CRY3012
Sound Calibrator

Features

- **Key Specifications**

Calibrated Sound Pressure	94 dB
Calibration Frequency	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 2

Introduction

The CRY3012 is a portable acoustic calibrator compliant with IEC 60942:2017 Class 2. It supports a single frequency of 1000 Hz and a single sound pressure level of 94 dB. Built around an SPL feedback loop, it performs real-time sound pressure monitoring and closed-loop regulation to help 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 automatic power-off. With a monochrome OLED display, a carbon-fiber housing, and four top-mounted status LEDs, it is suitable for basic calibration and routine verification applications.

Highlights

- **Single-Frequency Calibration**

  This calibrator provides calibration at one frequency: 1000 Hz.

- **Single Sound Pressure Level Calibration**

  The calibrator provides calibration at one sound pressure level: 94 dB.

- **SPL Feedback System**

  The calibrator is built around an SPL feedback loop for real-time sound pressure monitoring and closed-loop regulation, 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 automatic power-off to reduce unnecessary battery drain.

- **Dynamic Display**

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

Technical Specifications

Specifications

Frequency	1000 Hz
Frequency Accuracy	< 0.5 Hz
Sound Pressure Levels (SPL)	94 dB
SPL Accuracy	< 0.3 dB
Short-term stability	< 0.1 dB
THD+N	< 2.5%
Supported Microphones	1" (with 1/2", 1/4", 1/8" adaptor rings)
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Operating Pressure	65 kPa ~ 108 kPa
Operating Humidity	0 to 90%RH, non-condensing
Storage Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Power Supply	Built-in Li-ion Battery, USB-C (5V, 1A)
Compliance	IEC 60942:2017 Class 2

Dimensions

Length	75 mm
Width	75 mm
Height	30 mm

CRY3012 Sound Calibrator Operating Instructions

Figure 1: CRY3012 Sound Calibrator Main Unit Diagram

- **Power-On Method**
  - Manual Power-on: Short-press the “Power” or “Switch” button to power on.
- **Operation & Parameter Adjustment**
  - Secondary Menu Switching: Long-press “Switch”.
- **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 “Power” button to power off.

Ordering Information

Kit Contents

Main Unit	CRY3012 Sound Calibrator (with 1" to 1/2" Adapter TA0307 installed)
Cables	USB-C to USB-C charging cable, 1.2 m

Related Products

CRY3018	Sound Calibrator, IEC 60942 Class 1 1000 Hz / 250 Hz, 94 dB / 114 dB
TA0308	1/2" to 1/4" Adapter
TA0309	1/2" to 1/8" Adapter

Optional Accessories

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