

# CAL 200

## ACOUSTIC CALIBRATOR

The acoustic calibrator is the key accessory to calibrate acoustic measurement systems. The acoustic source is defined in pressure level and in transmitting frequency, it corresponds to the current class 2 standards : NF EN 60942 : 2003 and CEI 60942 : 2003.

This calibrator is designed to remain compatible with microphones of different diameters. See technical specifications.

Calibration of a sound level meter is done in pressure in the cavity of the calibrator. The sound level meter being generally used in free field, observe the free field correction term indicated in its user manual. It is the same in case of diffuse field using.

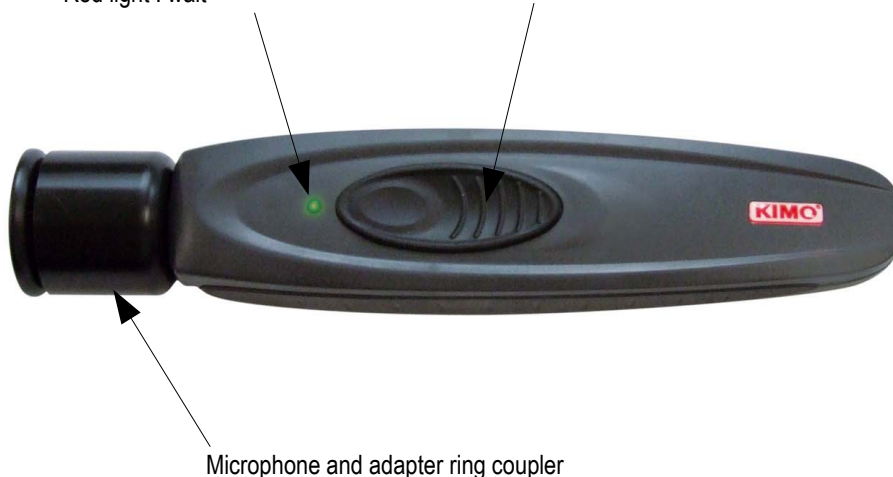
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### DESCRIPTION

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Green light : calibration is ready  
Red light : wait

Button : launch calibration



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## CALIBRATION

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> Insert the adapter ring according to microphone diameter of the device to calibrate. Ensure that the ring is correctly positionned, it has to come to a stop down of the calibrator housing.



> Put the calibrator on the microphone, until the microphone comes to a stop down of the ring. Perform this move slowly and smoothly so as not to damage the microphone. Prefer to put vertically the sound level meter and the microphone.

> Press the button situated in front face of the calibrator. A red light flashes.

> Wait for a while, red light becomes green meaning that the level of acoustic pressure of the calibrator has a good value : 94.0 dB

> Begin the calibration process of the device as specified in its user manual.

> Calibrator automatically stops the transmission of the level of acoustic pressure after about one minute.



### **During calibration :**

If the light turns red and flashes, environmental conditions are not respected :

- Ambient noise is too important or
- Shocks given involuntarily

Wait for the green light before resume the calibration process, it is possible to launch again pressing the button.

If the light turns red whitout flashing and does not turn to green, batteries are defective and shall be replaced.

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## CHANGE BATTERIES

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Batteries must be changed when :

- The light turns red without flashing.
- The light does not turn on at all.

### To change batteries :

- > Remove the front part at the back of the device pressing strongly the rubber button. Front part is released slightly. Fold it up completely.
- > Remove the two old batteries. Insert new 1.5 V AAA -LR03 type batteries respecting proper polarity.
- > Put correctly the front part in its slot and close pressing strongly on it.



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## RECOMMENDATIONS

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This calibrator is an accurate device that requires care when handling and storing it.

Do not expose to shock or to extreme and repeated environmental constraints (Temperature – Hygrometry)

Store it in its storage space and remove batteries in case of long period of inactivity.

Despite these recommendations, grader stays an extremely reliable device, easy-to-use and with few maintenance :

Simply replace batteries when they are worn and make a regular checking.

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## MAINTENANCE

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CAL200 calibrator is linked to national standards. As part of quality insurance standards, we recommend performing an annual checking.

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## SUPPLIED WITH...

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CAL200 is supplied with its user manual, two alkaline batteries and an adapter ring for ½ inch microphone.

## TECHNICAL FEATURES

<b>Main level of acoustic pressure</b>	94 dB $\pm$ 0.4 dB
<b>Main frequency</b>	1000 Hz $\pm$ 5 Hz
<b>Distortion</b>	DHT < 3%
<b>Authorization for calibration</b>	Green light
<b>Transmission time</b>	1 minute
<b>Standards</b>	NF EN 60942 : 2003 – CEI 60942 : 2003
<b>Accuracy</b>	Class 2
<b>CE marking</b>	As per to European Directive 89/336/CEE and Standard product
<b>Compatible microphone</b>	1 inch microphone without adapter (according CEI 61094-4 standard) ½ inch with BC12 ring 10 mm microphone with BC10 ring 3/8 inch microphone with BC38 ring Other microphones with suitable rings
<b>Standard ambient conditions</b>	23 °C – 50% RH – 1013 hPa
<b>Operating conditions</b>	0 °C to +40 °C / 25% to 90% RH / 650 hPa at 1080 hPa
<b>Power supply</b>	2 alkaline batteries – 1,5 V CEI : AAA – LR03 type
<b>Autonomy at 20 °C</b>	More than 1500 calibrations
<b>Storage</b>	From 0°C to +60 °C
<b>Overall dimensions</b>	Length : 185 mm – Width : 35 mm – Thickness : 31 mm
<b>Weight</b>	118 g (with batteries)

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