



CRY3018

Sound Calibrator

Features

- **Key Specifications**

Calibrated Sound Pressure	94 dB / 114 dB
Calibration Frequency	250 Hz / 1000 Hz
Microphone Cartridge	1", 1/2", 1/4", 1/8"

- **Applications**

Sound Level Meter Calibration
 Microphone Sensitivity Testing
 Acoustic Measurement System Calibration

- **Compliant With**

IEC 60942:2017 Class 1

Introduction

The CRY3018 is a portable, high-precision acoustic calibrator compliant with IEC 60942:2017 Class 1. It supports dual frequencies of 250 Hz and 1000 Hz, as well as dual sound pressure levels of 94 dB and 114 dB. Built around an SPL feedback loop, it integrates temperature, humidity, and barometric pressure sensing to support environmental monitoring and compensation control, helping maintain a stable and consistent calibration output. It supports USB-C charging with pass-through operation, quick top-up charging, and long runtime, and features sensor-based wake-up and automatic power-off. With a full-color OLED display with automatic screen rotation, a carbon-fiber housing, and four top-mounted status LEDs, it is ideal for on-site calibration and verification of sound level meters, measurement microphones, and acoustic measurement systems.

Highlights

- **Dual-Frequency Calibration**

The calibrator provides calibration at two frequencies: 250 Hz and 1000 Hz.

- **Dual Sound Pressure Level Calibration**

The calibrator provides calibration at two sound pressure levels: 94 dB and 114 dB.

- **SPL Feedback System**

The calibrator is built around an SPL feedback loop for real-time sound pressure monitoring and closed-loop regulation. It also integrates temperature, humidity, and barometric pressure sensing to support environmental monitoring and compensation control, helping maintain a stable and consistent calibration output.

- **Intelligent Power Management**

The calibrator supports USB-C charging and allows pass-through operation (use while charging). A 5-minute quick charge provides about 1 hour of runtime, and a full charge supports over 1,000 calibrations. The unit features sensor-based wake-up and automatic power-off for convenient on-site operation.

- **Dynamic Display**

The calibration features a lightweight, high-strength carbon-fiber housing that offers an ergonomic and comfortable grip while being resistant to impact and scratches. A full-color OLED display ensures clear readability even under strong ambient lighting and supports automatic screen rotation. Four top-mounted status LEDs provide quick visual indication of device condition.

Technical Specifications

Specifications

Frequencies	1000 Hz, 250 Hz
Frequency Accuracy	< 0.5 Hz
Sound Pressure Levels (SPL)	94 dB, 114 dB
SPL Accuracy	< 0.2 dB
Short-term Level Variation	< 0.05 dB
THD+N	< 1%
Supported Microphones	1" (1/2", 1/4" and 1/8" with adaptor)
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Operating Pressure	65 kPa to 108 kPa
Operating Humidity Range	0 to 90%RH no condensation
Storage Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Power	Built-in Lithium Battery, USB-C (5V, 1A)
Compliance Standard	IEC 60942:2017 Class 1

Dimensions

Length	75 mm
Width	75 mm
Height	30 mm

Ordering Information

Kit Contents

Main Unit	CRY3018 Sound Calibrator (with 1" to 1/2" Adapter TA0307)
Adapters	1/2" to 1/4" Adapter TA0308 1/2" to 1/8" Adapter TA0309
Cables	USB-C to USB-C charging cable, 1.2 m

Related Products

CRY3201	1/2" free-field prepolarized high-frequency microphone, 12.5 mV/Pa, 3.15 Hz-40 kHz, 23 dB-160 dB
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CRY3018 Sound Calibrator Operating Instructions



Figure 1: CRY3018 Sound Calibrator Main Unit Diagram

● Power-On Methods

- Automatic Power-On: Automatic power-on: Connect the microphone (supports 1 inch or 1/2 inch) to the calibrator sound cavity. The unit powers on automatically.
- Manual Power-On: Short-press the “Hz” or “dB” button to power on.

● Operation & Parameter Adjustment

- Frequency Switching: Short-press “Hz” to cycle through frequencies.
- SPL Adjustment: Short-press “dB” to cycle through SPL levels.
- Secondary Menu Switching: Long-press “Hz” and “dB” simultaneously.

● Status Indicator Lights

- When Powered On (Operating):
White steady on: SPL is being adjusted.
Green steady on: Sound pressure output is stable.
- When Powered Off (Charging):
White steady on: Charging in progress.
Green steady on: Charging complete.

● Power-Off Methods

- Automatic Power-Off: Remove the microphone from the sound cavity. The unit powers off automatically.
- Manual Power-Off: Long-press the “Hz” or “dB” button to power off.

Optional Accessories

Supported Microphone Types	1" Measurement Microphones 1/2" Measurement Microphones 1/4" Measurement Microphones 1/8" Measurement Microphones
Sound Level Meter	CRY2851 Sound Level Meter