



TS108C

600-WATT 8" PORTABLE
COLUMNAR ARRAY LOUDSPEAKER

User Guide

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Thank you for purchasing the TS108C columnar loudspeaker array system. At Alto Professional, performance and reliability mean as much to us as they do to you. We design our equipment with only one thing in mind—to make your performance the best it can be.

(1.1) Box Contents

TS108C

- Base Subwoofer
- 3x Columnar Array Attachments

Carrying Bag

Power Cable (4.9 ft. / 149 cm)

Quickstart Guide

Safety & Warranty Manual

(1.2) Support

For the latest information about this product (technical specifications, compatibility information, etc.) and product registration, visit altoprofessional.com.

For additional product support, visit altoprofessional.com/support.

(2.1) Important Safety Precautions

Please note: Alto Professional and inMusic are not responsible for the use of its products or the misuse of this information for any purpose. Alto Professional and inMusic are not responsible for the misuse of its products caused by avoiding compliance with inspection and maintenance procedures. Please also refer to the included safety and warranty manual for more information.

(2.1.1) Installation

Important: TS108C is not designed for suspended or stand-mounted installation.

- Always install loudspeakers in accordance with applicable electrical and building codes.
- Always verify that the loudspeaker is on a flat, level, and stable surface.
- Always be cautious in windy, outdoor conditions. Do not attach anything to the loudspeaker other than cables or equipment necessary for standard operation.
- Unless you are confident that you can handle the loudspeaker's weight, ask another person to help you lift it if necessary.
- Make sure your cables are out of the way of performers, production crew, and audience.

(2.1.2) Sound Level

Permanent hearing loss may be caused by exposure to extremely high noise levels. The U.S. Occupational Safety and Health Administration (OSHA) has specified permissible exposures to certain noise levels. According to OSHA, exposure to high sound pressure levels (SPL) in excess of these limits may result in hearing loss. When using equipment capable of generating high SPL, use hearing protection while such equipment is under operation.

Hours per day	SPL (dB)	Example
8	90	Small gig
6	92	Train
4	95	Subway train
3	97	High-level desktop monitors
2	100	Classical music concert
1.5	102	Riveting machine
1	105	Machine factory
0.5	110	Airport
0.25 or less	115	Rock concert

(2.2) Assembly

1. Place the subwoofer base on a level surface.
2. Attach the additional columns according to your needs.

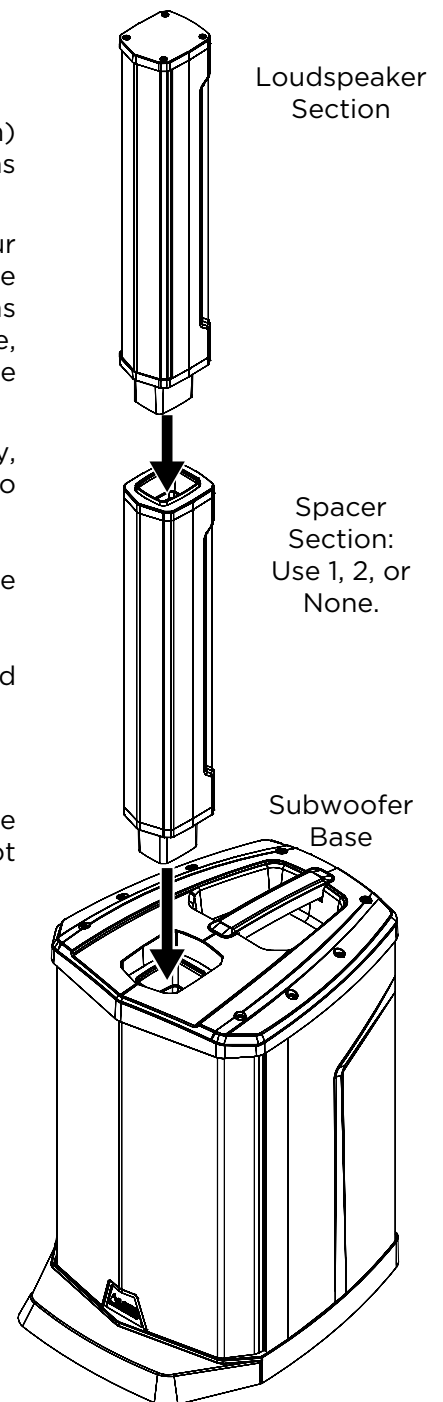
There are three columnar sections, one of which (the top-most section) is loaded with the loudspeakers. The other two sections can be used as spacers to determine the height of the loudspeakers.

The loudspeakers should be placed so that they are relative to your audience's ears for best results. For instance, if you are playing at the same level as the audience, you may wish to add both spacer sections so the loudspeakers are at ear-height. Or, if you are on a raised stage, you may wish to use fewer spacer sections so the loudspeakers are closer to the audience on the floor.

To attach a section, simply insert the protruding end into the cavity, aligning the internal connectors, and gently push until it snaps into place.

3. Connect your input and output devices, and then connect the subwoofer base to power.
4. Power on the unit using the **Power Switch** on the subwoofer base and start playing!

To disassemble, first power off the unit, and then gently pull apart the sections. Store the columnar sections in the included carrying bag when not in use.



(2.3) System Power Sequencing

Proper power sequencing will help prevent audible thumps, clicks, and other noises in the system.

Note: Read the *Safety & Warranty Manual* before using the TS108C loudspeaker.

1. Turn down the output level controls on your audio sources and processors (CD players, mixers, etc.) and power them on.
2. Set the **Gain** knobs to the zero position on the TS108C subwoofer base.
3. Turn on the TS108C subwoofer base.
4. Bring up the faders or level controls on your mixer and start playing your audio source.
5. Raise the **Gain** knobs on the TS108C subwoofer base to a comfortable level.

When powering off:

1. Set the TS108C subwoofer base **Gain** knobs to the zero position.
2. Power off the subwoofer.
3. Turn off all audio source devices and processors.

(2.3) Connection Diagrams

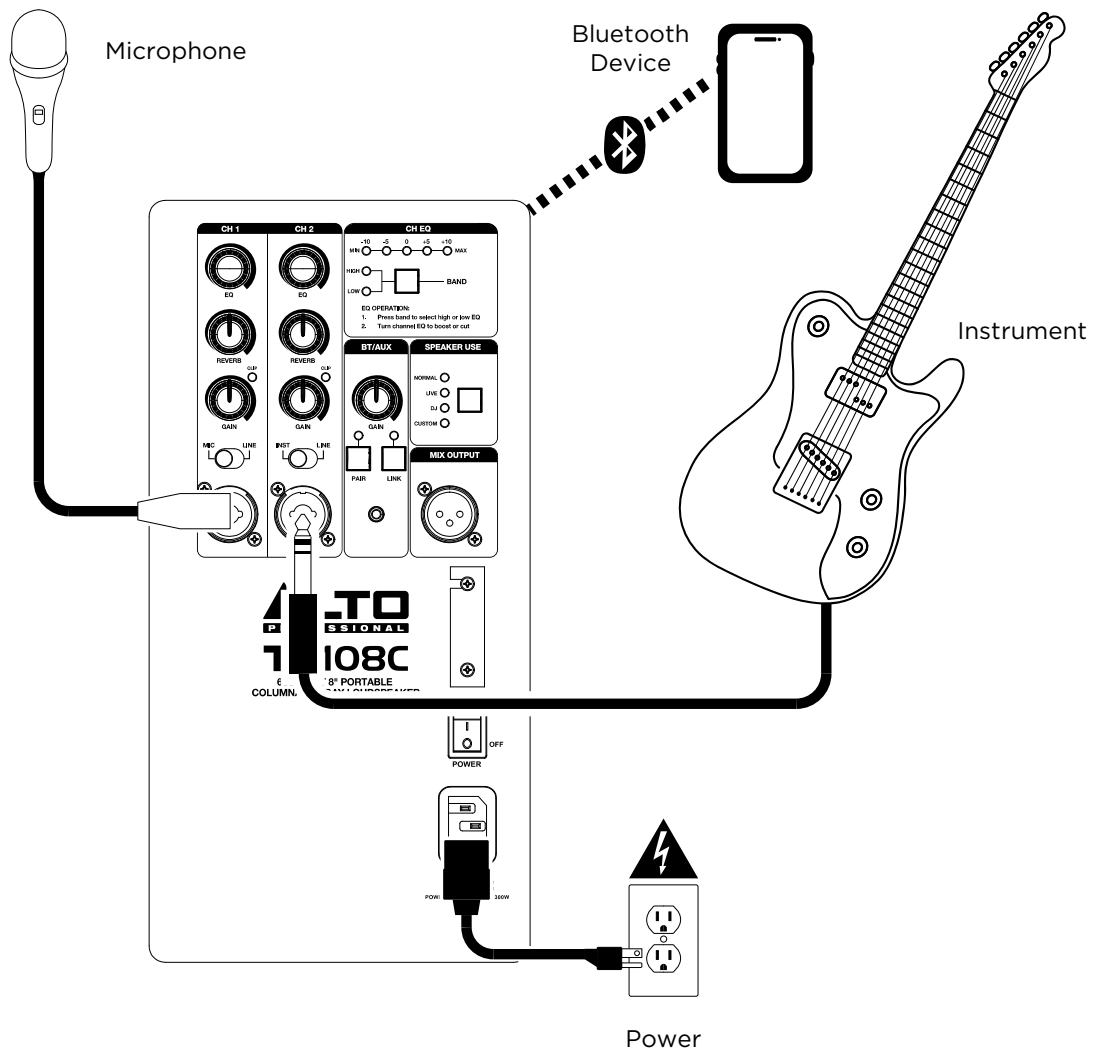
Items not listed under [Introduction > Box Contents](#) are sold separately.

Example A: One Loudspeaker – Small Gig

Connect a microphone to **CH1** and set the **Input Selector** to **MIC**.

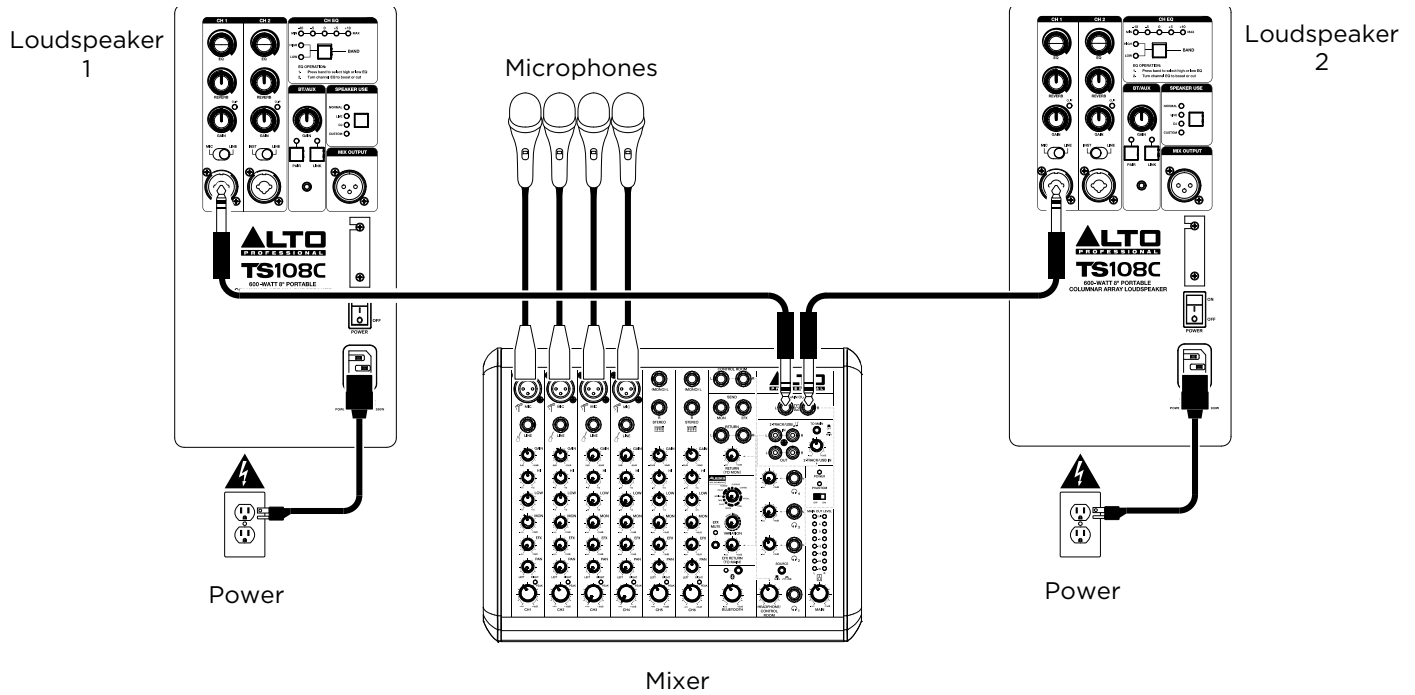
Connect an instrument to **CH2** and set the **Input Selector** to **INST**.

Pair a Bluetooth device for auxiliary playback.



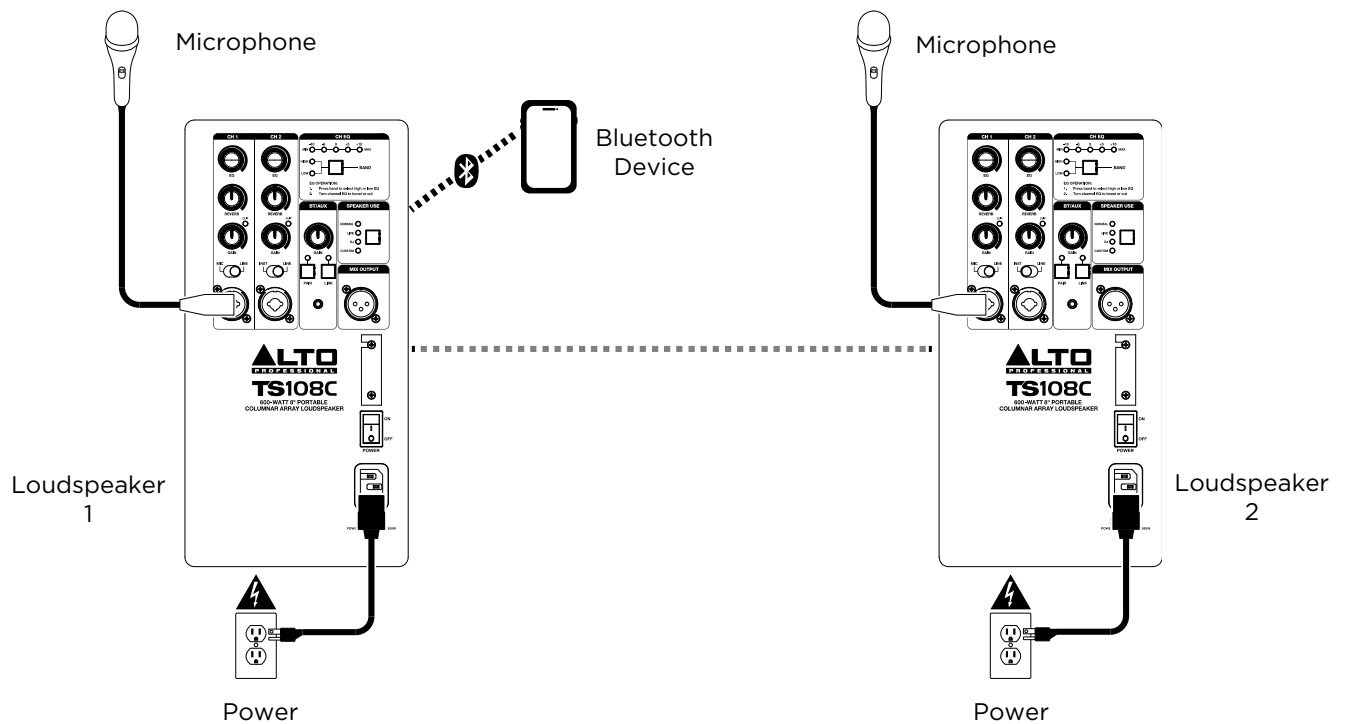
Example B: Two Loudspeakers – Wired

Connect two TS108C loudspeakers to a single audio source, such as a mixer. Set each loudspeaker's **Input Selector** to **LINE** on the connected channel.



Example C: Two Loudspeakers – Stereo-Linked

Two TS108C loudspeakers can be wirelessly linked for stereo sound when using Bluetooth.



A. POWER INPUT

Connect the included power cable to this input and connect the other end of the cable to a power source.

Make sure the Power Switch is set to **OFF** when plugging and unplugging the cable.

B. POWER SWITCH

Use this switch to turn the speaker on and off. Make sure the volume is set to zero before turning it on.

C. VOLTAGE SELECTOR

The voltage selector setting should only be changed when necessary (e.g., when traveling to a country or region with a different voltage). Selecting an improper voltage setting can damage the unit.

To change the voltage setting, unscrew the top screw to loosen the cover, and then slide it aside to expose the selector. Move the switch to adjust the setting, and then replace and reattach the cover.

D. CHANNEL INPUTS 1/2 (1/4" [6.35 mm] / XLR)

Use a standard XLR, TS, or TRS cable (not included) to connect your sound source to these inputs.

E. INPUT SELECTOR

Adjust this switch depending on the type of device connected to each input—**MIC** or **LINE** for CH1, and **INST** or **LINE** for CH2.

F. GAIN

Turn this knob to adjust the channel input level. If the **CLIP LED** is lit continuously, reduce the volume of your audio source, then reduce the **GAIN** level.

G. REVERB

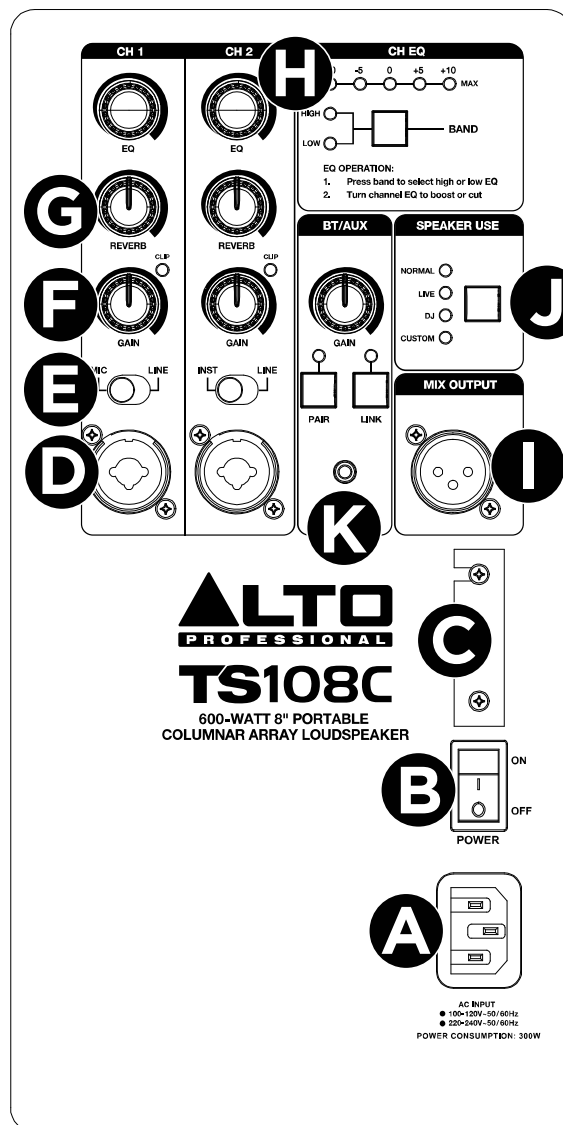
Turn this knob to adjust the amount of reverb effect applied to the channel.

H. EQ

Press the **EQ BAND** button to select **HIGH** or **LOW**, then use the **CH EQ** knob to adjust the amount of boost or cut applied to the band on the selected channel, as shown on the **EQ LED**s.

I. MIX OUTPUT

Use a standard XLR cable (not included) to connect this output to the input of another loudspeaker. This output will send the combined signals of CH1 and CH2 as a mono output.



J. SPEAKER USE

Press this button to adjust the speaker voicing according to the intended use.

- **Normal:** A flat response, good for basic use.
- **Live:** Suited for live solo performance, with a slight low frequency roll-off and accentuated vocal range.
- **DJ:** Suited for music playback with enhanced bass and high-frequency sparkle.
- **Custom:** Select this to use the ALTO PRO APP to load a customized tuning. See the section [Using the Alto Pro App](#) for more details.

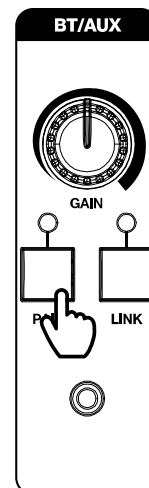
K. BT/AUX

These controls are used to connect to an external Bluetooth device for audio streaming or use with the Alto Pro App, link to a second Alto TS108C speaker, and connect an auxiliary device.

- **GAIN:** Turn this knob to adjust the BT/AUX level. Set your BT/AUX device volume all the way up, then adjust this knob for best results.
- **PAIR:** Press this button to enter Bluetooth pairing mode. See the section [Pairing a Bluetooth® Device](#) for more details.
- **LINK:** Press and hold this button to enter Stereo Link mode to wirelessly connect to another Alto TS108C speaker for stereo playback. See [Stereo-Link™: Connecting Two Speakers](#) for more details.
- **AUX INPUT:** Connect an auxiliary device to this 1/8" (3.5 mm) input.

(4.1) Pairing a Bluetooth® Device

1. Make sure your device is powered on and within range (no more than 100 ft. [30.5 m]) of your speaker.
2. Press the **Bluetooth PAIR** button on the TS108C speaker. It will enter pairing mode, and the **PAIR LED** will blink to indicate it is ready for pairing.
3. Navigate to your device's Bluetooth setup screen, and then find and select your speaker from the list of devices (for example, "Alto TS108C"). If your Bluetooth device prompts for a pairing code, enter 0000. If there is no connection after 90 seconds, the speaker will exit pairing mode.
4. When paired successfully, the **PAIR LED** will be solidly lit. Once you have previously connected a Bluetooth device, the speaker will reconnect to it automatically in pairing mode if it is within range and available for pairing.



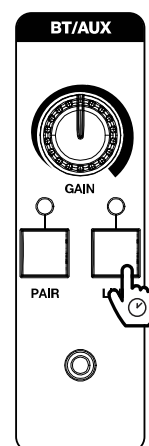
To **disconnect a paired device**, double-press the **PAIR** button, or return to your device's Bluetooth setup screen and select **Disconnect**.



(4.2) Stereo-Link™: Connecting Two Speakers

To wirelessly link two TS108C TWS-compatible speakers for stereo Bluetooth playback:

1. Make sure both speakers are powered on and within range (75 ft. [23 m]) of one another, and that you have already paired your Bluetooth device to one speaker using the directions above.
2. Press and hold the **LINK** button on one speaker until the **LINK LED** starts to flash, indicating it is in Stereo Link™ mode.
3. Repeat this on a second speaker, and the two will begin searching for a link. It may take up to one minute for the speakers to link.
4. Once a connection is made, both speakers' **LINK LEDs** will be solidly lit. On the speaker that is connected to your Bluetooth device, the LED will turn green after five seconds. You can now stream Bluetooth audio wirelessly between the two speakers.



Speaker 1
then
Speaker 2

To **unlink**, double-press the **LINK** button on either speaker.

(4.3) Using the Alto Pro App

IMPORTANT: To ensure the best possible experience with the app, use the most current Android OS or iOS on your device.

Follow these steps to download the free app on your device:

1. Open the Apple App Store or Google Play on your device. Then, search for the **ALTO Pro** App.
2. Follow the on-screen instructions to download and install the app. Once downloaded, the **ALTO Pro** App will appear on your device's home screen.
3. Connect your device to TS108C via Bluetooth. See the section [Pairing a Bluetooth® Device](#) to learn how to do this.
4. Open the **ALTO Pro** App. If prompted, allow the app to access your device's Bluetooth and Location Services.
5. Follow directions in the app to connect TS108C and begin using the app, where you can control various functions of the speaker such as:
 - **Speaker Use:** Change the **Speaker Use** setting.
 - **Custom EQ:** Create a customized EQ setting for the speaker, which can be accessed by selecting the **Custom** option of the **Speaker Use** control.
 - **Channel Volume:** Adjust the volume settings for each channel.
 - **Channel EQ:** Adjust the EQ settings for each channel.

Note: All digital mixer controls in the app are applied post-gain control to the input channels. For best results, set your input **Gain** just below the clipping point before using the digital mixer controls. Changes on the physical speaker will also be shown in the App in real-time.

If the sound is distorted: Try lowering the volume control of your sound source, musical instrument, or microphone. Also, try to reduce the channel volume on the speaker using the channel's **Volume** knob.

I hear a hum when cables are connected:

- Disconnect cables from the input jacks to see if it's a faulty cable.
- Use balanced cabling connections whenever possible.
- Make sure the signal cables are not placed near power cables.
- Connect all audio equipment power cables to outlets which share a common ground.

If there is a high-pitched whistling noise when using microphones: This is probably feedback. Try setting up the speakers in front of where your microphones are being used. If this is not possible, make sure to point the microphone away from the speaker.

If you can't hear the microphone over the music volume: Turn down the music volume from your source.

If you can't hear your instrument: Use Channel 2 and check that the **INST/LINE switch** is set to **INST**.

If you cannot connect your audio device to your TS108C loudspeaker via Bluetooth:

- Have your audio device (e.g., smartphone or tablet) and the TS108C loudspeaker as close together as possible while trying to connect. Make sure both the audio device and the speaker are unobstructed by walls, furniture, etc.
- Reset the Bluetooth connection on your audio device by turning Bluetooth off and back on. You can find this under the Bluetooth menu in the Settings for your phone or other audio device.

If this does not work, and you have connected to the speaker before, find it in the list of available or previously connected devices in your audio device's Bluetooth menu, tap the "gear" or "i" icon located next to it and then select **Unpair** or **Forget**. Turn the TS108C loudspeaker off and back on and try pairing again once it reappears in your available devices list.

Note: If the TS108C loudspeaker has been paired to another audio device recently that is still within range, you may need to repeat this process with that audio device to fully disconnect.

If you are having issues connecting two speakers using Stereo-Link™:

- Double press the **LINK** button to unlink the speakers, and restart the **Stereo-Link™** process.

(6.1) Technical Specifications

Specifications are subject to change without notice.

CH1 Input	
Connector	XLR/TRS 1/4" [6.35 mm] combo input connector (mic is XLR only)
Maximum Input Level	+18 dBu
Gain Range	50 dB
Frequency Response	20 Hz – 20 kHz (+/- 3 dB)
Input Impedance	22k Ω (Line), 1k Ω (Mic)
CH2 Input	
Connector	XLR/TRS 1/4" [6.35 mm] combo input connector (line is TRS only)
Maximum Input Level	+18 dBu
Gain Range	24 dB
Frequency Response	20 Hz – 20 kHz (+/- 3 dB)
Input Impedance	22k Ω (Line), 1k Ω (Mic), 1 M Ω (Hi-Z [Instrument])
Mix Out	
Connector	XLR output connector
Output Level (for 0.5% THD)	Fixed +4 dBu
Input Impedance (unbalanced)	100 Ω
General	
Speakers	Low-Frequency: 8.0" (203 mm) 6 Ω woofer High-Frequency: 6 x 2.75" (70 mm) 8 Ω drivers
Peak System / RMS Power	600 W Peak / 300 W RMS System (200 W LF + 100 W HF)
Max SPL	123 dB @ 1 m
Sensitivity	92 dB (1 W/1 m)
Array Impedance	6 Ω
Coverage	120° horizontal x 30° vertical (nominal)
Frequency Response	55 Hz – 15 kHz (-3 dB) 35 Hz – 20 kHz (-10 dB)
Wireless Technology	Bluetooth® - Classic Audio
Wireless Range *	Bluetooth® Range: Up to 100 feet (30.5 m) Stereo-Link™ Range: Up to 50 ft. (15 m) between speakers
Power	Connection: IEC Voltage: 100-120 V~, 50/60 Hz ; 220-240V~, 50/60 Hz Consumption: 300W
Enclosure	Injection-molded ABS, metal grille, rubber feet
Handles	1 sub top handle
Dimensions (height x width x depth)	Sub: 19.5" x 12.5" x 15.6" (49.5 x 31.8 x 39.6 cm) Column: 18.6" x 3.4" x 3.8" (47.2 x 8.6 x 9.7 cm) (per piece, x3) Assembled Height: 76.6" (194.5 cm)
Weight	35.1 lb 15.9 kg

* Bluetooth and wireless reception and range are affected by walls, obstructions, and movement. For optimal performance, place the product in the center of the room so it is unobstructed by walls, furniture, etc.

(6.2) Trademarks & Licenses

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