

SoundExpert 821

Sound Level Meter

Quick Reference Guide



Hardware Overview

Figure 1-1 Main Body: Front and Back



Figure 1-2 Main Body: Bottom Connectors

1. The **Audio Port** (output only) is a TRRS 3.5 mm audio jack. Alternatively, this port may be used to output a correlating voltage to the measured signal. See **3.3 System Settings**.
2. **USB 2.0** full-speed interface, USB-C connector. It is used for communication, full meter control, charging, and downloading data to PC using the CBL242-03 cable.
3. The **External Power Connector** is a 2.5 mm 12 V DC power connector for an external power source.



Item Description

1 – SoundExpert 821 Noise Meter

2 - Pre-amplifier

3 – pre-polarized microphone

4 – Wind Screen

5 – Field Calibrator

6 – USB-C Wall Charger

Operating Instructions

- Attached the pre-amplifier to the sound meter
- Attach the microphone to the sound meter
- Attach sound meter to the tripod
- Press and hold “ON” button until device starts booting up
- Go to “SETTINGS” and confirm appropriate settings:
 - Measurement History: 15 min
 - Octave Band (OBA): 1/3
 - OBA Frequency Weight: A
 - OBA Min/Max Detector: Slow
 - Time History: 10 sec
- Confirm the calibrator is set to 114 DBA and place over the microphone and press “ON” button
- Select “TOOLS” and then “CALIBRATE”
- Press “ACCEPT” if calibration is within one decibel. If calibration is greater than one decibel, do not perform measurement.
- Remove calibrator
- Attached wind screen
- Press “START”  to run recording (approximately 15-20 minutes of sampling)
- Press “STOP”  to end recording. Results will automatically be saved.
- When complete, press and hold “OFF” button until device powers off.



Calibration Screen



Start Screen



Stop Screen

Key Terms

Term	Definition
L _{Aeq}	Equivalent Continuous Sound Level – The equivalent (“eq”) sound level corresponds to the average received sound energy over time.
L _{AS}	A-weighted, slow time constant response, sound level
L _{Apk}	A-weighted, peak noise level – The absolute highest sounds pressure during a reading
L _{A90}	A-weighted, sound level just exceeded for 90% of the measurement period and calculated by statistical analysis.

Video Resources:

- [Assembling Larson Davis SoundExpert model 821](#)
 - There are some slight variations to the MEPHC Model
- [How to Calibrate Larson Davis SoundExpert 821](#)
- [How to Export Data & Generate Reports](#)
- [Download G4](#)
- [All Larson Davis Video Resources](#)