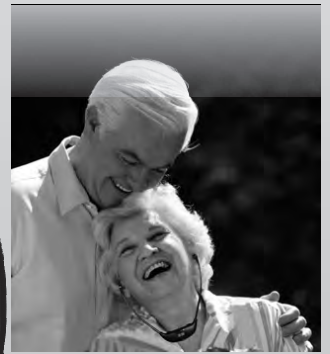


# TV hearing aid



**BL-8008A**  
**BL-8008B**

**Manual**

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## **A. Product instruction**

### **1. What is TV hearing aid**

TV hearing aid is specially designed for hearing disable people to listen to TV (or other audio devices). It can help to listen to TV sound clearly while other hearing aids can't do it. In the market, hearing disable people can only find normal wireless headphone for watching TV, the worst thing is that it will make the hearing ability worse and worse by only adjust the volume louder for a long time. TV hearing aid can solve above problems.

Besides strong wireless TV listening function, it is a perfect hearing aid and a wired hearing improving headphone. You can connect it with normal telephone, mobile phone, listening to music, listening to radio, etc.

### **2. Theory**

TV hearing aid use IR wireless technology, TV sound is transmitted to receiver user's wearing, this will make the receiving efficiently, and avoid interference of noise and avoid receiving noise around which normal hearing aid can not identify, when target audio source is far, noise from audio source and around audio source is difficult to identify and are amplified together. IR technology can avoid the interference of RF signal, and makes the receiving more stable, sound quality purer.

### 3. Features

3.1 Transmitter part, use special circuit for hearing disable people, to get high quality audio sound.

- (1) Special noise reduction circuit, reduce background noise, make the sound clearer.
- (2) Frequency raise circuit.
- (3) Limit strong signal circuit.
- (4) Big power super far IR transmitter.
- (5) Li-ion charge and auto switch off function.

3.2 Receiver part

- (1) High S/N, noise reduction function.
- (2) Balance adjustment.
- (3) Frequency response function.
- (4) Normal hearing aid function.
- (5) Wired headphone with hearing aid function.
- (6) Li-ion battery design, long time to use.

### 4. Functions

4.1 TV hearing aid function (transmitter + receiver)

#### Features:

- (1) Help hearing disable people to listen to TV sound clearly from far distance, without turning up the volume and disturbing other people, and avoid listening ability becoming worse by listening strong volume for a long time.
- (2) Automatic signal control: hearing disable people's adaptive faculty for volume change is weak (can't bear loud sound, and can't hear low volume sound), our circuit will adjust the sudden change volume and make the output volume stable, it will avoid strong signal hurting user's listening.
- (3) Voice clarifying circuitry: reduce background sound of TV, so that hard to hear words and whispers "jump out" making television dialog easier to understand.
- (4) Balance control: hearing disable people's hearing ability is the same, they can adjust the left and right volume to be suitable for their own level.
- (5) Tone control: in order to solve users' different sound frequency hearing ability, they can adjust the "Tone" button to find the best feature, and hear the target audio source clearly.
- (6) Li-ion base charger, save money, protect environment, easy to use.
- (7) 1 transmitter can match several receivers, for several people to use in the same time.
- (8) Receiver in smaller and light weight design, comfortable to use, weight of receiver: 55g.
- (9) In ear design for receiver, reduce the noise around more efficient.

#### 4.2 Normal hearing aid (receiver+microphone cable)

Features:

(1)Connected with microphone cable, the receiver is a hearing aid, microphone can be shrunk and extended, users can select a distance to place the microphone, and hearing other people clearly.

(2)Balance control: hearing disable people's hearing ability is not balance, they can adjust the left and right volume to be suitable for their own level.

(3)Tone control: in order to solve users' different sound frequency hearing ability, they can adjust the "Tone" button to find the best feature, and hear the target audio source clearly.

#### 4.3 Wired headphone with hearing aid (receiver + wired cable)

Features:

(1)Headphone with hearing aid design, hearing disable people can listen to music, chat on internet, etc clearly, and solve the problem of wearing normal wireless headphone to watch TV by adjusting the volume louder for a long time, so as to make the hearing ability worse and worse.

(2)Balance function, please read 4.2.(2)

(3)Tone function, please read 4.2.(3)

### 5. Who need TV hearing aid

#### 1. Who need to buy TV hearing aid?

(1)People who wish to listen to TV program clearly without disturbing other people and neighbours, and avoid listening becoming worse.

(2)People who use hearing aid, this product can be as normal hearing aid.

(3)Normal listening ability people who don't want to disturb others and who want to protect listening and improve listening clarity.

(4)TV hearing aid is with function design and adjustment for TV watching people (balance adjustment and frequency adjustment), it is first selection of high quality TV headphone for protecting listening.

**B. Product parts**



BL-8008A (for one receiver)      BL-8008B (for two receivers)

1、Transmitter

2、Receiver



3、Audio cable for transmitter



4、Audio cable2



5、Microphone cable



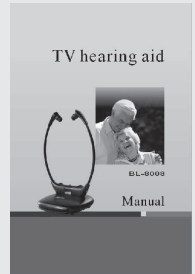
6、Wired headphone cable



7、Power adapter



8、Balance adjusting driver



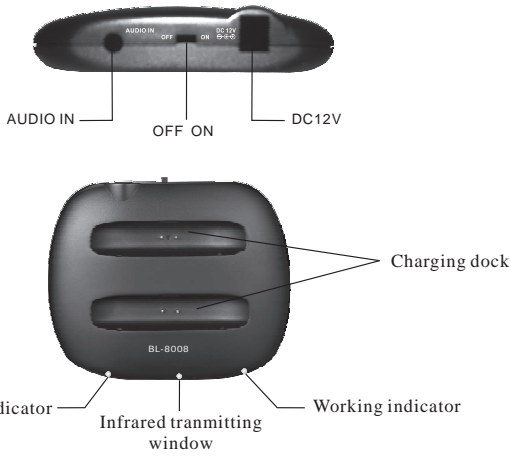
9、Manual

10、Earphone 2 sets

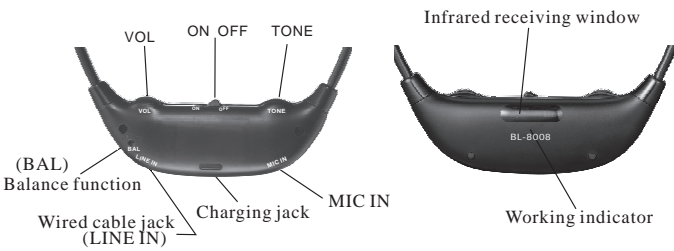


**C. Part function**

1. Transmitter



2. Receiver

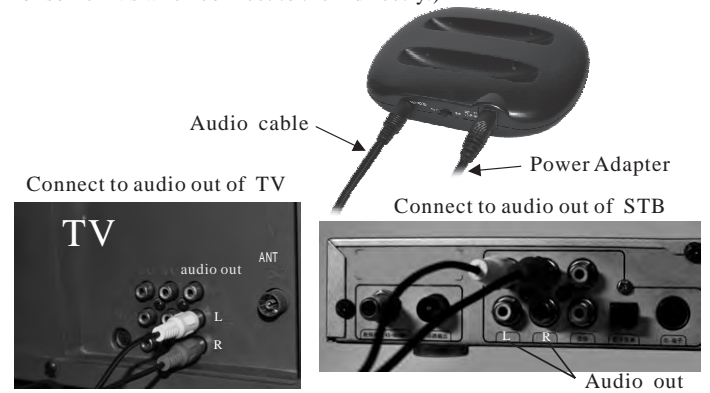


**D. Product manual**

(1) Connect the power adapter to socket and transmitter's power jack.



(2) Connect the audio cable (3.5mm plug) to transmitter's audio-in jack, connect other Lotiform plugs to AUDIO OUT jack of TV, DVD, STB, etc, if it is computer, you need to connect lotiform plugs with Audio cable 2, then connect the 3.5mm plug of Audio cable 2 to earphone jack of computer. If the product is used with STB, DVD, etc, please prior to connect with STB, DVD, and don't connect to TV set directly. (Because the manufacturers of TV are different, maybe there isn't audio out signal for some TVs when connect to them directly.)



Connect to audio out of DVD  
Audio out



Connect to audio out of PC



(3) After make sure the transmitter and audio cables are connected well, switch on the transmitter, the power indicator will be on, this means transmitter is working. Face the transmitter's IR window to the receiving area. Adjust the audio source in working status and turn up its volume properly (when transmitter connects to STB, DVD, PC, etc)



(4) Make sure the receiver's IR window toward transmitter, switch on the receiver, its power indicator will be on, then you will hear the sound from transmitter, adjust the volume properly, if the volume is not loud enough, please turn the volume of audio source louder until the volume meets your requirement.



**Note:** Because this product adopts infrared wireless technology, when you ensure that you have connected the parts well, please note as below:  
a. Transmitter should be put on the higher place, like the top of TV.

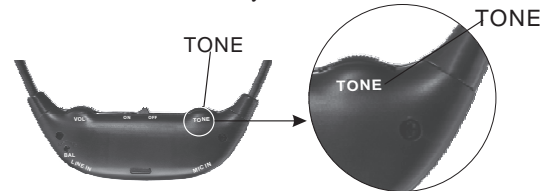
- b. The infrared window of transmitter should be faced to the receiving area.
- c. The infrared window of receiver (ordinarily refer to the side with logo) should be faced to the transmitter.

Noise will occur when run into the below situations:

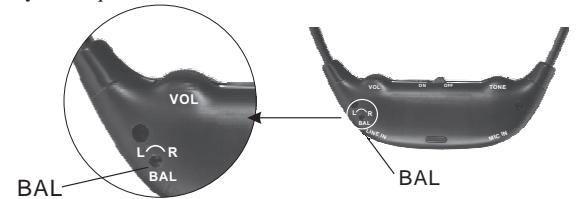
- a. There is obstacle between the transmitter and receiver.
- b. The transmitter is put at a very low place.
- c. The receiver is too far away from the transmitter, or deviation angle is too large.



(5) Frequency response: Rotate the "TONE" in best position, make sure you can hear the TV sound clearly.



(6) Balance adjustment: If the hearing ability of two ears is not the same, you can use the adjust driver to adjust the BAL, make sure the volume meets your requirement.



(7) After adjusting as above, you can hear the TV sound now. In order not to disturb others, you can turn down the TV volume or turn it to mute status.

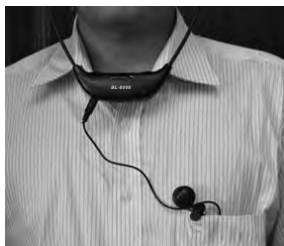
Note: This product adopt IR technology, it will not receive TV sound when you move to other rooms.

(8) Transmitter will come into standby state if there isn't sound input in 25 seconds, when you switch on TV or input sound again, the transmitter will start to work. Receiver will be in mute when it is not in receiving area, until it is back to receiving area.

Note: When Transmitter is in standby state, its power indicator will still be on, IR lamps will be off automatically, please turn off the transmitter if you don't use it.

**2. Normal hearing aid function**

(1) Only connect the receiver to cable with microphone: plug the microphone cable in MIC IN jack, extend the cable, stick the microphone on the other end near the person you are talking to. Switch on the receiver, you will hear other person's sound clearly. Adjust the volume, tone, and balance according to your requirement, so as to get best effect.



(2) When you go out, take the receiver, put the microphone cable in your pocket, clip on the jacket, it can be as normal hearing aid.

**3. Wired headphone with hearing aid**

Plug the end of wired headphone cable in LINE IN jack of receiver, and connect the other end in audio sources like PC, Radio, MP3, etc, switch on the receiver, you can hear sound from audio source. Please adjust the volume, TONE, Balance according to your requirement.



**4. Use normal hearing aid function to listen to telephone**

According to “2. Normal hearing aid function” to adjust the hearing aid function, put the microphone near speaker of telephone, please be close to telephone while talking, then you can hear the sound from telephone clearly. According to volume status, you can adjust the distance between microphone and telephone's speaker, when the distance is shorter, volume will be louder, you can adjust the position of microphone to meet your requirement.



4.telephone



5.mobile phone

**5. Use normal hearing aid function to listen to mobile phone**

According to “2. Normal hearing aid function” to adjust the hearing aid function, put the microphone near speaker of mobile phone, don't be too close to your mobile phone, otherwise there is some interference. while talking, please face to the speaker of mobile phone.



6. Computer chatting function

(1) Plug the microphone cable in the micro-in jack of computer.

(2) Connect one end of wired headphone cable with receiver, and the other end to earphone jack of computer, switch on the receiver, you will hear the sound whom you are talking to. Please adjust the volume, TONE, Balance according to your requirement. If the person at the other side can't hear you clearly, please be close to the microphone and adjust the computer microphone volume to proper position.



7. Charging function

Connect the AC adapter with transmitter and power socket, switch on the transmitter, plug the receiver in the slot of transmitter, the charging indicator on transmitter will be on, it start to charging battery. After 4 hours, Li-ion battery is full, charging function will be closed automatically, and the charging lamp will be dump, this will protect the Li-ion battery and circuit safety. It is better to turn off the audio source or pull off the audio input cable to make the transmitter stop signal transmission and only in charging function.



Notice of charging:

1. Please charge battery after its power is run out in the first three charging. You needn't charge frequently, it is better to charge when power is nearly run out.
2. Please make sure the direction of charging slot and receiver, don't plug the back side toward forward, otherwise the battery is easy to be destroyed.
3. Please turn off the receiver when it is charging the battery.

E. Technology parameters

1、 Transmitter

Working voltage	12V ±0.8V, 400mA
Working current	95 ±8mA
Standby current	10 ±4mA
Trans. frequency	2.3MHz ±0.02MHz
Signal input limiting volt.	≥400mV
Signal standby starting volt.	≥50mV
Signal input standby volt.	≤40mV
Signal input frequency	20Hz - 20KHz
Signal input range	120mV-1.5V
Li-ion battery recharging current	125 ±5mA
Transmission distance	≥10M
No signal standby time	25s ±5s (when no signal put in ,the transmitter come into standby state automatically))

2、 Receiver

Working voltage	3.7V (3.2V~4.2V)
Static working current	19 ±3mA
Dynamic working current	≤45mA
Maximum working current of input	≤25mA
Input signal rage	100 mV~800 mV
Input Working current of MIC	≤20mA
Max. Gain of MIC	33dB
Receiving frequency	2.3MHz ±0.02MHz
Distortion	≤1%
S/N ratio	≥70dB
Maximum output power	800mV / 25mW
LI-ion battery charging time	3~4h
Working time	12 hours for TV hearing aid function, 12 hours for normal hearing aid function.

**3. Working environment**

Working temperature: -10~60 degree, Working humidity: 10%—90%

**4. Storage condition**

Temperature: -30~90 degree, please don't let it be shocked, pressed, and wet.

**F. Problems and solutions**

Phenomena	Causes	Solutions
No Sound	Audio cable is not connected in transmitter well	connect them properly
	Audio-out jack of audio source is connected wrong	connect correct audio-out jack
	The sound of audio source is not turned on or it is in lower volume. (when you use STB or DVD, PC, etc, please turn the volume louder.)	Turn on the volume of audio source, and adjust it to proper volume.
	Infrared window of transmitter is not faced receiving direction or it is keep out by something.	Adjust the position and direction of transmitter, let its Infrared window face receiver's IR window, don't let anything block the signal.
	Receiver is not turned on or its volume is adjusted to lowest position.	Turn on the power, adjust the volume.
Noise	The distance between receiver and transmitter is too far .	Adjust their distance properly.
	The power of battery in receiver is too weak.	Put the receiver in charging slot of transmitter and charge the battery.
	There is obstacle between the transmitter and receiver	Move away the obstacle.
	The transmitter is put at a very low place.	Put the transmitter at a higher place.
	Deviation angle of receiver is too large	Move to the receiver to the front place of transmitter.
Volume is low	The volume from transmitter is too low.	Adjust the volume of audio source.
	The volume of receiver is too low	Adjust the volume of receiver.
Volume in one side is low	balance function is not adjusted well.	Adjust the balance function properly, make the receiver is suitable for the listener.

**G. Notes**

1. When you don't use the product, please turn off the transmitter and receiver, if don't it use for a long time, please take out the adapter and cables and save them properly.
2. Pull the adapter out of power socket before cleaning the product, don't use liquid cleaner or spray cleaner on the product, please use dry cloth to clean the product.
3. Don't use the product near water, like washing pond, swimming pool, washing machine, wet basement, etc.
4. The product can only be used properly under indicated power, if you use other kind of power, the product may reject to start or burn out.
5. Please take out the cable out of power socket in storm weather, or not use for a long time, to avoid the damage from thunder or electric shock.
6. Don't overload the power output, extend electric cable or assemble the transmission receiver by yourself, and avoid fire or electric shock.
7. Please place the product far away from heat source, like stove, fire, heat emitter, etc.
8. For family user, please put the product far away from microwave oven and mobile phone to avoid unnecessary electronic wave interference.