

Personal Audio Enhancer

PAE-300

User Manual



IMPORTANT PRODUCT SAFETY AND OPERATION INSTRUCTIONS

THIS INSTRUCTION MANUAL HIGHLIGHTS KEY INFORMATION ABOUT SAFETY, OPERATION AND MAINTENANCE OF THE PERSONAL AUDIO ENHANCER.

PLEASE READ THROUGH THIS MANUAL IN ITS ENTIRETY BEFORE STARTING TO USE THE PRODUCT. IT PROVIDES VALUABLE INFORMATION FOR HOW TO UTILIZE AND MAINTAIN THE PRODUCT AND FOR HOW TO PROTECT USER'S SAFETY DURING OPERATION. PLEASE CAREFULLY FOLLOW THE INSTRUCTIONS OUTLINED IN THIS MANUAL.

Note :

- This product is not a hearing instrument. Anyone who is experiencing hearing loss is recommended to consult with a doctor.
- This product will not restore normal hearing nor reduce hearing loss.
- This product has a sound amplifying function and the sound level can cause discomfort or damage hearing if the product is used improperly. Always turn the volume down to a low level before putting on the headset.
- To ensure child safety, please keep the package and small parts included in this product out of reach of children.

IMPORTANT PRODUCT SAFETY AND OPERATION INSTRUCTIONS

Operating Your Personal Audio Enhancer

- Do not drop, disassemble, burn, paint or insert foreign objects into this product.
- Do not use this product if it has been cracked, punctured or damaged by water.

Cleaning the Surface of Your Personal Audio Enhancer

- Disconnect all power cables and turn off the system before cleaning this product.
- Use a soft slightly damp, lint-free cloth to clean this product.
- Do not use window cleaners, household cleaners, aerosol sprayers, solvents, alcohol, ammonia, or abrasives to clean this product.

Charging

- This product use re-chargeable Lithium-ion battery.
- This product must be fully charged before the first use.
- Only the Base Unit or Micro-USB charger provided with this product should be used for charging.
- The battery must be replaced by qualified personnel.
- It may cause explosion if the battery is replaced improperly.
- Battery charging should be performed at the temperature of 5 °C to 40 °C.

Charger

- If some trouble occurs while using the charger, immediately shut off the power by disconnecting the plug from the wall outlet.
- To reduce the risk of fire or electric shock, avoid wetting, exposing under water, or placing containers with water on the product.
- To completely disconnect the power, unplug the charger from the AC power source.
- The rating of the charger is shown on the back of the charger.

Maintenance

- This product should be repaired by VitaSound authorized dealers, or service center staff only.
- Unauthorized persons should not attempt to repair or modify this product.
- Any attempted disassembly or repair of the product by a user or unauthorized party will void the product warranty and may irreparably damage the product.

Avoid Water or Direct Heat

- Do not expose the product into water or under rain.
- Do not expose under a temperature over 60 °C such as directly under sunlight or in a car parked under sunlight.
- Do not burn, throw into fire, or heat by microwave.

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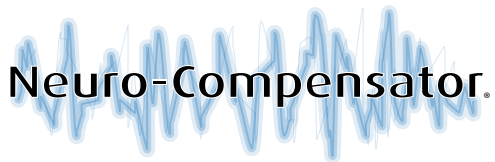
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Introduction

Thank you for choosing the Personal Audio Enhancer by VitaSound Audio Inc. This is a multi-functional communication device which delivers high-definition sound for everyday listening situations. Powered by patented neural-based technology, the Personal Audio Enhancer allows users to benefit from improved sound quality where background noise or low volume levels make listening and communication difficult.

POWERED BY:



Using leading-edge brain science, patented Neuro-Compensator® technology enforces an optimal electrical signal from the root of the auditory nerve to the brain. Improving the listening experience by delivering a clear and natural sound.

Checking the accessories supplied

Standard package (Including Base Unit)

Personal Audio Enhancer (handset) x 1

Earphones with microphone x 1

Base Unit

Stereo cable x 1

(For connecting with cell phone or MP3 player)

Neck loop x 1

Bag case for earphones x1

A/C adaptor x 1

Analog (RCA) audio cable, 2 meters x 1

Optical audio cable x 1

Instruction Manual (this manual) x 1

Quick Reference Guide x 1

Other accessory (Optional):

Additional Handset

Micro-USB Charger for travel

Bag case

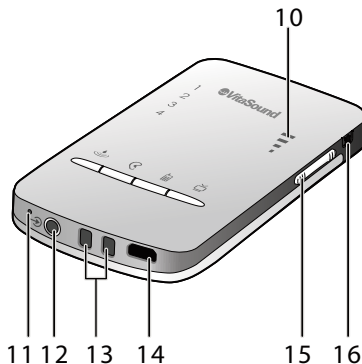
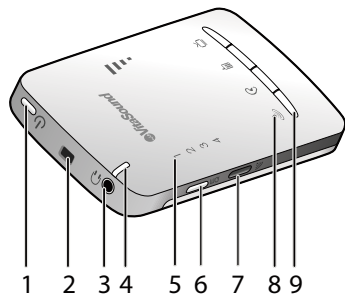
Travel Case

Coaxial audio cable

Visit www.vitasound.com for more information.

Identifying parts









Personal Audio Enhancer



1. Power button
2. Hook for neck loop
3. Earphone port (Connects to earphones)
4. Power indicator:
 - **Red:**
 - **Solid Red:** System is on
 - **Off:** System is off
 - **Blinking Red:** Low battery; device needs charging.
 - **During Charging:**
 1. Solid Red: Charging
 2. Off: Charging completed
 - **Green:**
 - **Solid Green:** Device is paired successfully with the Base Unit.
 - **Blinking Green:**
 - Connection problem occurring, please re-pairing the device with the Base Unit.
 - After pressing wireless pairing button:

(Refer to "Wireless Pair with Base Unit" on P.9)

5. EQ audio mode indicator
 - 1- Normal
 - 2/3/4 - High frequency enhancement
6. EQ mode button
7. Wireless pair button
8. Function mode indicator

9. Function mode buttons
 -  TV Mode
 -  Talk Mode
 -  Phone Mode
 -  Relaxation Mode
10. Volume level indicator
11. Reset button
12. Stereo port
(For connecting with cell phone or MP3 player)
13. Charging port for Base Unit
14. Micro-USB charger port
15. Volume buttons
 -  Volume up
 -  Volume down
16. Lock switch :
 -  Lock mode :
All buttons will not be taken effect while being pressed (except power button)
 -  Unlock Mode:
All buttons can be taken effect when pressed.

17. Power indicator

■ **Solid Red:** Base Unit is **ON**

■ **Off:** Base Unit is **OFF**

18. Power button

19. Wireless pair button

20. Wireless/Audio source indicator

■ **Solid Green:** Receiving audio signal from TV

■ **Slow flashing:** No audio signal from TV

■ **Fast flashing:** Under pairing process with Base Unit after pressing wireless pair button.

(Refer to "Wireless Pair with Base Unit" on P.9)

21. Charging port for Personal Audio Enhancer

22. Analog (RCA) audio-in port

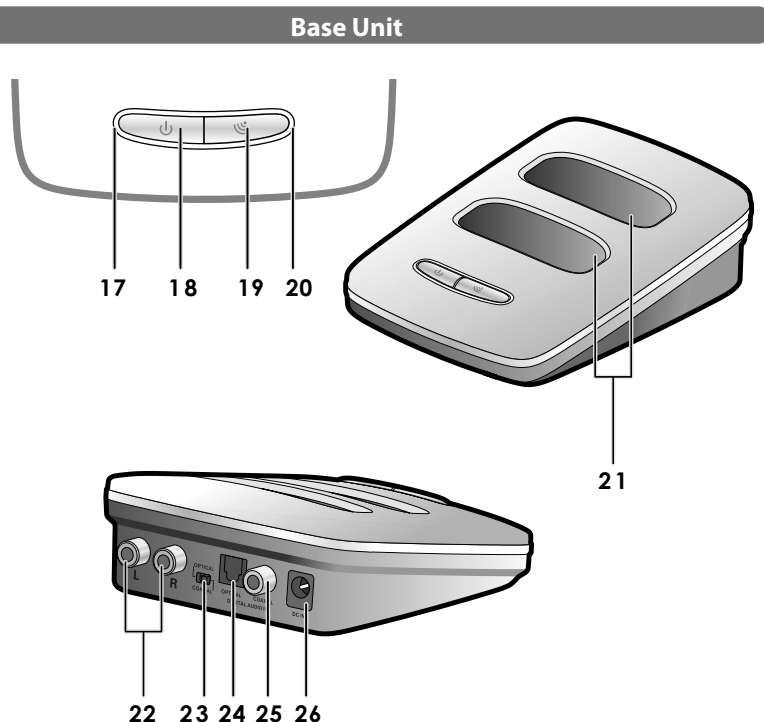
23. Audio input mode switch

- Optical audio input
- Coaxial audio input

24. Optical audio-in port

25. Coaxial audio-in port

26. A/C adaptor port

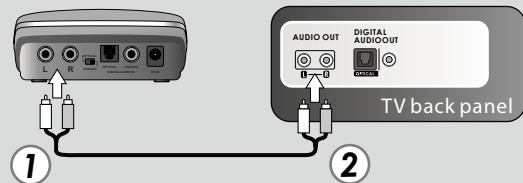


Installation of Base Unit to television

1. Connect Base Unit with TV:

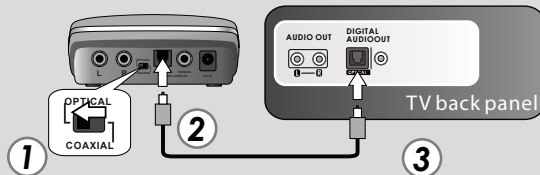
Connect with analog (RCA) audio cable:

1. Connect the Base Unit with one end of the analog (RCA) audio cable; **(Red connector to Red port; White connector to White port)**
2. Connect the other end of the analog (RCA) audio cable with the analog (RCA) audio-out port of the TV. **(Red connector to Red port; White connector to White port)**



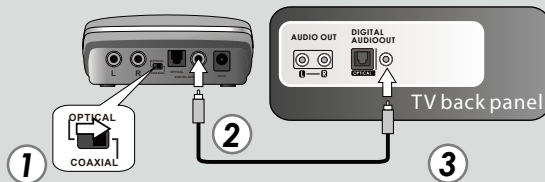
Connect with optical audio cable:

1. Switch "Audio input mode switch" into "Optical audio input";
2. Connect one end of the optical audio cable to the optical audio-in port of the Base Unit;
3. Connect the other end of the optical audio cable to the optical audio-out port of the TV.

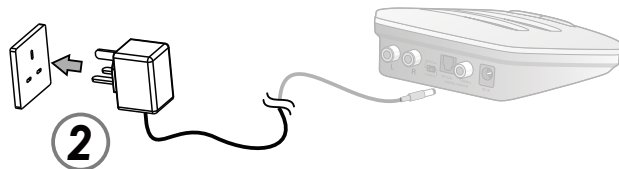


Connect with coaxial audio cable:

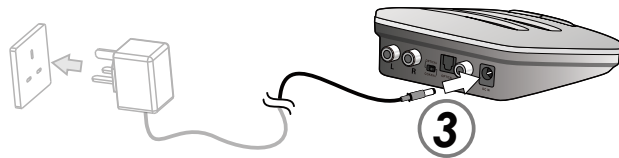
1. Switch "Audio input mode switch" into "Coaxial audio input";
2. Connect one end of the coaxial audio cable to the coaxial audio-in port of the Base Unit;
3. Connect the other end of the coaxial audio cable to the coaxial audio-out port of the TV.



2. Plug the A/C power adaptor into the wall socket;



3. Connect the A/C power adaptor with the Base Unit;



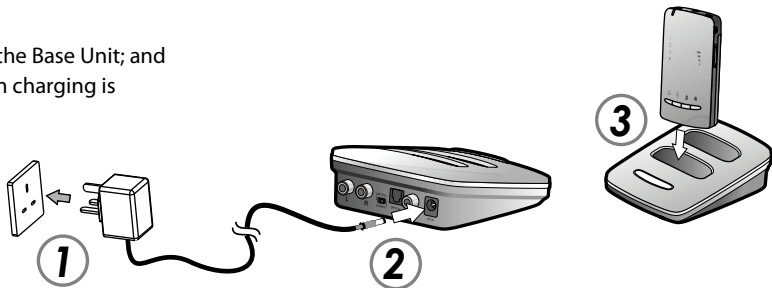
Note:

1. The Base Unit should be placed firmly.
2. The Base Unit will take the signal from optical or coaxial audio cable as higher priority when both of the analog (RCA) cable and the optical or coaxial audio cable connect to the Base Unit. To use analog audio cable as audio source, please first disconnect the optical and coaxial audio cables.
3. The types and positions of the audio output port equipped on the television are dependent on the brand and model of the television. Please read the television manual provided or contact the television supplier for details.

Charging The Personal Audio Enhancer:

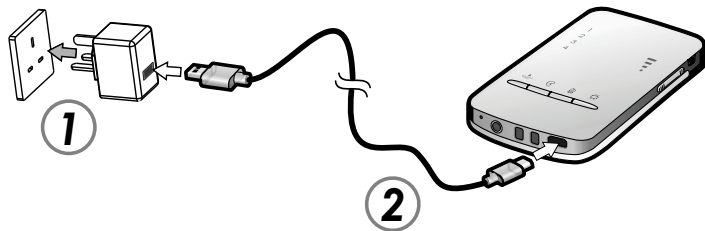
Through The Base Unit:

1. Plug the A/C adaptor into the wall socket.
2. Connect the Base Unit with A/C adaptor.
3. Insert the Personal Audio Enhancer into charging port of the Base Unit; and
4. Unplug the Personal Audio Enhancer from Base Unit when charging is completed.



Through micro-USB charger:

1. Plug the micro-USB charger into the wall socket.
2. Connect the Personal Audio Enhancer with the micro-USB charger for charging.
3. Disconnect the Personal Audio Enhancer from the micro-USB charger after charging; and
4. Unplug the micro-USB charger from the wall socket.



Warning:

The product can be only charged through the micro-USB charger from VitaSound.

Complete charging time:

- Through Base Unit or micro-USB charger: 5 hours

Note:

The above time required to fully charge is based on charging the battery at a temperature of 25 °C (77 °F). The actual charging time may be different depending on the remaining battery level, environment, and temperature.

Battery Life:

- Talk Mode and Phone Mode: 12 to 14 hours
- TV Mode: 6 to 8 hours

Note:

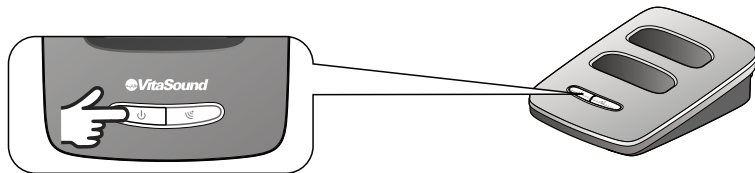
The battery life depends on the conditions of use and circumstances after the battery is fully charged.

Wireless pair to Base Unit

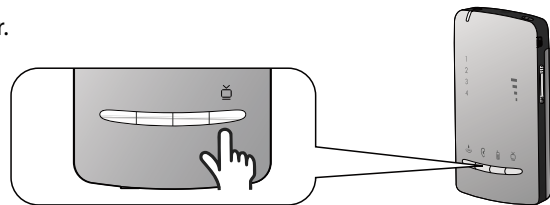
Note:

- ♦ The Personal Audio Enhancer and Base Unit are paired with each other during manufacturing. The following process is necessary only if the Base Unit is not missing a wireless connection with the handset.
- ♦ When an additional handset is purchased separately, the following 'repairing' procedure is required.
- ♦ The Lock switch **MUST** be switched to unlocked mode before pairing.

1. Press once the Power Button on the Base Unit.

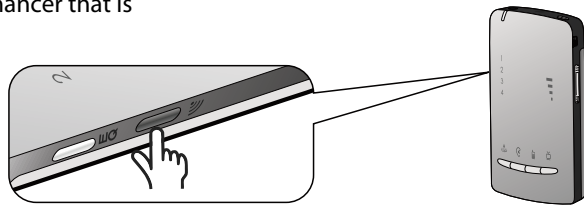


2. Press once the TV mode button on the Personal Audio Enhancer.
(The Personal Audio Enhancer **MUST** be in TV mode before pairing)

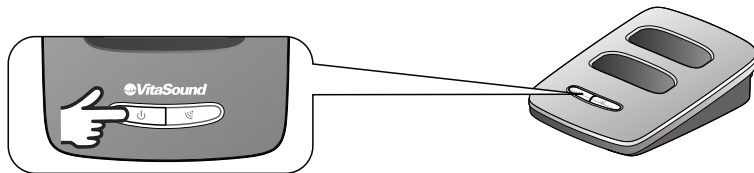


3. Press once the Wireless Pair Button on the Personal Audio Enhancer that is being used for wireless pairing;

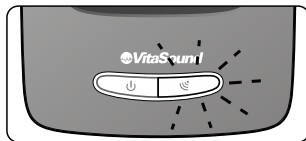
Note: If more then one handset is being used, they can be paired a different times.



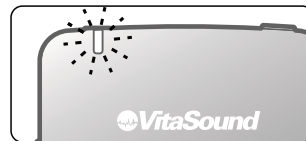
4. Press the Wireless Pair Button on the Base Unit to start wireless pairing;



5. The Wireless Indicators on both Personal Audio Enhancer and Base Unit will be flashing during pairing;



Connecting



6. The Wireless Indicators on both Personal Audio Enhancer and Base Unit will be solid green after pairing succeeds;



Note:

1. The distance between the Personal Audio Enhancer and Base Unit for wireless connection is about 10 meters without any object in between.
2. Please follow the exact order of the step to pair the Personal Audio Enhancer and Base Unit; otherwise, please repeat the steps from the beginning.
3. The Personal Audio Enhancer will lose the connection with the Base Unit when the distance between them increases. The connection will be recovered automatically when the Personal Audio Enhancer re-enters the 10-meter range of the Base Unit without pairing again.
4. The background sound may be isolated during the TV mode such that users may not be aware of the environment around. Please be aware of the self-safety.

1. Power On

- Press and hold the power button until the RED power indicator is on;
- The function mode, sound mode, and volume will be automatically set to Talk Mode, the last set EQ mode, and Volume level 2 every time the Personal Audio Enhancer is turned on.



2. Power Off

- Press and hold the power button until all four function mode indicators are lit, then release the power button to turn off the Personal Audio Enhancer.



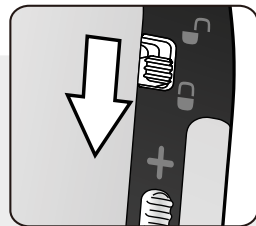
3. General Operation

Lock mode:

All buttons will be locked after sliding the lock switch downward (except the Power Button). The lock mode will be cancelled when sliding the lock switch upward.

Note:

Before operating the Personal Audio Enhancer, please slide the lock switch upward; otherwise, no effect will be taken when pressing any of the buttons.



Energy Save Mode for indicators:

All indicator lights will be off after 30 seconds without intervention.

Wake up the indicators:

Press any button during the energy save mode to resume operation. This operation does not change the status of the Personal Audio Enhancer.

Taking effect by operation:

All operations (Ex: switching function or EQ mode, adjusting volume) will ONLY take effect after the indicators lighten-up.

4.

Select function mode:

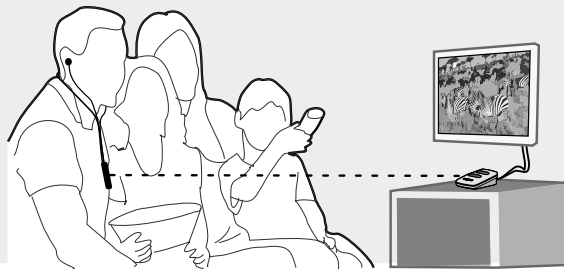
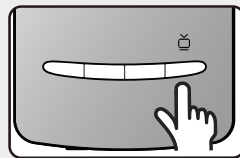
- Press the function mode button desired:



TV Mode

Audio source of TV is transmitted to the Personal Audio Enhancer through the Base Unit for watching and listening to the TV program.

- Connect the Base Unit with the television
(Refer to “Installation of the Unit Base to television” on P.5)
- Wireless pair the Personal Audio Enhancer and Base Unit (if necessary)
(Refer to “Wireless pair with the Base Unit” on P.9)
- Plug the earphones into the Personal Audio Enhancer, then put on the headset into the ears for listening to the TV program.



Note:

First time user is recommended to use TV mode first for watching TV for 1 to 2 hours in order to get familiar with the operation and function of the Personal Audio Enhancer.



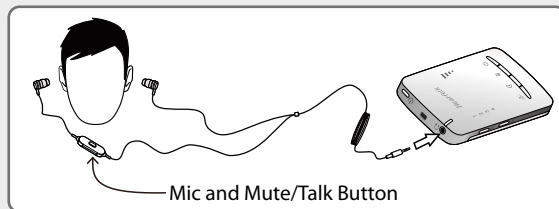
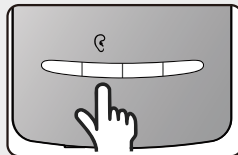
Talk mode

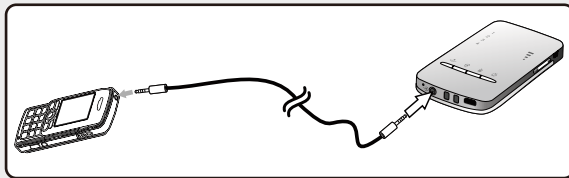
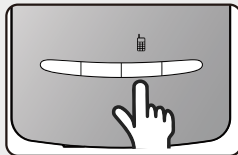
The Personal Audio Enhancer optimizes the voice of the people chatting received by the mic on the earphones for better communication.

- Plug the earphones into the earphone port of the Personal Audio Enhancer first. Then put the earphones into the ears to chat with people around.
- In the Talk Mode, the earphones will be in mute mode by pressing the mute button on it. The Talk Mode Indicator will be lit during mute mode. The mute mode will be cancelled by pressing the mute button again.

Note:

High pitch whistler that can affect hearing may be generated through the earphone while the speaker and the microphone are too closed. Please decrease the volume of the device before putting on the headset to reduce or prevent the whistle.



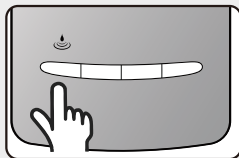


Phone Mode

Receive and chat on call or listen to music

- Plug one end of the stereo cable into stereo port on the Personal Audio Enhancer;
- Plug the other end of the stereo cable into the earphone port on the phone or MP3 player.
- In the Phone Mode, press the talk/mute button on the earphone to receive calls and hang up.



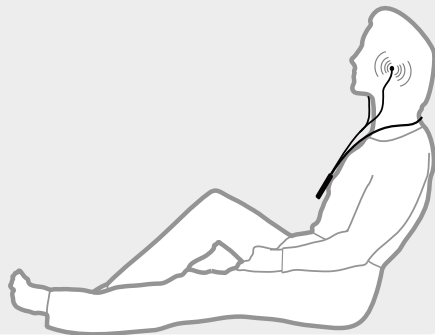
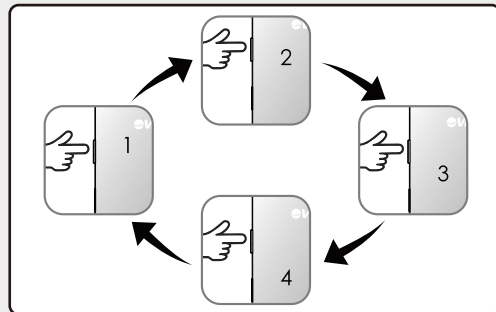


Relaxation mode

a relaxing sound is played through the headset

Select sound effect:

- Sound Mode Cycle Selection: Press the EQ mode button to switch the sound mode once: from Mode 1 to Mode 2; from Mode 2 to Mode 3; from Mode 3 to Mode 4; from Mode 4 to Mode 1.
- The corresponding indicator will be lit after sound mode is selected.



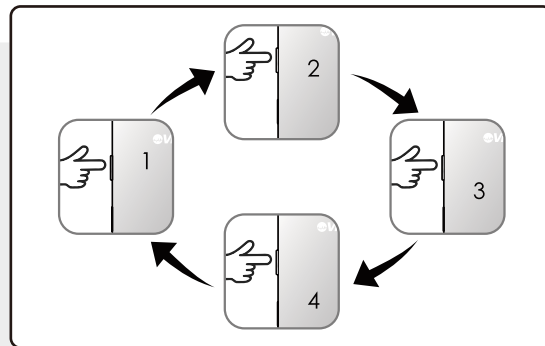
5. Select EQ mode

The Personal Audio Enhancer is equipped with four different EQ modes, each of which provide a different quality of sound in each function mode:

- EQ mode 1: Default Enhancement
- EQ mode 2: High Frequency, Default Enhancement
- EQ mode 3: High Frequency, Mild Enhancement
- EQ mode 4: High Frequency, Moderate Enhancement

Select one of the sound modes according to the personal preferences of the user.

EQ Mode Cycle Selection: Press the EQ mode button to switch the EQ mode once: from Mode 1 to Mode 2; from Mode 2 to Mode 3; from Mode 3 to Mode 4; from Mode 4 to Mode 1.

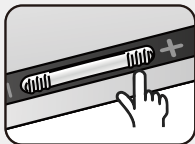


The corresponding indicator will be lit after sound mode is selected.

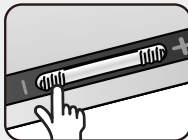
Note:

- The EQ Mode can be switched anytime desired depending on the different environment.
- First time user is recommended to try each EQ mode for 1 minutes to find the most suitable EQ mode.

6. Volume up and down (Total 8 volume levels)



Press and release **+** button
for increasing the volume level



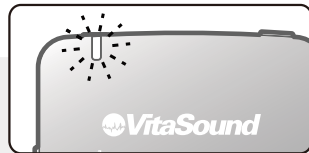
Press and release **-** button
for lowering the volume level.



Volume level indicators will be lit to present
the volume level while adjusting the
volume.

7. Low Battery

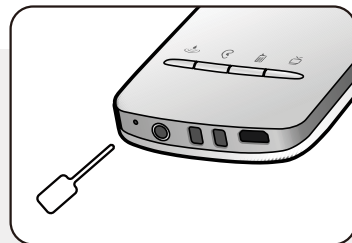
- The Power Indicator will flash when battery level is low. Please turn off and charge the Personal Audio Enhancer immediately.
- A double Beep sound will be generated each 15 seconds through the headset while battery level is low.



8.

Reset the Personal Audio Enhancer

- In the case when the Personal Audio Enhancer is frozen and cannot be operated in any situation, press the reset button with a small pin object to reset the Personal Audio Enhancer.



Troubleshooting

Symptom	Possible Cause	Possible Corrective Action	Page
Select buttons not responding.	The device is off.	Turn on the device.	P.12
	The device is in "Lock Mode".	Switch the lock switch upward to unlock the device.	P.13
	Operation is performed when the device is under the energy saving mode.	Press any button once to wake up the indicators, then perform the operation before the indicators are turned off.	P.13
	The handset is frozen.	Press the Reset Button with a small pin object to reset the device.	P.20
All indicators turns off itself, except the power indicator.	The behavior is normal. The indicators will be off automatically for energy saving when no operation is performed for 30 seconds.	N/A	N/A
A double beep alert is emitted through the earphones.	The battery is running low.	Turn off the device and recharge the device.	P.19
Red LED (Power indicator) is flashing.			
Green LED (Power indicator) is flashing.	The handset is under pairing process with the Base Unit.	Wait until the pairing process is completed and the green LED on the Base Unit will then be solid lit; otherwise, please process wireless pairing again.	P.9-11
	Under TV mode, the device is out of the 10 meters range of the Base Unit.	Make sure the device is within a 10 meters (33ft) range of the Base Unit.	P.11
	Under TV mode, No signal is received from the Base Unit by the device when the device is within 10 meters range of the Base Unit.	Process wireless pairing with the Base Unit.	P.9-11
Acoustic (squeal) feedback is produced.	The volume level is too high.	Decrease the volume level and tighten the fit of the earphones into the ears.	P.19

Troubleshooting

Symptom	Possible Cause	Possible Corrective Action	Page
No sound is produced.	The device is off.	Turn on the device by pressing the power button.	P.12
	The mute mode of the device is on.	Press the button on the mic to turn off the mute mode.	P.15
	The earphone is not plugged into the handset properly.	Make sure the plug of the earphone is securely connected with the handset.	P.15
		Make sure the earphone is plugged into the port on the top of the handset.	P.15
	The volume level is too low.	Increase the volume level.	P.19
	Under TV mode, no audio signal is received from the Base Unit. (Green LED on the device is solid lit.)	When using the analog (RCA) audio cable to connect the Base Unit and television, make sure both of the optical and coaxial cables are disconnected with the Base Unit and television.	P.5
		When using the analog (RCA) audio cable, make sure the cable is plugged into the "Audio Out" port of the television.	P.5
		When using the optical audio cable to connect the Base Unit and television, make sure: 1) the optical cable is connected with the Base Unit and television properly; and 2) the "Audio input mode switch" is switched into "optical audio input".	P.5
		When using the coaxial audio cable to connect the Base Unit and television, make sure: 1) the coaxial cable is connected with the Base Unit and television properly; and 2) the "Audio input mode switch" is switched into "coaxial audio input".	P.5

Symptom	Possible Cause	Possible Corrective Action	Page
No sound is produced.	Under Phone mode, no audio signal is received from the phone.	Make sure the plug of the stereo cable is securely connected with both of the device and phone.	P.16
	Under Phone mode, the volume level of the phone is too low.	Increase the volume level of the phone or increase the volume of the handset.	P.19
Green LED (Wireless/Audio source Indicator) on the Base Unit is flashing.	No audio signal is received by the Base Unit.	Make sure the television is turned on.	N/A
		Handset may not receive sound from TV when it is muted (depending on TV model). Please refer to your TV manual.	
		When using the analog (RCA) audio cable to connect the Base Unit and television, make sure both of the optical and coaxial cables are disconnected with the Base Unit and television.	P.5
		When using the analog (RCA) audio cable, make sure the cable is plugged into the "Audio Out" port on the television.	P.5
		When using the optical audio cable to connect the Base Unit and television, make sure: 1) the optical cable is connected with the Base Unit and television properly; and 2) the "Audio input mode switch" is switched into "optical audio input".	P.5
		When using the coaxial audio cable to connect the Base Unit and television, make sure: 1) the coaxial cable is connected with the Base Unit and television properly; and 2) the "Audio input mode switch" is switched into "coaxial audio input".	P.5
	The device and Base Unit are in the process of wireless pairing.	Wait until the pairing process is completed and the green LED on the Base Unit will then be solid lit; otherwise, please process wireless pairing again.	P.9-11

Technical specification

Personal Audio Enhancer

Dimension:	110.20 mm x 60 mm x 19.10 mm
Weight:	94.6 gram
Battaries:	Built in rechargeable lithium-ion, 2000 mAh
Operating time:	12 - 14 hours (fully charged, except in TV mode) 6 - 8 hours (TV mode)
Charging time:	4 - 5 hours
Microphone:	Built in microphone with the earphones.
Stereo audio source input:	3.5 mm stereo jack plug
Earphone socket:	3.5 mm stereo jack plug
Output signal frequency range:	200 -16,000 Hz
EQ mode:	4 modes
Volume control:	8 steps (4 dB/step)
Output power:	60 mW (16 ohm load)
Function mode:	Separate function mode select buttons
Digital signal processing:	32 kHz sampling frequency 16 bit resolution in stereo
Radio communication frequency:	2.4 GHz, ISM band
Radio communication range:	10m indoor, clear line of sight
Radio communication characteristics:	Coexists with other radio transmitters operating on the 2.4GHz frequency band
Topology:	Point-to-point
Antenna Type:	Internal SMD antenna

Base Unit

Dimension:	120.30mm x 94.10mm x 40.10mm
Weight:	111.8 gram
Power:	9V 2A (18W)
Audio source input:	Analog (RCA) Jack (Red / White) Optical jack 44.1kHz PCM / 48kHz PCM Coaxial jack 44.1kHz PCM / 48kHz PCM
Digital radio transmission:	2.4GHz ISM band Coexists with other radio transmitters using the 2.4GHz ISM band
Radio communication range:	10m indoor, clear line of sight
Radio communication characteristics:	Automatic channel searching Coexists with other radio transmitters operating on the 2.4GHz frequency band
Topology:	Point-to-Multipoints
Transmitter output:	8dBmW

Environmental requirements

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

Regulatory requirements

Complies with the following requirements:	CE, FCC, RoHS and C-Tick
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Precaution text

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