

Solar charger for hearing aid

Country of origin | Botswana & Brazil

Health problem addressed

7% of the world's population is hearing impaired. That is a total of 312 million people, of whom two-thirds are living in developing countries. The extent of hearing loss leads to unnecessary poverty and hardship in the families and communities affected, and by extension, to the larger society. It also costs governments up to 3% of their GNP.

Product description

Rechargeable hearing aid, solar charger and rechargeable hearing aid battery.

Product functionality

This device has a rechargeable hearing aid battery which costs \$1 and lasts 2-3 years. To charge the battery, a novel, but not patented, solar powered battery recharger was developed, which can be recharged via the sun, household light or plug in using a Nokia cell phone electrical recharger.



Developer's claims of product benefits

This device is the only low-cost rechargeable analogue and digital hearing aid on the market.

Operating steps

During the day a solar panel charges 2 AA rechargeable batteries. Once or twice a week, one takes out the rechargeable hearing aid battery and puts them in the charger. The next morning these batteries are ready to use again. One can also charge the batteries using a household light or plug-in. The batteries fit into 85% of all hearing aids.

Development stage

Countries that receive these rechargeable hearing aids, solar charger and rechargeable batteries to do not require FDA or CE approval, but all of these component suppliers have FDA, CE and are ISO approved.

Future work and challenges

The technology is offered for free to like-minded non-profit organizations. In addition, the company helps write the business plans, raise money, and set up manufacturing operations for others for free.

User and environment

User: Self-use/patient

Training: None

Maintenance: Yes, 3-5 years change batteries

Environment of use

Settings: Rural, urban, at home

Requirements: Sunlight

Product specifications

Dimensions (mm): 40 x 20 x 15

Weight (kg): 0.3

Consumables: Rechargeable AA and rechargeable hearing aid battery

Life time: 10 years

Shelf life: 5 years

Retail Price (USD): 48

List price (USD): 24

Other features: Portable, reusable

Year of commercialization: 2002

Currently sold in: 39 developing countries

Disclaimer

Eligibility for inclusion in the compendium has been evaluated by EuroScan member agencies, WHO Collaborating Centres, and WHO. However, the evaluation by EuroScan member agencies, WHO Collaborating Centres, and WHO has been solely based on a limited assessment of data and information submitted in the developers' applications and, where available, of additional sources of evidence, such as literature search results or other publicly available information. There has been no rigorous review for safety, efficacy, quality, applicability, nor cost acceptability of any of the technologies. Therefore, inclusion in the compendium does not constitute a warranty of the fitness of any technology for a particular purpose. Besides, the responsibility for the quality, safety and efficacy of each technology remains with the developer and/or manufacturer. The decision to include a particular technology in the compendium is subject to change on the basis of new information that may subsequently become available to WHO.

WHO will not be held to endorse nor to recommend any technology included in the compendium. Inclusion in the compendium solely aims at drawing stakeholders' attention to innovative health technologies, either existing or under development, with a view to fostering the development and availability of, and/or access to, new and emerging technologies which are likely to be accessible, appropriate and affordable for use in low- and middle-income countries.

WHO does not furthermore warrant or represent that:

1. the list of innovative health technologies is exhaustive or error free; and/or that
2. the technologies which are included in the compendium will be embodied in future editions of the compendium; and/or that
3. the use of the technologies listed is, or will be, in accordance with the national laws and regulations of any country, including but not limited to patent laws; and/or that
4. any product that may be developed from the listed technologies will be successfully commercialized in target countries or that WHO will finance or otherwise support the development or commercialization of any such product.

WHO disclaims any and all liability and responsibility whatsoever for any injury, death, loss, damage, use of personal data, or other prejudice of any kind whatsoever that may arise as a result of, or in connection with, the procurement, distribution and/or use of any technology embodied in the compendium, or of any resulting product and any future development thereof.

Developers whose technology has been included in the compendium shall not, in any statement of an advertising, commercial and/or promotional nature, refer to their participation and/or inclusion in the compendium. In no case shall the latter use the WHO name and/or the emblem, or any abbreviation thereof, in relation to their business or otherwise.