microphone or the meter housing.

6.2 Battery Replacement

This device is powered by three (3) 1.5 V (AAA) batteries. When the low battery symbol ▭ appears, replace the batteries immediately, as explained below.



1. Switch the meter off and remove the rear battery compartment cover.
2. Replace the batteries, observing correct polarity. Always use batteries of the same type.
3. Secure the battery compartment before use.

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.

7 Specifications

7.1 General Specifications

Display	4 digit (9999) backlit multifunction LCD
Over range indication	*OL* is displayed when measurements are above the specified measurement range. *UN* is displayed when sounds are below the specified range.
Low battery indication	Battery symbol appears when batteries are low
Reading update rate	Fast mode: One reading every 125 ms Slow mode: One reading per second
Microphone type	Condenser 1.3 cm (0.5 in.)
Meter power	Three (3) 1.5 V (AAA) batteries
Dimensions	154 x 55 x 28 mm (6.1 x 2.2 x 1.1 in.)
Weight	116 g (4.1 oz.)

7.2 Measurement Specifications

Accuracy specifications apply for the following conditions:

Temperature: 23°C ± 5°C (73.4°F ± 9°F); Relative Humidity: < 90 %

Temperature coefficient: 0.1 x accuracy /°C

Measurement range	30 to 130 dB (A weighted)
Display resolution	0.1 dB
Measurement accuracy	± 1.5 dB
Frequency Response	31.5 Hz to 8 kHz

7.3 Environmental Specifications

For indoor use only

Altitude	2000 m (6562 ft.) maximum
Pollution degree	2
Operating conditions	0 to 40°C (32 to 104°F); < 80% RH
Storage conditions	-20 to 60°C (–4 to 140°F); < 80% RH
Drop-proof rating	1 m (3.3 ft.)

7.4 Connectivity Specifications

Connectivity	Bluetooth (with ExView app)
ExView app compatibility	iOS 13.0 and Android 9.0 or higher
Transmission distance	Up to 90 m (295.3 ft.) with no line-of-sight obstruction

8 Two-year Warranty

FLIR Systems, Inc. warrants this Extech brand instrument *to be free of defects in parts and workmanship for* ***two years*** *from date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit: http://www.extech.com/support/warranties.*

8.1 Calibration and Repair Services

FLIR Systems, Inc. offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: www.extech.com.

8.2 Contact Customer Support

Customer Support Telephone List: https://support.flir.com/contact

Calibration, Repair, and Returns e-mail: repair@extech.com

Technical Support: https://support.flir.com

EXTECH®

User Manual

Website
http://www.flir.com

Customer support
http://support.flir.com

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