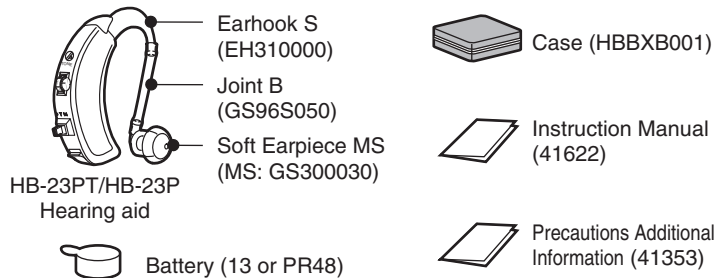


HOW TO USE YOUR FIRST HEARING AID

- Any hearing aid cannot return level of your hearing to normal or halt further hearing deterioration, but proper use of your hearing aid can help you hear what is going on around you and let you get more enjoyment of life.
- If this is your first hearing aid, you - like most new users - will probably be surprised at the loudness of the sounds, and after using it for a short while, you may even feel that it is too noisy. The following three tips are important in overcoming your concerns.
 - 1) Read this manual and become familiar with the hearing aid's various mechanisms and how to use them correctly.
 - 2) First, use your hearing aid in a quiet place and listen to quiet sounds and give yourself sufficient time to get accustomed to the sound of your hearing aid.
 - 3) If any physical problems develop, consult your doctor.

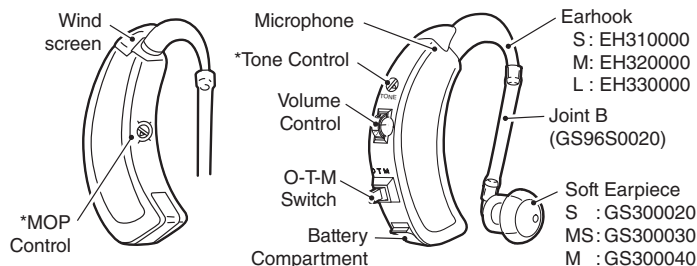
INSIDE THE HEARING AID BOX

Check the all items illustrated below are contained in the box.



OPERATING INSTRUCTIONS

Parts and Controls

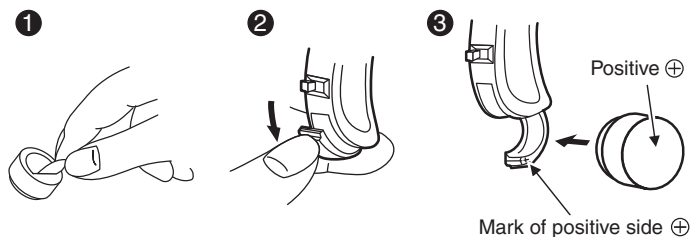


Above illustration shows HB-23PT. HB-23P is not equipped with induction coil (T position of O-T-M switch), Tone switch and MOP control.

- The parts drawn on the right side of the above picture are consumables. Please ask your supplier to buy them.
- * Do not touch the control. Any adjustment should only be performed by your Audiologist or hearing aid dispenser.

Loading Battery

1. Remove the sealing on the positive side of battery (PR-48 or 13 zinc-air battery) before loading. The battery operates normally in about 1 minute after the sealing is removed.
2. Open the battery compartment lid.
3. Load a PR-48 or 13 battery into the battery compartment with correct polarity; the plus mark on the battery and the lid should be on the same side.
4. Close the battery compartment lid.

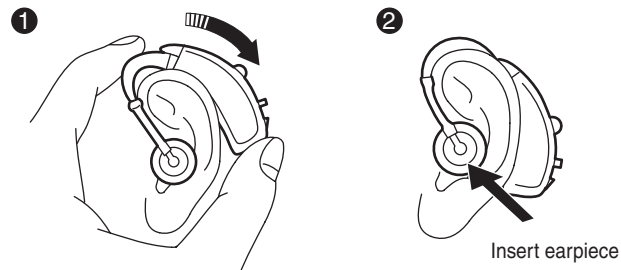


Be sure to remove the battery when the hearing aid is not to be used for an extended period of time.

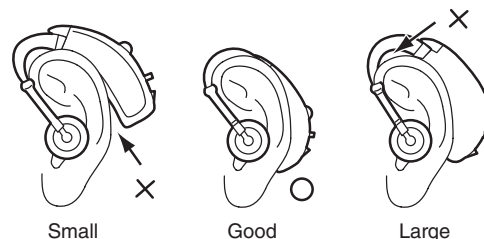
Battery life: Approx. 177 hours (PR-48 or 13, for continuous use)
Battery life will change depending on the operating condition.

Putting on Hearing Aid

1. Hold the hearing aid as shown and put it on your ear.
2. Insert the earpiece into your ear.



If the hook is small or large and does not fit, consult the dispenser.



O-T-M Switch (HB-23PT) / O-M Switch (HB-23P)

O: Power off

Set to "O" when the hearing aid is not in use.

T: Induction coil (telephone coil, HB-23PT only)

Set to "T" when using the hearing aid to telephone or loop.



When the switch of the hearing aid is set to T, noise may be heard in the vicinity of electromagnetic fields, such as generated for example by electronically secured gates or similar.

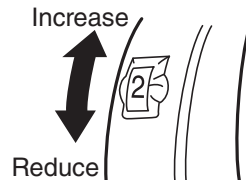
M: Microphone

Set to "M" to hear sounds through the microphone.

When taking off the hearing aid, set the switch to "O". If not, acoustic feedback may result.

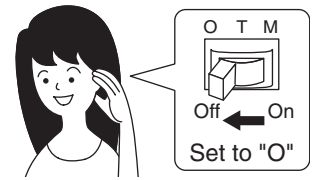
Volume Control

Adjust the sound volume to the most comfortable level with the volume control. The best position of the control will depend upon the distance and voice of the person with whom you are talking; readjustment may be necessary. When using the hearing aid for the first time, set the control for a comfortable level, then reduce the volume slightly.



When you remove the hearing aid from your ear

Set the switch to "O" to power off and remove the hearing aid from your ear. When removing the hearing aid with the switch setting "M" or "T", acoustic feedback (high-pitched sounds) might be heard.



TECHNICAL DATA (According to ANSI Standard S3.22 1987)

Maximum SSPL90	125 dB
HFA-SSPL90	119 dB
HFA-full-on Gain	46 dB
Reference Test Gain	42 dB
Frequency Range	200 Hz to 6000 Hz
Equivalent Input Noise	27 dB
Total Harmonic Distortion	800 Hz: 8%, 1600 Hz: 2%
Induction Coil Sensitivity	84 dB at 10 mA/m (HB-23PT only)
Range of Volume Control	40 dB
Input Switch	O-T-M (HB-23PT), O-M (HB-23P)
Output Limiting Control	MOP Control, range 10 dB (HB-23PT only)
Tone Switch	Low Frequency Reduction (HB-23PT only)
Battery Type, Current, Life	13, 1.3 mA, approx. 177 h
Receiver, Microphone	Magnetic, Electret Condenser
Dimensions and Weight	3.6 x 1.3 x 0.88 cm, 4.2 g (excluding battery)

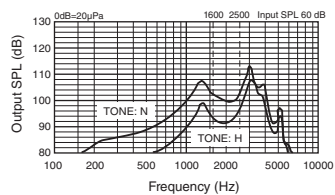
(Typical value)

TECHNICAL DATA (According to IEC Standard Pub. 60118 1983)

Reference Test Frequency	1600 Hz	
Full-on Acoustic Gain	54 dB	
OSPL90	127 dB	
	500 Hz	121 dB
	Peak	131 dB
Equivalent Input Noise Level	26 dB	
Total Harmonic Distortion	500 Hz: 28%, 800 Hz: 22%, 1600 Hz: 8%	
Induction Coil Sensitivity	79 dB at 1 mA/m (HB-23PT only)	
Range of Volume Control	40 dB	
Input Switch	O-T-M (HB-23PT), O-M (HB-23P)	
Output Limiting Control	MOP Control, range 10 dB (HB-23PT only)	
Tone Switch	Low Frequency Reduction (HB-23PT only)	
Battery Type, Current, Life	PR-48, 1.3 mA, approx. 177 h	
Earphone, Microphone	Magnetic, Electret Condenser	
Dimensions and Weight	3.6 x 1.3 x 0.88 cm, 4.2 g (excluding battery)	

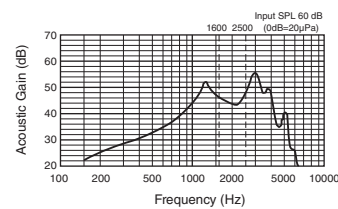
(Typical value)

Basic frequency response and effect of Tone switch (HB-23PT)

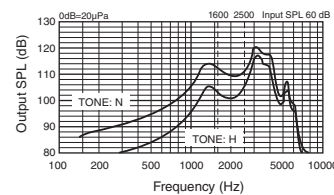


Response of HB-23P is equivalent to curve with TONE N.

Full-on gain frequency response (HB-23PT)

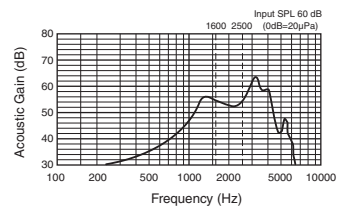


Basic frequency response and effect of Tone switch (HB-23PT)

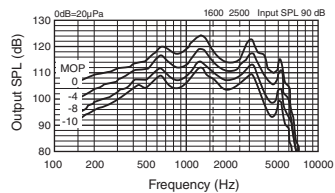


Response of HB-23P is equivalent to curve with TONE N.

Full-on acoustic gain frequency response (HB-23PT)

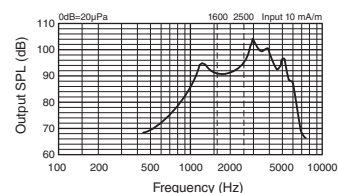


SSPL90 frequency response and effect of MOP control (HB-23PT)

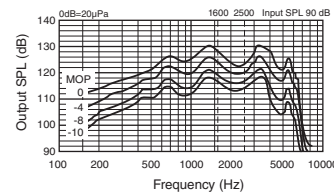


Response of HB-23P is equivalent to curve with MOP 0.

Induction coil input characteristics (HB-23PT only)

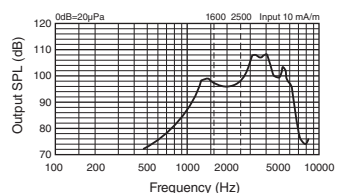


OSPL90 frequency response and effect of MOP control (HB-23PT)



Response of HB-23P is equivalent to curve with MOP 0.

Induction coil input characteristics (HB-23PT only)



Note:

- (1) Production number (serial number) is indicated inside the battery compartment.
- (2) Production year is imprinted at the bottom of the unit.
- (3) Manufacturer's name is imprinted at the rear side of the unit.

