

Speedwoofer 105

wireless

OWNER'S MANUAL



SPEAKERS

800-905-5485

Before You Dig In!

Many of you (and us as well) don't like having to suffer through owners manuals. With most manuals, finding answers to your questions is like having to get straight answers from a politician. We've tried to make this manual as easy to read as possible and even helpful at times. However, if you already have enough knowledge about subwoofers and you know not to do the dumb things warned about in the safety pages, be our guest and start enjoying your Speedwoofer.

Since we don't know about your particular audio setup, whether it's home theater or stereo, we've tried to cover all the bases. So feel free to skip around and only read what's of interest to you.

A Few Words of Introduction

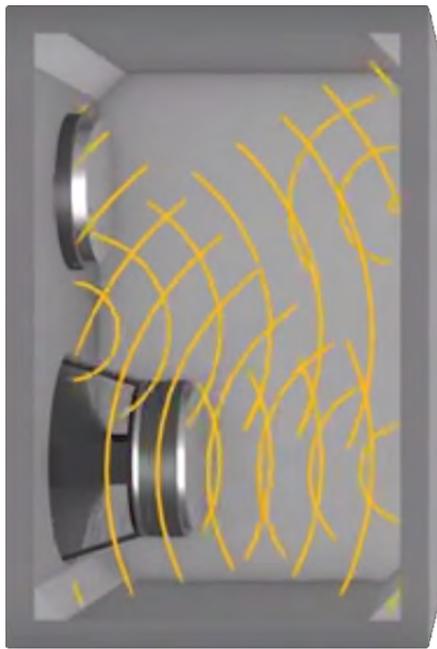
(You can skip this part if you'd like)

Since 1970, RSL Speakers' greatest joy has been manufacturing speakers that our customers consider to be the very best value in sound. Three years ago, we hatched a diabolical plan to shake up the subwoofer industry. We decided to produce an affordable subwoofer that would shatter all notions about how much a high end sounding subwoofer would really need to cost. We wanted to make the Speedwoofer 10S so affordable that people would shake their heads in disbelief every time they'd listen to it, when considering what they paid for it. Also, its low price would enable people to enjoy the advantages that multiple subwoofers would provide. We spent 3 years of painstaking research and hope you agree that we've achieved our goals with the new Speedwoofer 10S.

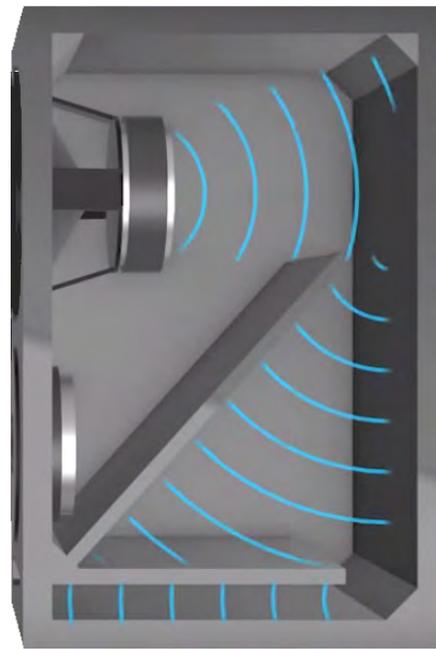
When it comes to bass, quality is as important as quantity. It's easy to produce an inexpensive subwoofer that produces gobs of low end. However, getting it to do it cleanly is a lot more difficult as many affordable subwoofers sound sloppy. They localize, which means they draw attention to themselves. The bass they produce seems separate from the rest of the sound. You can sense that bass is coming from the location of the subwoofer. With a properly designed subwoofer, bass should sound as if it is coming from its actual location in the sound track.

Compression Guide Technology - A Little History

Part of the Speedwoofer 10S's accurate bass response is due to our exclusive Compression Guide Technology. Quite a few years ago, we noticed that almost all speakers (including early RSLs) suffered from a problem. It was an awareness that the sound of bass over speakers was quite different from bass at a live performance. When you'd hear bass live, you would hear various details in the bass as well as feel the impact.



Standard Enclosure



Compression Guide Enclosure

Compression Guide Technology - History - Continued

For example, with a bass guitar, you can feel the pick of the string along with the bass note. With a kick drum, you could hear the wrap of the mallet against the skin of the drum and your body could feel the impact. However, with conventional speakers all you'd hear was an ill-defined boom. Back then, the only speakers that seemed to get it right were the big, bulky and expensive transmission-line systems.

We needed to know why there was a disparity between live bass and that reproduced by speakers. After some research, it became apparent that the problem was due to the way the woofer was tuned in the enclosure. As was the case then just as it is now, 2 tuning methods were used by most speaker companies. In one case the cabinet was completely sealed. This method is called acoustic suspension or air suspension. In the other method, the cabinet had a calculated opening called a vent or port. The length, width and height of the port was designed to reinforce bass at the lowest frequencies.

The problem with both of these methods is that they rely on system resonance to properly load the woofer. System resonance acts like a spring in that once the note stops, the woofer cone wants to continue vibrating. This results in what we call woofer overhang and results in muddy bass. After realizing the problem, we spent years attempting to lessen the effects of system resonance. Eventually, we found the solution and the results were spectacular. We call it Compression Guide and it was a method of dividing the insides of the speaker enclosure into areas of compression and expansion. As the sound wave passed through these areas, the effects of resonance were greatly reduced.

We discovered that Compression Guide also paid huge dividends in the midrange and treble as well. Bookshelf speakers tuned by Compression Guide exhibited much cleaner and transparent sound with both vocals and music. In comparison, other bookshelf speakers sounded "boxy". It also helped the speakers to image more accurately.

Speedwoofer 10 S Features

- Exclusive Compression Guide Technology Tuning
- Precision 10" woofer with heavy, die-cast aluminum frame, massive magnet structure and motor assembly. This allows the cone, along with its surround to achieve high excursions, delivering deep, powerful bass with complete control and linearity.
- Powerful 350 Watt RMS Digital Amplifier. This efficient amplifier minimizes power consumption (around 1 watt in standby mode). Because amplifier standards are not strictly enforced, many manufacturers would rate this amplifier at a much higher wattage. If this amplifier were rated in peak power (a specification we don't agree with) it would be rated in excess of 800 watts.
- Dense MDF wooden cabinet with internal bracing. Unlike most subwoofers, the Speedwoofer 10S's enclosure is completely filled with damping material to further reduce unwanted resonances.
- Wireless capability. The Speedwoofer 10S has a wireless receiver built in. If you are unable to run an audio cable to the subwoofer, you can purchase our optional wireless transmitter and get full performance wirelessly.

First Steps

- Be careful when using sharp objects to open boxes. The insertion of a long and/or sharp object such as a blade can damage the components inside. Use of chainsaws, machetes, power tools, explosives, light sabers, and most kitchenware is not recommended. If in doubt, ask mommy to help you.
- Please take a moment to inspect your subwoofer for damage. If you find any damage that you did not specifically request, please contact us or the shipping company immediately. All components have been inspected when leaving our factory; however damage can occur during shipping.
- If possible, we recommend saving all packaging, including boxes, as a convenient means of re-packaging for moving or for sending your subwoofer in for service (in the unlikely event they need it).
- You will need either an RCA cable or the optional wireless transmitter to connect the subwoofer. If you purchase an RCA cable, you do not need to buy an expensive one. Subwoofers reproduce a narrow band of frequencies, typically 20-200 Hz. Do not allow some slick, fast-talking, know-it-all salesperson to convince you to spend a lot on this cable. Just purchase a cable that is constructed well enough to last.



IMPORTANT SAFETY INSTRUCTIONS

READ THIS SECTION CAREFULLY BEFORE PROCEEDING!



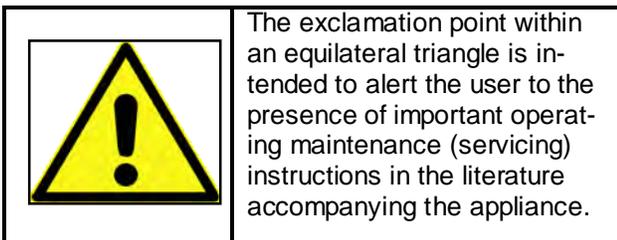
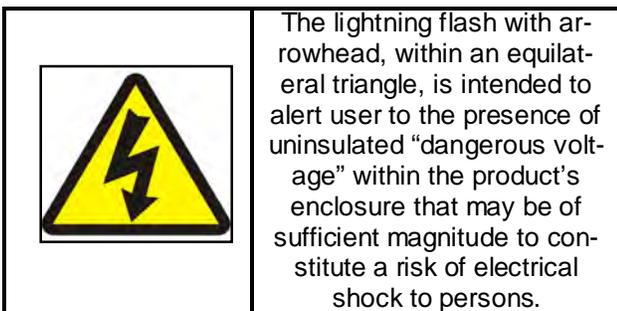
CAUTION: To reduce the risk of electric shock, do not remove the cover (or back). No user serviceable parts inside. Please refer all servicing to licensed service technicians.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Objects filled with liquids, such as vases, should not be placed on this appliance.

CAUTION: To prevent electric shock, match the wide blade of the AC power plug to the wide slot of the wall plug and insert it fully.

WARNING: This device generates a fair amount of heat. Do not place near a heat source or in spaces that can restrict ventilation.

CAUTION: For continued protection against risk of fire, replace the fuse only with the same amperage and voltage type. Refer replacement to qualified service personnel.



1. **Read These Instructions** – before operating.
2. **Retain These Instructions**
3. **Heed All Warnings And Follow All Instructions.**
4. **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp, soft cloth for cleaning.
5. **Water and Moisture** – Do not use this product near water. For example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
6. **Accessories** – Only use attachments or accessories specified by the manufacturer. Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



7. **Ventilation** – Slots and openings into 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.

IMPORTANT SAFETY INSTRUCTIONS — Continued

8. **Power Sources** – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

9. **Grounding and 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.

10. **Power-Cord Protection** – Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

11. **Lightning** – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.

12. **Servicing** – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

13. **Damage Requiring Service** – Unplug this product from wall outlet and refer servicing to qualified personnel under the following conditions:

- When power cord or plug is damaged;
- If liquid has been spilled, or product is exposed to rain or water or if objects have fallen onto product;
- If the product does not operate normally.
- If the product has been dropped or damaged in any way;

14. **Replacement Parts** – Use only replacement parts specified by the manufacturer.. Unauthorized substitutions may result in fire, electric shock, or other hazards.

15. **Heat** – The product should be used away from heat sources such as radiators, heat registers, stoves, or other heat-producing products.

23. **WARNING:** The 115V~/230V~ voltage selector must be set to the correct local voltage with the proper Fuse installed.

24. **Plastic Bags** – Be sure to keep all plastic bags away from infants and small children to prevent the risk of choking or suffocation.



WARNING: SHOCK HAZARD - DO NOT OPEN

AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

CAUTION:

DISCONNECT POWER CORD BEFORE CHANGING FUSE. REPLACE WITH SAME TYPE OF FUSE.

ATTENTION:

DEBRANCHER AVANT DE REMPLACER LE

We can't figure out why they make us write these in French as opposed to Klingon or some other language.



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More Than You Probably Want to Know About Room Acoustics

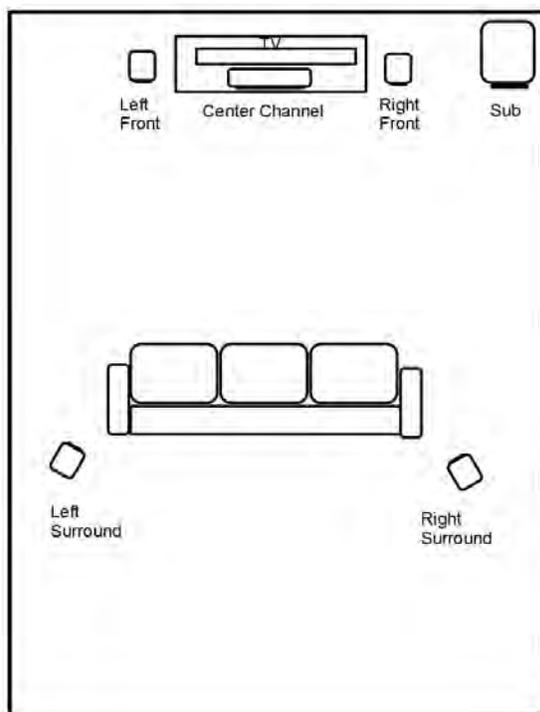
The acoustical characteristics of your listening room have a major effect on sound quality. This is so important, it bears repeating (so feel free to re-read the first sentence). If your room has good acoustical qualities, even mediocre speakers can sound pretty good. In turn, if your room has poor acoustics, high-end speakers can sound lacking. Acoustical qualities are determined by the dimensions of your room and the amount of sound-absorbing materials present.

Because this manual covers the installation of your new subwoofer, we will concern ourselves with how your room's acoustics affect bass. Bass distribution is strictly determined by a room's dimensions. A room with evenly distributed bass will deliver the same volume of bass in different seating positions. Obviously, you can't do a heck of a lot about the dimensions of your room. Don't worry; few rooms are close to perfect. You can however maximize the evenness of bass distribution by properly positioning your subwoofer (if you have that flexibility) and in more extreme cases using multiple subwoofers.

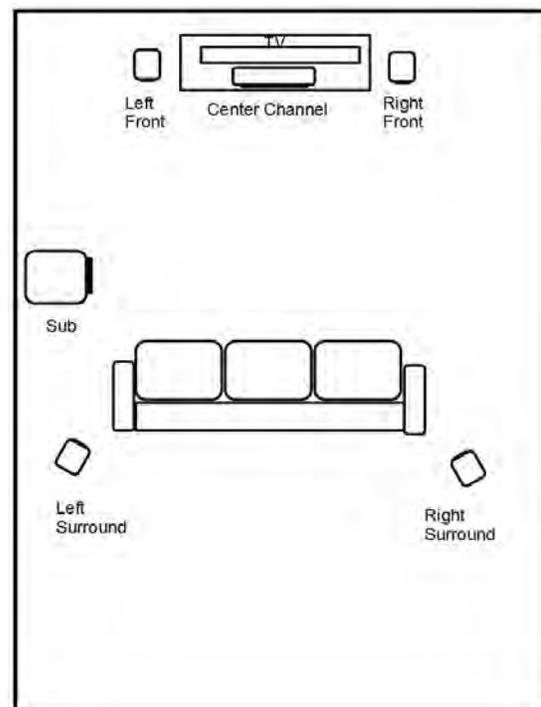
And note that while virtually all of today's Audio/Video receivers and processors include microphones and room correction circuitry that can help to smooth bass frequency response, they will not correct for bass distribution problems.

Positioning Your Subwoofer

The goal in placing your subwoofer is to get even bass distribution in various listening positions. Pretty much anything goes as far as where to place it. We've included a few drawings to indicate relative positioning. We know that, because these drawings have such fine detail, you may think we hid in people's homes to photograph their rooms when they weren't looking.



Corner Placement



Side Placement

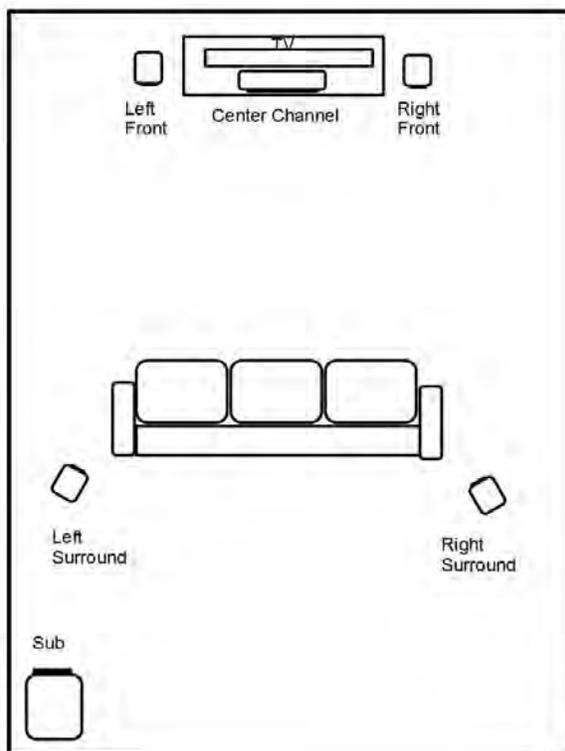
Subwoofer Placement - Continued

In some situations, you may be restricted to only one location for your subwoofer. If you do, then skip this section and go to the section that describes how to adjust your subwoofer. If you have the flexibility of moving the subwoofer around, then you should experiment until you find the best location where the subwoofer distributes bass evenly. This means that in various seating positions, you should be able to hear the same volume of bass.

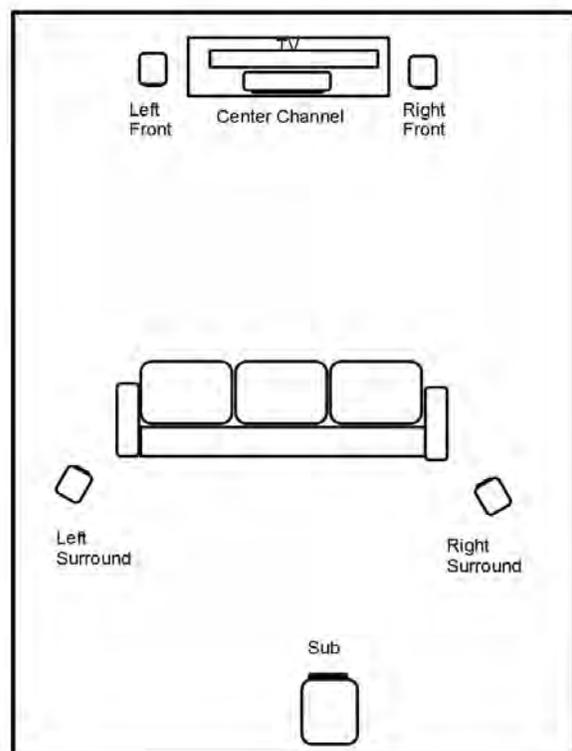
Here are a couple of methods to find the right place for your subwoofer. Before you start, note that you'll need an RCA cable long enough to extend from your receiver or amplifier to the location you wish to try. Otherwise, you can purchase an optional RSL wireless transmitter, which eliminates the need for the RCA cable. Regardless, you will need to be able to reach an AC outlet to power the subwoofer (heavy-duty extension cords are OK).

We recommend playing a CD with a song that has a pretty consistent bass track throughout. Then, experiment with placing the subwoofer in different positions in your room. Placement near a wall will increase your subwoofer's bass output. Placement near, or in a corner will increase it even further. When you decide the best location for your subwoofer, it should be based not only on the most even bass distribution, but the best quality of bass as well. We'll delve into that a little more on the next page.

On the previous page are two examples of placing your subwoofer. Here are two more examples:



Rear Corner Placement



Rear Center Placement

Subwoofer Placement - Continued

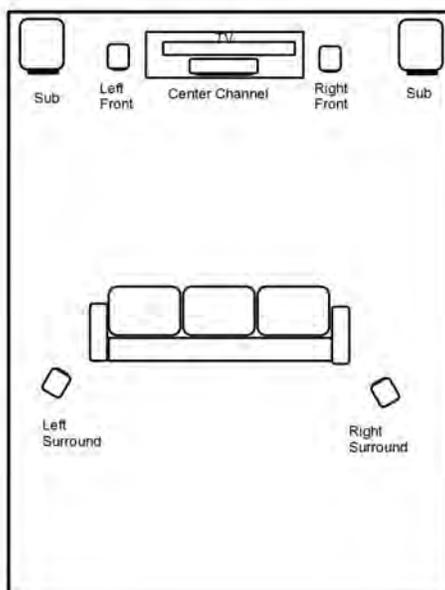
If your family and pets give you permission to place your subwoofer anywhere you wish, your goal should not only be best bass distribution, but the quality of bass as well. By quality we mean the most natural sounding bass. Each bass instrument should be distinctive and not boomy or sloppy. Don't place your subwoofer right against the wall. It needs a few inches of airflow in order to provide cooling for the amplifier. And while we're at it, please don't place blankets, tablecloths, football jerseys or any materials that could cover the back of the subwoofer and inhibit airflow to the amplifier.

Here's one method you can use to place your subwoofer. Connect your subwoofer and temporarily place it in your listening position (on the sofa, etc). Then, while playing some music with a constant bass track, crawl around the perimeter of your room and find the spot where the bass seems to have the best quality (don't let anybody see you, otherwise you'll have some explaining to do). Then, place the subwoofer in the spot where you heard the best bass. You can repeat this for different listening positions and see if you can find the best subwoofer position that accommodates the most listening positions.

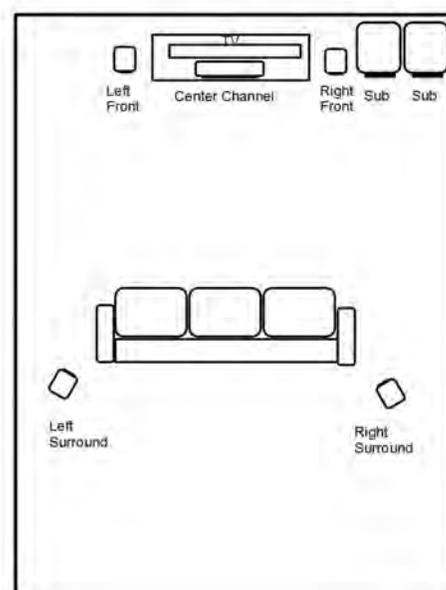
Dual Subwoofers

Many audio experts recommend dual subwoofers. They feel that with dual subs it's much easier to get consistent bass distribution by placing the 2 subs in different positions. Dual subs deliver more powerful bass throughout the room. With that being said, our subwoofers are quite powerful and the majority of our customers are quite happy with the performance of a single RSL subwoofer.

Dual subs can also help you achieve foundation-cracking levels of bass (if you're so inclined). Dual subwoofers placed in different locations can achieve a 3-6db gain in bass output. While that may not seem like a lot, for an amplifier to deliver 3db more volume, its power has to double! If you place dual subwoofers near each other, you'll get approximately a 6db gain in bass volume. That's huge!



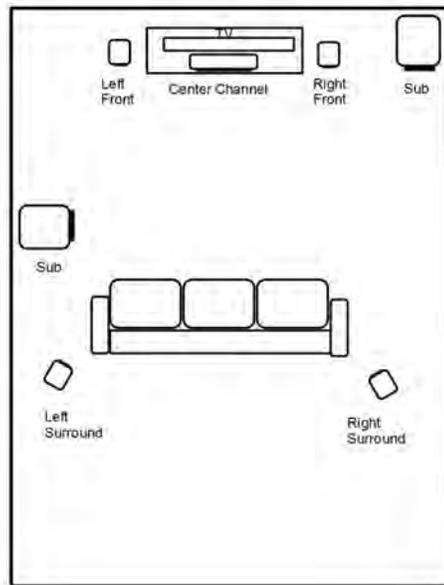
Dual Subs In Front Corners



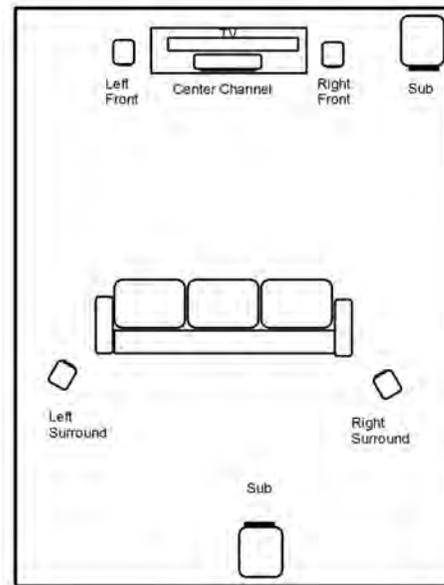
Dual Subs In Same Corner

Subwoofer Placement - Continued

The bottom line is that there are so many variations in rooms' shapes and sizes that there is no one rule for subwoofer placement. We suggest you try as many different positions as possible.



Dual Subs Asymmetrical Placement

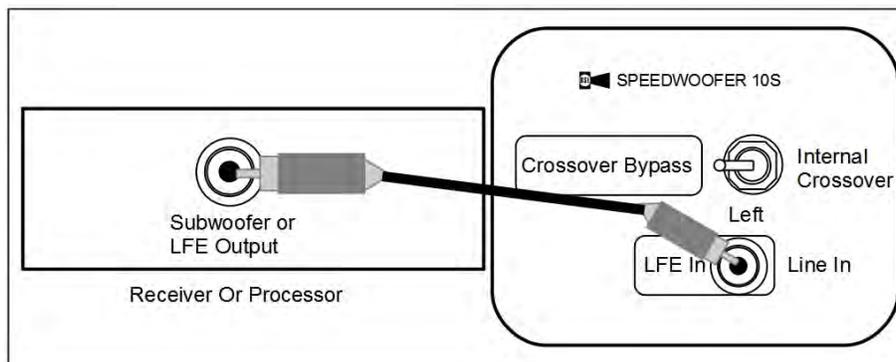


Asymmetrical Placement Variation

Home Theater Installation

We have designed the Speedwoofer 10S to accommodate a variety of installations including home theater as well as stereo systems. The most common installation will be with an A/V receiver or processor. In this case, all you'll need is a single RCA cable and a wall outlet. The RCA cable does not have to be expensive as the subwoofer only reproduces a narrow band of frequencies. However choose a cable that is constructed to last.

Connect one end of the RCA cable to your receiver or processor's subwoofer (or LFE) output. Connect the other end to the Speedwoofer's LFE input. Then, **set the Speedwoofer's Internal Crossover Bypass to Bypass**. You will not be using the Speedwoofer's internal crossover, because that function is performed in your A/V receiver or processor.



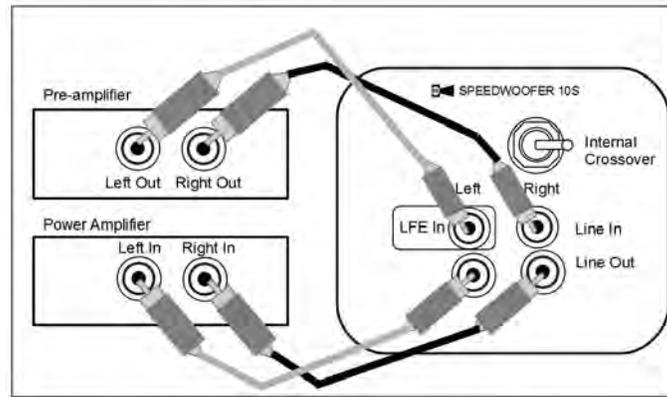
Connection to A/V Receiver Or Processor

The Easiest Stereo Installation Section You Will Find!

(In this manual) (If you are a home theater user, please skip to page 14)

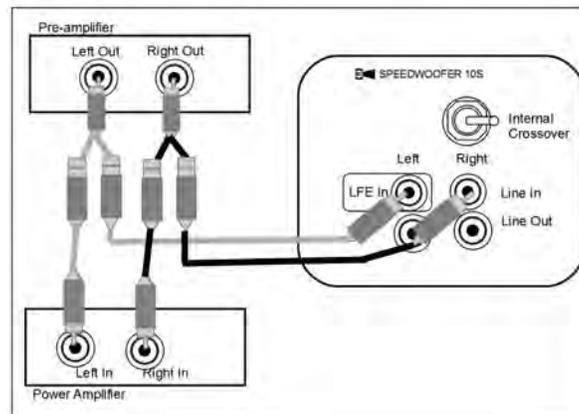
The RSL Speedwoofer 10S can be used in virtually all stereo systems. Depending on your equipment, there are different options for hooking up your Speedwoofer.

If Your Stereo Receiver Or Amplifier Has Pre-amplifier Outputs



Method #1 - Connection Through The Speedwoofer 10S

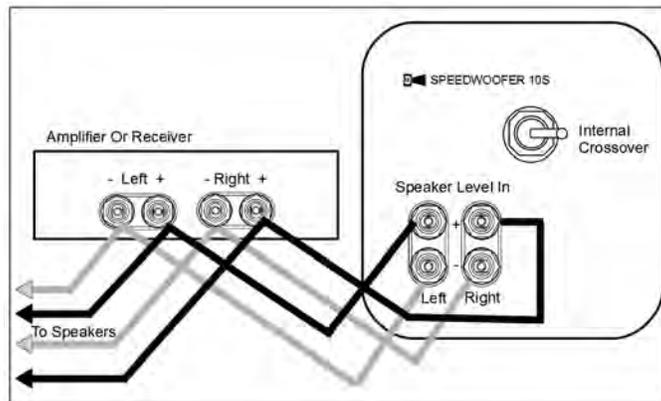
This method, requires 2 pairs of RCA cables. One pair of cables is connected from your pre-amplifier (or receiver's pre-amplifier) outputs to the Speedwoofer's left and right line inputs. Then another pair is connected from the sub's left and right line outputs to your power amplifier (or back into your receiver's power amplifier inputs). The audio signal travels from your pre-amplifier through the subwoofer giving the subwoofer the audio it needs and then back out to your power amplifier and to your speakers. In this method, the Speedwoofer's internal crossover is used to control the bass of the subwoofer. Set the Internal Crossover Bypass to Internal Crossover and adjust the crossover frequency. You can also use the method below:



Method #2 - Connection Using Y Adapters

In this method, you also will need 2 pairs of RCA cables, however the lengths may be shorter. You will also need 2 Y Adapters that split the audio into two RCA connections. Connect a Y adapter to left pre-amplifier output and the other Y adapter to the right pre-amplifier output. Then connect one pair of cables from the left and right pre-amplifier outputs to the Speedwoofer's left and right line inputs. The other pair of cables connect from the left and right pre-amplifier's outputs to the power amplifier's left and right inputs. Please see diagram above. As in the first method, the Speedwoofer's internal crossover is used to control the bass reproduction of the subwoofer. Set the Internal Crossover Bypass to Internal Crossover and adjust the crossover frequency.

Receivers And Amplifiers With No Pre-amplifier Outputs

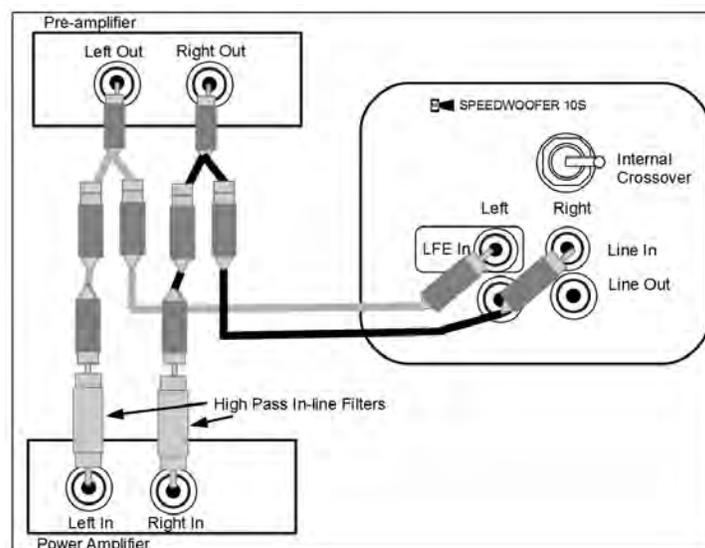


Method #3 - Connection Using Speaker Wires

If your equipment can't accommodate the first two methods, you can still connect your Speedwoofer. This third method will work just fine and is very simple. You will need an additional pair of two-conductor speaker wires. In addition to your main speaker connections, you'll run a second set of wires to your subwoofer (see diagram above). As in the above methods, the Speedwoofer's internal crossover is used to control the bass reproduction of the subwoofer. Be sure to set the Internal Crossover Bypass to Internal Crossover and adjust the crossover frequency.

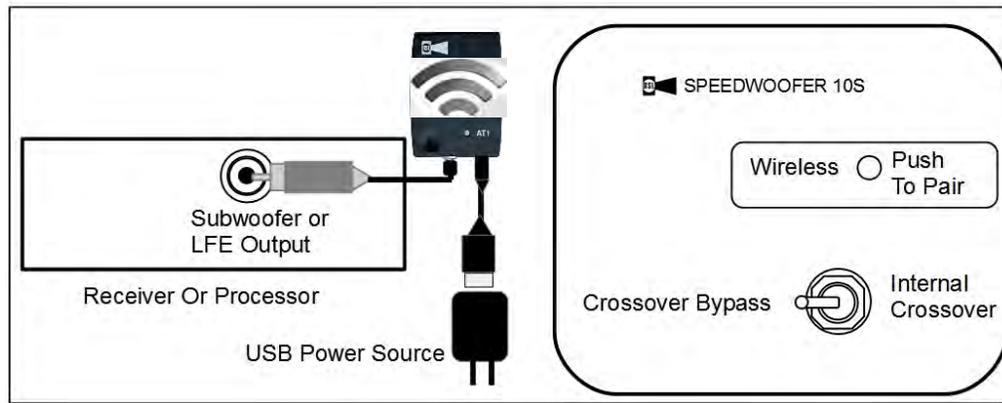
Caution: Protect Your Speakers

In a normal home theater system, the A/V receiver or processor protects the other speakers in the system by filtering off the bass when you set the crossover frequencies. This is especially important when your other speakers are smaller and not designed to handle low bass frequencies. In the above 3 methods of connecting your subwoofer in a stereo system, your amplifier will deliver all of the bass to your other speakers. If the speakers are small, damage could result if played at a very loud volume. However, you can protect your smaller speakers by using external inline filters to reduce the bass frequencies going to your speakers. These filters plug inline with your RCA cables. If you would like to get a set of these filters, please contact us. Please note that you can only use this solution with methods #1 and #2. If you need to use method #3 and are concerned about protecting your smaller speakers, please also contact us.



Protecting Your Speakers With In-Line Filters

Connecting Your Subwoofer Wirelessly



Wireless Subwoofer Connection

If you have difficulty running an RCA cable to the subwoofer, or you wish to experiment placing the subwoofer in different positions before you run the cable to the subwoofer, you can connect the Speedwoofer 10S wirelessly. The Speedwoofer 10S comes with a built-in wireless receiver. You'll need the optional RSL AT2 Wireless Audio Transmitter. The wireless transmitter normally has a 30 ft. range. Connect the transmitter to your A/V receiver or processor's subwoofer or LFE output. When you first setup the RSL Speedwoofer 10S for wireless use, you will need to pair it with the wireless transmitter.

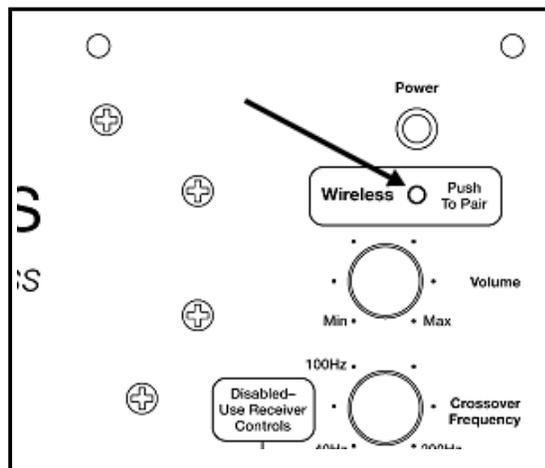
Wireless Transmitter Pairing Instructions

1. Connect the transmitter to a USB power source.
2. Plug in the Speedwoofer and turn on the power.
3. The light on the transmitter will be flashing slowly. Push and hold the transmitter's pairing button until it flashes more rapidly. Then release the button.
4. Immediately press and hold the pairing button on the Speedwoofer until the light on the transmitter becomes solid.
5. Release the button. Your Speedwoofer is now paired. If the transmitter light begins to flash slowly, push and hold its pairing button again. If pairing fails, temporarily place transmitter closer to the Speedwoofer and away from other Wi-Fi devices. Repeat the above procedure.

Please Note: Solid objects such as walls, cabinet doors, etc. can block the wireless signal. Its signal can also be affected by interference from wireless networks, large objects and other electronic devices.

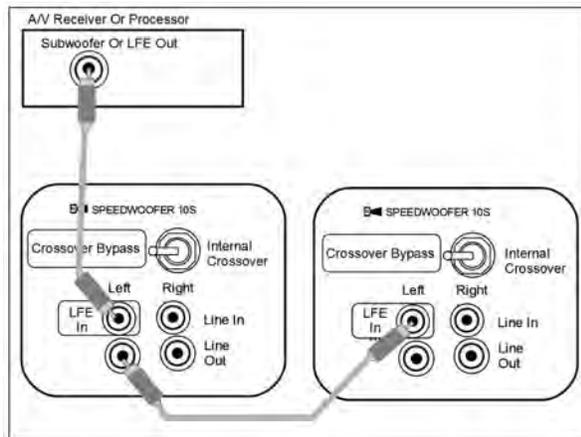


Optional Wireless Transmitter

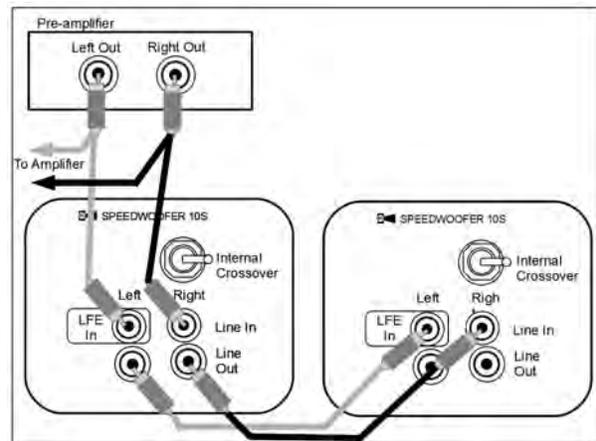


Subwoofer Wireless Pairing Button

Connecting Dual Subwoofers



Connecting Two Subs - A/V Receiver Or Processor



Connecting Two Subs - Stereo

There are 3 ways to connect dual subwoofers. Most of today's A/V receivers and processors provide 2 subwoofer or LFE connections. These connections have exactly the same audio signal. So, you can run separate RCA cables to each of your subwoofer using these 2 connections. The second way is if your A/V receiver only has one subwoofer or LFE connection. In this case, you can connect a Y adapter to the receiver's output and connect two RCA cables (one for each subwoofer) to the adapter. The third way can be used if the subwoofers are in close proximity of each other. After connecting the first subwoofer, simply connect an RCA cable from the first subwoofer's line outputs to the second subwoofer's line inputs (see diagram above). This method will work even if the first subwoofer is connected or paired wirelessly. In a home theater installation you will bypass both subwoofers' internal crossovers. However, in stereo installations you will need to use and adjust both subwoofers' internal crossovers.



Some Installation Tips

(Tips are always appreciated)

Most modern A/V receivers and processors include some type of auto setup and room correction. During the setup process, they will ask you to adjust the volume control on the subwoofer to a certain volume. In most situations, you do not have to follow this instruction exactly. Your goal should be to have the subwoofer's volume control as close to the vertical or 12 O'clock position as possible. This will give you the most flexibility to adjust the subwoofer's output up or down, depending on what you're listening to. Most A/V receivers also allow you to adjust the subwoofer's volume by their remote. Normally, we suggest choosing a higher output level to the subwoofer during setup.

Some Installation Tips - Continued

The goal of a properly setup subwoofer is to produce accurate, controlled bass without sacrificing the teeth chattering impact some of you enjoy. The most common mistake people make is setting the subwoofer to play too loudly. The subwoofer should always blend seamlessly with the satellite speakers rather than being intrusive.

Your RSL Speedwoofer 10S is powered by a conservatively-rated 350 watt RMS amplifier. Combined with its Compression Guide tuning, your Speedwoofer should be more than capable of providing an abundance of clean, powerful bass. In addition, the RSL Speedwoofer 10S contains circuitry that helps prevent distortion when played at an excessively loud volume. However, all subwoofers can be played loudly enough to be overdriven regardless of size, power, or price. In the unlikely event that you desire more bass, try placing the RSL Speedwoofer in a corner.

The RSL Speedwoofer 10S has high quality, built-in protection circuitry, although no protection circuitry is foolproof. It's best to prevent the subwoofer from being over-driven in the first place. Here are a couple of indications of trouble to watch out for. If you notice the following taking place, reduce your subwoofer's volume until these symptoms disappear.

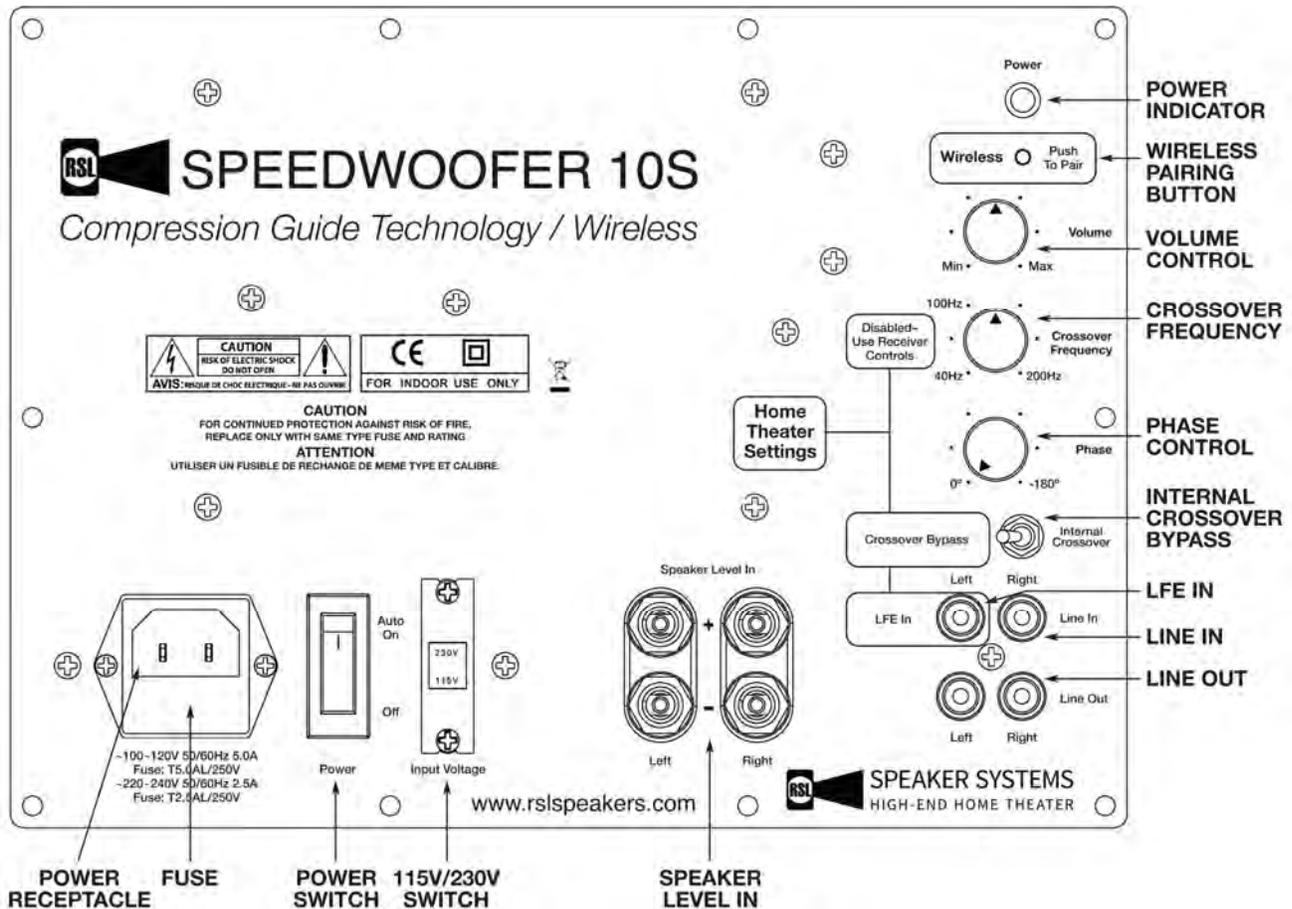
- Noise that doesn't sound natural. In movie scenes or music with heavy bass, listen for any noise that doesn't sound like it should be there. In some cases this can sound like a rattling or a very muddy rumble.
- Clipping. A good indication of clipping is if your subwoofer sounds excessively sloppy; as if it is flopping back and forth. This will produce some pretty ugly sounds. The RSL Speedwoofer 10S uses high quality protection designed to keep clipping to a minimum. Therefore, this may be a difficult indication to listen for.

If you're not sure if your subwoofer is being overdriven, remove the grill and look at the woofer itself. See if it appears as if it's moving back-and-forth excessively. The woofer should always move with tight, controlled precision. If you suspect the woofer's movement is excessive, try reducing your subwoofer's volume until it appears to move appropriately.

Care And Maintenance

- Clean your subwoofer using a soft, moist cloth (Windex or water is recommended), preferably microfiber or lint-free. Do not put your subwoofer in the washing machine.
- Be very gentle when cleaning the front of your subwoofer, trying not to put pressure on the woofer itself.
- Be careful with liquids or beverages near your Speedwoofer. It does not play better when wet. Don't place flowers or plants that require watering on top of the subwoofer. Watering your Speedwoofer will not make it grow.
- Please keep your Speedwoofer away from direct sunlight and heat sources.
- If you operate the subwoofer with the grille off, please make sure that the woofer does not come in contact with anything as it can be damaged.
- Wires can loosen over time. Periodically make sure all connections to the Speedwoofer are tight. If a wire loosens and touches other wires, your system could be damaged.
- Do not expose your subwoofer to extremely hot or cold temperatures.
- Your Speedwoofer may not be used as a flotation device.

Operating your RSL Speedwoofer 10S



Power Indicator - When the indicator light is red, the Speedwoofer is in standby mode. When the Speedwoofer receives a signal, it will turn on and the light will change to blue. If the light won't change to blue, check the audio connection to the subwoofer (either RCA connection or wireless pairing light on the wireless transmitter - optional). Please make sure your receiver's output volume to the subwoofer is adjusted high enough to trigger the auto on function. If the light isn't on at all, then the subwoofer isn't receiving power. Re-check the power switch, and AC power connection. Finally, check the fuse (see page 19).

Wireless Pairing Switch - To use your Speedwoofer wirelessly, you'll need to turn on the Speedwoofer and the transmitter. If the transmitter shows a solid light, it is paired and ready. If the light on the transmitter is flashing, it requires pairing. Please refer to the pairing procedure on page 14. Keep in mind that wireless operation can be affected by distance, objects or interference from your home's Wi-Fi network.

Volume - Controls the volume of bass output. During initial setup with your A/V receiver, we recommend that you set the volume control somewhere around the 12 o'clock position. That will allow maximum flexibility if you need to perform fine adjustments with the volume control at a later time. If you find that you have to turn the volume control up too high or down too low, refer to the setup in your A/V receiver to adjust the output volume to the subwoofer.

Crossover Bypass - For home theater, you will bypass the Speedwoofer's crossover and use your receiver's crossover. Simply flip the switch to "crossover bypass." In applications with an amplifier without an internal crossover (such as 2 channel), you need to use the Speedwoofer's crossover by flipping the switch to "internal crossover". Then you can adjust the crossover frequency with the knob.

Crossover Frequency - Chooses the frequency where the subwoofer takes over bass reproduction. An 80Hz setting means your Speedwoofer will handle all frequencies 80Hz and below. An 80Hz setting is recommended for larger bookshelf speakers. For smaller bookshelf speakers, we recommend a setting of 90 - 100Hz. Choosing a crossover frequency that's too high can cause the subwoofer to localize, meaning that the subwoofer draws attention to itself. With the Speedwoofer 10S' Compression Guide Technology, you can set a higher crossover frequency than most subwoofers without the problem of localization.

Phase - Allows you to slightly delay the bass through subwoofer. This is to insure that the subwoofer blends perfectly with the rest of the speakers. The bass should sound like it's coming from your front speakers instead of a separate subwoofer. In addition, the phase should be adjusted so that the output in your room is maximum at the crossover frequency. If you're a bit techy, this can be determined using a sound level meter and a pure tone that corresponds to the crossover frequency. The standard setting is 0 degrees, but some experimentation may be needed.

Line In/LFE In - LFE stands for low frequency effects. This is where the Speedwoofer receives the bass signal from your receiver or amplifier. For home theater, use a single RCA cable from the receiver's subwoofer or LFE output to the Speedwoofer's LFE in. For a 2 channel system, use a stereo pair of RCA cables to the Speedwoofer's Line inputs.

Line Out - For a 2 channel system, this feeds the signal back to the amplifier for your other speakers. The Line Outs can also be used to connect an additional Speedwoofer. See the Dual Speedwoofer section.

Speaker Level In - This connection can be used in stereo systems with amplifiers that do not have pre-amplifier outputs. Connect one set of speaker wires from your receiver to your Speedwoofer and another set to your main speakers. Use the Speedwoofer's internal crossover and adjust it to the appropriate frequency. Do not use this connection if you've already connected the Speedwoofer using any of the other methods. **Caution: Connecting to the speaker level inputs can result in ground-loop hum. See troubleshooting for an easy fix.**

Input Voltage - Is Normally set for use in the U.S. and Canada at 115 Volts. **If your country's AC voltage is 230-240 Volts, you must change this setting before using the Speedwoofer. You must also change the fuse to a 2.5 amp fuse. See the back of the subwoofer. Unfortunately, failure to do this will void your warranty.**

Main Power Switch - This will normally be left on. When switched on, your Speedwoofer will go into standby mode (red light) until it receives an audio signal. Standby mode consumes very little power (around 1 watt). When the Speedwoofer receives an audio signal, the light will turn from red to blue. When the Speedwoofer stops receiving an audio signal, it will return to standby mode after approximately 20 minutes.

When connecting and disconnecting cables to the Speedwoofer, make sure the main power switch is off.

AC Receptacle - Receives the power cord and AC power. This is where the fuse is stored. You may use an extension cord, but we recommend one with heavy gauge wire.

Troubleshooting

(As much as we try, like most instruction manuals, we'll probably address every problem except the one you're experiencing. So, call or email us. We'll be happy to help).

No Sound from Your subwoofer. Power indicator not lit.

1. Check to confirm that your subwoofer's power switch is set to the "on" position.
2. Inspect the power cord. Make sure it is securely plugged in to the wall outlet and subwoofer and that it has not been damaged. Be sure the wall outlet is active.
3. Check the RSL Speedwoofer 10S's removable fuse. It is located in the power cord socket on the amplifier.

Make sure the Speedwoofer is unplugged from the AC when accessing the fuse.

Insert a flat-head screwdriver in the horizontal slot located on the power cord socket, just below where the cord plugs in. This is the piece that contains the fuse.

Gently pry the fuse housing open until it detaches. Extract the housing from the power cord socket, remove the fuse and inspect it. These housings can also hold a spare fuse in addition to the main fuse. If the wire inside the cylinder is severed, displays a gap or looks burned, the fuse is bad and needs to be replaced. Replace with the spare fuse or a fuse with exactly the same value. The value is indicated below the power socket. If the new fuse blows, your subwoofer requires service. Please contact us.

The RSL Speedwoofer has internal circuit protection that could be tripped. If you suspect this, turn down the subwoofer's volume and turn off the power. Wait 5 minutes before turning it on again.

Ground loop hum. Sometimes occurs when speaker level inputs are used. This is not the fault of the subwoofer, but is the result of differences in the ground characteristics between different audio equipment. Fortunately, this is easy to fix. There are 2 methods. Connect a piece of wire from your audio amplifier's ground to the subwoofer amplifier's chassis. If your audio amplifier does not have a ground lug, then loosen a screw around the perimeter of the chassis. Wrap the stripped end of the wire around the screw and re-tighten. Then loosen a screw around the perimeter of the subwoofers' amplifier, wrap the wire around it and re-tighten. The hum should vanish.

As an alternative, if your amplifier has an unused RCA input you can connect a single RCA cable to either the left or right jack and the other end to the subwoofer's RCA line out jack. This effectively connects the grounds of the two units together eliminating the hum.

Specifications

Frequency Response: 24-200 Hz+/- 3db, Overall Frequency Response: 18-200 Hz
Amplifier Power: 350 Watts RMS (840 or more Watts Peak Dynamic Power) Note: Peak power specs are not regulated and this is not how we prefer to rate power.
10" Aluminum Frame High-Excursion Woofer with Massive Double Magnet Structure
Compression Guide Tuning Technology
Wireless Operation with Optional Wireless Transmitter Range: approximately 30 feet.
Dimensions: 16"H x 15"W x 17 3/4" D (Including AC Cord) Weight: 46 lbs.

Peace Of Mind Warranty

We've worked countless hours without food, sleep, or television to build a subwoofer that will serve you well for many years. However, in the unlikely event it breaks and it's our fault, we'll fix it for free.

Speakers are warranted for 5 years; electronics are warranted for 2 years.

Here are the terms:

RSL warranties your speakers for a period of 5 years from the date of purchase. We warranty our subwoofer amplifiers for a period of 2 years from the date of purchase. Our products are warranted to be free of defects in original materials and workmanship. Our warranties apply to the original purchaser. To obtain warranty service, we ask you to help us out with the following:

1. Be able to furnish a copy of your sales invoice. However, if you can't find it, we'll do our best to fire up the computer and, if Windows doesn't crash again, we'll look it up for you.
2. Return authorization must first be obtained by contacting us before sending your subwoofer to us. It must be properly packed.
3. Our speakers were designed for residential stereo or home theater use and must be used in this manner. They were not specifically designed for public address, musical instrument amplification, or other commercial or high intensity applications. Such use is not covered under warranty.
4. Speakers returned under the terms of the warranty will be repaired or replaced at our option. We will pay for shipping the repaired product back to you if you live in the Continental U.S. You are responsible for prepaying the shipping to us. Speakers that have been abused, operated improperly, improperly packed, tampered with, insulted or opened (without our prior permission) will not be repaired under warranty. This warranty does not cover damage caused by the use of faulty or improper audio/video components.
5. This is the total warranty. There are no other warranties, expressed or implied. No responsibility is assumed for any incidental or consequential damages. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

If you require service please contact us through our website or by phone (we promise to be nice about it, even if you did something dumb).



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