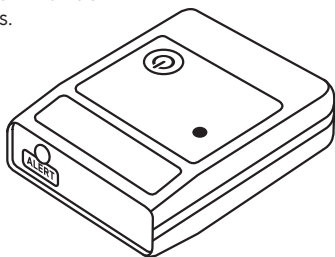


Welcome to your new Personal Noise Dose Alert warning device which is one of the family of Personal Alert devices manufactured in the UK by Pamby Electronics Ltd. The other devices relate to Noise Dose, Carbon Dioxide (CO₂ - Indoor) and Nitrogen Dioxide /Ozone (NO₂/O₃ - Outdoor) measurements.

Key Features

- Self-contained unit
- Simple to use
- Long battery life
- Optical and Vibration alert
- Patented anti-knock feature
(Patent No: GB 2 551 724)



What is it?

Your device is a small battery powered unit that measures the noise dose over an 8 hour daily period of time from the moment you switch it on, and indicates whether the noise dose in your environment is acceptably low or too high (ie. safe or not safe). **In this latter case you should take steps to obtain, and use, some hearing protection or relocate to quieter environment.**

How does it work?

The noise dose measurement is performed by the built-in highly stable MEMS audio noise sensor and processed by the battery powered internal electronics control unit. The Pamby patented anti-knock feature is used to minimise the effect of any mechanical case noise that can affect readings.

When the noise dosage level exceeds the pre-set thresholds, the **ALERT** lamp changes from **GREEN** to **AMBER** or **RED** (see technical specification). **NOTE - This may happen before the 8-hour day is completed.**

Each transition of the **ALERT** lamp to **AMBER** or **RED** also triggers the vibrate alert for approximately 15 seconds. This can be suspended by a short press of the Power button.

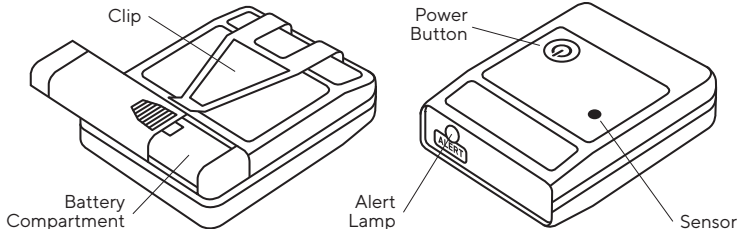
Battery life is in excess of 360h and a Low battery indication is shown by very short **RED** flashes of the **ALERT** lamp.



How do I use it?

Using the device is simplicity itself. Carefully insert your battery into the battery compartment (located at the rear of the unit) taking note of the polarity markings. A quality AA (LR6) alkaline type battery is recommended.

Press the Power button on the front face and wait for **ALERT** lamp to illuminate and flash **GREEN**.



Clip the device onto your clothing and keep it exposed to your environment. Do **NOT** place in your pocket as this will adversely affect the readings and block the line of sight of the **ALERT** warning lamp.

The device constantly checks the noise levels, calculates your daily (8-hour) exposure and respond accordingly to the calculated noise dose levels (see section "How does it work?").

The **ALERT** lamp should flash **GREEN** for a normal safe noise environment during the whole (8 hour) day.

IN CASE THE WARNING STATE CHANGES TO RED, YOU SHOULD REMOVE YOURSELF FROM THIS NOISE ENVIRONMENT FOR 24 HOURS. IF THE RED WARNING PERSISTS IN YOUR ENVIRONMENT, IT IS IMPERATIVE YOU OBTAIN AND USE SUITABLE HEARING PROTECTION.

After use, press and hold the power button until the **ALERT** lamp goes out.

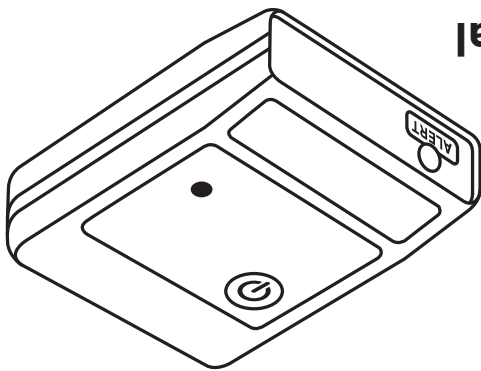
Noise dose exposure standards

Your Personal Noise Alert Device has 5 different types of noise dose exposure standards available for selection. As default is set to EU ISO standard and if you are unfamiliar with those standards, you should **NOT** change it.

To change the exposure standards, first power your device off and remove the battery. Press and hold the Power button, and insert the battery whereupon the **ALERT** lamp will flash **BLUE**. Short press the Power button again to change to the exposure standard required, in accordance with the table below.

Standard Ref.	Blue Lamp Pattern	Ex Rate dB	Cr Level dB	Cr Threshold dB	Cr Time Hrs.	Cr Response
EU ISO	1 flash	3	85	-	8	-
OSHA-HC	2 flashes	5	90	80	8	slow
OSHA-PEL	3 flashes	5	90	90	8	slow
ACGIH	4 flashes	3	90	-	8	slow
NIOSH	5 flashes	3	85	80	8	slow

Having selected the correct standard, press and hold the Power button until the **ALERT** lamp reverts to **GREEN**. This setting is now stored permanently until the programming is repeated.



Listen Ear™ Personal Noise Dose Alert



Technical Specification

Measuring range: 40dB to 120dB SPL

Noise dose threshold levels:	ALERT Lamp Colour	Noise Dose % (over 8h)
	GREEN	Below 80%
	AMBER	Greater than 80%
	RED	Greater than 85%

Noise dose averaging time: 8 hours

Microphone type: High stability digital MEMS microphone

Calibration: Factory calibrated

Weighting: A weighting IEC 61672:2002 Class 2

Warning lamp: Multi coloured LED, Red, Green, Amber

Warning lamp indicator states:	Lamp Colour	Flash Duration
Low battery	RED	SHORT
Normal (no alert)	GREEN	SHORT
Amber alert	AMBER	LONG
Red alert	Red	LONG

Vibration alert: Rotating type

Vibrate time: 15 sec

Battery: 1x AA LR6 alkaline

Battery life: > 360h

Dimensions: 71mm x 56mm x 18mm (23mm including clip)

Weight: 70g (with a battery)

Life time: 5 years

Environmental:	
Temperature operation:	-40 °C to +65 °C
Temperature storage:	-50 °C to +70 °C (no battery)
Humidity operating:	up to 90% RH, non-condensing
Humidity storage:	up to 90% RH, non-condensing

IMPORTANT NOTICE

These devices are sold with the intention that a wearer can educate themselves about their environment. They are not intended to make measurements as such but merely indicate the risk to themselves of being in that environment.

PAMBRY DISCLAIMER

Pambry Electronics reserve the right to change specifications or update this user manual at any time without prior notice.

SAFETY INFORMATION

For safe practice only operate in accordance with the instructions in this manual.

WARNING

To avoid personal injury, follow the guidelines below:

- Do not remove cover.
- Use this device only as specified in this manual.
- Do not use around explosive gas or vapour.
- It is your responsibility to contribute to a clean and healthy environment by using the appropriate local return and collection systems.
- The symbol shown below indicates that separate collection systems must be used for any discarded equipment or batteries marked with the WEEE Symbol.



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