

User Manual

Dear customer:

Thank you for choosing our BTE Hearing-aid!

The hearing aid is a very sophisticated electronic equipment which is used for hearing compensation for the one who has hearing impaired.

This manual will introduce you some basic use methods of hearing aid and the solutions of common problems to help you use hearing aid better. Please read it carefully and regard it as a user guide.

With any question, please be free to contact the local hearing center or customer service center.

1. Overview

1.1 Product Name: BTE Hearing-aid (FCC ID: 2A445-FHL9SP-DW)

1.2 Product features

The BTE hearing-aid is a digital hearing aid, and has multiple signal processing channels, adaptive noise reduction management, adaptive feedback suppression and other functions. BTE hearing-aid is not only suitable for listening in quiet environment, but also suitable for noisy environment. The appearance design of the product conforms to the principle of ergonomics and is comfortable to wear.

1.3 Software version

Software name: Embedded sound processing software based on ultra-low power DSP

Version: V1.0

1.4 Data transfer protocol based on product embedded software

Standard BLE communication protocol.

1.5 Model Number: FHL9SP-DW

1.6 Operation condition

Temperature: $0^{\circ}\text{C} \sim +40^{\circ}\text{C}$

Relative Humidity: $\leq 80\%$

Atmospheric pressure: 86KPa~106KPa

Voltage: DC 1.3V

1.7 Impact on environment

Please do not randomly abandon the battery after use. Please dispose of the used batteries according to local regulations.

1.8 Safety

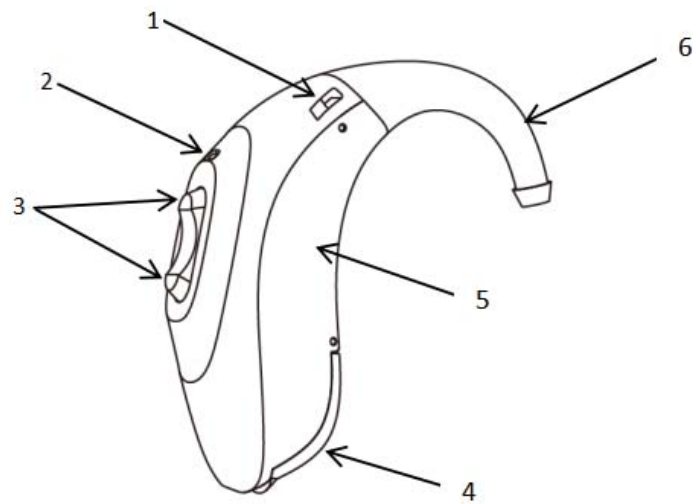
- Danger: To avoid explosion, please do not put the hearing aids into fire or microwave oven, and so on.
- Danger: To avoid being swallowed by children in accident, please keep the hearing aid away from children.
- This hearing aids can only be used by people with hearing loss, the rest cannot be used.

- Those who have undergone ear canal surgery are not recommended to buy this product directly. They should go to the hearing center to consult with an audiologist or a doctor before purchasing.
- A hearing aid should not be applied to both ears at the same time. Because the hearing loss of the right or left ear is different.
- In case of battery leakage, please stop using the hearing aid and contact the customer service center.
- The patient is also the operator for the device.
- Only to connect to equipment that conforms with international safety standards, if externally connected.
- Software controlled fitted OSPL90 shall not exceed the selected value as a result of corrupt data transfer between programmer and Hearing aid.
- Special Users:
 - (1) Children need to wear hearing aids with the help of adults.
 - (2) Please consult your doctor before using hearing aids.
- Warning: Hearing aids are able to provide more than 132 dB SPL. The fitted OSPL90 does not increase if the control is disconnected or defective. It need to the hearing aid professional for RECD measured to correct target of fitted OSPL90. The hearing aids should be fitted by the professional operator otherwise there may be a risk of impairing the remaining hearing of the patient; The hearing aid should be only used by the hearing impaired, not by any other.

2. Technical Specification and Structural Characteristics

2.1 Structure characteristics

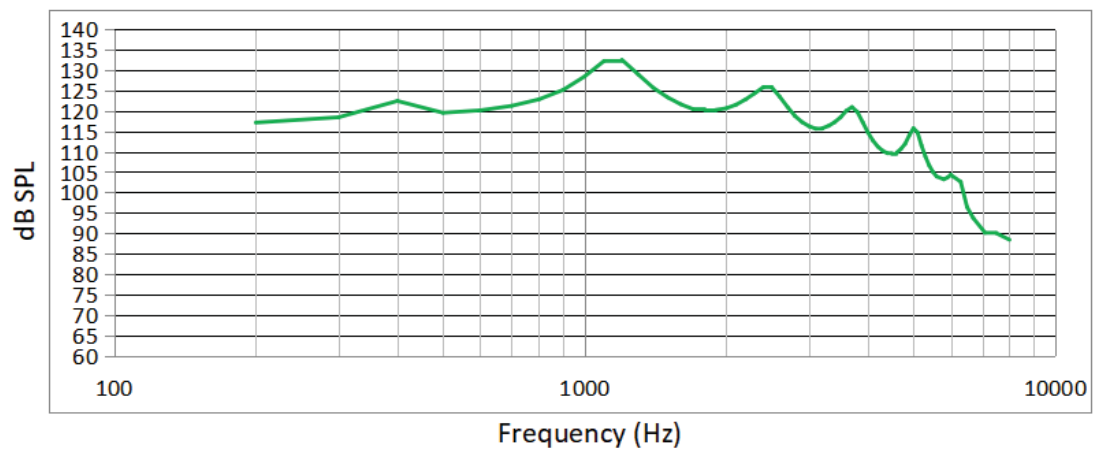
This hearing aid consists of microphone, signal magnify processing circuit, receiver, multi-functional button, zinc air battery, shell and embedded software(v1.0)



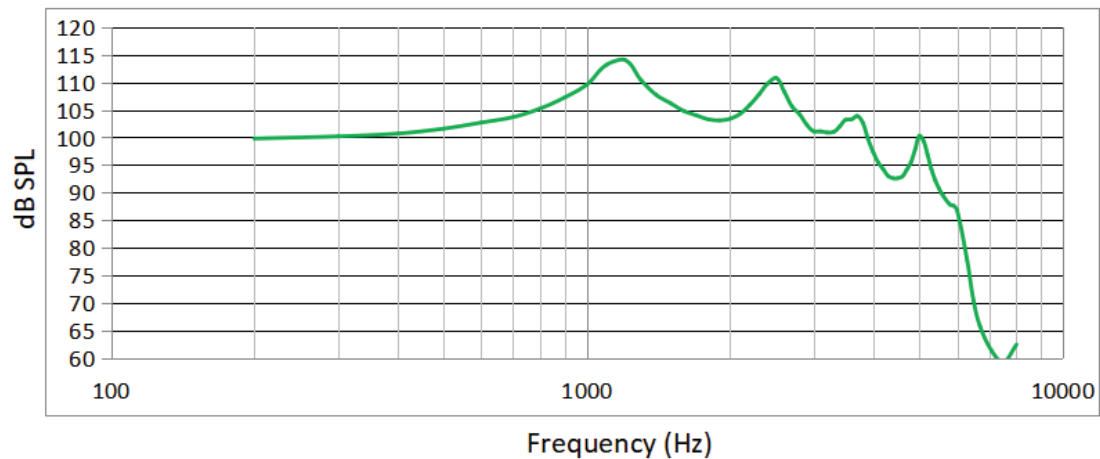
1、 Front MIC 2、 Back MIC 3、 Multi-functional button 4、 Battery Door 5、 Shell 6、 Ear hook

Response curve

Maximum Output(OSPL90)



Reference Test Gain (60dB SPL)



3. Indication and Target Users

3.1 Indication

Hearing compensation for air conductive hearing loss patients.

3.2 Target Users

Suitable for patients with air-conduct hearing loss, but children under 12 years of age need to be used under the supervision of an adult.

4. Contraindication

Acute otitis externa, tympanitis, chronic suppurative otitis media (in the period of purulent infection) and acute suppurative otitis media are not suitable for wearing hearing aids. Patients who are allergic to this material.

5. Precautions

5.1 The fitted hearing aids shall be undergo professional hearing test and fitting, and shall be used under the professional guidance of doctors or audiologists.

This product will not restore normal hearing and will not prevent or improve hearing impairment resulting from organic conditions. This product is designed to help you make greater use of your remaining hearing. You should keep in mind that it can take time to become accustomed to hear new sounds.

For best results, using the hearing aids as much as possible. In most of time, infrequent use of the hearing aids doesn't permit you to attain full benefit from them.

The use of a hearing aid is only part of hearing rehabilitation and may need to be

supplemented by auditory training and instruction in lipreading.

It is good practice for a person with a hearing loss to have a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear). Licensed physicians who specialize in diseases of the ear are often referred to as otolaryngologists, otologists, or otorhinolaryngologists. The purpose of a medical evaluation assure that all medically treatable conditions that may affect hearing are identified and treated.

Children with hearing loss : In addition to seeing a physician for a medical evaluation, a child with a hearing loss should be directed to an audiologist for evaluation and rehabilitation. Because hearing loss may cause problems in language, educational and social development of a child. An audiologist is qualified to assist the evaluation and rehabilitation of a child with hearing loss.

5.2 Dehumidification

Any form of moisture has an impact on the hearing aids. dehumidification can extend the life of the hearing aids. Avoid using or storage in humid environment, to dry the hearing aids on a regular basis.

5.3 Water Prevention

Do not immerse the hearing aids in any liquid. Remove the hearing aids in advance and keep it properly when swimming, bathing, washing hair, washing face, etc Please wait until the ear canal is dry before wearing your hearing aids. after swimming and showering. In case the hearing aid falls into the water accidentally, do not dry it in the microwave oven or any dryer. You can dry it with soft and clean cotton cloth and dry it naturally in a ventilated environment. If there is any fault, please contact the fitting center where you purchased the hearing aid or directly contact the customer service center of our company.



5. 4 High Temperature Prevention

Never exposing hearing aids on extreme temperature or prolonged exposure to sunlight.



5. 5 Falling Prevention

Hearing aids are precision electronic devices, which should avoid falling to the ground or violent vibration and attack.

5. 6 Other precautions

- Do not wear hearing aids when receiving short wave hyperthermia, X-ray, MRI scan, CT scan or similar radiotherapy.
- Keep the surface of the hearing aids neat and clean the earwax in the earplugs frequently.
- The touch button should be used correctly and pressed gently as far as possible to avoid excessive force.
- Hearing aid shall be regularly sent to the fitting center for maintenance and inspection to ensure that the hearing aid is in good condition.
- Remove the hearing aid and make sure the earplugs don't stay in the ear.

You should see a hearing care professional if you:

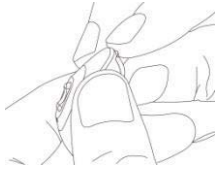
- Visible congenital or traumatic deformity of the ear.
- History of ear infection or continuous drainage from the ear within the previous 90 days.
- Sudden unilateral or bilateral hearing loss onset within the previous 90 days.
- Have acute or chronic dizziness, poor dexterity, poor vision, or significant dementia.
- Suspect that you have significant ear wax accumulation or a foreign object in the ear canal. Symptoms of significant ear wax accumulation can may lead itching in your ear, a feeling of fullness in your ear, and/or reduced hearing.
- Experience pain or discomfort in the ear.

- Have a noticeable difference in hearing between ears.
- Have sudden onset or rapid worsening of tinnitus (ringing in the ear) in one or both ears within previous 90 days.

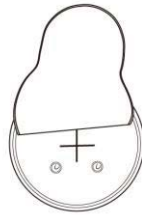
6. Steps for Wearing and Using BTE Hearing-aid

6.1 Insert the battery

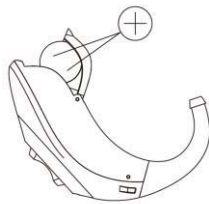
- ① Check the battery model: Please use 13A battery.
- ② Open the battery door by gently picking the convex part of the battery door surface with your fingernail;



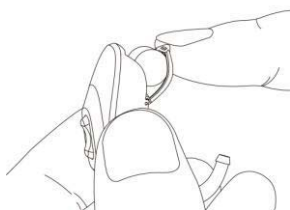
- ③ Remove the label on battery and expose it in the air for at least 1 minute;



- ④ Put the battery in and make sure the remark '+' of battery is in the same direction with the remark '+' of battery door;



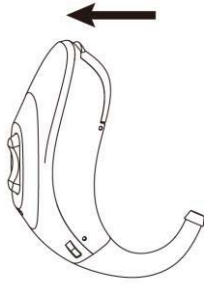
- ⑤ Close the battery door tenderly;



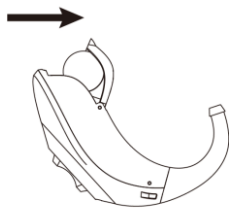
Low battery indicator: when the hearing aid is in low battery, you will hear indicator sounds(4 beeps, or other sound set up by dispensers) which the frequency is about 5 minutes/time. You are suggested to change the battery within 30 minutes.

6.2 ON/ OFF

ON: hearing aid will turn on when close the battery door

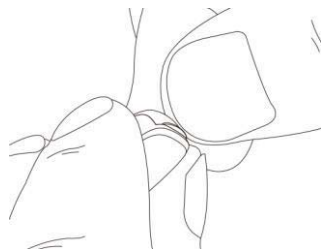


OFF: hearing aid will turn off when open the battery door



a) Remove the battery

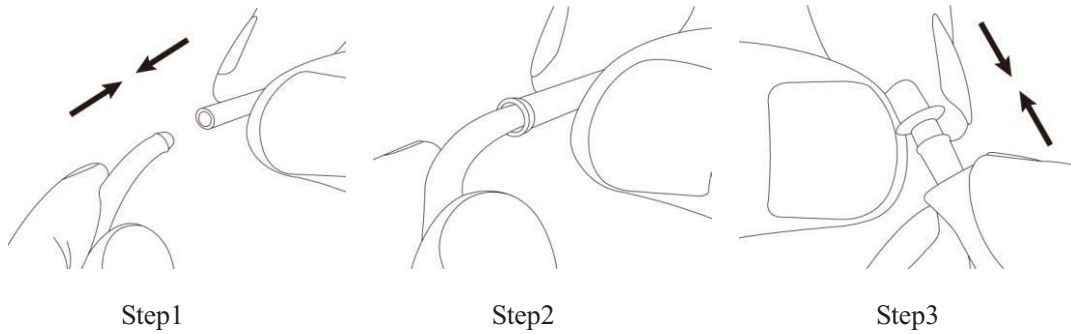
Open the battery door by gently picking the convex part on the surface of the battery door with your fingernail. After the battery door is fully opened, take out the battery.



FHL Series:

b) Wear hearing aid

1. hearing aid accessory assembly

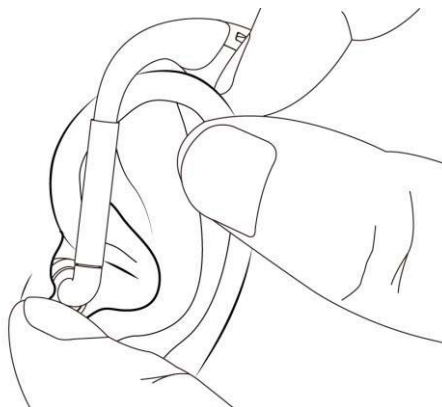


2. Steps for wearing hearing aids

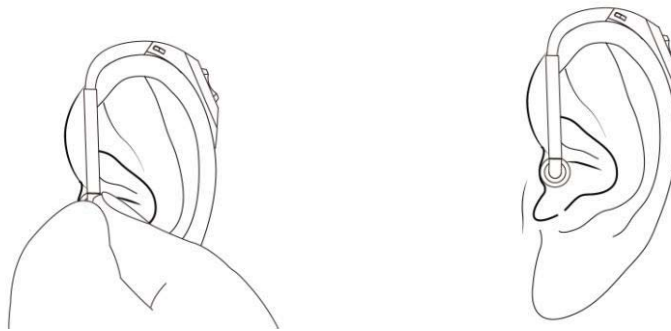
a) Hold the bottom of the acoustic tube with your fingers, and gently push the earplug into the ear canal;



b) Pull the ear back with the other hand, and rotate the earplug back and forth to adjust the earplug position until it is worn in place;



c) Place the hearing aid behind the ear and close to the head, with the ear hook hanging comfortably on the ear.

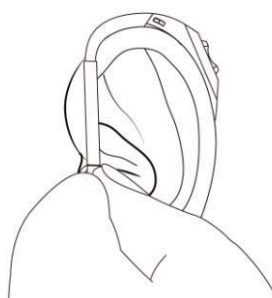


6.3 Remove the hearing aid

1. Remove the hearing aid from behind the ear;



2. Grasp the bottom of the sound tube and gently pull it. After the earplug is loose, take it out and remove it together with the hearing aid.

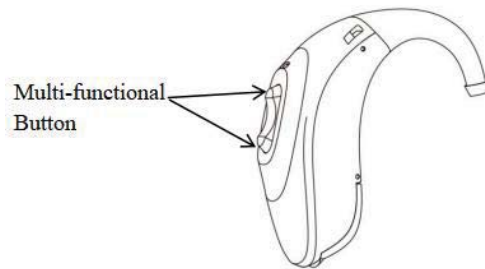


6.4 Program Switch

1. Press and hold the Multi-functional button above to switch the program file from P1 → P2 → P3 → P4 → P5 → P6 → P1. Press and hold the Multi-functional button below to switch the program file from P1 → P6 → P5 → P4 → P3 → P2 →

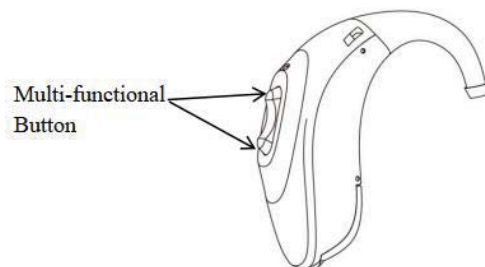
P1.

2. Press the Multi-functional button above (5s) for a long time to turn off Bluetooth, and the hearing aid will enter flight mode. When the hearing aid enters flight mode, it needs to be restarted to enable Bluetooth.



6.5 Volume Control

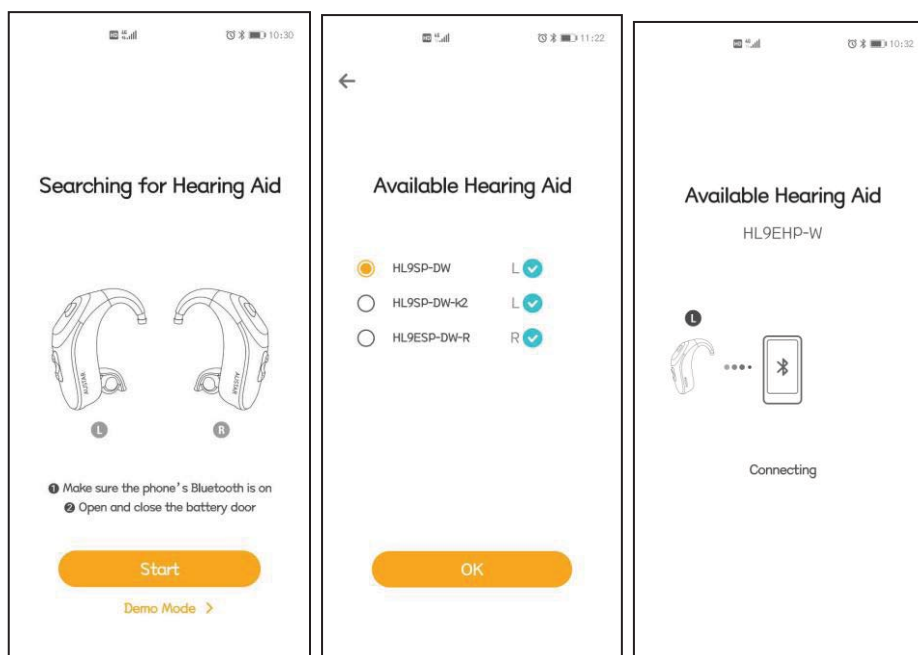
Shortly press the Multi-functional button above to gradually increase the volume, and press the Multi-functional button below to gradually decrease the volume.



6.6 APP Control

If the hearing aid model contains the character 'W', user can easily control the volume and program by mobile APP. Please contact the audiologist for download and use of the hearing aid.

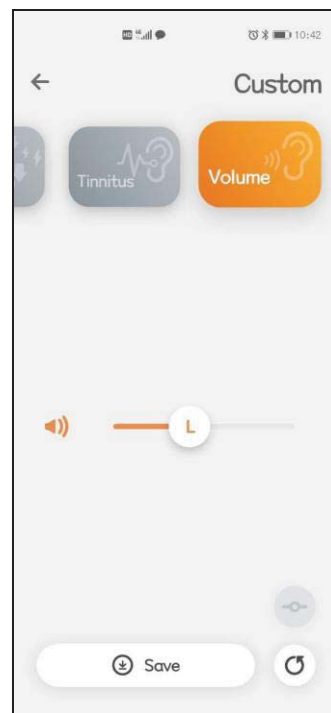
①Search for hearing aid: launch the mobile APP, search for the hearing aid, connect the device named.



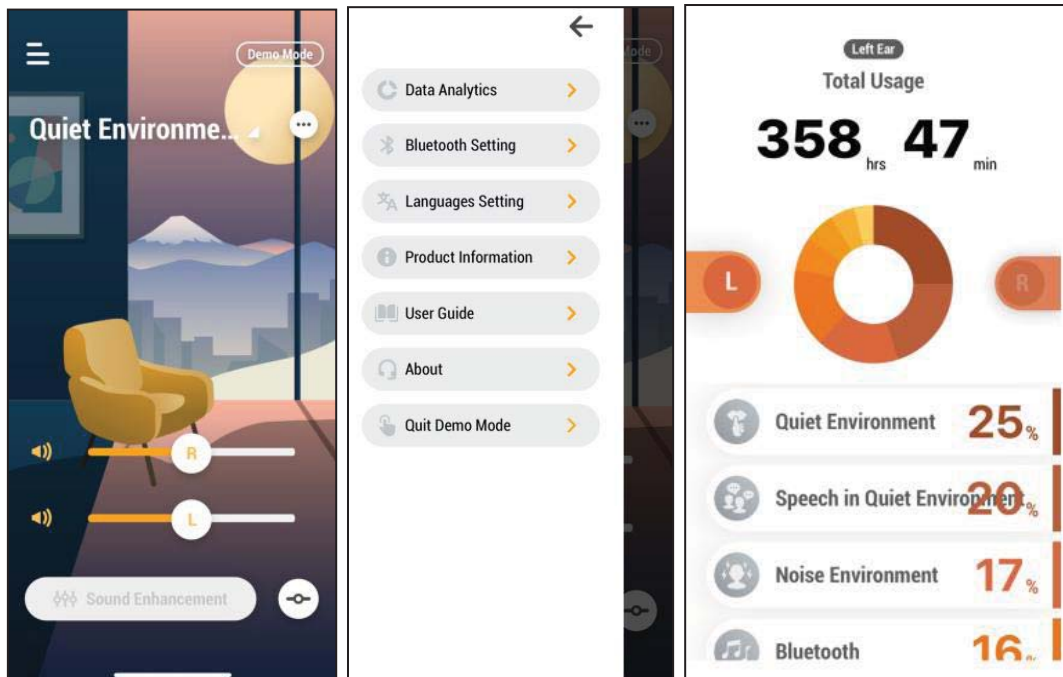
②Program switch: there are 7 programs in all to switch. Quiet environment, noise environment, chat in quiet environment, chat in noise environment, wireless blue tooth, wind noise and customized environment.



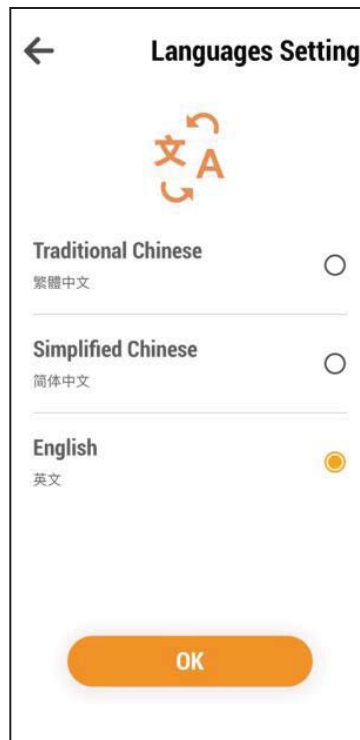
③Volume control: slide left to decrease the volume, and slide right to increase the volume.



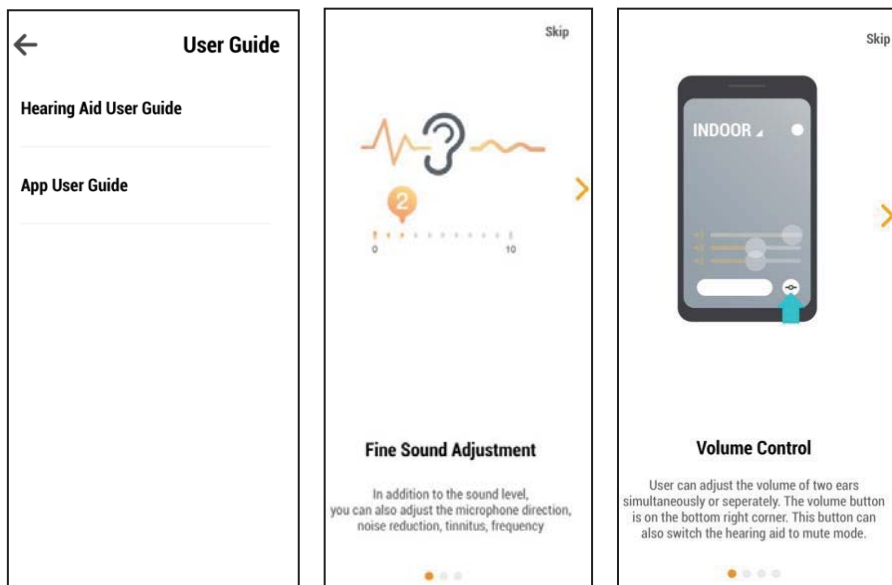
④Usage log: click the option in the upper left corner of the APP page, and multiple options will appear. Click the usage log to view the usage time of the hearing aid.



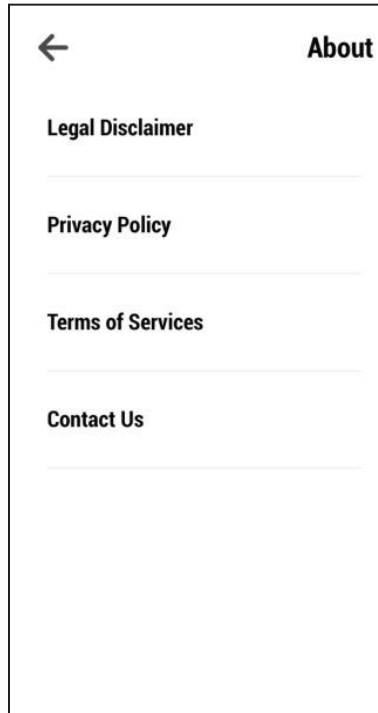
⑤Language setting: Set APP language, traditional Chinese, simplified Chinese and English.



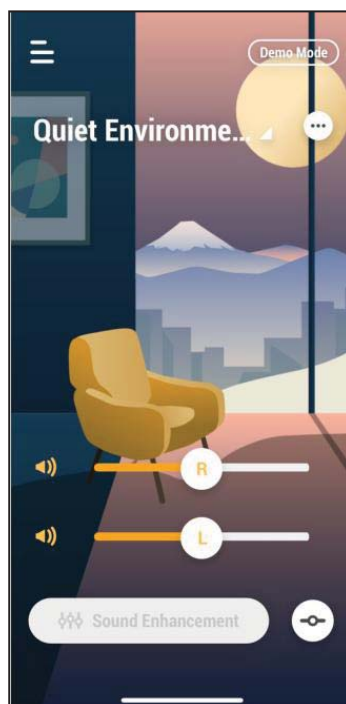
⑥User guide: hearing aid user guide and application user guide.



⑦About: Contact information and version involved.



⑧ Demo mode: experience how to use APP without connecting to the product.



7. Troubleshooting

Fault	Reason	Solution
Whistling	The earphone is not worn correctly Too much earwax in the ears	Wear correctly again Clean earwax

No sound	Powered OFF No battery in the hearing aid Low battery power or no power Sound hole is blocked by dirt Ear Dome is blocked by dirt	Power ON Install battery Change a new battery Clean hearing aid Clean ear dome
Small voice	Low volume Low battery Hearing aid gets wet Sound hole is blocked by dirt Ear Dome is blocked by dirt	Turn up the volume Change a new battery Dry the hearing aid Clean the hearing aid Clean ear dome
High power consumption	Hearing aid are not turned off when not using Hearing aid gets wet	Please turn off your hearing aid when not in use Dry the hearing aid
Intermittent voice	Battery failure Sound hole is blocked by dirt wax guard is blocked by dirt	Change a new battery Clean hearing aid Clean ear dome

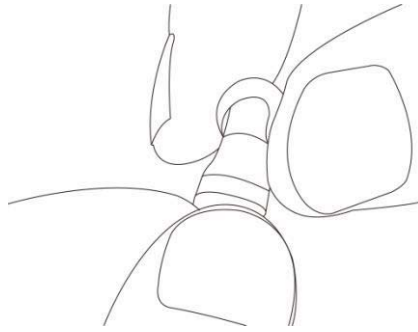
If the above methods still can not solve the fault, please contact the fitting center where you purchased the hearing aid, or directly contact the customer service center of our company.

8. Maintenance of hearing aids

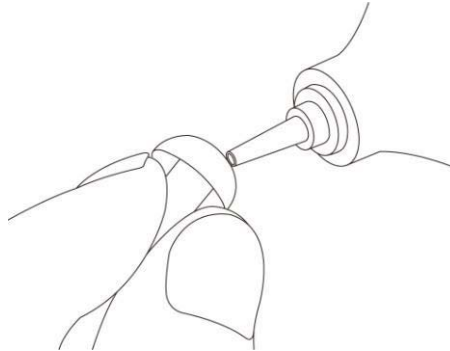
During the use of hearing aids, earwax (cerumen) produced by the ear will accumulate in the ear canal and the sound hole of the hearing aid. A large amount of accumulated earwax will affect the effect of the hearing aids, so please clean your ear canal and maintain the hearing aids every one month.

8.1 Clean ear dome

1. Remove the earplug from the sound tube;

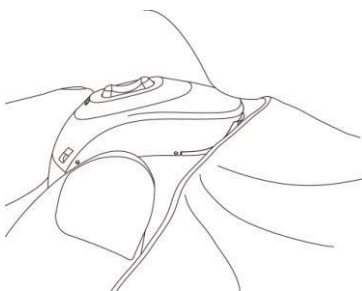


2. Dry the earplugs and make sure there are no water drops left. If there are similar tools like blowing balloons, you can use blowing balloons to blow the water droplets dry.



8.2 Clean hearing aid

- Please clean the hearing aid in a soft and clean interface such as towel to avoid the damage of accidental drop.



- Wipe or clean the hearing aid on a soft desktop (for example, a soft towel can be placed on the desktop) to avoid damage caused by accidental dropping of the hearing aid.
- Remember: Do not use any liquid to clean the hearing aid.

8.3 Dehumidification of hearing aids

Please put the hearing aid into a special drying box for drying before going to bed every night to prolong the service life of the hearing aid

Remarks: Special drying box shall be purchased separately.

8.4 Vibration prevention of hearing aids

When you do not need to use a hearing aid when going out, please put the hearing aid into a shock proof box or bag.

9. Electrical Safety Instructions

- Classification by anti electric shock type: Internal power supply equipment.
- Classification according to the degree of protection against electric shock: Type B application part.
- For hearing aids that do not comply with requirements for explosive or oxygenenriched atmospheres: warning not to use the hearing aids in such areas.
- For hearing aids with wireless transmission: warning to check first before using the hearing aids system in areas where electronics or wireless devices are restricted.
- Classification by operation mode: Continuous operation equipment.

10. Technical description

The supplier may provide circuit diagrams, component lists, drawing notes, correction rules, or other data necessary for qualified technicians to help users repair the serviceable parts designated by the manufacturer.

11. Accessories List

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Item	Qty	Unit
User Manual	1	PC
certificate	1	PC
Warranty Card	1	PC
Plastic Box	1	PC
Battery	1	PC
Ear Domes	1	SET

12. Unpacking and Check

- After unpacking, please check the accessories are consistent according to the list.
- Check the product model marked on the warranty card is consistent with that of the hearing aids.

13. Warranty of hearing aid

13.1 Free Warranty Coverage

All hearing aids produced by our company enjoy free warranty for faults caused by non-human factors from the date of purchase.

13.2 Warranty Period.

From the date of purchase, it should be non-human damage, free repairs are given within the warranty time, please check the warranty period on the warranty card.

13.3 Following situations are not covered by the free warranty.

- Damage caused by incorrect use or improper operation.
- Damage caused by self disassembly and assembly of the hearing aids.
- Damage caused by force majeure (flood, fire, earthquake, etc.).

14. Production date and Use period

It is the normal working time of the product. The product needs to be stored and used as required, and its expected function will be affected after the specified usage time (Such as failure to meet product performance indicators). Hearing aid products have a lifespan of 8 years. The date of manufacture is shown on the label.

15. Transport and storage restrictions

Temperature: $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$

Humidity: $0\% \text{ RH} \sim 93\% \text{ RH}$

Barometric pressure: $86\text{KPa} \sim 106\text{KPa}$

Storage conditions: normal temperature, clean, protected from light,

non-corrosive gas and well-ventilated room.

Transportation conditions: The packaged hearing aid can be transported by general cargo transportation methods, and should be protected from rain, sun and collision during transportation.

16. Network Security

Data exchange: Bluetooth 5.0 BLE wireless connection.

Data encryption/data desensitization: Transmission of data is a test parameter required for the operation of the device and does not involve user information or clinical data.

Hardware and software environment: Hardware configuration: 8 core CPU processor;Running memory 4GB; The body stores 64GB.

Software operating environment: Above Android 8 and IOS 8.

Programmer	Manufacturer/Supplier
HiPro	Otometrics
Noahlink	HIMSA
Promira	TotalPhase Inc.
CAA	ON Semiconductor
DSP3	ON Semiconductor

In addition, the Bluetooth 5.0 BLE connection can only be used after the hearing aid is paired with the mobile APP.

17. Symbol Information

	Symbol for "User Guide must be read"		Symbol for "Consult instructions for use"
	Symbol for "Manufacturer"		Symbol for "Caution"
	Symbol for "Fragile, handle with care"		Symbol for "Keep dry"
	Symbol for "Date of manufacture"		Symbol for "Serial number"

	Symbol for "Use-by date"		Type B Applied Part
	This marking shown on the product or its literature, indicates that it should not be disposed of, with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.		The harmful substances in the product meet the limited requirements.

Manufacture: Austar Hearing Science and Technology (Xiamen) Co., Ltd.

Address: B8, Biomedical Industrial Park, No.2064 Wengjiao West Road, Haicang Dist.

Xiamen, Fujian, China

Post code: 361028

Tel: +86-0592-5900230

Fax: +86-0592-5621123

Preparation date: 2022.11

FCC Statement:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.