AcoustiCHEK Calibrator Quick Guide

Class 1 Cat. No. 703-001
Class 2 Cat. No. 703-002

The AcoustiCHEK Calibrator is designed for use with the following SKC noise and sound instruments:

- NoiseCHEK Personal Noise Dosimeter Cat. No. 701-001 Series
- SoundCHEK Essential Sound Level Meter Cat. No. 702 Series
- SoundCHEK Connect Sound Level Meter Cat. No. 702 Series

Operating the Calibrator (*Figure 1*)

Turn on: Press the Power key.

Turn off: Press and hold the Power key for 3 seconds and release. ***Note****: If the calibrator does not detect a microphone within 10 seconds, it will shut down automatically.*

Select output level (94, 104, or 114 dB): Press the Level key to move from one level to the next; the corresponding LED will light up and the tone emitted will change accordingly. The calibrator must be attached to and able to detect the microphone to properly indicate selected level; otherwise, all three LEDs will flash, and the calibrator will shut down in 10 seconds. ***Note****: When AcoustiCHEK is turned off, it remembers the selected output level and automatically pre-selects it when turned on again.*

Figure 1. Calibrator Overview

Note*: A low battery warning will occur when batteries are depleted: all three Level LEDs blink slowly.*

Performing Calibration

- *For accurate calibration, ensure that the calibration level is at least 20 dB greater than the ambient noise.*
- *AcoustiCHEK does not require atmospheric pressure correction over the pressure range of 650 to 1080 mbar.*
- *Output level automatically compensates for changes in atmospheric pressure*.

1. Gently insert the microphone on the noise or sound instrument into the calibration aperture (*Figure 1*) all the way up to the stop inside the cavity (*see example showing NoiseCHEK at right*). ***Note****: Ensure that microphone and aperture are aligned during insertion to avoid damaging the microphone.*
2. Turn on the calibrator. ***Note****: If the calibrator does not detect a microphone because it is not inserted or is inserted incorrectly, all Level LEDs will flash and the calibrator will shut down automatically.*
3. Ensure that the correct calibrator output level is selected (*see Operating the Calibrator*) and allow both the noise or sound instrument and calibrator to stabilize for approximately 3 seconds before performing calibration from the instrument.
4. When calibration is complete, gently remove the microphone from the calibrator cavity. The calibrator will turn off automatically **OR** you can press and hold the Power key for 3 seconds and release.

Replacing the Batteries

- *Battery condition is continuously monitored when the calibrator is on.*
- *When the battery level is low, all three Level LEDs will slowly blink*.

1. Ensure that the calibrator is turned off.
2. On the back of the calibrator, push down slightly the small clip holding the battery door in place. Pull the battery door away from the case. *For a demonstration of how to open the battery door, see https://www.youtube.com/watch?v=v9fLpqfHAL0.*
3. Remove the two used AA alkaline batteries, noting their polarity.
4. Insert two new AA alkaline batteries, ensuring the correct polarity.
5. Reinsert the battery door and ensure that the fastening clip clicks into place.
6. Turn the calibrator on and ensure correct operation as follows: when the calibrator is not mounted on a microphone, all three Level LEDs will blink; when the calibrator is mounted on a microphone, only one Level LED will be illuminated.

Performance Profile

Standards	BS EN IEC 60942:2018 IEC 60942:2017 ANSI S1.40-2006
Reference Environmental Conditions	Air temperature: 23 C Static pressure: 101.325 kPa Relative humidity: 50%
Models	703-001: AcoustiCHEK Class 1 Calibrator 703-002: AcoustiCHEK Class 2 Calibrator
Tolerance Limits of Environmental Conditions	Class 1: Air temperature: -10 to +50 C Static pressure: 65 to 108 kPa (650 to 1080 mbar) Relative humidity: 25 to 90% Class 2: Air temperature: 0 to +40 C Static pressure: 65 to 108 kPa (650 to 1080 mbar) Relative humidity: 25 to 90%
Nominal Sound Pressure Levels	Class 1: 94.0 dB ± 0.25 dB, 104.0 dB ± 0.25 dB, 114.0 dB ± 0.25 dB Class 2: 94.0 dB ± 0.4 dB, 104.0 dB ± 0.4 dB, 114.0 dB ± 0.4 dB
Principal Frequency	Class 1: 1 kHz ± 0.7% Class 2: 1 kHz ± 1.7%
Harmonic Distortion	< 2.5% Class 1: < 1.6% Class 2: < 2.5%
Stabilizing Time	3 sec
Battery **Battery Life**	2 x AA Batteries (alkaline recommended) Approximately 70 hours of continuous use
Dimensions	3.1 x 2.7 x 1.2 in (78 x 68 x 30 mm) (H x W x D)
Weight	1.4 lb (130 gm)