

# ListenEar personal noise dosimeter



The **Listen Ear Personal Noise Dose Meter** is a very compact noise dose meter to wear during a complete working day.

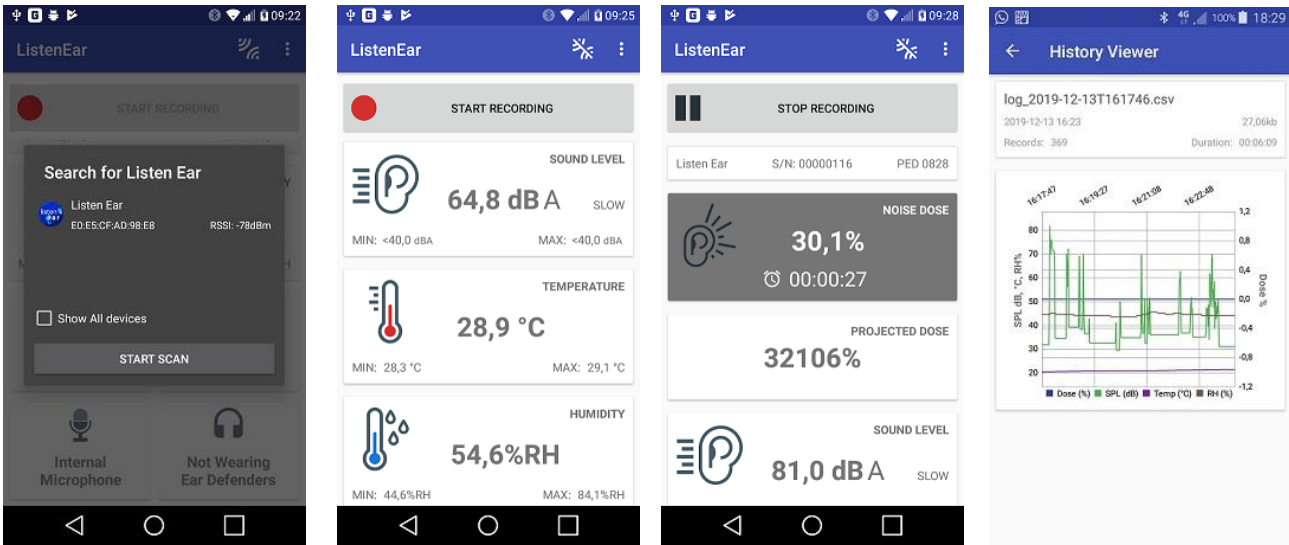
## ListenEar features:

- View instantaneous noise level and total exposure of the day on LCD display
- Use Mobile Phone application to control and view data
- Battery time 160 hours / 4 working weeks
- Charged using USB
- Complies to international standards: IEC 61672-1, IEC 61252
- Two Simultaneous Dosimeters in one
- Each Dosimeter (in the one unit) can measure DOSE according to pre-set (ISO, OSHA, NIOSH...) or your custom criteria (Exchange Rate, Level, Threshold) for World standards comparisons, in one time recording session.
- Produce a daily report and stats of the work environment by downloading data
- Default 8 hour day, adjustable in menu
- Tamper proof facility
- Low power radio function - base station mounting
- Bright LED for dose alarm warning
- Contains A,C and Z-weighting filters to mimic the frequencies heard by the human ear
- Built in or External Microphone
- Calibrated during manufacture
- Data logging - Sound / temperature / humidity / movement
- No USB Drivers required to download data
- Class 2 sound level meter
- Includes movement and orientation monitor
- Records Temperature and Relative Humidity

## ListenEar Unique features:

- **Anti-Knock & Vibration System:**  
A major problem encountered with personal noise dosimeters is distinguishing between true audio impulse noise and extraneous mechanical 'tapping' on the personal noise dosimeter casing. The introduction of a Patented Anti-Knock & Vibration System to the ListenEar provides an additional level of accuracy to the final result. The ListenEar can detect and eliminate the mechanical tapping noise, therefore the noise exposure measured and recorded is an actual representation of that environment. Number of detected 'knocks' is recorded and stored in the report file. The Anti-Knock & Vibration System is not active when the External microphone is connected.
- **Simulate the effect of wearing ear defenders:**  
If you wish to use your ListenEar whilst wearing hearing protection, then this is possible by inputting the SNR attenuation figure from the specification of your hearing defender or ear plug into the instrument setup. The ListenEar will take note of the new setting and give exposure readings as if measuring at your ear inside the hearing defender earmuff and not outside in the external environment.
- **Motion detection:**  
This feature monitors the ListenEar motion status. It will detect if the unit is not worn during the recording session. The 'non motion' event will be detected if the unit is stationary for at least 10 seconds. Number of events and summary of 'no motion' time is recorded in the report file.

The Listen Ear can be controlled by an android application. The app allows starting and stopping a measurement, displaying the current measurement results and time history graph.



ListenEar ordering information and optional accessories:

<b>ListenEar</b>	delivered pre-calibrated and with a USB cable to re-charge the internal battery Standard instrument housing colour is grey, can be delivered in black or white upon request
<b>ListenEar optional accessories:</b>	<ul style="list-style-type: none"> <li>External Microphone with 50cm lead</li> <li>External Microphone with 50cm lead and LED warning indicator</li> <li>External Microphone with 3m lead</li> <li>ListenEar Body strap</li> <li>Internal Microphone Calibrator Adaptor</li> </ul>

## ListenEar specifications:

<b>Certificates and standards</b> IEC 61672: 1993 IEC 61252: 1993 CE mark	Class 2 Sound Level Meter Personal Sound Exposure Meter Mark Complies with the Directive on low voltage 73/23/CEE and Directive CEM 89/336/CEE modified by 93/68/CEE
<b>Sound measurement</b> Laeq Lcpeak Overload detectof flag Resolution Frequency weighting Time weighting	70dB to 140dB 140dB 140,1 dB 0,1 dB A, C, Z Fast, Slow
<b>Exposure measurement</b> Dose range Exchange Rate Criterion Level for 100% Dose Criterion Threshold Simultaneous analysers Ear defender SNR range Results	0% to 9999% 3dB, 4dB, 5dB, 6dB 75 to 90dBA (in 5 dB Increments) none, 80db, 90dB up to 2 5dB to 45dB LEQ, LEX8h, LAVG, TWA, LMIN, LMAX, Dose (%), Projected Dose (%),8h)
<b>Environmental measurement</b> Temperature range Temperature resolution Humidity Humidity resolution Motion	-40°C to +80°C 0.1°C 0% - 100% RH 1% RH 3 axis, 10s detection time
<b>Memory</b>	8Mbytes. Accessible by micro USB cable using PC - no drivers required
<b>Microphones</b> Internal External	Pre-polarised condenser microphone as above + proprietary USB interface
<b>Data logging</b> Summary File type Time history Leq Time history temp. and humidity Time history motion status	Summary results for the measurement time reports: *.txt, history: *.csv selectable at intervals 1s, 10s, 30s, 1m, 5m or 10m History stored at same interval as above History movement / no movement stored at same interval as above
<b>User interface</b> Display Keypad Other	LCD, 128x128, backlit for 6s after keypress two multifunction buttons multicolour 'info LED'
<b>Battery</b> Non removable LiPo Power consumption Auto power-off Charging Operating time	Lithium-Polymer 3.7V / 550mAh 2mA (avg), 20mA (max) 1h (no motion, not recording) micro USB, up to 200mA up to 160 hours / 4 working weeks (depending on features enabled)
<b>Dimensions &amp; weight</b> Size Weight	(H x W x D) 83mm x 52mm x 15mm (19mm including clip) 52g
<b>Environmental</b> Operating temperature Operating Humidity Storage temperature Storage Humidity	0°C to +50°C up to 90% RH, non-condensing -10°C to +60°C up to 90% RH, non-condensing

All values are typical unless otherwise stated.

ListenEar V2 jan 2020

We reserve the right to change the specifications without prior notice.