

Recorder (or Note recorder or Dictaphone)

Battery-powered handheld or desk top device for recording and playback of sounds, which are stored in digital format; its main functionalities include voice recording facility, fast forward and rewind function, variable speed playback (increase or decrease with sound balance), automatic bookmarking which remembers and starts from the last played positions, internal speakers and a removable memory card. Possible variants concern the storage medium (which can be also a reel-to-reel audio tape, or an external digital support), the batteries (which can be also rechargeable), the bookmarking (which can also be manual), the sound output (which can be also through a headset) and the user interface (which can also be simplified i.e. made easier-to-use by reducing the number of options and having colored and big buttons).

- **Product Classification**
 - APL (WHO Assistive Product Priority List): 33 (Recorders)
 - ISO 9999:2022: 221803 (Sound recording and playing devices)
- **Possible configuration variants**
 - Simplified user interface (made easier-to-use by reducing the number of options and having colored and big buttons).
- **Possible accessories or optional components**
 - External microphone (line-in 3.5 mm jack).
 - USB connectivity.
 - Voice-controlled menu navigation.
 - Speech to text conversion.
 - LCD display with zoom function.
 - Hooks for hanging around the neck.
- **Product goals**

Activities or functions the product is mainly intended to support, according to WHO ICF Classification:

 - Using communication devices and techniques [\[d360\]](#).
 - Memory functions [\[b144\]](#). *Only if used with variants: Simplified user interface*
- **Indicated impairments**

Difficulties the product is mainly intended to address, according to the WHO ICF Classification:

 - Seeing [\[b210\]](#) (blindness or severe low vision).
 - Memory functions [\[b144\]](#) (support for memorizing information). *Only if used with variants: Simplified user interface*
- **Contraindicated impairments**

Difficulties for which the product may be inappropriate:

 - Profound hearing loss.
 - Severe hearing loss.
- **Indicated environments**

Specific environments in which the product should be used:
None specified.
- **Contraindicated environments**

Environments in which the product may be inappropriate:

 - Underwater.

- Other indicated factors

Other factors or situations the product is intended to address:

- Audio recording (note taking, recording, playback and listening to audio information such as voice, sounds, music).

- Other contraindicated factors

Other factors or situations in which the product may be inappropriate:

- Use by children. *Unless used with variants: Simplified user interface*
- Use by people with limited familiarity with modern technology. *Unless used with variants: Simplified user interface*

- Points to be considered in product selection

- A recorder is intended to manage practical problems such as note taking, registering, playback and listing audio information (voice, sounds, music); they are also suitable for creating shopping lists, recording telephone lists, preparing emergency contacts, remembering important reminders, organizing appointments, planning procedures, or scheduling events in the calendar; at school, recorders can be used to record oral assessment, capture classroom discussion or record field trip notes.
- Ensure that the recorder is simple and easy to use, with very few options, colored and big buttons if addressed to elderly people, children, people with learning disabilities, or memory limitations.
- Ensure that the recorder is equipped with color contrasted function raised/shaped buttons, tactile, easy-to-read big letters or symbols, and enlargeable LED displays, if addressed to user with low vision or blindness.
- Light handhelds note recorders are suitable for mobile use; larger and heavier recorders are suitable for use in a fixed position at home or in the office.
- For safety and comfort, an additional neck strap or hand strap is recommendable during mobile use.
- A neck strap is suitable also for one hand use (e.g., blind users using a long cane or a guide dog) or for users with reduced finger mobility.
- Voice-controlled note recorders are suitable for hands free use or users with hand mobility limitation.
- Large dimensions of memory is needed for extensive use of recording (hours of recording); external memory, interchangeable memory cards, or USB connection to PC, increase memory capacity.
- For users with hearing impairment and hearing aid with T-coil sensor, the note recorder needs a line-out 3.5 mm jack (headset connection) to be connected to a personal induction hearing loop (ISO 22.18.30).
- Recorders with voice-to-text function or connectable to PC with voice-to-text function are suitable for users who need to read or re-read vocal audio registration (blind and visually impaired user, user with hearing loss).

- Points to be considered in product fitting

- Ensure that the user can switch on/off the note recorder.
- Ensure that the user correctly locates and manages the main function buttons: record, stop, play, forward, backward, cancel a record.
- Show the user where the internal microphone is.
- To prevent accidental operations such as record elimination, show the protection bottom and explain how to unlock.
- Check if the user can place, replace, and find a bookmark.
- If the user encounters difficulties in understanding, increase the volume and slow down the speech speed; if the user likes to listen faster, increase the speed.
- Ensure that the user can replace or recharge the batteries; if USB recharging is required, make sure that the user can connect to a USB charging point or station.
- Ensure that the user can change or replace exchangeable memory card.
- For recording the voice of another person and for maintaining the distance (COVID security), use an external microphone with a long cable.

- Points to be considered in product use

- Always switch off the recorder when not used.
- If the memory is full, delete records, change memory card, or transfer records to another device.
- Check batteries charge and take extra batteries for mobile use out of home.

- If used on the move, a neck strap or a hand strap is advisable.
- Do not record with recorder in a pocket or bag (bad sound quality).
- Never touch the microphone when recording.
- Recording with strong wind may disturb the recording quality; use external microphone with wind protection capsules.
- After using an external microphone with wind protection capsules for recording by another person, clean and disinfect the capsules (COVID security).
- Inform the other person if voice recording has started.
- **Points to be considered in product maintenance / follow-up**
 - Control if the batteries are full or have enough power for use.
 - If the recorder is not used for a long time, take off the batteries.
- **Examples of products available on the market**
 - Live product search in the EASTIN website <https://www.eastin.eu/en/searches/products/list?iso=221803>

Source

This Fact Sheet was compiled in 2021 by an international team of experts, to provide the initial knowledge base for a project ("An online system to assist the selection of assistive product") supported by the World Health Organization in 2020-2021 within the GATE Initiative (Global collaboration on Assistive Product). Fact Sheets were compiled for each of the 50 types of products included in the WHO APL (Assistive Product Priority List).

The team was composed of Renzo Andrich (Italy, group leader), Natasha Layton (Australia), Stefan von Prondzinski (Italy), Jerry Weisman (USA), Silvana Contepomi (Argentina) and Hasan Minto (Pakistan).

The project led to a prototype online tool called ASPREX (ASsistive PRoduct EXplorer). At the end of the project, it was transferred to a WHO collaborating center (the Global Disability Hub in the UK), in view of possible future developments.