

# Mino

## Personal amplifier



### Features

- 1 Digital signal processing**  
Clear and noise-free sound
- 2 Small and light**  
Fits discreetly in your pocket
- 3 Directional microphone**  
Clarifies speech even further
- 4 Telecoil**  
Works with loop systems
- 5 Flexible**  
Connects to the TV or radio

Mino is a personal speech amplifier that helps you hear better in most everyday situations, whether you wear a hearing aid or just suffer the occasional hearing difficulty.

**Digital signal processing.** Mino uses digital state-of-the-art signal processing to bring out speech in difficult listening situations. Mino delivers crystal-clear sound, free from background noise and feedback.

**Pocket size and super light.** Mino is as small as a modern cellphone and can be kept discreetly in your pocket without weighing you down.

**Easy to use.** Mino is intuitive to use. All functions are accessed with the simple press of a button and there are no complicated menus to navigate.

**Long lasting power.** Mino uses a rechargeable lithium-ion battery, just like a modern cellphone.

**Directional microphone.** Mino is equipped with an omni-directional and a directional microphone. With the directional microphone, you can 'point' to the person talking, reducing unwanted background noise.

**Built in Telecoil.** Mino is equipped with a Telecoil. The Telecoil picks up sound in venues fitted with hearing loop systems, such as theaters, churches, and concert halls.

**Flexible.** Connect Mino to the TV, radio, MP3 player or computer and you can enjoy great sound in stereo at the volume of your choice while sparing your family's ears.

**Great with hearing aids.** Mino clarifies speech and filters out disturbing background noise before it reaches the hearing aid or cochlear implant. This means you don't have to make so much of an effort to hear.



# Technical specifications

Subject to change without prior notice.

## Size and weight

- Height: **3.9** inches (99 mm)  
Width: **1.9** inches (48 mm)  
Depth: **0.9** inches (22 mm)  
Weight: **2.5** ounces (74 grams)



## In the box

The package includes everything you normally need in order to use your Mino.

- BE2030 Personal amplifier
- USB universal charger
- Mains plug
- Charger cable
- Neck strap with safety clasp
- User manual
- Quick guide
- Listening accessory (Varies with package)

## Power and battery

- Built in rechargeable lithium-ion battery
- Operating time: up to 30 hours (With included light weight battery)
- Charging time: 4 hours (With included light weight battery)

## Acoustic specifications

- Maximum output using BE9124 earphones 132 dB SPL
- Gain at full volume using BE9124 earphones (60 dB SPL input signal):  
57,5 dB @ 1kHz      56 dB HFA
- Distortion  
Using BE9124      0,08 % THD  
Using BE9122      0,6 % THD

## Regulatory requirements

- Complies with the following requirements: WEEE, Der grüne punkt, CE, FCC, RCM, RoHS



## Buttons and controls



## Environmental requirements

- Operating temperature: 32° to 95° F (0° to 35° C)
- Relative humidity: 5% to 95% (non condensing)

## Input signals

- Microphone: Built in omnidirectional and directional microphone
- Telecoil pickup for inductive loop systems
- External sound source input: 2.5 mm stereo jack plug (0 dBV max input signal)

## Output signals

- Headphone socket: 3.5 mm stereo jack plug
- Distortion: 0.05% THD (electrical)
- Frequency range: 40 – 10 kHz
- Tone control: 9 steps
- Volume control: 9 steps
- Output power: 100 mW (16 Ω load)

## Accessories

The following accessories are available:

- BE9122 Stereo headphones
- BE9124 Stereo in-ear earphones
- BE9125 Stetoclips
- BE9127 Tie-clip microphone
- BE9129 MicroSet™
- BE9137 Cable kit, 16 feet, 5 m (stereo) incl. adapter from 3,5 mm stereo tele jack to RCA (phono)
- BE9143 USB car charger
- BE9147 Travel case in durable canvas
- BE9159 Neck loop

# In-depth technical information

Subject to change without prior notice.

## Technical specifications

- Digital Signal Processing, DSP
  - Built in omnidirectional electret microphone and zoom microphone
  - 10 channel dynamic range compressor
  - 10 channel dynamic noise suppression
  - Adaptive feedback manager
  - Intuitive user interface
    - LED light bar for excellent readability
    - 9 step volume control (5 dB/step)
    - 9 step tone control
    - Clear indication of Volume, Tone, Mic & T mode
    - Low battery warning indicator
  - Telecoil pickup for inductive loops
  - Push-to-listen mode (Int. mic and Aux in mixed)
  - Auxiliary stereo signal input (2.5 mm tele jack)
  - Headphones stereo output (3.5 mm tele jack)
  - Auto mute when switching between signal sources
  - High gloss finish to minimize handling sound
  - Requires no individual fitting
  - Built-in rechargeable lithium-ion battery
  - Universal charger with included mains plug
  - BE9135 Neck strap with safety clasp included
  - Polished stainless steel belt clip included
- Dimensions: 99 mm (h) x 48 mm (b) x 22 mm (d)
  - Weight: 2.5 ounces (74 grams)
  - Battery: Built in rechargeable lithium-ion, 617 mAh
  - Operating time: Up to 30 hours (fully charged)
  - Charging time: 4 hours (max)
  - Ext. Mic./Aux. in connector: 2.5 mm stereo tele jack
  - Headphones connector: 3.5 mm stereo tele jack
  - Volume control: 9 steps (5 dB/step)
  - Tone control: 9 steps
  - Power switch: On/Off toggle button
  - Mic and T mode: Separate mode select buttons
  - External microphone / Aux in  
Selects automatically when plugged in
  - Dynamic Compressor
    - Dynamic gain range 0-35 dB
    - Compression 3:1
    - Expansion 1:1.5
    - Attack time 20 (25) ms ( $\geq 3$  kHz)
    - Release time 110 (200) ms ( $>3$  kHz)
  - Dynamic noise reduction  
10 channel adaptive noise reduction
  - Feedback cancellation  
Adaptive phase-inverting feedback cancellation
  - Digital signal processing
    - 22 050 kHz sampling frequency
    - 16 bit resolution in stereo

## Acoustic specifications

- Maximum output saturation
  - Using BE9122 Headphones 124.3 dB SPL (@ 2.5 kHz)
  - Using BE9124 Earphones 132.0 dB SPL (@ 5 kHz)
  - Using BE9125 Stetoclips 133.7 dB SPL (@ 1 kHz)
- Gain, full volume (1 kHz, 60 dB SPL input signal)
  - Using BE9122 Headphones 42.5 dB
  - Using BE9124 Earphones 55.0 dB
  - Using BE9125 Stetoclips 58.2 dB B
- Gain, full volume (HFA, 60 dB SPL input signal)
  - Using BE9122 Headphones 46.5 dB
  - Using BE9124 Earphones 51.5 dB
  - Using BE9125 Stetoclips 52.0 dB
- Distortion
  - Using BE9122 Headphones 0.6 % THD
  - Using BE9124 Earphones 0.08 % THD

## Advanced settings



### Balance control

Compensates for example for hearing loss in one ear. 5 dB / step.



### Basic attenuation

Trims the attenuation to a specific hearing accessory in 3 dB steps.



### Stereo/Mono

Only effects the line-in signal. Mono is used for neck loop and stetoclips.



### Bass reduction

Reduces low frequency interference from fans, road-noise etc.



### Tone control blocking

Makes it easier for some end users to handle Mino.



### Tone control preset

Select preset tone. Used together with Tone control blocking.



### Disable T-coil

Makes it easier for some end users to handle Mino.



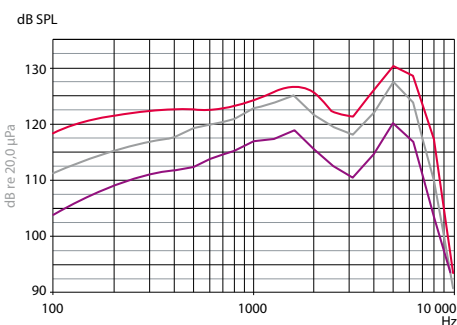
### Reset to factory settings

Resets all settings to the default factory settings.

## Electrical specifications

- Output power tele-jack 100 mW w. 16  $\Omega$  last
- Distortion 0.05 % THD
- Dynamic range 90 dB
- Frequency range 40 – 10 kHz
- Tone control
  - Break point at 1.6 kHz
  - Tone, high: +10dB@3.15 kHz, -6dB@250Hz
  - Tone, mid: flat
  - Tone, low: -10dB@3.15 kHz, No bass boost
- Line in sensitivity 0 dBV (maximum input level)

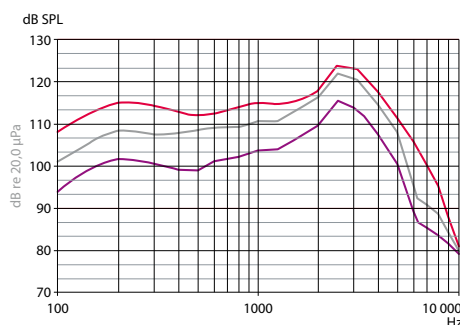
## Output using BE9124 Earphones



Input signal

— 60 dB SPL — 70 dB SPL — 90 dB SPL

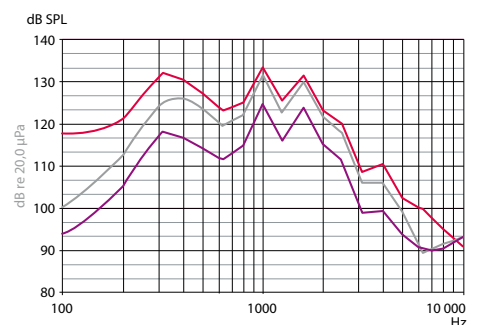
## Output using BE9122 Headphones



Input signal

— 60 dB SPL — 70 dB SPL — 90 dB SPL

## Output using BE9125 Stetoclips



Input signal

— 60 dB SPL — 70 dB SPL — 90 dB SPL