QUICK GUIDE
nor**103**
Sound Level Meter

Norsonic

This Quick Guide takes you thru all basics to get to know your Nor103 and to perform your measurements. A complete electronic instruction manual can be downloaded from norsonic.com

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Introduction

Nor103 is on of the smallest available Class 1 sound level meters that complies with EN61672-1. The microphone is a 1/2-inch electret condenser. It has a wide 107 dB linearity range, measuring sound levels between 30 and 130 dB, with no need to select the range. The unit has an LCD panel and three operation keys, and is able to measure the following:

- Sound level L_p
- Equivalent continuous sound level L_{eq}
- Maximum sound level L_{max}
- Sound exposure level L_E
- C weighted peak sound level L_{Cpeak}

You can store up to 199 measurements on the instruments internal memory. It is powered by two size AAA batteries. The main unit and preamplifier are a single unit, so no microphone extension is possible.

Nor103 has the following two level ranges.
Wide range: This measures the range between 30 and 137 dB and allows simultaneous measurement of L_p, L_{eq}, L_{max}, and L_E.

Peak range: Limits the range to 65 to 137 dB, but along with the processing results (as for wide range) also L_{Cpeak} is measured.

Resume function
At startup, the following settings maintain the same value they had when you last turned the unit off.
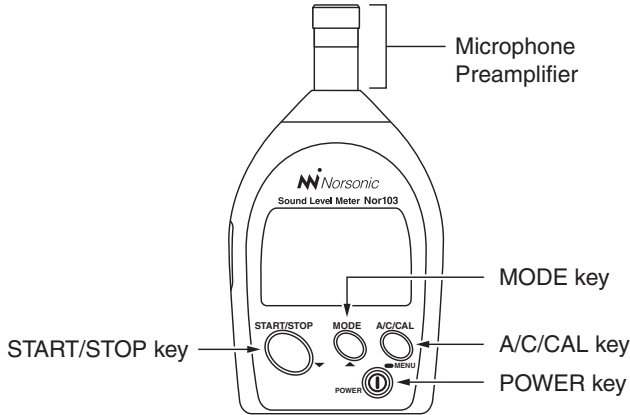
- Measurement time
- Time weighting characteristics
- Level range
- Address indication

The following items have predefined settings upon startup.

- Frequency weighting characteristic   A
- Display processing value type L_p

Overview

Front Panel

Microphone
Preamplifier

MODE key

START/STOP key

A/C/CAL key
POWER key

Microphone
A ½- inch electret condenser microphone.

Preamplifier
Preamplifier are integrated part of SLM.

POWER key
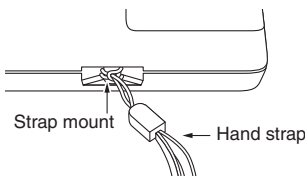Press to turn the unit on and off.

START/STOP key
Press to start or stop processing. Also used to change setting values in the calibration screen, menu screen, and recall screen.
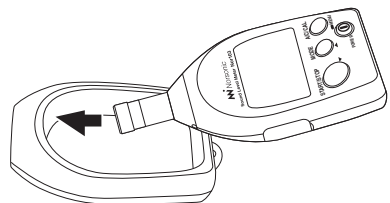
MODE key
Changes the processing result display in the measurement screen and processing screen. Also used to change setting values in the calibration screen, menu screen, and recall screen.
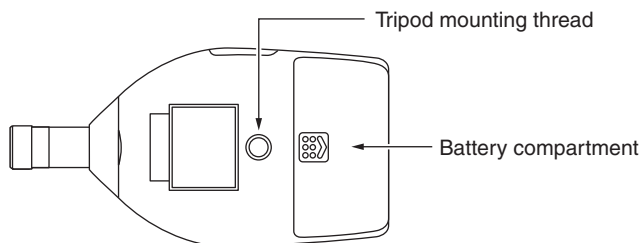
A/C/Cal key
This key selects the frequency weighting characteristics, calibration screen and recall screen. Press and hold the **A/C/CAL** key for 2 seconds to access the menu screen.

Strap mount ← Hand strap

When you have not fitted the silicone cover

Rear view

Tripod mounting thread

Battery compartment

Tripod mounting thread
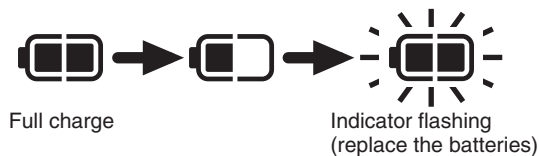Mount the unit on a camera tripod with this thread.

Battery compartment
Insert two size AAA (IEC R03, LR03) batteries here.

> **IMPORTANT:** Make sure the unit is turned off before inserting batteries. Use only identical batteries, and replace batteries as a set. Mixing types and/or old and new can lead to damage.

Batteriy charge status indicator
When the indicator starts to flash, correct measurement is no longer possible.
Replace the batteries with fresh ones.

Full charge

Indicator flashing
(replace the batteries)

> **IMPORTANT:** If the indicator starts flashing during processing, processing will end at that point. You cannot start processing with the **START/ STOP** key when the battery indication is flashing.

If left inactive for more than 10 minutes, the unit will enter in sleep mode or energy saving mode displaying SLP on the screen.

Getting started

Start up by pressing **POWER.**

Toggle measurement screens by pressing **A/C/CAL**.
- LAF
- LCF
- LCF Int Cal 94,0dB (Internal electronic calibration for microphone check)
- LCF Aco Cal (Acoustical calibration for class 1 calibration)
- RECALL (LAeq)

Wide Range (F/S): toggle with **MODE**; LAeq – LAF(/S) max - LAE – LAF(/S).
Peak (F/S): L_{Aeq} – LAF(/S) max – LAE – LC peak - LAF(/S).

Press **A/C/CAL** once and C weighted is chosen, LCeq - LCF(/S) max - LCE – LCF(/S).

Go to setup screen by pressing **A/C/CAL** for > 2 sec. when in LAF/LCF screen.
Toggle the options with **MODE**. Accept and toggle setup by **A/C/CAL**.

1 - Wide Range / Peak
2 - Fast (F) / Slow (S)
3 - Measurement time (1, 5 10 minutes & 1hour)
4 - Exit settings menu

Calibration
For a class 1 calibration, first go to LCF Aco Cal screen by pressing **A/C/CAL**. Place an acoustic calibrator over the microphone. When stabilized adjust to the correct dB using the up or down buttons (**MODE** or **START/STOPP**).

Start Measurement
When in LAF or LCF press **START/STOP**. The processing mark flashes during processing. To interrupt measurement before time has elapsed again press **START/STOP**. During measurement, you can toggle between functions by pressing **MODE**.
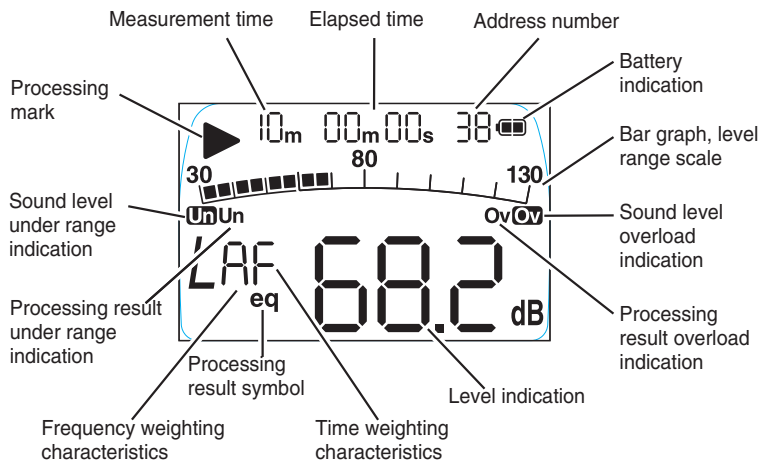
Turn off by pressing **POWER** for more than 0,5 sec.
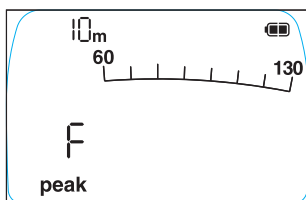
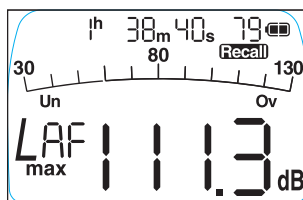We recommend to always use the windscreen!

Measurement and processing screen

Measurement time Elapsed time Address number Battery indication Bar graph, level range scale Sound level overload indication Processing result overload indication Level indication Time weighting characteristics Processing result symbol Frequency weighting characteristics Processing result under range indication Sound level under range indication Processing mark

* sequence number used for storing of measurement values.

Peak range screen

Recall screen

Recall

Push **START/STOP** to go backwards (toggles between stored measurement values) and **MODE** goes forward. Hold **START/STOP** to move fast backward and hold **MODE** for fast increase (toggles between measurement numbers).

Delete All

When in recall menu hold **A/C/CA**L for more than 3 sec. **ALL/CLR** will flash on display. Press **START/STOP** to accept cancellation and all stored data will be permanently erased, or press **A/C/CAL** to abort operation.

About Norsonic

Norsonic is a leading manufacturer of measurement solutions for sound and vibration since 1967. Our vision is to supply our customers with the most innovative sound instrumentation of the highest quality.

Norsonic Calibration Laboratory is an international accredited laboratory. This ensures that the quality of the measured values is at the highest possible level. Full test and calibration in accordance with relevant international standards, are carried out before the products leave the factory.

At Norsonic, we are proud to serve our customers and listen to their needs.