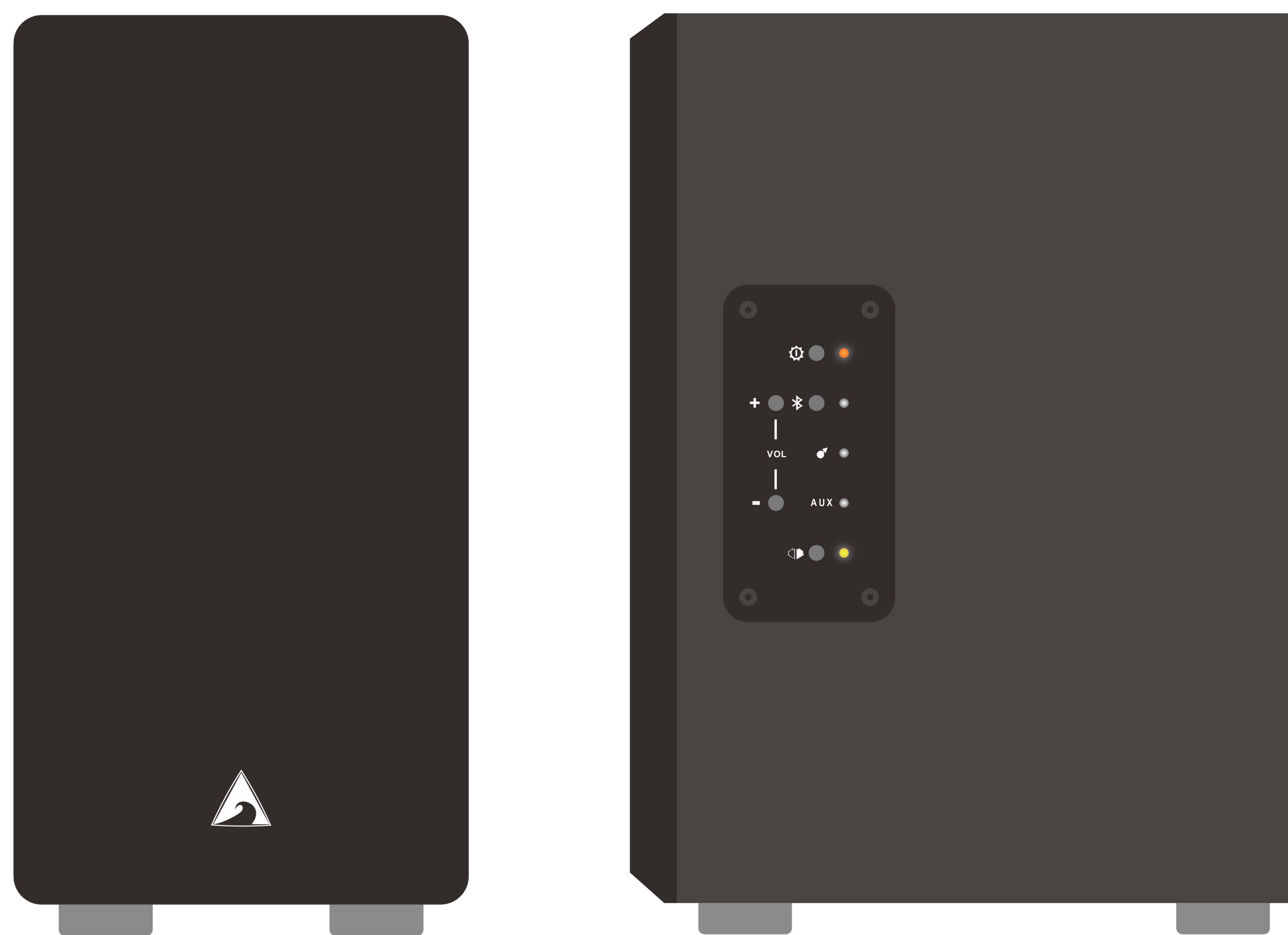


FS-252 WIRELESS BOOKSHELF SPEAKER USER GUIDE



Atlantic
TECHNOLOGY

343 Vanderbilt Avenue Norwood, MA 02062
Telephone: (781) 762-6300 Fax: (781) 762-6868

Important Safety Instructions

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THIS PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. Grounding or Polarization—This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

Alternate Warnings—This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

16. Ventilation—Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

17. The MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

18. CLASS II apparatus with double insulation, and no protective earth provided.

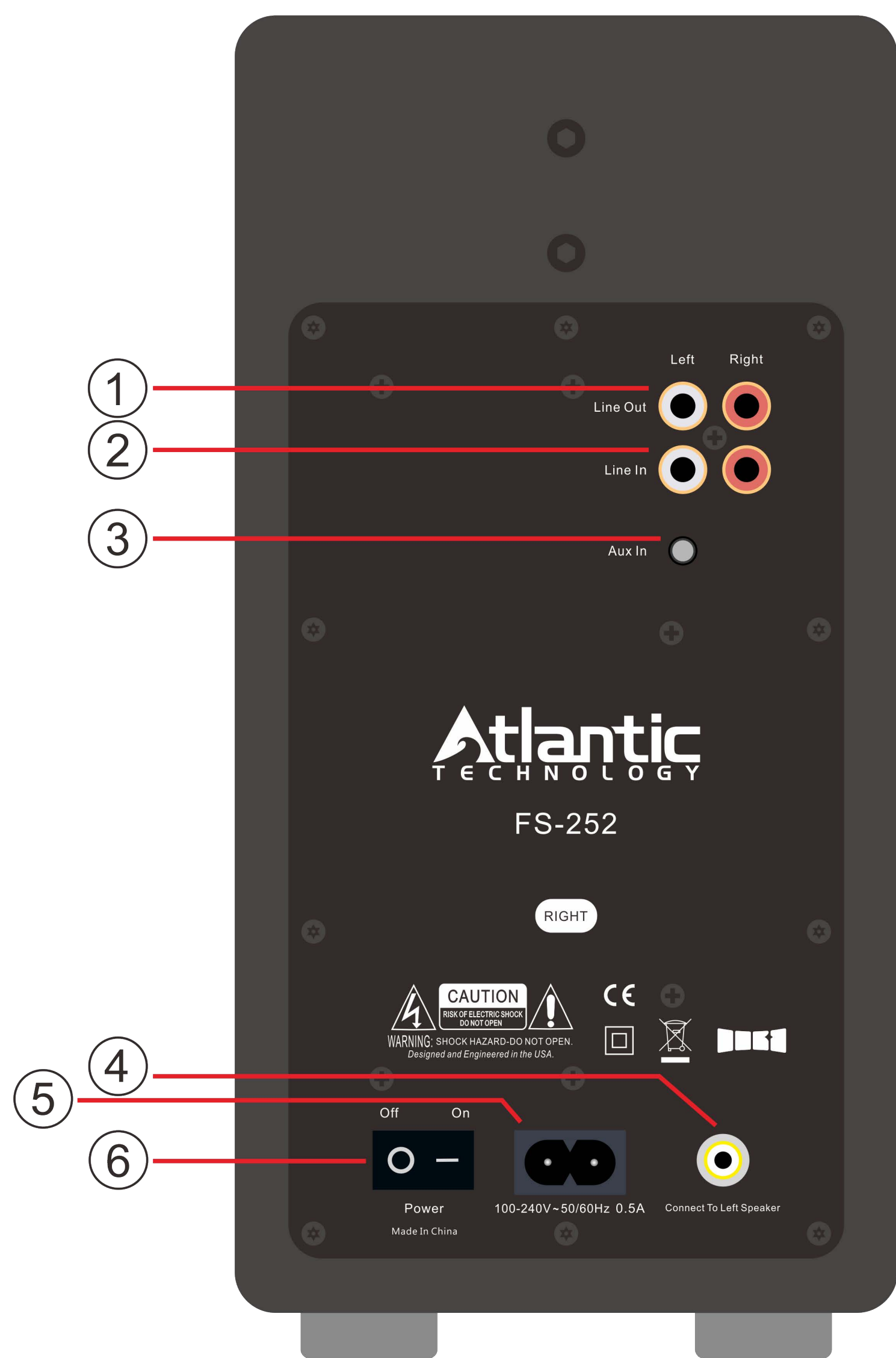
19. CAUTION: Danger of explosion if the remote control battery is incorrectly replaced. Replace only with the same or equivalent type.

20. WARNING: The remote control battery (battery or batteries or battery pack) shall not be exposed to excessive heat such as sunshine, fire or the like.

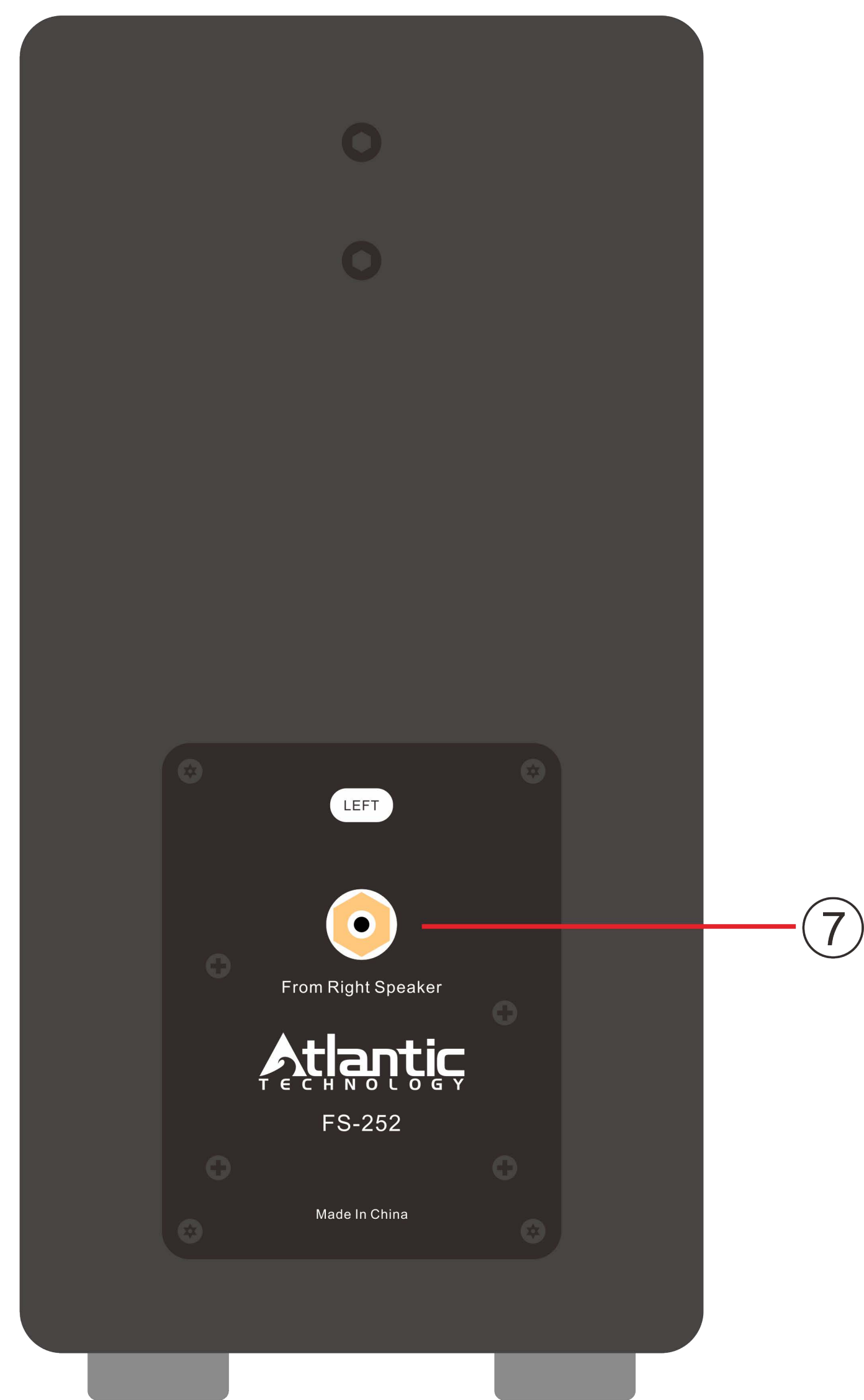
21. No naked flame sources, such as lighted candles, should be placed on the apparatus.

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Using the Line-level Analog Audio Input	12
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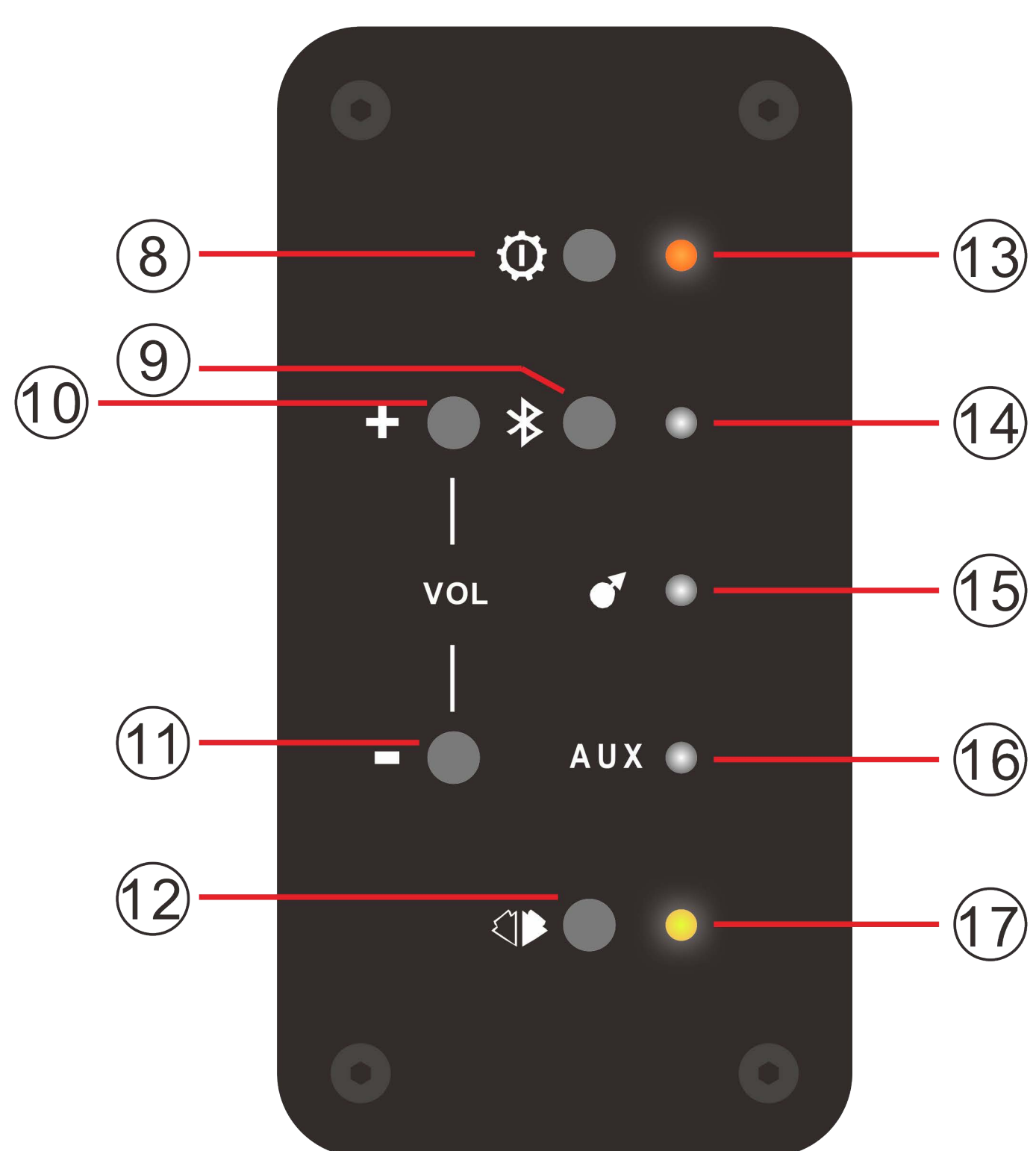
Introduction



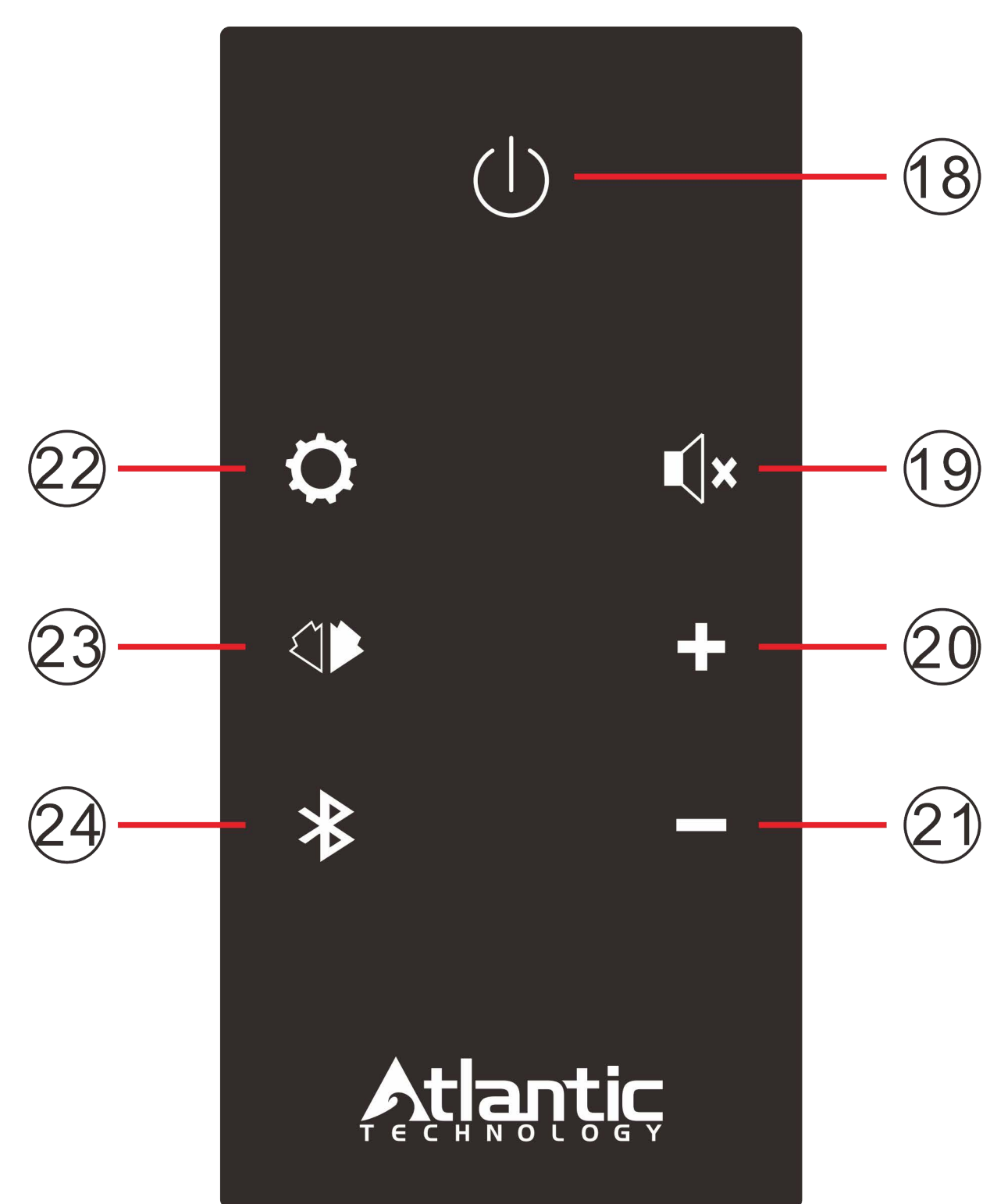
Right Speaker



Left Speaker



Control Panel



Remote control

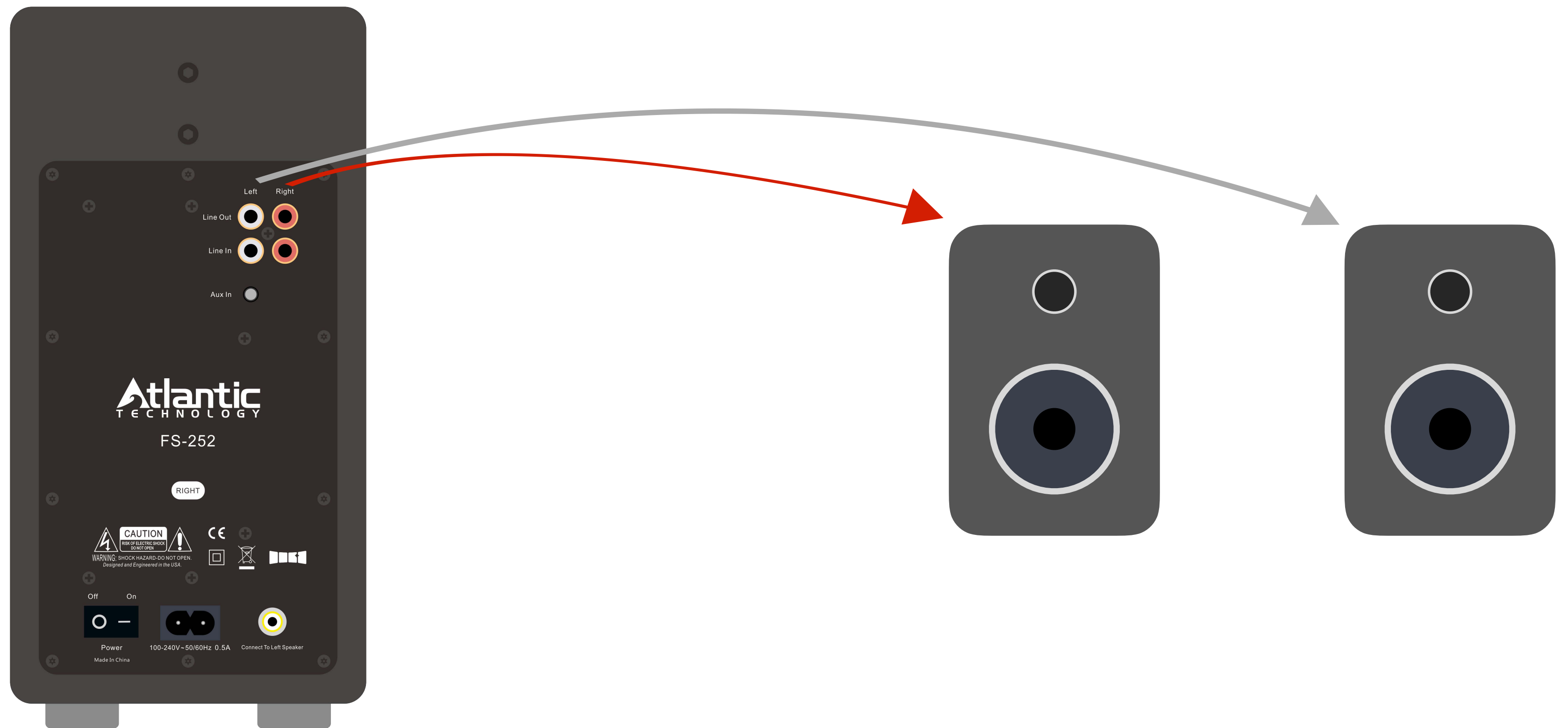
Introduction

- 1.Line out Jack See Page 6 for detail**
- 2.Line in Jack See Page 12 for detail**
- 3.AUX Input Jack See Page 12 for detail**
- 4.Left Speaker output See Page 6 for detail**
- 5.main power 100-240vac in**
- 6.main power on/off**
- 7.Left Speaker input See Page 6 for detail**
- 8.Gear Button Click to switch modes Hold to power on/off See Page 7 for detail**
- 9.Bluetooth Button See Page 8-9 for detail**
- 10.Volume Down Button**
- 11.Volume Up Button**
- 12.SKAA Bond Button See Page 11 for detail**
- 13.Power LED red: On not light: off**
- 14.Bluetooth LED See Page 8-9 for detail**
- 15.Relay LED See Page 13-14 for detail**
- 16.AUX LED See Page 12 for detail**
- 17.SKAA Indicator LED See Page 11 for detail**
- 18.POWER ON/OFF Button**
- 19.MUTE Button**
- 20.Volume Up Button**
- 21.Volume Down Button**
- 22.Gear Button See Page 7 for detail**
- 23.SKAA Bond Button See Page 11 for detail**
- 24.Bluetooth Button See Page 8-9 for detail**

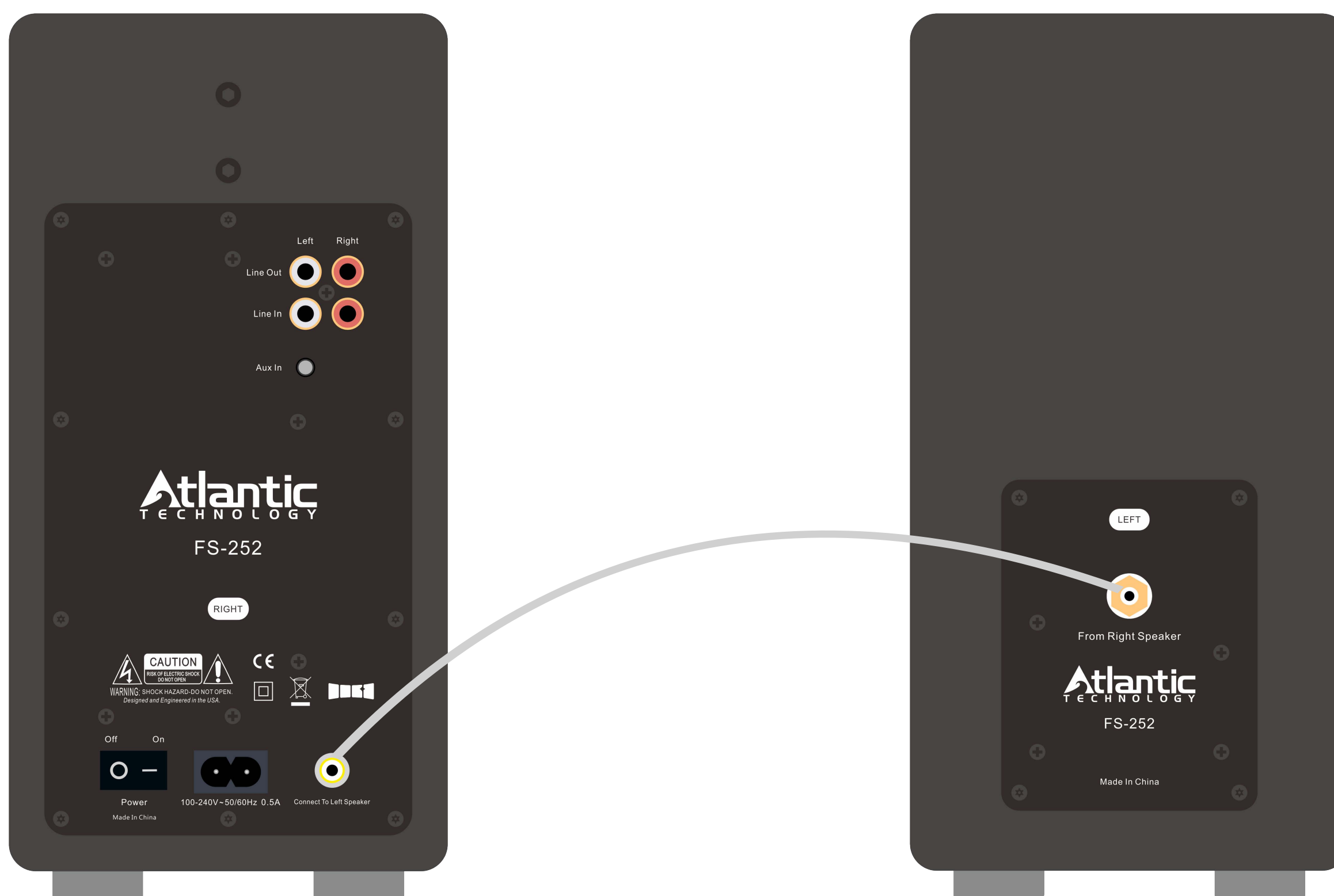
Initial Setup

The FS-252 supports both active and passive speakers.

If you are connecting active speakers (i.e. if your speakers use power cables), connect them to the output labeled "Line out".



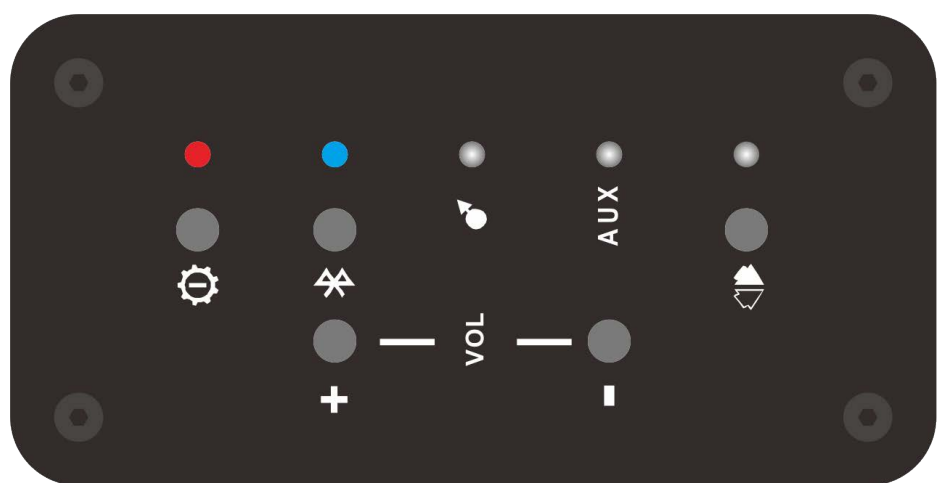
You have to connect FS-252 Right Speaker to FS-252 Left speaker by cable



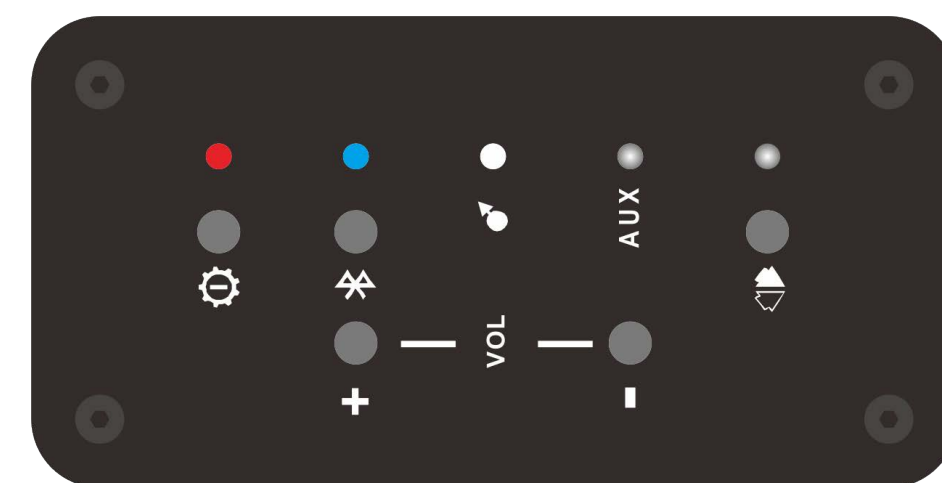
Initial Setup

Before attempting to use any buttons on the control plate, ensure that the power switch on the back of your FS-252 is flipped to the "On" position. Next, hold the Gear button for two seconds to power on the unit. Once the power LED is illuminated, click the Gear button to cycle through modes.

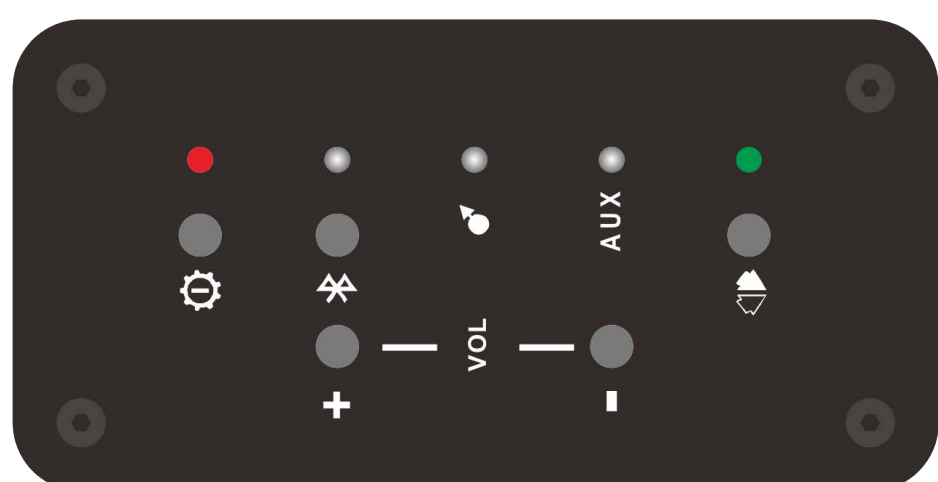
Works as an ordinary BT speaker. Use the Bluetooth button to pair with your phone.



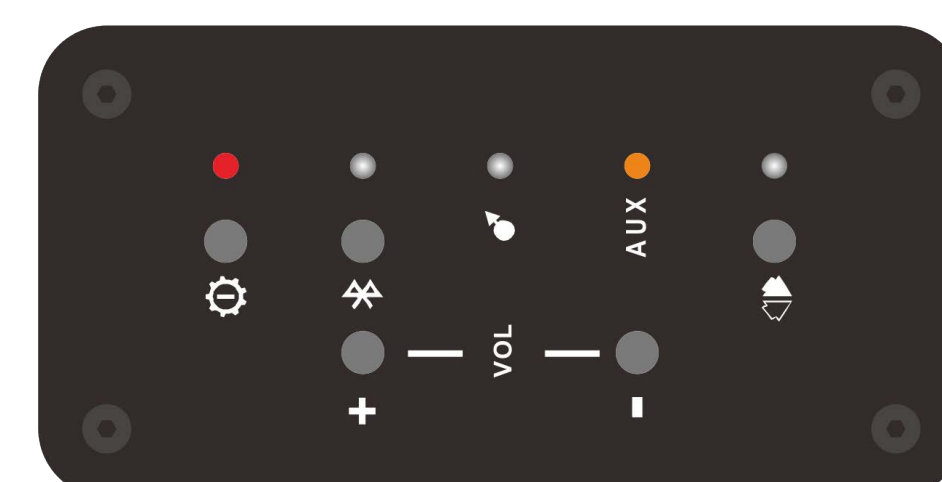
Same as BT, but this mode rebroadcasts that BT audio to up to 4 more speakers via SKAA!



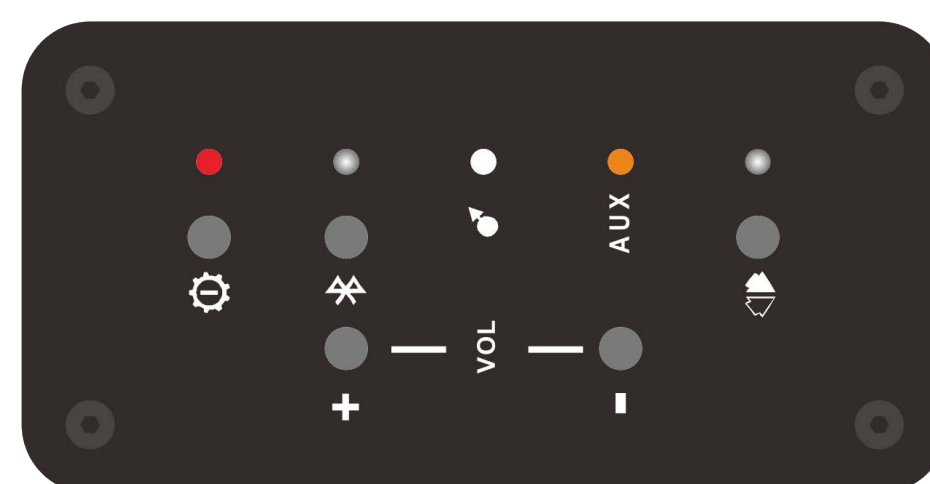
It's a fully-functional SKAA receiver. Feed it audio with any SKAA hardware transmitter, or any other FS-252 in Relay mode.



Plug in any 3.5 mm stereo audio source into the AUX jack, or any RCA line level source into the Line In input on the back.

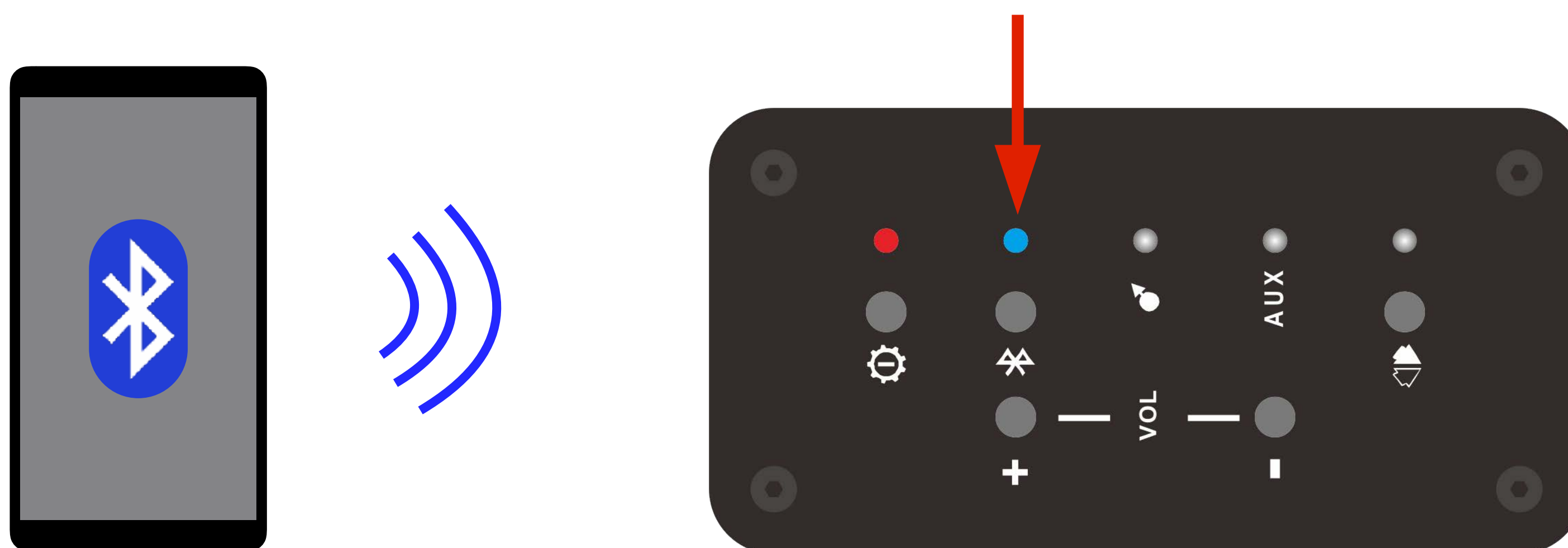


Same as AUX, but this mode rebroadcasts that AUX audio to up to 4 more speakers via SKAA!



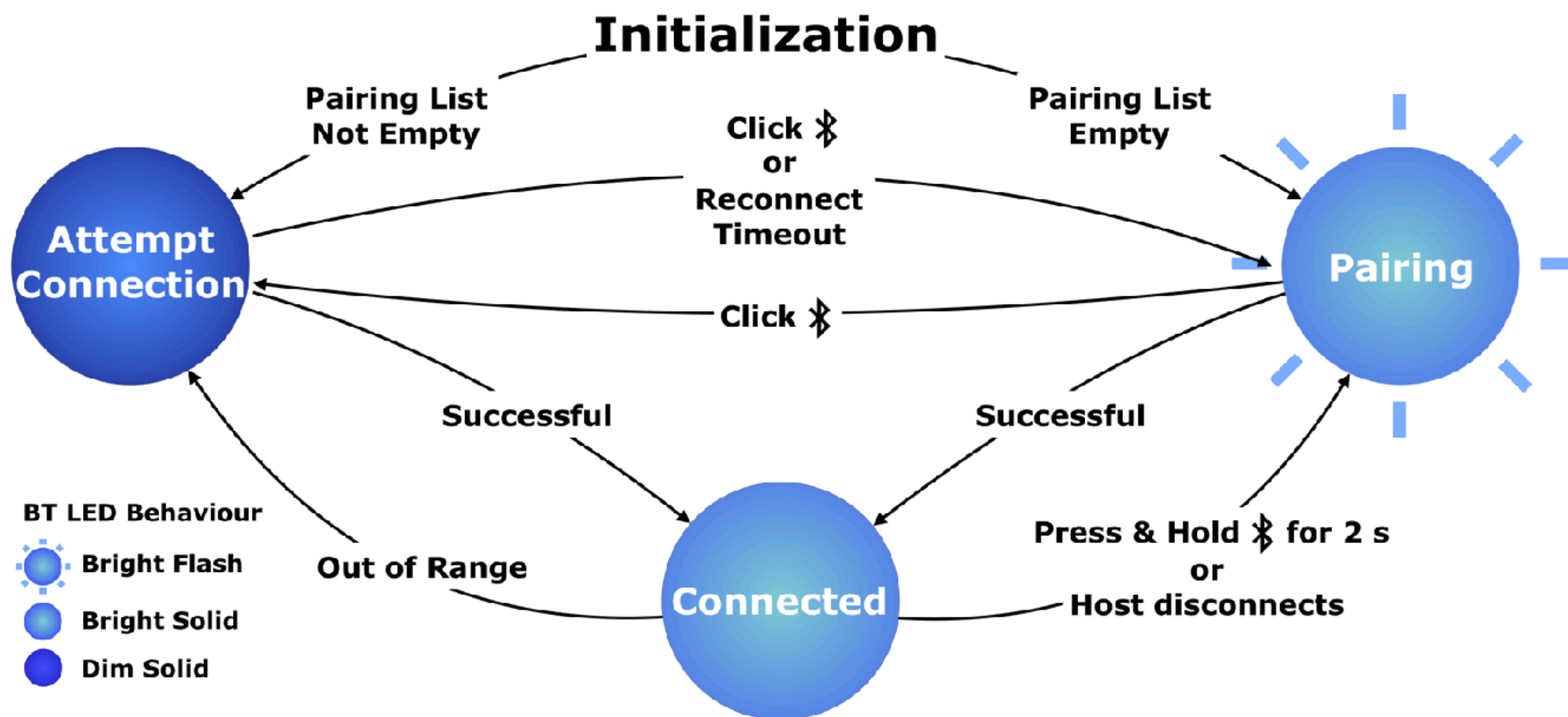
Connecting a Bluetooth Source

Cycle to Bluetooth mode by clicking the Gear button. When in Bluetooth mode, the Bluetooth LED will be illuminated.

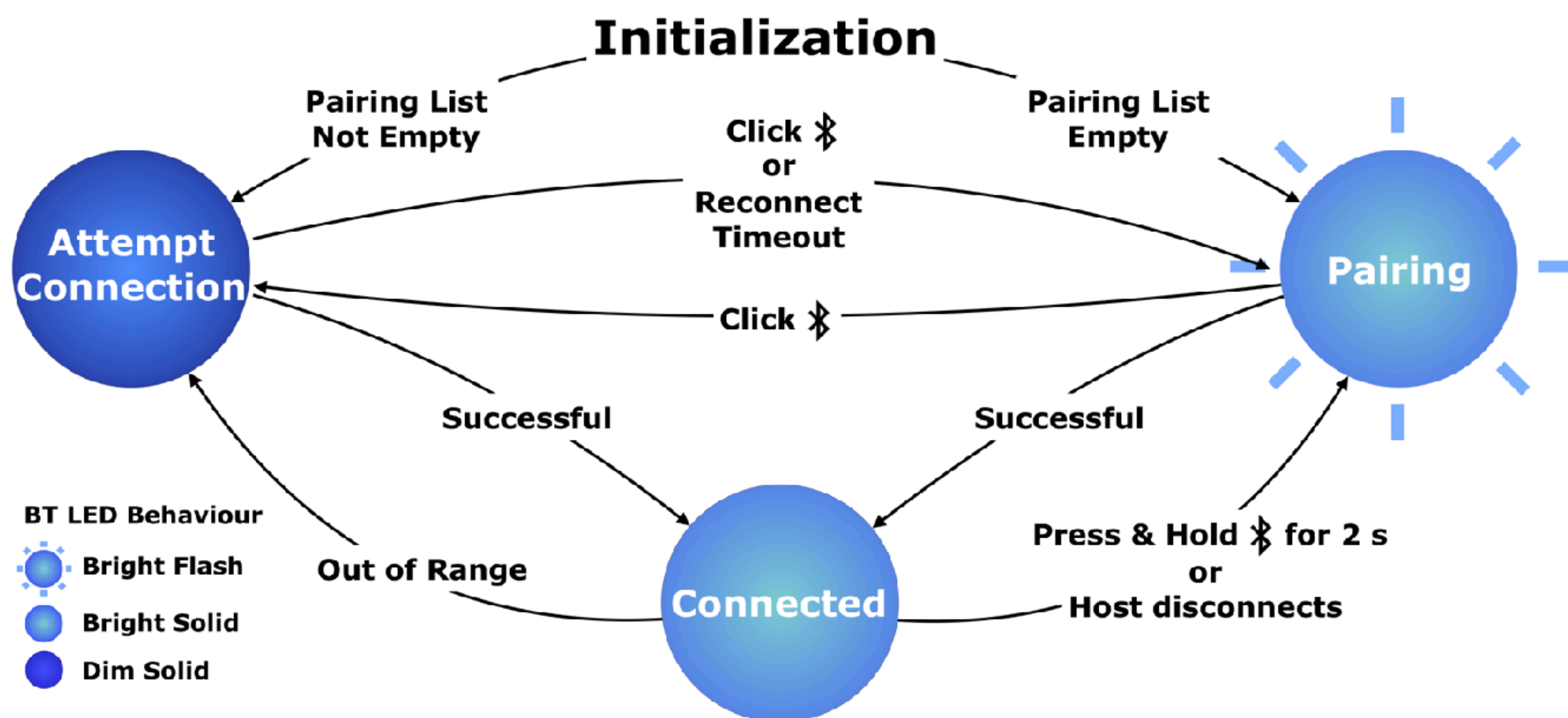


Enter pairing mode on the Bluetooth device you want to connect to the FS-252 and select the FS-252 from the discoverable devices list.

This diagram represents the Bluetooth behavior of the FS-252



Connecting a Bluetooth Source



Initialization

Initialization begins when the user enters BT Mode or BT Relay Mode from any other mode, by clicking the Gear button. Initialization also begins if the user powers on the FS-252 in either BT Mode or BT Relay mode.

Pairing List

The Paired List contains up to eight of the most recent hosts which have successfully paired and connected with the FS-252.

⌘ Button

Clicking the ⌘ button toggles between the Attempt Connection state and the Pairing state. From the Connected state, a two-second press and hold of the ⌘ button will force the FS-252 to drop the connection to its currently connected device and enter the Pairing state. A ten-second press & hold of the ⌘ button will clear the Paired List and enter the Pairing state.

Timeouts

From Initialization, the FS-252 attempts to connect to the most recently connected host for ten seconds. After ten seconds, if a successful connection has not been established, the FS-252 will enter the Pairing state.

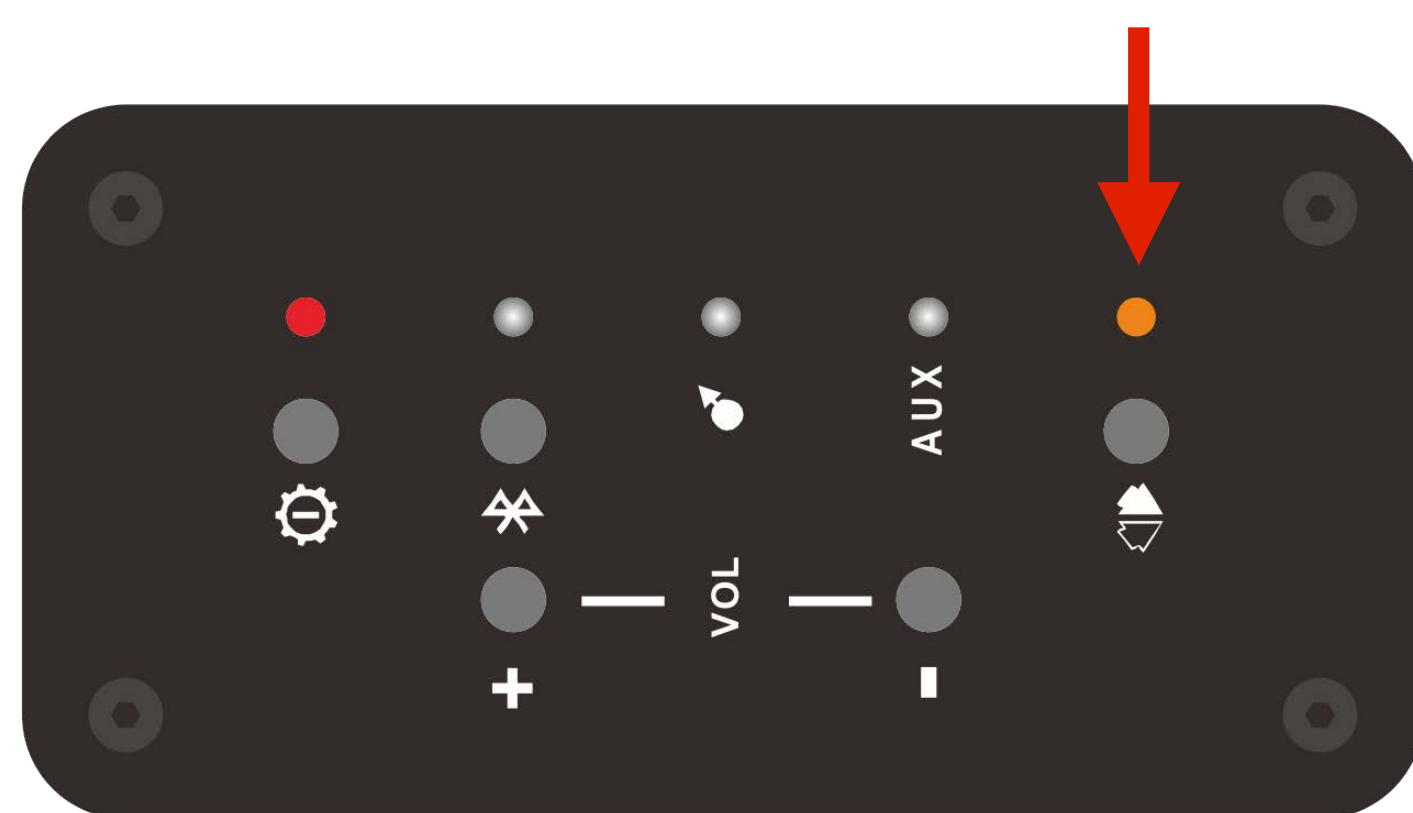
If the connected host goes out of range, the FS-252 attempts to reconnect to that host for 60 seconds. After 60 seconds, if a successful connection has not been established, the FS-252 will enter the Pairing state.

Using your FS-252 SKAA Receiver

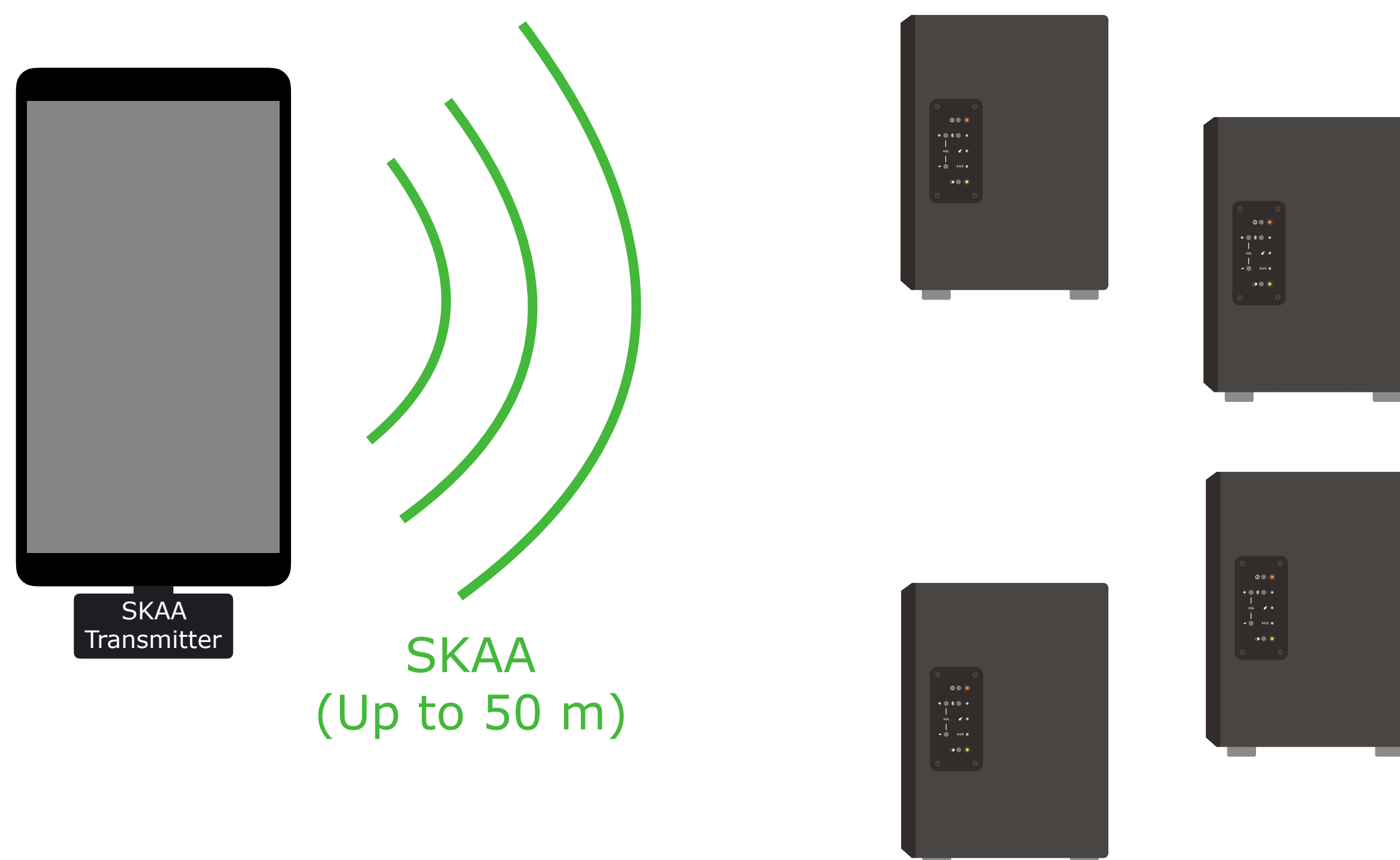
The FS-252 can be used as an SKAA receiver when in SKAA mode. An SKAA receiver receives wireless audio from any SKAA transmitter. For a complete list of SKAA transmitters visit www.skaastore.com/products/transmitters/

Ensure your SKAA transmitter is powered, and that your host device is playing audio. For example, if you are using a smart phone, make sure that your SKAA transmitter is plugged into your smart phone and that music is playing.

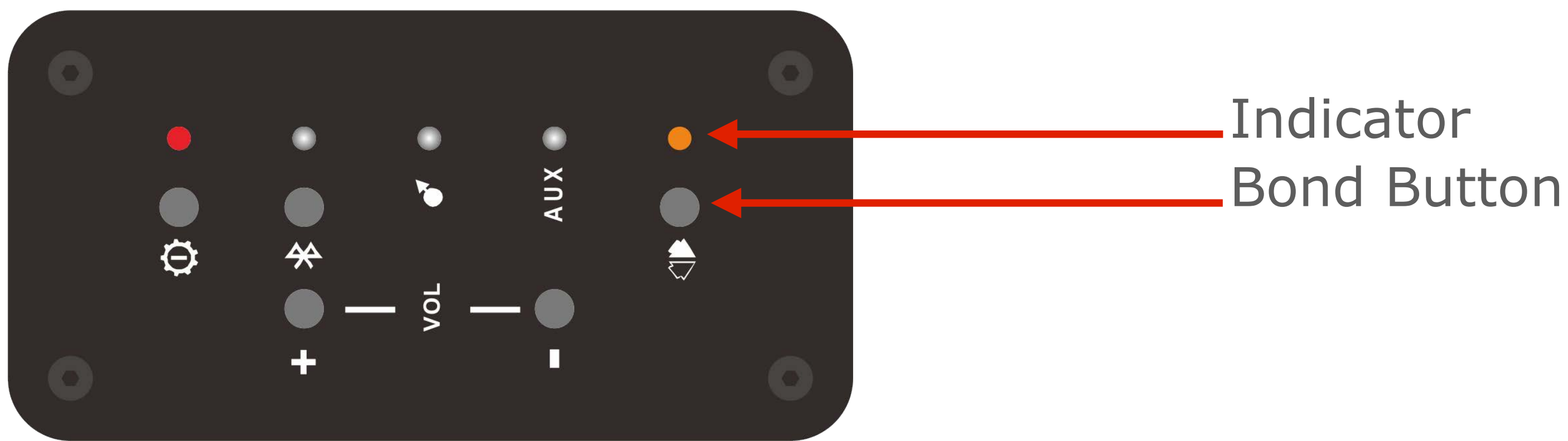
Click the Gear button to cycle through modes. The SKAA Indicator LED will illuminate once you have entered SKAA mode. When in SKAA mode, your FS-252 should automatically begin playing the audio received over SKAA through the speakers you have connected.



One SKAA transmitter can serve up to four SKAA receivers.



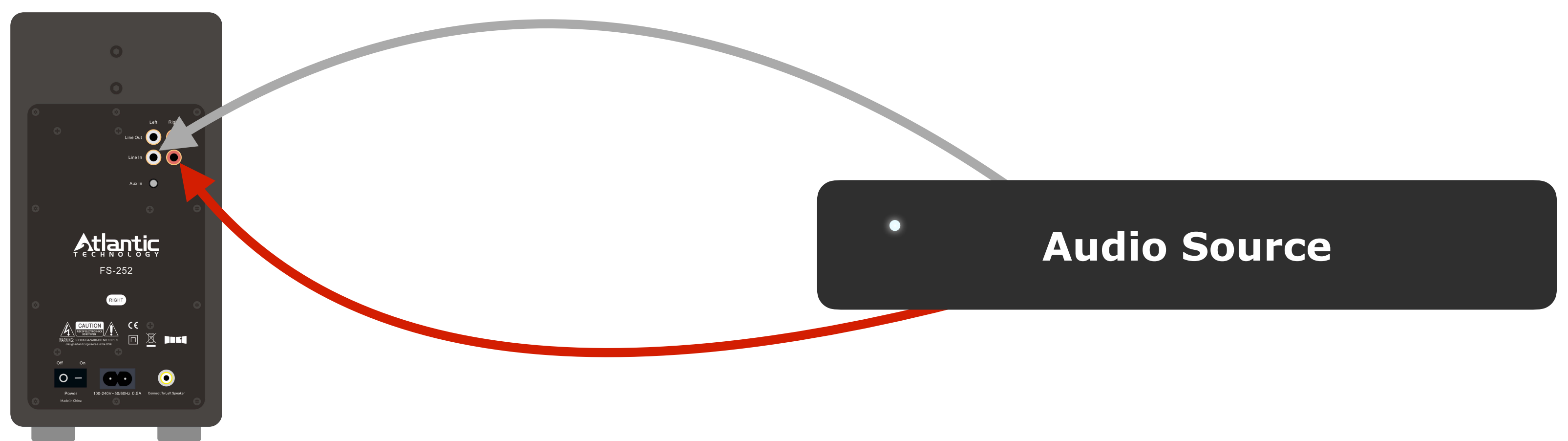
Using your FS-252 as a SKAA Receiver



Bond Button	Command	Indicator Meaning
Hold a few seconds	<u>Add / Delete</u> Manually add / delete the current transmitter to / from your Green List	● to ● = Added ● (flash) = Deleted
-	<u>Auto Add</u> SKAA will automatically add the current Amber transmitter to your Green List if you listen to it for 30 minutes	● to ● = Added
1 Click	<u>Green Mode</u> Rotate through your list of <i>favourite</i> transmitters (Green List) — when a favourite transmitter is found, the search stops and audio plays from that transmitter	● (dim) = Hunting ● (flash) = Next one ● (bright) = Bonded
2 Clicks	<u>Amber Mode</u> <i>Explore</i> for new, unknown transmitters (ones which are not already on your Green List)	● (dim) = Hunting ● (bright) = Bonded

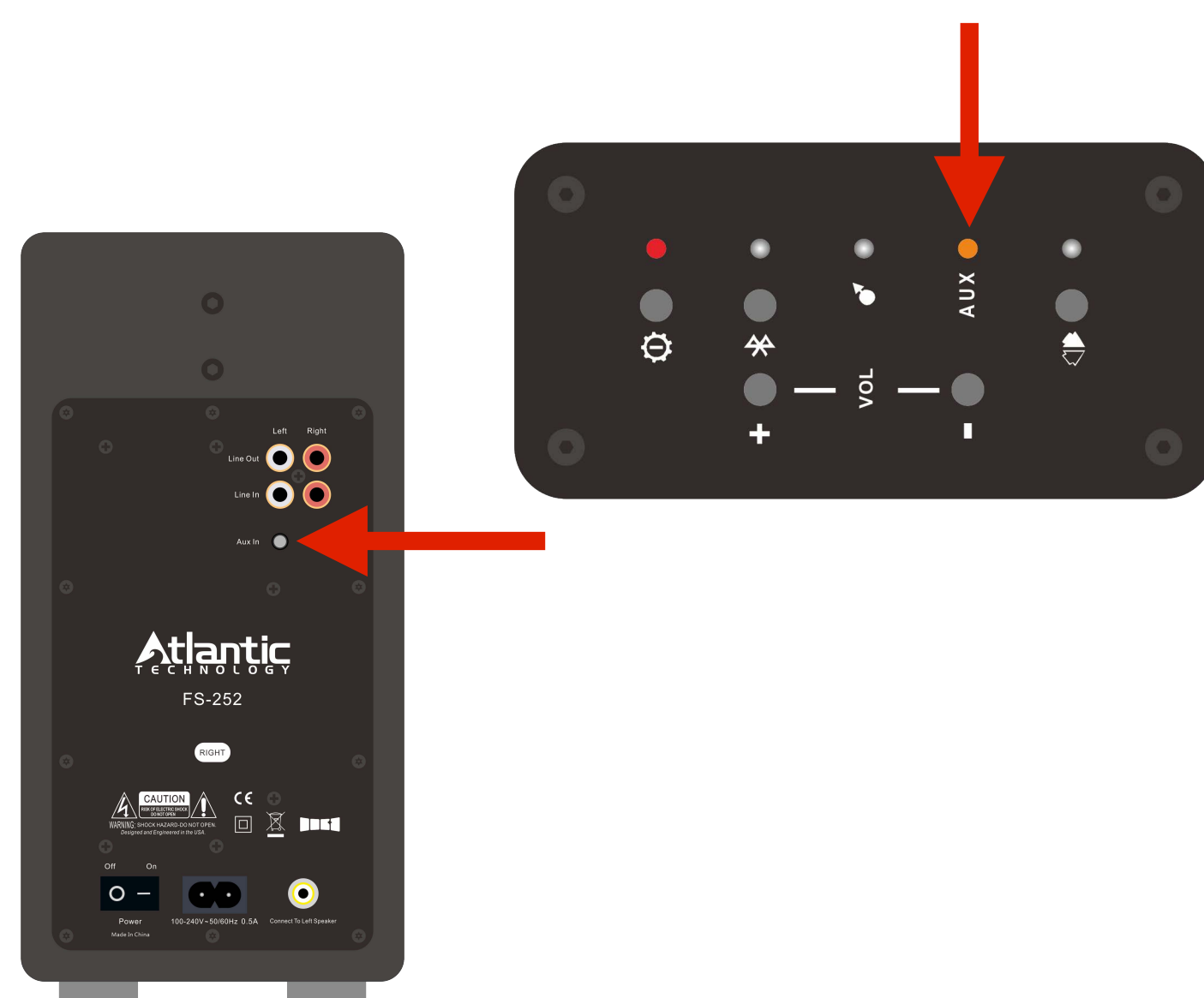
Bond Button	Command	Indicator Meaning
3 Clicks	<u>Mute</u> do again to Unmute; any Click command will first Unmute and then do its function	●, ● or ● = Muted (slow flash)
4 Clicks	<u>Red Mode</u> If you have 2 or more transmitters on your Green List, power on just the one you want to hear and it plays automatically.	● (dim) = Hunting ● (bright) = Bonded
6 Clicks	<u>Factory Reset</u> Clear Green List. Start Over!	● (flash) = Reset Done
Hold during power on	<u>Make a Cluster of Receivers:</u> 1. Power off all transmitters and receivers 2. Power on the Master receiver while holding down its Bond Button—hold the button down until the Indicator begins to flash Red 3. With the remaining receivers within 3 meters of the Master receiver, power on the first one, wait for its Indicator to flash Red and then power on the second one; continue until all of them are powered on 4. Once all of the Indicators stop flashing (turn solid Red), power off all of the receivers	● (flash) = Receiver has entered 'Cluster Up' mode ● (bright) = The Cluster has been successfully made

Using the Line-level Analog Audio Input



Connect your line level input to the input labeled "Line in" on the back of your FS-252.

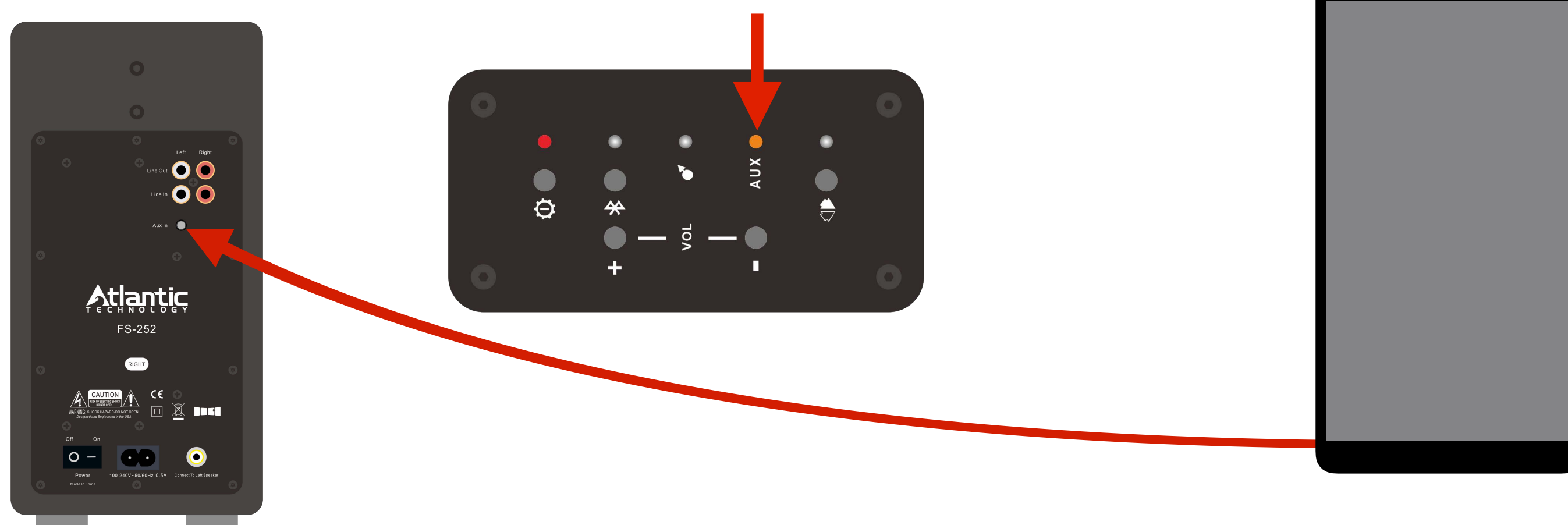
Click the Gear button to cycle to AUX mode. When in AUX mode, the yellow LED above AUX will illuminate.



Make sure no cables are plugged into the AUX jack located on the back of the FS-252. audio signal from the Line in input on the back.

Using the AUX Audio Input

Click the Gear button to cycle to AUX mode. When in AUX mode, the yellow LED above AUX will illuminate.

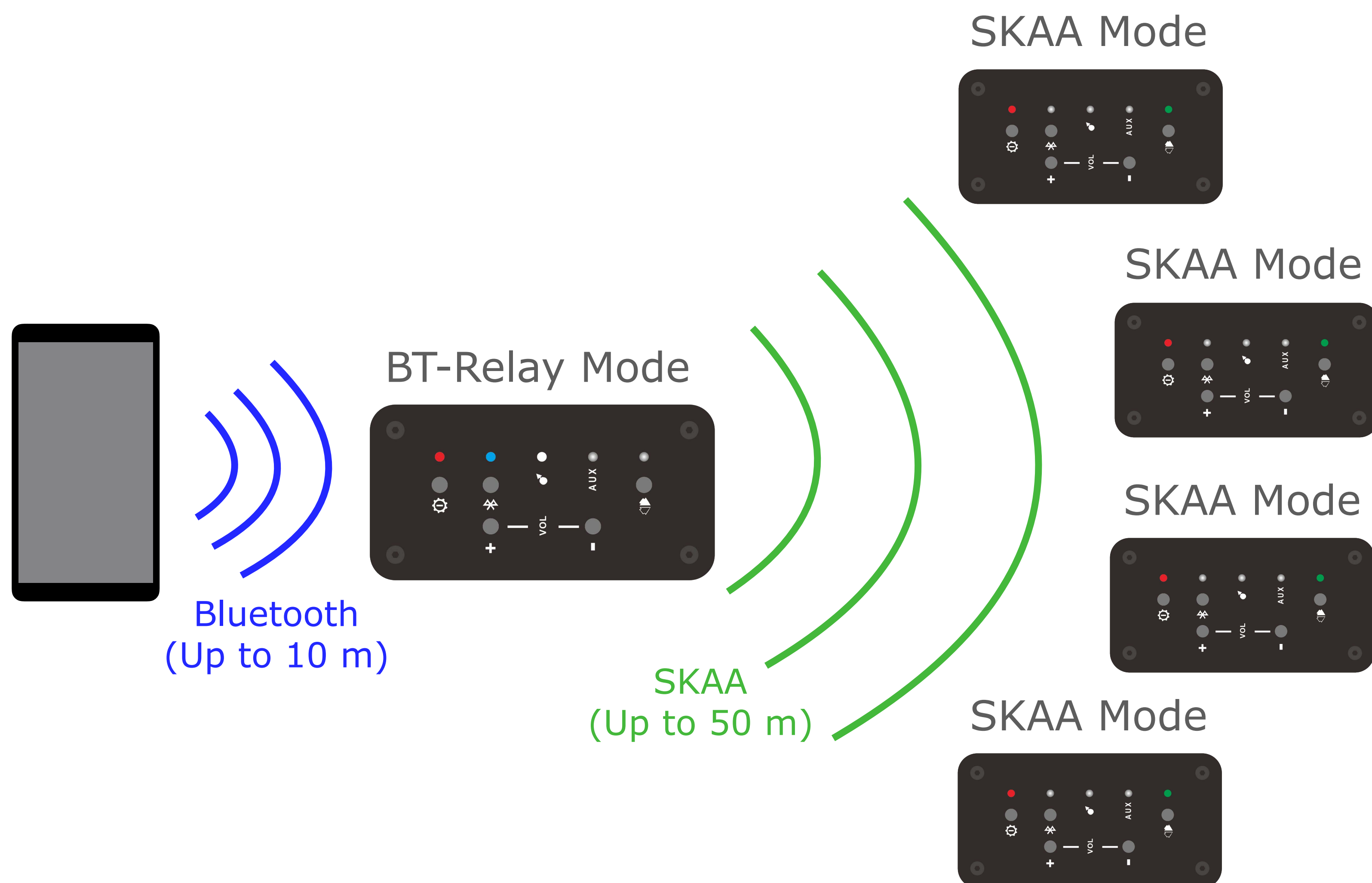
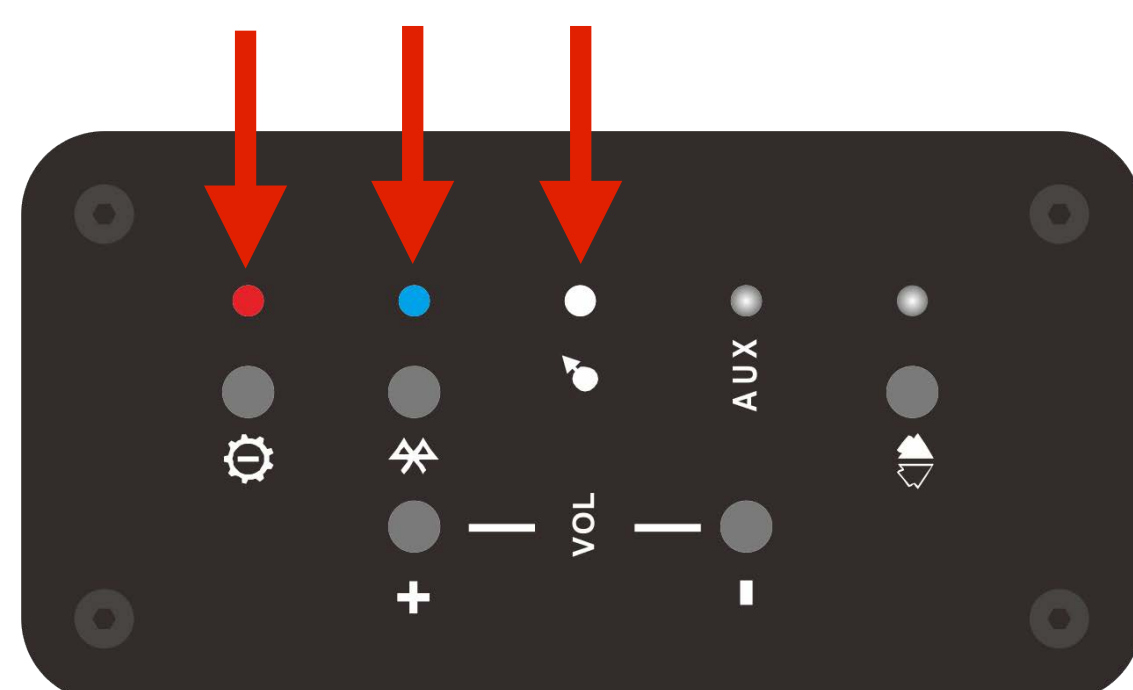


Plug your audio device into the AUX jack located on the back of the FS-252.

Using Several FS-252 Units Together in a SKAA Network

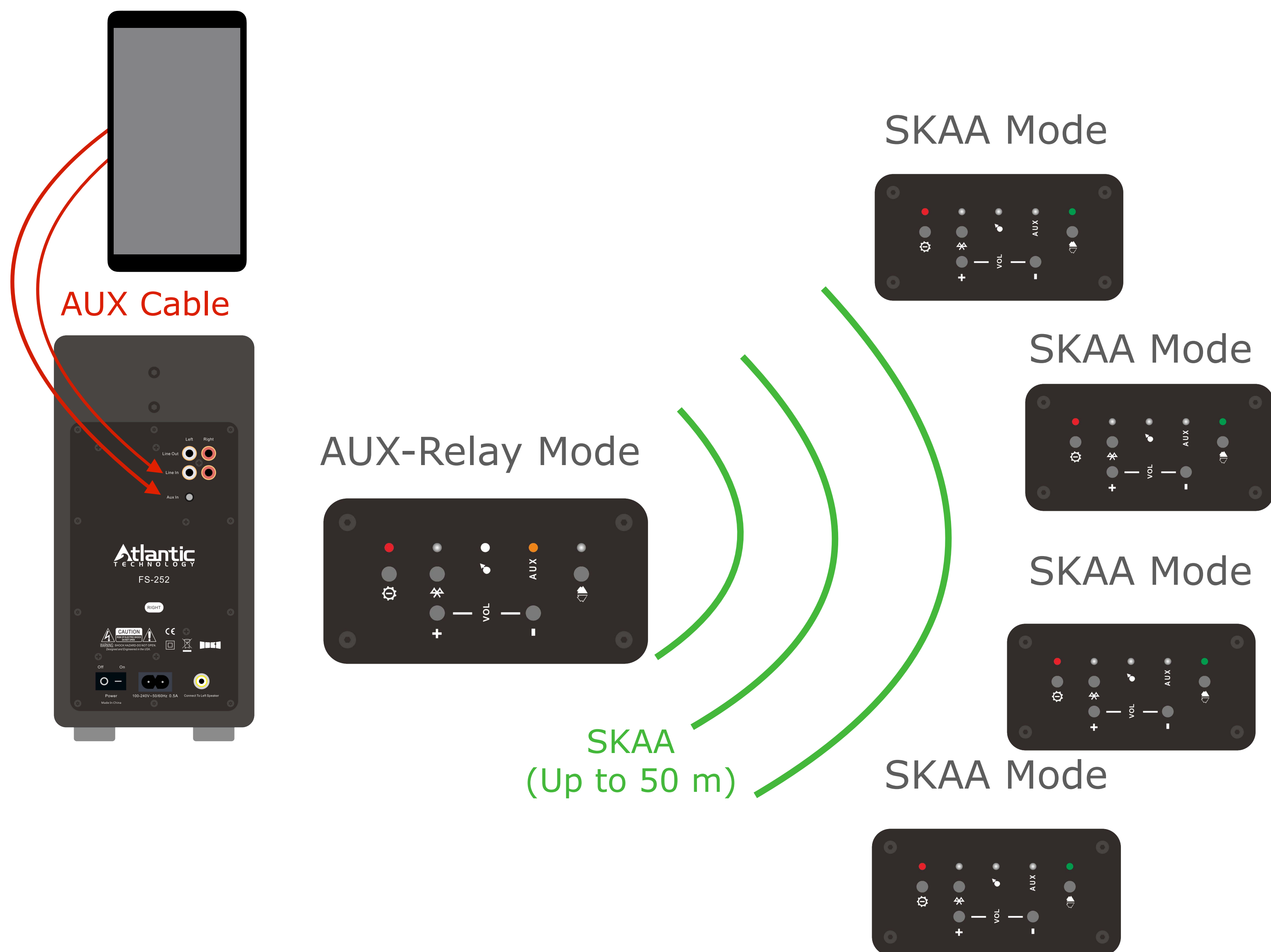
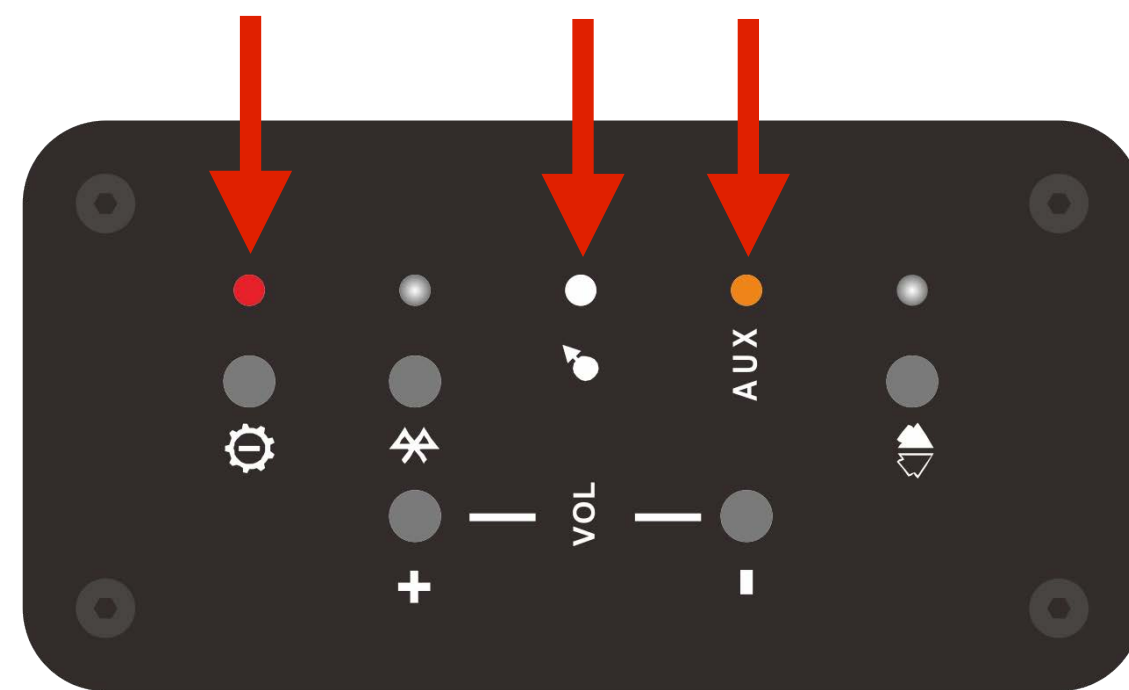
Both Bluetooth and AUX modes come equipped with an optional Relay mode. When in either BT Relay or AUX Relay modes, the white Relay LED will be illuminated in addition to the Bluetooth or AUX LEDs. When in one of the Relay modes, your Bluetooth or AUX signal is relayed over SKAA to up to four more SKAA receivers.

Bluetooth Relay



Using your FS-252 Together in a SKAA Network

AUX Relay



This will also work with an RCA line level source plugged into the Line In input on the back of the FS-252. In this case, make sure there is nothing plugged into the Audio Input jack on the back.



SKAA cmd

SKAA cmd is an optional App available for iPhone, iPad, iPod, Android, Mac and PC. You can find it on our website www.skaa.com/tlc/ or in the iOS App store and Google Play. SKAA cmd is great for getting the most out of your FA-252. To use SKAA cmd, throw your FS-252 into SKAA mode, download the app, insert a SKAA transmitter and check out all of the customizable features of SKAA. SKAA cmd only works with five specific SKAA transmitters: Izabella, Diz, Ursula, Gemma and Cassandra. The FS-252 will not work with SKAA cmd unless you are using one of the supported transmitters.

SKAA cmd

— the app you don't really need!

SKAA cmd works with these 5 transmitters:

- Izabella
- Diz
- Ursula
- Gemma
- Cassandra

Click a receiver's name to change it to something more interesting

Click a speaker icon to Mute & Unmute; you can tell a receiver's muted when the speaker icon is flashing and the slider's lost all its color

More than one green bond block means this is a Cluster; download the SKAA Receiver User's Guide to learn more about Clusters

Customize your transmitter's name by clicking in it

Click here to set the transmitter's power mode:

- Red = on
- Grey = off
- White = on when audio; the vertical bar in the icon means the transmitter is on

Click a green bond block to set audio channel routing:

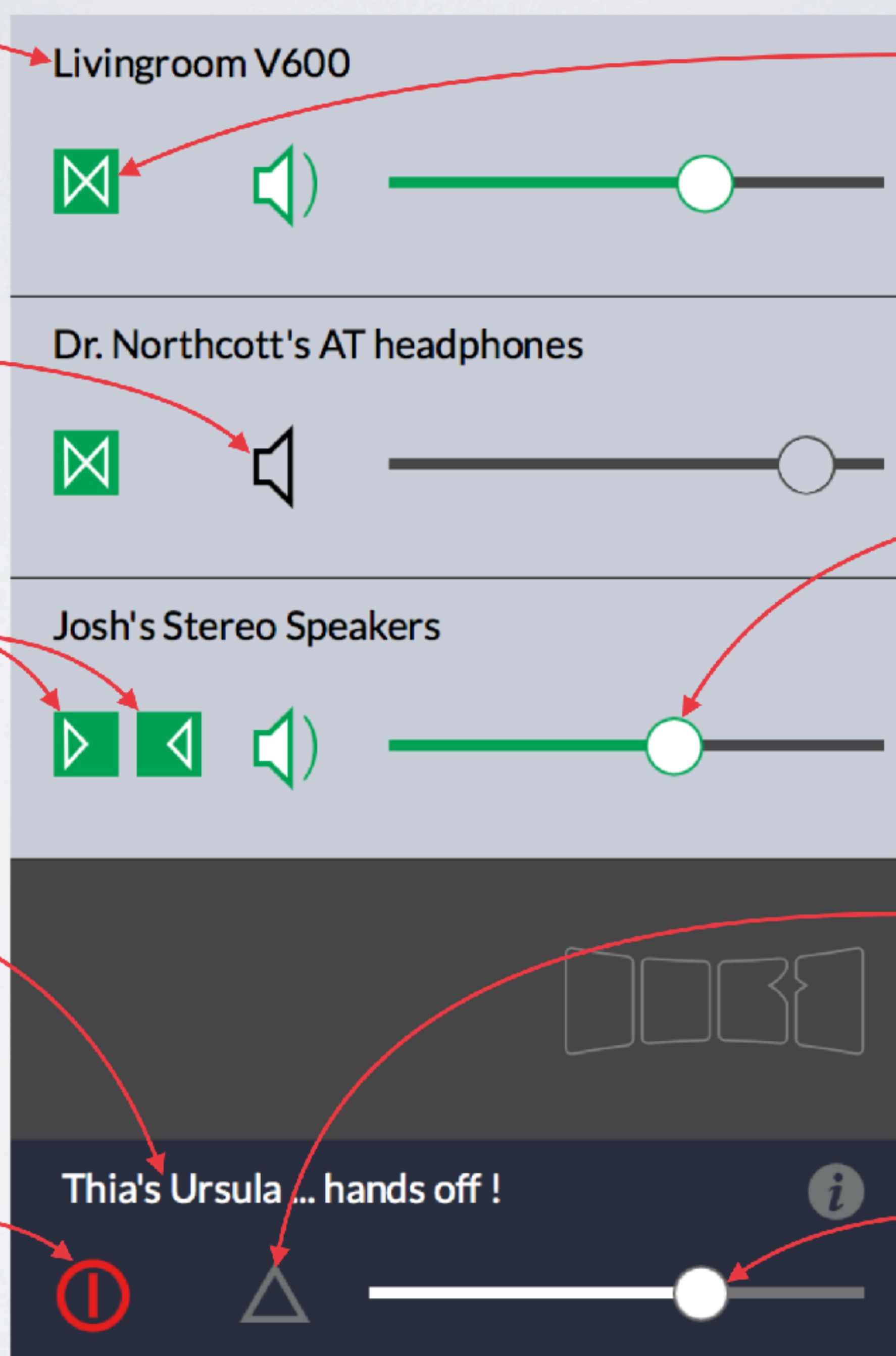
- Left
 - Right
 - Mono
 - Stereo
- but not all of these options are enabled on all receivers

Change just this receiver's volume by dragging this slider

Each one of these bays shows one SKAA receiver or Cluster that's bonded to your transmitter

Click this triangle to mute all receivers at once; but click each speaker icon individually to get them playing again

This master volume slider affects all receivers bonded to this transmitter

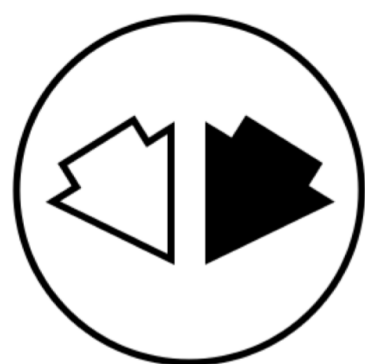


SKAA Trouble Shooting Guide

The purpose of this guide is to provide answers to frequently asked questions when using SKAA products for the first time.

Note: SKAA provides a very simple, one-button, one-LED, interface. These two components are called, and will be referred to as, the Bond Button and the SKAA Indicator.

At any time, when interacting with SKAA, the user may locate the Bond Button and rapidly click it six times to reset SKAA to its factory settings. In some cases, it can prove useful to factory-reset an SKAA receiver. If an SKAA transmitter is available and transmitting audio, the factory-reset automatically Bonds to the transmitter and resets the volume.



Bond Button Icon

Before proceeding with reading the following frequently asked questions and answers, please make sure that your SKAA devices are powered, in SKAA-mode (if applicable) and in range of one another (~20 m).

1. When I power on my SKAA speaker, the Indicator is dim green and when I play audio from my SKAA transmitter, no sound comes from the speaker.






Most likely your SKAA speaker is hunting for one of your favorite transmitters. Simply press the Bond Button once, in order to switch to another favorite transmitter. If no other favorite transmitters are saved on the Green List, pressing the Bond Button once will not have an effect. In this case, double-click the Bond Button in order to put the speaker into Amber Mode. Amber Mode will explore for new, unknown transmitters in the area that are currently playing audio. If the issue persists, you can always factory reset the SKAA receiver by six-clicking the Bond Button. The SKAA Indicator will flicker red for one second and the speaker will return to Amber Mode. If six-clicking the Bond Button has no effect, see the next trouble-shooting item.

2. When I power on my SKAA speaker and attempt to play audio from a SKAA transmitter, I hear no sound, the Indicator is dim green and no matter how many times I click the Bond button, nothing changes.

In this case, your SKAA speaker is a Slave speaker in a Cluster of speakers. This means that this speaker was probably sold with at least one other speaker, and one of these other speakers is the Master speaker. The Master speaker is responsible for controlling all Slave speakers. A Slave speaker will always follow the Master speaker. Some Slave speakers still contain a Bond Button in order to mute the speaker (this can be accomplished by triple-clicking the Bond Button). Any SKAA speaker with a Bond Button on it can be a stand-alone speaker, however it will have to be "unclustered" See the SKAA Receiver User's Guide for the unclustering procedure.

SKAA Trouble Shooting Guide

3. What is the difference between Green Mode and Amber Mode and how do I use them?

1 Click	Green Mode - Rotate through your list of favourite transmitters (Green List) - when a favourite transmitter is found, the search stops and audio plays from that transmitter.	 (dim) = Hunting  (flash) = Next one  (bright) = Bonded
2 Clicks	Amber Mode - Explore for new, unknown transmitters (ones which are not already on your Green list)	 (dim) = Hunting  (bright) = Bonded

When you power on a SKAA speaker for the first time, it will be in Amber Mode. You can identify a speaker in Amber Mode by the behavior of its SKAA Indicator (if the SKAA Indicator is amber, the speaker is in Amber Mode). When in Amber Mode, the speaker will explore for new, unknown transmitters in the area that are currently playing audio. Once found, it will Bond to that transmitter, the SKAA Indicator will switch from dim amber to bright amber and the speaker will start playing audio. The speaker is now Bonded and in Amber Mode. Green Mode can be achieved after an SKAA speaker is Bonded and in Amber mode. Once a speaker is Bonded and in Amber Mode, simply hold down the Bond Button for three seconds. The SKAA Indicator will switch from bright amber to bright green. Now, the next time you power down your SKAA speaker(s) and transmitter(s) and power them back on again, the SKAA speaker(s) will be waiting for the transmitter on the Green List. When the transmitter becomes available, it will automatically Bond to it. SKAA speakers can store up to ten transmitters on a Green List. To cycle through transmitters on a Green List, simply click the Bond Button once to cycle to the next transmitter on the Green List.

4. How do I know which SKAA compatible receivers work with each other?

All devices running SKAA OS 2.1 and newer are designed to work together seamlessly. These three lines should be single spaced, not double spaced.

contact us via:

support@skaa.com and we will help you.

Important Safety Instructions

FCC Compliance Statement

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.

FCC WARNING

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 the receiver.
- Connect the equipment into an outlet different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. Caution: To comply with the limits for an FCC Class B computing device, always use any shielded signal cord supplied with this unit. The Federal Communications Commission warns that changes or modifications of the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Radio Frequency Interference Statement

Warning:

This is a Class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator&your body.

European Union Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)

This symbol on the product(s) and / or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge.

Alternatively, in some countries you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.



Qualcomm aptX is a product of Qualcomm Technologies International, Ltd. Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries, used with permission. aptX is a trademark of Qualcomm Technologies International, Ltd., registered in the United States and other countries, used with permission.

Note:

1. Use the product in the environment with the temperature between -20°C and 40°C .
2. Bluetooth operating frequency is 2402-2480MHZ
3. SKAA operating frequency is 2403.5MHz-2477.3MHz

Simplified EU Declaration of Conformity

Hereby, **TECH-AUDIO CO., LTD** declares that this **FS-252** product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU. Full text of EU declaration of conformity is available at www.skaa.com/tlc/

BT 3.0 RF Output :1.64dBm

SKAA RF Output :12.65dBm

CE Marking



The test was performed according to the following European standards:

Draft ETSI EN 301 489-1 V2.2.0(2017-03);

Draft ETSI EN 301 489-17 V3.2.0 (2017-03);

ETSI EN 300 328 v2.1.1 (2016-11);

EN 62311:2008;

EN 60065:2014;