

TECHINICAL SPECIFICATIONS

Transmission mode	Infrared light		
Carrier frequency	2.3GHz		
Power Supply	Transmitter	output: DC 12V, 400mA	input : 100~240V
		plug of power cable : 4.0*1.7mm	
	Headset	built-in 350mAh Li-ion Battery	
Frequency response	20 Hz – 20 KHz		
Distortion	≤1%		
Signal-to-noise ratio	≥70dB		
Range	Up to 40 feet (without obstacles)		
Working time	approx 15 hours under wireless hearing mode		
Charging time	3 hours		

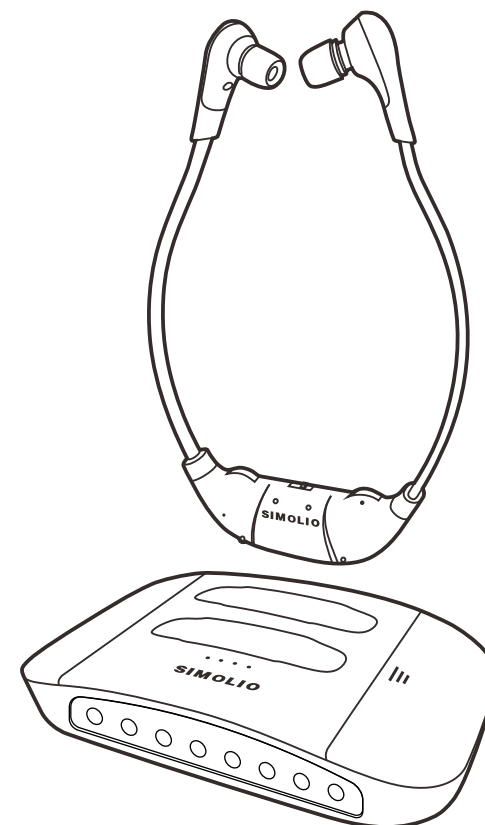


SIMOLIO

PRO Infrared Wireless TV Headsets

— Professional Personal Customized TV Hearing Protection & Assistance System

SM-863D



User Manual

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IMPORTANT SAFETY INSTRUCTION

1. Please read this instruction manual carefully and completely before using the products. Keep this manual easily accessible at all times.
2. Always keep the product dry, and do not expose them to extreme temperatures.
3. The receiver must keep the minimum volume before switching the unit on. High volume may cause hearing damage to persons with normal hearing, especially to children.
4. Keep devices away from liquid. Before cleaning the product and its accessories, disconnect the transmitter from the power adapter, and use only a slightly damp cloth to clean the devices.
5. Use only the supplied power adapter.
6. Use the products with care and set them up on a stable surface of a clean, dust-free environment.
7. The unit may get hot during use. Ensure the unit has adequate ventilation.
8. Please switch off the transmitter and receiver after use, and pull out the power adapter from the wall socket when not using for a long time.
9. Fully charge the battery every 2-3 months if battery or product is not used for long time.
10. Only qualified person can provide services! Do not attempt to open the unit!

OVERVIEW

Would you like to watch television with crystal-clear sound that won't disturb others in your family? Do you want to avoid hearing damage that could be caused by wearing normal wireless headphones for a long time? SIMOLIO SM-863D wireless TV hearing assistance and protecting headset is just made for you.

Apply with the speed of light infrared technology to send the television's audio to the headset, it doesn't need to be paired or adjusted, it is completely safe with pacemakers and will not interfere with your WiFi or

telephone. You can customize your listening at a most comfortable volume level, via balance and tone controls.

Our voice clarity and noise cancelling technology dynamically reduce TV background sounds and make TV dialogues stand out. At last you can easily understand the TV dialogues at a gentle volume without worrying about your hearing being damaged.

The SIMOLIO SM-863D is especially helpful for hearing-impaired people. It overcomes the weakness of regular hearing aids, which amplify both speech and environmental background at the same time. Normal wireless headphones for TV watching don't help either, they also amplify everything together. What's more, over time you'll keep turning the volume up and up, and that can make your hearing worse and worse. Our hearing protecting headset solves these problems.

The unique "one-button push" sound amplifier function allows you to hear clearly what people are talking nearby without taking off the headsets.

It's compatible with both digital and analog audio output ports and suitable for almost all TVs and the set-top boxes on the market.

FEATURES

(1) Wireless TV Hearing Assistance and Hearing Protecting Function

Soften the background sounds, make the TV conversation stand out, help the hearing impaired people to understand the TV clearly, solve the problem that regular hearing aid cannot do. The unique voice clarity tech and customized tone adjustment allow people to enjoy TV programs in soft sounds, protecting people's hearing from the progressive hearing damage caused by watching TV with normal headphones for a long time.

(2) Ambient Sound Amplifier

A MIC button is designed as an additional & unique feature to help you to temporarily hear what people are talking to you when watching TV without taking off the headsets.

(3) Suitable for Use in Bedroom and Senior Apartment

No pairing, no interference with WiFi or telephone, safe with pacemakers, very suitable for use in bedroom or senior apartment.

(4) Voice Clarity Tech

Lower background sound on your TV to enhance dialogue clarity, making difficult-to-hear words easier to understand.

(5) Noise Cancelling Tech

Reduce the ambient noise to help the users to focus on listening to the dialogues in TV.

(6) Automatic Signal Control

Our special circuit design can adjust the sudden volume change and make the output volume stable. It will avoid strong signal hurting the users' hearing.

(7) Balance Control

The balance control allows for right/left volume adjustment. Adjust the balance so that you hear equally well with both ears.

(8) Tone Control

It is specially designed for people who have different sound frequency sensitiveness. They can select TONE (Treble/Normal/Bass) to find the optimum parameters, and hear the target audio source clearly.

(9) With Rechargeable & Replaceable Li-battery & Power Charging Dock Station

One full charge supports approx 15 hours continuous working depending on the average volume level of the headset.

(10) One Transmitter Can Support Multiple Headsets

Additional SIMOLIO infrared wireless headset receivers can be added to the SM-863D system, allowing multiple listeners to enjoy the same audio source.

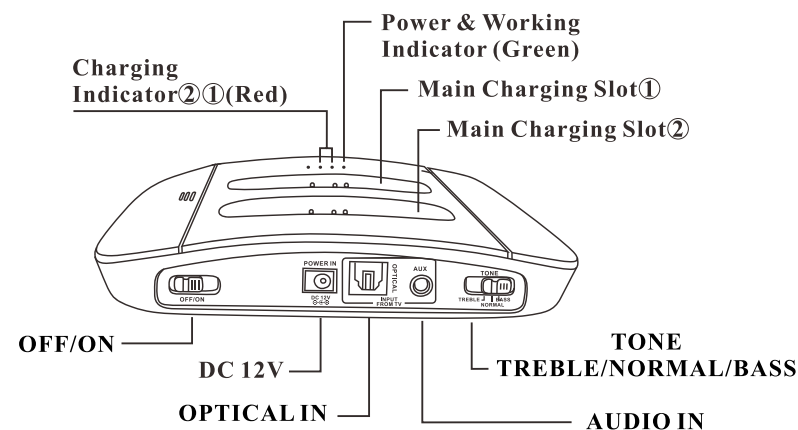
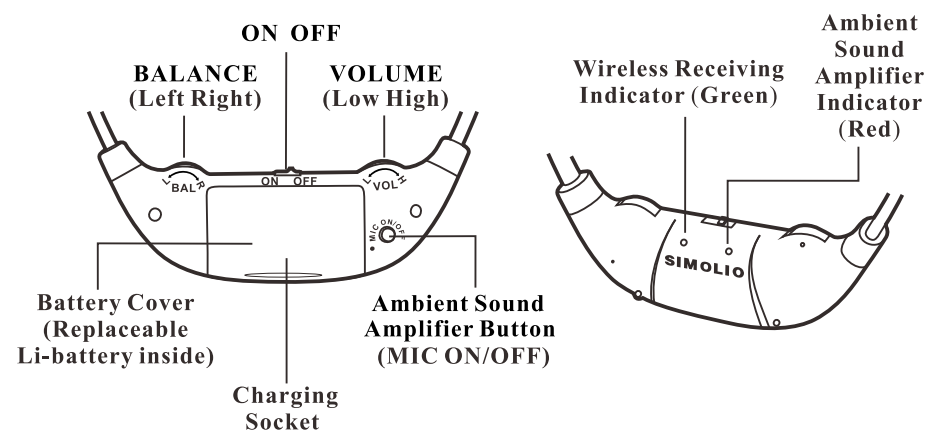
(11) Good Compatibility

Compatible with any brand of TV/Smart TV box/ Cable TV box/Set-top box/ DVD/other audio device that has a Digital Optical, RCA or 3.5mm AUDIO OUT port(s).

(12) Super-soft Memory Foam Ear tips

The super-soft memory foam ear tips can reduce earphone irritation and fatigue, but we strongly suggest that you change your ear tips every 30 to 60 days, this will ensure comfort and cleanliness. An extra set of memory

foam ear tips and two sets of washable and repeatable silicone tips are provided for replacement.

PRODUCT DIAGRAM**1. Transmitter****2. Receiver**

PACKAGE CONTENTS

Headset 	Transmitter 	Optical Fiber Cable 	Ø3.5mm Audio Cable 
Ø3.5mm- RCA Audio Cable 	Power Adapter  US or  UK	User Manual 	

LED INDICATION

LED Indicators of the Transmitter :

LED Status	Transmitter Status
Dark green LED lighting steadily	In standby mode (no audio signal in for more than 10 minutes)
Bright green LED lighting steadily	Wireless working mode
Red LED lighting steadily	Headset charging
Red LED off	Headset charging completed/ no charging

LED Indicators of the Headset

LED Status	Headset Status
Green LED lighting steadily	No signal received or wireless working mode
Red LED lighting steadily	Built-in MIC working mode
Red LED off	Built-in MIC off

Note:

- The transmitter will automatically enter standby mode after 10 minutes of no signal input, and it will automatically restart when there is an audio signal input.

HOW TO USE

1. Check Your TV/Audio Source Output Options before the Set up

SM-863D is compatible with OPTICAL output, RCA (labeled "AUDIO OUT") and AUX 3.5mm output.

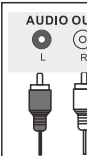
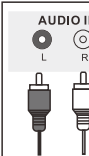
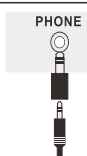
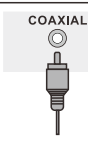
	Digital Optical AUDIO OUT	RCA jacks labeled AUDIO OUT	Other RCA jacks (usually audio in)	AUX/3.5mm	6.35mm Phone jack	Digital Coaxial AUDIO OUT
Jack Options						
Natively supported?	✓	✓	✗	✓	✗ (need extra 6.35mm to 3.5mm adapter, purchase separately)	✗ (need extra digital to analog converter, purchase separately)
Please refer to Point	4.1	4.2	N/A	4.3	4.4	4.4

Fig 1-1

Note:

- Three different audio cables included: digital optical cable, RCA cable and 3.5mm cable. In the end, only one of these cables is needed to complete the installation.
- If your audio source device has an optical audio out port, please connect SIMOLIO to this port preferentially. If not, you can also connect SIMOLIO to the RCA or AUX 3.5mm or other audio out port of the audio source device.

2. Place the Transmitter

The infrared diodes on the transmitter must be in direct line-of-sight with the headset when using the system for best performance. There cannot be anything blocking the direct signal, otherwise there will be no audio received and no sound heard.

Place the transmitter on a flat surface that is 3 to 5 feet above the ground. Be sure it is pointed to the seating area where the headset will be used. (Ref. Fig 2-1)

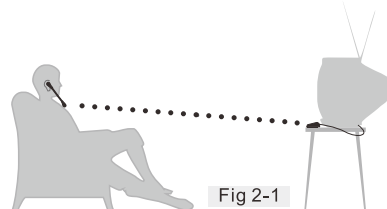


Fig 2-1

3. Turn on the Transmitter and Headset

3.1 Power the Transmitter

Plug the supplied AC adapter into a standard electrical outlet, plug the other end of the AC adapter into the port labeled “DC 12V” on the back of the transmitter.

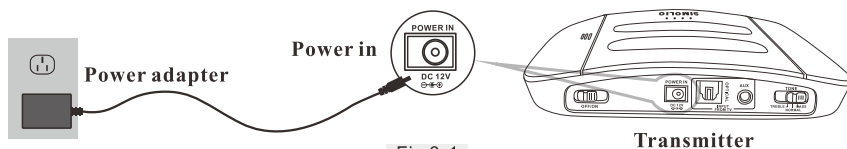


Fig 3-1

3.2 Turn on the Transmitter

Slide **OFF/ON** switch to “**ON**” position.

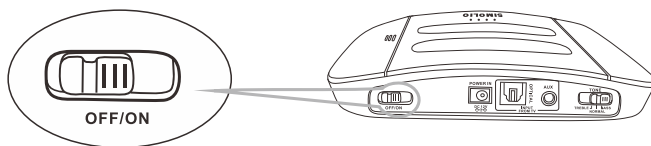


Fig 3-2

3.3 Turn on the Headset

Slide **ON/OFF** switch to “**ON**” position.

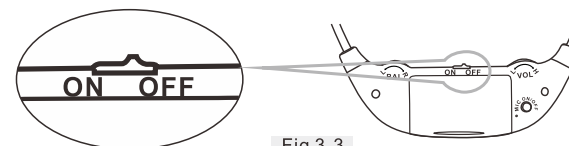


Fig 3-3

Note:

Please charge the headset for 3 hours before using it for the first time.

4. Connect the Transmitter to Your TV/Audio Source

4.1 Digital Optical Connection

This part will instruct you on how to connect the SIMOLIO SM-863D transmitter to your television, satellite, or cable box using an optical digital audio cable.

- If you cannot get to the back of your TV and you only watch the programs through a fixed TV box (cable/satellite box/DVD etc.), you can also use these instructions to install the system to your TV box.

Step 1. Hook up SIMOLIO to the Optical Audio Out Port of the TV/ other Audio Device



Fig 4-1

Remove the protective plastic caps from both ends of the optical digital audio cable.

Plug either end of the optical audio cable into the “**Digital Audio Out (Optical)**” port on the back of the TV. Plug the other end of the optical digital audio cable into the port on the back of the transmitter labeled “**OPTICAL IN**”.

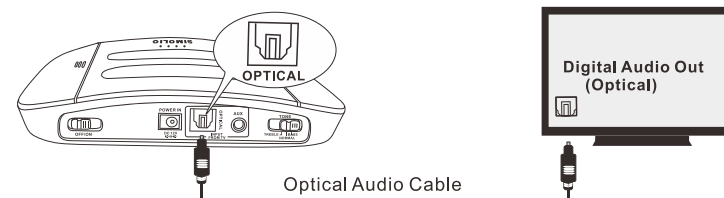


Fig 4-2

Step 2. TV Audio Format and Speaker Setting (use TV remote control)

If you can not hear sound from your headsets after connecting:

- Ensure TV Audio Format is set to “PCM” or “Dolby/DTS” is OFF (This is IMPORTANT, Ref. Fig 4-3)

PS:

for certain smart Samsung models, the TV is retaining separate settings for regular TV and internet TV setup. When you turn to the Smart Hub for Internet source, please use the TV remote to go to Settings > Sound > Expert Settings > Audio Format or Digital Output Audio Format, then select PCM.

- Ensure your TV speaker is set to “External Speakers”. (Ref. Fig 4-4)

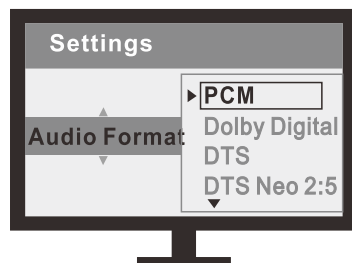


Fig 4-3

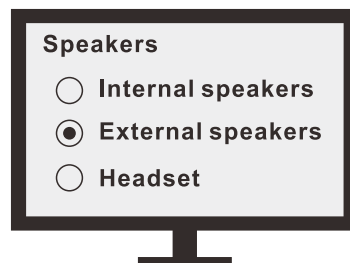


Fig 4-4

Notes:

If your TV only support single sound out, the TV's speakers will be either automatically muted when you plug something into an audio out port (Optical/ AUX/RCA, etc.) or they become disabled once you choose "External Speakers" as your TV's audio output. It depends on TV circuit design.

For most TVs, the TV's internal speakers and an external audio device can work simultaneously. Such as, for some newer LG TVs, when do optical audio connection, you can set the “Sound Out” to “Internal TV Speaker + Audio Out (optical)”. And for some newer Samsung TVs, you can enable this feature by selecting “TV Speaker” from the TV Sound Output lists.

* Setting menu may be different depending on different TV brands and models.

4.2 RCA Analog Connection

This Part is an alternative to 4.1 on page 8-9. This part will explain how to

connect the SIMOLIO SM-863D transmitter to your television, satellite, or cable box using an RCA analog audio cable.

- If you cannot get to the back of your TV and you only watch the programs through a fixed TV box (cable/satellite box/DVD etc.), you can also use these instructions to install the system to your TV box.
- Infrared wireless TV headset systems are mono systems. This means that you will still hear sound through both the left and right earpieces even if you only have the left or right audio connected.

Step 1. Hook up SIMOLIO to the RCA Audio Out Port of the TV/other Audio Device

Plug the red and white ends of the audio cable into the analog RCA Audio Out ports (red and white ports labeled “AUDIO OUT”) on the back of the TV. Plug the single end of the audio cable into the port labeled “AUX” on the back of the transmitter.

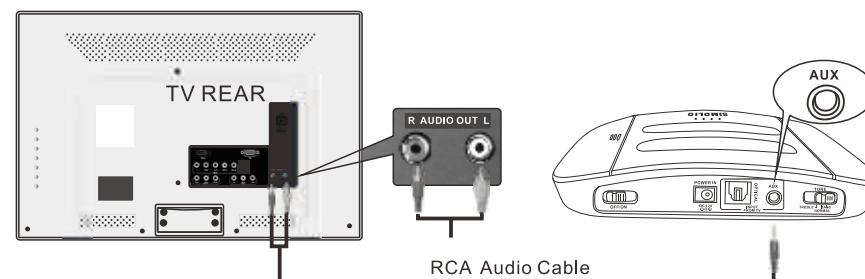


Fig 4-5

Step 2. TV Audio Out Checking and TV Speaker Setting (use TV remote control)

If you can not hear sound from your headsets after connecting:

- Ensure use TV Red/White ports labeled “AUDIO OUT” or “OUTPUT”, other Red/White ports are incorrect. (Ref. Fig 4-6)

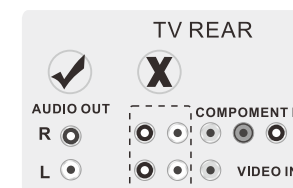


Fig 4-6

- Ensure your TV speaker is set to “External Speakers”. (Ref. Fig 4-7)

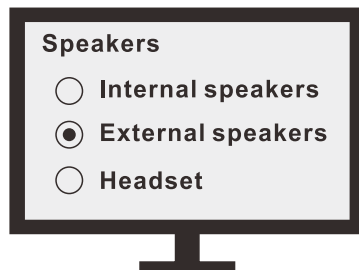


Fig 4-7

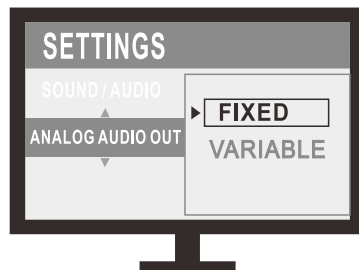


Fig 4-8

Notes:

* If your TV only support single sound out, the TV's speakers will be either automatically muted when you plug something into an audio out port (Optical/ AUX/RCA, etc.) or they become disabled once you choose "External Speakers" as your TV's audio output. It depends on TV circuit design.

For most TVs, the TV's internal speakers and an external audio device can work simultaneously. Such as, for some newer LG TVs, when do analog RCA audio connection, you can set the "Sound Out" to "Internal TV Speaker + Headphones". And for some newer Samsung TVs, you can enable this feature by selecting "TV Speaker" from the TV Sound Output lists.

* Your TV's analog audio settings may be set to "Variable" or "Fixed". If you want to be able to control your TV volume level separate from your SIMOLIO SM-863D volume level, you will need to make sure your TV is set to "Fixed". (Ref. Fig 4-8)

Contact your TV manufacturer for assistance.

* Setting menu may be different depending on different TV brands and models.

4.3 3.5mm/AUX Analog Connection

This part is an alternative to 4.1 and 4.2 on page 8-11. This part will explain how to connect the SIMOLIO SM-863D transmitter to your television, satellite, or cable box using a 3.5mm/AUX analog audio cable.

• If you cannot get to the back of your TV and you only watch the programs through a fixed TV box (cable/satellite box/DVD etc.), you can also use these instructions to install the system to your TV box.

• If you connect the 3.5mm audio cable to the 3.5mm Audio Out port which is usually a Headphone port on your TV, your SIMOLIO SM-863D will still function properly, but the sound to your TV internal speakers will be muted. The port is usually labeled with an headphone icon.

Step 1. Hook up SIMOLIO to the 3.5mm Audio Out Port of the TV/ other Audio Device

Plug one end of the 3.5mm audio cable into the "Audio Out" port on the back of the TV. Plug the other end of the audio cable into the port labeled "AUX" on the back of the transmitter.

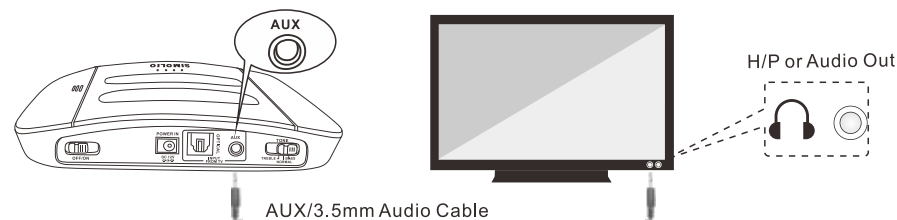


Fig 4-9

Step 2. TV Audio Out / TV Speaker Setting (use TV remote control)

If you can not hear sound from your headsets after connecting:

- Ensure your TV speaker is set to "Headset". (Ref. Fig 4-10)
- Plug a wired headphone/earphone into the 3.5mm audio out port of the TV to test if you can hear the TV sound. (Ref. Fig 4-11)

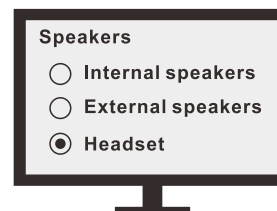


Fig 4-10

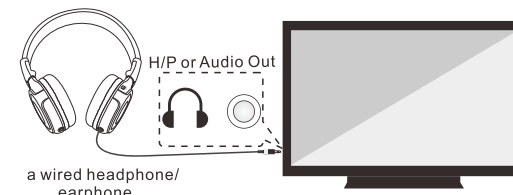


Fig 4-11

Notes:

* Your TV's audio settings may be set to "Variable" or "Fixed". We recommend that you set your audio settings to "Fixed" for better audio quality when using this installation option. If you want to be able to

control your TV volume level separate from your SIMOLIO SM-863D volume level, you will need to make sure your TV is set to “Fixed”. Contact your TV manufacturer for assistance.

* Setting menu may be different depending on different TV brands and models.

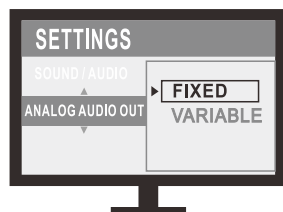


Fig 4-12

4.4 Other Connections in Special Cases

1) TV/Audio Source only has Digital Coaxial Audio Out port

Step 1. Purchase a Digital to Analog Converter and Set up as Shown in Fig 4-13

If your TV/Audio Source only has a digital coaxial audio out port, you will need a digital to analog converter (DAC, e.g. SIMOLIO SM-DAC01) for installation.

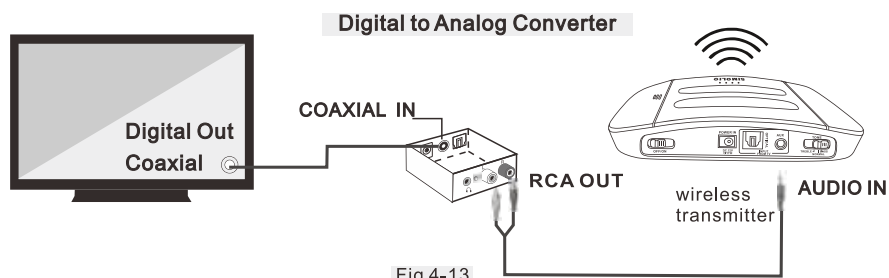


Fig 4-13

Step 2. TV Audio Format and Speaker Setting (use TV remote control)

If you can not hear sound from your headphones after connecting:

- Ensure TV Audio Format is set to “PCM” or “Dolby/DTS” is OFF (This is IMPORTANT, Ref. Fig 4-14)

PS:

for certain smart Samsung models, the TV is retaining separate settings for regular TV and internet TV setup. When you turn to the Smart Hub for Internet source, please use the TV remote to go to Settings > Sound > Expert Settings > Audio Format or Digital Output Audio Format, then select PCM.

- Ensure your TV speaker is set to “External Speakers”. (Ref. Fig 4-15)

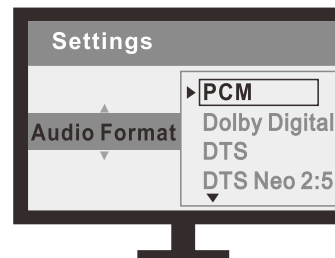


Fig 4-14

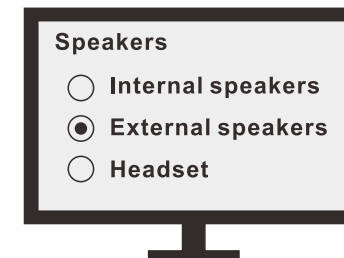


Fig 4-15

- Take turns to test RCA connection and 3.5mm AUX connection.
- Use a wired headphone/earphone to plug into the headset port or RCA output of the DAC to test if you can hear the TV sound. (Ref. Fig 4-16)

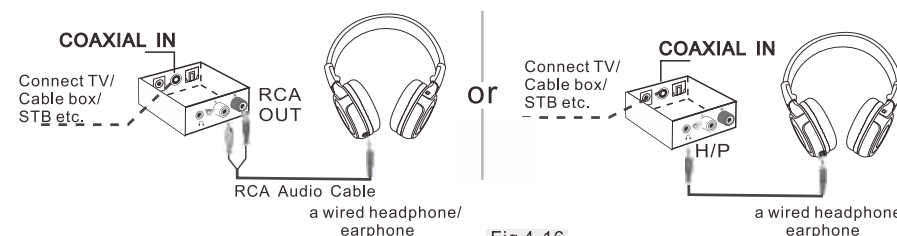


Fig 4-16

Note:

Setting menu may be different depending on different TV brands and models.

2) If your TV/Audio Source's Digital Optical Audio Out port is occupied by soundbar, you will need an optical splitter for installation.

Step 1. Purchase an Optical Splitter and Set up as Shown in Fig 4-17

Step 2. If you can not hear sound from your headsets after connecting, follow the part of 4.1 on page 8-9 to check your settings.

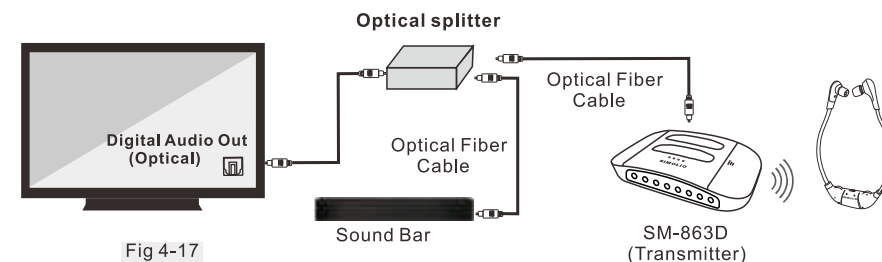


Fig 4-17

3) Use SIMOLIO SM-863D to your AV Receiver with 6.35mm PHONE jack

Step 1. Purchase a 6.35mm to 3.5mm Adapter and Set up as Shown in Fig 4-18

SM-863D is not compatible with ANY RCA(L/R) ports on your AV Receiver, ONLY use the BIG 6.35mm PHONE OUT on front side of your AV Receiver with the 6.35mm to 3.5mm adapter (purchase separately).

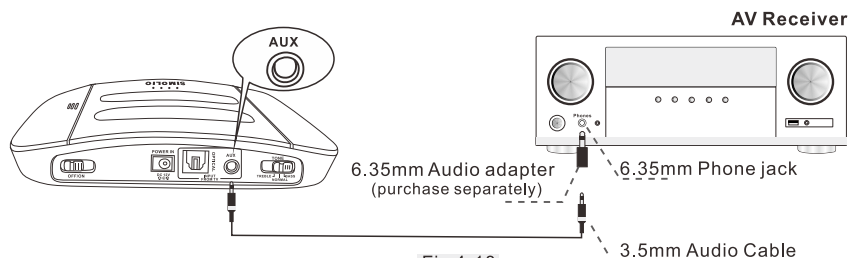


Fig 4-18

Step 2. Check the Performance of the AV Receiver's Audio Output as Shown in Fig 3-19

If you can not hear sound from your headsets after connecting:

- Use the 6.35 to 3.5mm converter to plug a wired headphone/earphone into the port on AV receiver to check whether the sound is normal.

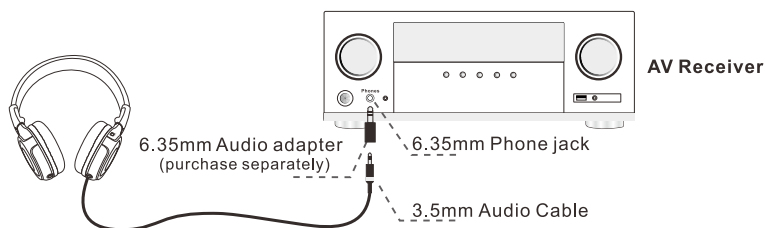


Fig 4-19

5. Charge the Headset

1) Connect the original power adapter with the transmitter and an electrical outlet, slide the OFF/ON switch to ON to power on the transmitter.

2) Slide the ON/OFF switch of the headset to "OFF". Put the headset into the charging slot of the transmitter vertically and carefully and be sure the front of the headset with the logo of "SIMOLIO" is facing towards the front of the transmitter with the logo of "SIMOLIO". The red charging indicator on the transmitter lights up and the headset starts charging. If not, please check and make sure the charging pins are fully inserted.

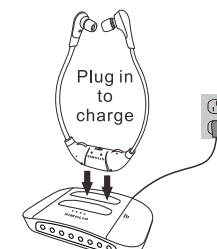


Fig 5-1

Notes:

* The charging time is approx. 3 hours. The headset will last approx 15 hours on a full charge, but will last a lesser or greater amount of time depending on the average volume level of the headset.

* Fully charge the battery every 2-3 months if battery or product is not used for long time.

6. Customizing your SM-863D

1) Please make sure the headsets are being worn properly.

Each side of the headset has a letter to guide the wearer: "L" for left and "R" for right. The headset arms incorporate memory stainless steel strips which can be adjusted to a more comfortable wearing shape.

- Hold each side of the headset arms and evenly bend inwards to adjust the arms into a more comfortable shape.
- Repeat this process as necessary.

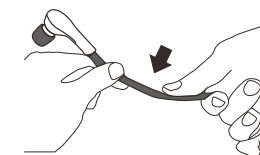


Fig 6-1

2) Hanger Loops Installation (if necessary)

You can attach the hanger loops (purchase separately) to the headset to help you better adapt to the weight of the under-chin headset. (Ref. Fig 6-2)

- Hook the decompression hanger loops on each side of the headset.
- Put the hanger loops on the ears, rotate them to best fit yourself.

Hanger loops

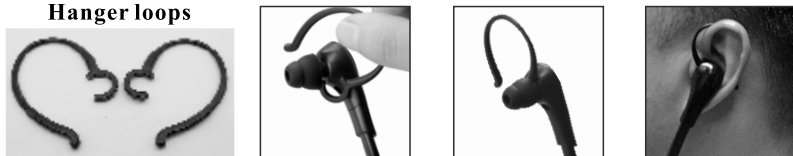


Fig 6-2

3) Tone Control:

Select the TONE (TREBLE/NORMAL/BASS) at the rear of transmitter to find the best feature, make sure you can hear the TV voice clearly.

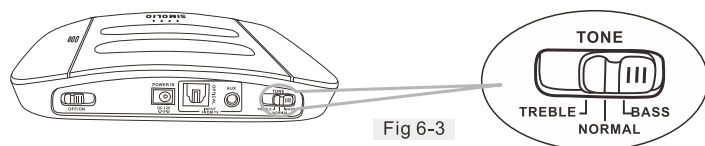


Fig 6-3

4) Balance Control:

If the hearing abilities of two ears are not the same, you can rotate the BAL dial on the headset for right/left volume adjustment so that you hear equally well with both ears.

5) Ambient Sound Amplifier Function:

while listening wirelessly, press the MIC ON/OFF button at the rear of the headset, the ambient sound amplifier indicator will be solid red, you can clearly hear what people are talking to you nearby. Press the MIC button again or switch off the headset and then on, it will be back to wireless listening, the ambient sound amplifier indicator will be off, and the working indicator will be solid green. But if you press the MIC ON/OFF button by chance when listening wirelessly, the volume will be low with the ambient noise will be occurred.

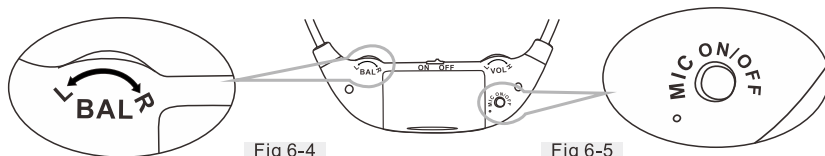


Fig 6-4

Fig 6-5

6) Ear tips Replacement and Cleaning

- Replace the ear tips as shown in Fig 6-6

- The additional silicone ear tips are washable & replaceable



Fig 6-6

To clean the silicone ear tips:

- Carefully remove the ear tips from the headset.
- Clean the ear tips with warm soapy water and rinse thoroughly.
- Dry the ear tips.
- Put the ear tips back on the headset.

TROUBLESHOOTING

Part 1

Phenomena	Causes	Solutions
Headset doesn't work, or no voice received	Something is blocking the signal between the transmitter and headset or the infrared diodes on the transmitter is not in direct line-of-sight with the headset.	Remove the obstacles, be sure the infrared diodes on the transmitter is in direct line-of-sight with the headset.
	The transmitter is not powered on.	Switch to ON position to power the transmitter base .
	The transmitter is not connected well.	Make sure the AC adapter and the audio cable of the transmitter are plugged in place.
	The analog audio cable is plugged into the AUX jack of the transmitter when connecting with the optical cable.	Unplug the analog audio cable from the transmitter.
	The connection between the transmitter and the audio source is wrong.	Make sure the connection is correct and in place between the transmitter and the audio source.

Part 2

Phenomena	Causes	Solutions
Headset doesn't work, or no voice received	The audio sources (TV and TV related AV devices) are not turned on or their volume are set too low.	Turn on the audio source, and adjust its volume to a sufficient level.
	TV audio output is disabled or not activated.	Follow your TV user manual to change the TV's AUDIO OUT setting to "External TV Speakers".
	The audio out format of TV and TV related AV devices (e.g., Cable box, STB, DirecTV, etc.) is not set to PCM .	Set it to PCM . For example: Settings > Sound > Digital Audio Out Format > Dolby/DTS/PCM , menu depends on TVs.
	The battery isn't inserted properly into the battery chamber or the battery is run out.	Insert the battery properly, or charge the battery fully.
	The audio out port of the connected audio device is defective (no signal out).	Connect to another audio out port .
	TV volume is turned down to ZERO .	Adjust the TV volume to a sufficient level. If you want to mute the TV, please click the MUTE key on the TV remote control or go to TV settings to OFF the Internal TV speaker.
Sound cuts in and out or some noise is occurred	The headset is out of the transmitting range.	Move the headset closer to the transmitter.
	Something is blocking the signal between the transmitter and headset or the infrared diodes on the transmitter is not in direct line-of-sight with the headset.	Remove the obstacles, be sure the infrared diodes on the transmitter is in direct line-of-sight with the headset.
	The audio source's volume is set too low.	Adjust its volume properly.
	The headset is working on "ambient sound amplifier" status with red LED on.	Press the MIC ON/OFF button again or turn the headset off then restart to return to the wireless TV listening status.

Part 3

Phenomena	Causes	Solutions
Sound cuts in and out or some noise is occurred	The battery's power is too low.	Charge the battery fully.
	The transmitter is placed too close to metalworks or other electromagnetic wave objects.	Put the transmitter far away from the interference sources.
	The connection between the transmitter and the audio source is not in place .	Make sure the connection is firm between the transmitter and the audio source.
	The audio out function of the connected audio device is defective (poor signal out).	Connect to another audio out port .
Headset can not becharged successfully	The headset is not plugged into the charging slot properly.	Check and make sure the charging direction is correct and headset is fully plugged into the charging slot.
	Faulty power adapter.	Please change another workable AC adapter to have a try.
	Battery voltage may fall below 2.2V.	Test battery voltage. Replace the battery if it's below 2.2V.