



Owner's Manual

S10

Small Footprint Subwoofer

Table of Contents

Introduction | 3

Overview | 3

Placement and Installation | 4

Connections | 8

North American Warranty | 8

Obtaining Service | 9

Specifications | 11

Dimensions | 12

DOCUMENT CONVENTIONS

This document contains general safety, installation, and operation instructions for the Wisdom Audio S10 Small Imprint Subwoofer. It is important to read this document before attempting to use this product. Pay particular attention to:

WARNING: Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in injury or death.

CAUTION: Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in damage to or destruction of part of or the entire product.

Note: Calls attention to information that aids in the installation or operation of the product.

Introduction

Congratulations on purchasing your Wisdom Audio subwoofer. The S10's delivers tremendous bass performance in terms of depth, dynamics, and distortion resulting in articulate bass that integrates seamlessly with high-resolution main speakers such as Wisdom Audio's Insight Series On-Wall models.

This manual focuses on the S10 subwoofer itself

Overview

The S10 (10") Passive Subwoofer is a versatile unit capable of producing powerful clean bass from an incredibly compact cabinet. Convertible from freestanding upright to down-firing or up-firing installation, the ultra-compact design can easily be hidden under sofas or cabinets.

At only 4.5" (116mm) deep and featuring a sealed cabinet, the stylish S10 is discreet and easy to install. Two S10 subwoofers can be powered from a single SW-1 DSP Amplifier. Available in luxurious high gloss white or black finishes.

Unpacking the S10

After unpacking your S10, keep all packing materials for future transport. If you need to ship your subwoofer, only the original, purpose-designed shipping carton is acceptable. Any other method of shipping this product runs a significant risk of damage to the subwoofer – damage that would not be covered by the warranty. (If you lose your packaging and need to ship your subwoofer, replacement packaging can be purchased from Wisdom Audio.)

CAUTION

Do not attempt to lift your S10 by yourself. Unpacking this subwoofer is a two-person job. It is unwise for a single person to attempt doing so.

Do not attempt to lift your S10 while bending or twisting from the waist. Use your legs for lifting, not your back.

Always stand as straight as possible and keep the S10 close to your body to reduce strain on your back.

Subwoofer Placement

Subwoofers offer somewhat greater flexibility in placement since the frequencies they reproduce are not readily localizable by the human ear. This is because the wavelengths they reproduce are more than 10 feet (three meters) long, but our ears are located only about 6-7 inches (17 cm) apart. Thus, these extremely long waves do not contribute meaningfully to the imaging that the main speakers create.

However, this fact does not mean that the placement of the subwoofers has no effect on the sound quality in the room. Far from it. The subwoofers are the *most* likely to suffer from the response irregularities introduced by the room itself, operating as they do below approximately 80 Hz in most systems.

Recent research into the behavior of rooms as a function of speaker placement has concluded that – if you have the freedom to do so – there are significant advantages to placing several smaller subwoofers around the room, rather than relying on a single large woofer. Moreover, the optimum placement is usually centered on each of the four walls, or deep in the corners of the room. If you have the luxury of doing so, this simple placement strategy can reduce the size of the room's response irregularities from 20 decibels down to perhaps as little as 6-8 decibels – a tremendous improvement.

Reducing the room's inherent problems to this degree provides a huge advantage. It allows the SC-2/3 System Controllers to put its considerable abilities to work on *perfecting* your system's response, rather than on trying to perform major corrective surgery.

Room Treatment

Rectangular rooms have six reflecting surfaces (four walls, ceiling, and floor) that reflect sound to the listener, after various delays introduced by the indirect routes the sound take on their way to the listener. These first reflections are particularly damaging to sound quality. Looking at the simplest case of stereo reproduction, you have a minimum of *twelve* first reflection points in your room that deserve some attention.

Unfortunately, it is often difficult to do much about the ceiling and floor reflections, even though they are arguably the most destructive. (The minimization of these reflections is one of the strongest arguments for the tall, line source loud- speakers that Wisdom Audio builds.) This leaves you with eight “first reflections” that you should consider minimizing somehow. These points are easily found by having an assistant slide a small mirror along the four walls of the room, while you sit at the listening position. Any place on the wall where you can see a reflection of *any* speaker is a first reflection point. Concentrate on the first reflections for the Left and Right speakers first.

If you can, arrange to apply either absorption or diffusion at these eight points (don't forget the wall behind you). Absorption can be as simple as heavy, insulated drapes; diffusion can be provided by a well-stocked bookcase with books of varied sizes. Alternatively, you can buy purpose-designed room treatments (some sources listed under References, below).

The important things to remember are these: a good room should have a balance of absorption and diffusion; and if you are going to treat only a few areas of the room, the first reflection points are the most important ones to treat.

Professional Acoustic Design

Does this all sound too complicated? For good reason: it *is* complicated.

The difference between the average listening room and one that is professionally designed and implemented is huge. A great listening room will disappear to an astonishing degree, letting the experiences captured in your recordings speak to you directly. A well-designed room is also quieter and more comfortable. It can easily become a favorite retreat for peace and rejuvenation.

If you decide to investigate the possibility of improving your room with the help of a professional, it is important to find someone who focuses on residential spaces. Most

acousticians are trained to deal with large spaces – airports, auditoriums, lobbies in commercial buildings, etc. The problems seen in “small” rooms (residential spaces) are quite different, and outside the experience of most acousticians. Find someone who specializes in and has a great deal of experience designing home studios, home theaters, and the like. Your Wisdom Audio dealer may be such a person; failing that, he/she can help you find such a professional.

References

Books on Acoustics

The Master Handbook of Acoustics, F. Alton Everest, TAB Books

Sound Reproduction: The Acoustics and Psychoacoustics of Loudspeakers and Rooms by Dr. Floyd Toole, Focal Press

Setting Up your S10

The small footprint of the S10 allows it to be used effectively in many situations where a more conventional “bass cube” would be either cumbersome or impossible. Examples include locating it behind a couch, in the small space between the couch and the wall, lying flat under a set of risers, under a couch/table, or in a media/family room.

RECOMMENDATION: We recommend using our SW-1 Subwoofer Amplifier with DSP for the best performance. One SW-1 can power up to two S10 Subwoofers.

Up/Down-Firing Setup

Your new S10 subwoofer can be used in a down-firing or up-firing configuration, allowing it to be installed in more locations. This is done in five simple steps.

1. Lay the subwoofer on a soft surface (carpet or similar) making sure you have access to the feet and the front or rear (whichever surface the feet will be mounted to for up- or down-firing), the foam from the packaging can be used to prevent the speaker from being scratched.
2. Use a metric #5 Hex key/Allen wrench to remove the four x 20mm screws from the surface where the feet will be mounted. This will become the new bottom of the subwoofer.



3. Use a metric #5 Hex key/Allen wrench to remove the four x 30mm screws that mount the rubber feet to the bottom of the subwoofer.
4. Use a metric #5 Hex key/Allen wrench to install the four x 60mm screws and the metal spacers (included in the accessories) to mount the feet to the surface that will now become the bottom of the subwoofer. The screw should be inserted through the rubber foot and then through the metal spacer with the gasket facing the subwoofer as to not scratch the high gloss finish of the subwoofer (see photo below).



5. Use a metric #5 Hex key/Allen Wrench to re-install the 4 x 20mm screws into the holes where the rubber feet were factory installed.

Your S10 subwoofer is now ready for connection.

Connections

Speaker Terminals

Connect the + and – terminals of the power amplifier that is driving the S10 to the corresponding + and – terminals of the S10, located in the recessed input plate.

Note that while Wisdom Audio amplifiers are all non-inverting, some other brands of power amplifiers do invert polarity. It is always best to check the polarity of all your speakers with a polarity checker such as can be found in the **AudioTools** suite from Studio Six Digital, or with dedicated hardware such as the **Galaxy Cricket Test Set**.

North American Warranty

Standard Warranty

When purchased from and installed by an authorized Wisdom Audio dealer, Wisdom Audio loudspeakers are warranted to be free from defects in material and workmanship under normal use for a period of 10 years from the original date of purchase on the cabinet and passive drivers.

IMPORTANT: Wisdom Audio loudspeakers are designed for installation and operation in environmentally controlled conditions, such as are found in normal residential environments. When used in harsh conditions such as outdoors or in marine applications, the warranty is three years from the original date of purchase.

During the warranty period, any Wisdom Audio products exhibiting defects in materials and/or workmanship will be repaired or replaced, at our option, without charge for either parts or labor, at our factory. The warranty will not apply to any Wisdom Audio products that has been misused, abused, altered, or installed and calibrated by anyone other than an authorized Wisdom Audio dealer.

Any Wisdom Audio product not performing satisfactorily may be returned to the factory for evaluation. Return authorization must first be obtained by either calling or writing

the factory prior to shipping the component. The factory will pay for return shipping charges only if the component is found to be defective as mentioned above. There are other stipulations that may apply to shipping charges.

There is no other express warranty on Wisdom Audio products. Neither this warranty nor any other warranty, express or implied, including any implied warranties of merchantability or fitness, shall extend beyond the warranty period. No responsibility is assumed for any incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and other states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty is applicable in the United States and Canada only. Outside of the U.S. and Canada, please contact your local, authorized Wisdom Audio distributor for warranty and service information.

Obtaining Service

We take great pride in our dealers. Experience, dedication, and integrity make these professionals ideally suited to assist with our customers' service needs.

If your Wisdom Audio loudspeaker must be serviced, please contact your dealer. Your dealer will then decide whether the problem can be remedied locally, or whether to contact Wisdom Audio for further service information or parts, or to obtain a Return Authorization. The Wisdom Audio Service Department works closely with your dealer to solve your service needs expediently.

IMPORTANT: Return authorization must be obtained from Wisdom Audio's Service Department BEFORE a unit is shipped for service.

It is extremely important that information about a problem be explicit and complete. A specific, comprehensive description of the problem helps your dealer and the Wisdom Audio Service Department locate and repair the difficulty as quickly as possible.

A copy of the original bill of sale will serve to verify warranty status. Please include it with the unit when it is brought in for warranty service.

WARNING: All returned units must be packaged in their original packaging, and the proper return authorization numbers must be marked on the outer carton for

identification. Shipping the unit in improper packaging may void the warranty, as Wisdom Audio cannot be responsible for the resulting shipping damage.

Your dealer can order a new set of shipping materials for you if you need to ship your loudspeaker and no longer have the original materials. There will be a charge for this service. We strongly recommend saving all packing materials in case you need to ship your unit someday.

If the packaging to protect the unit is, in our opinion or that of our dealer, inadequate to protect the unit, we reserve the right to repackage it for return shipment at the owner's expense. Neither Wisdom Audio nor your dealer can be responsible for shipping damage due to improper (that is, non-original) packaging.

Specifications

All specifications are subject to change at any time to improve the product.

- **Number of required amplifier channels:** 1
- **Frequency response:** 35Hz – 80 Hz
- **Impedance:** 8Ω
- **Sensitivity:** 89 dB/2.83V/1m
- **Power handling, peak:** 50w
- **Maximum SPL:** 114dB
- **Upright/Standing Weight:** 39 lbs. (17.7 kg)
- **Dimensions – Height Upright including feet:** 15.98" (40.6cm);
- **Dimensions – Down-firing including feet:** 6.06" (15.4cm)
- **Dimensions – Width x Depth:** 15.35" x 4.56" (39cm x 11.6cm)
- **Weight, each:** 41 lbs. (18.6 kg)

For more information, see your Wisdom Audio dealer or contact:

Wisdom Audio

1572 College Parkway, Suite 164

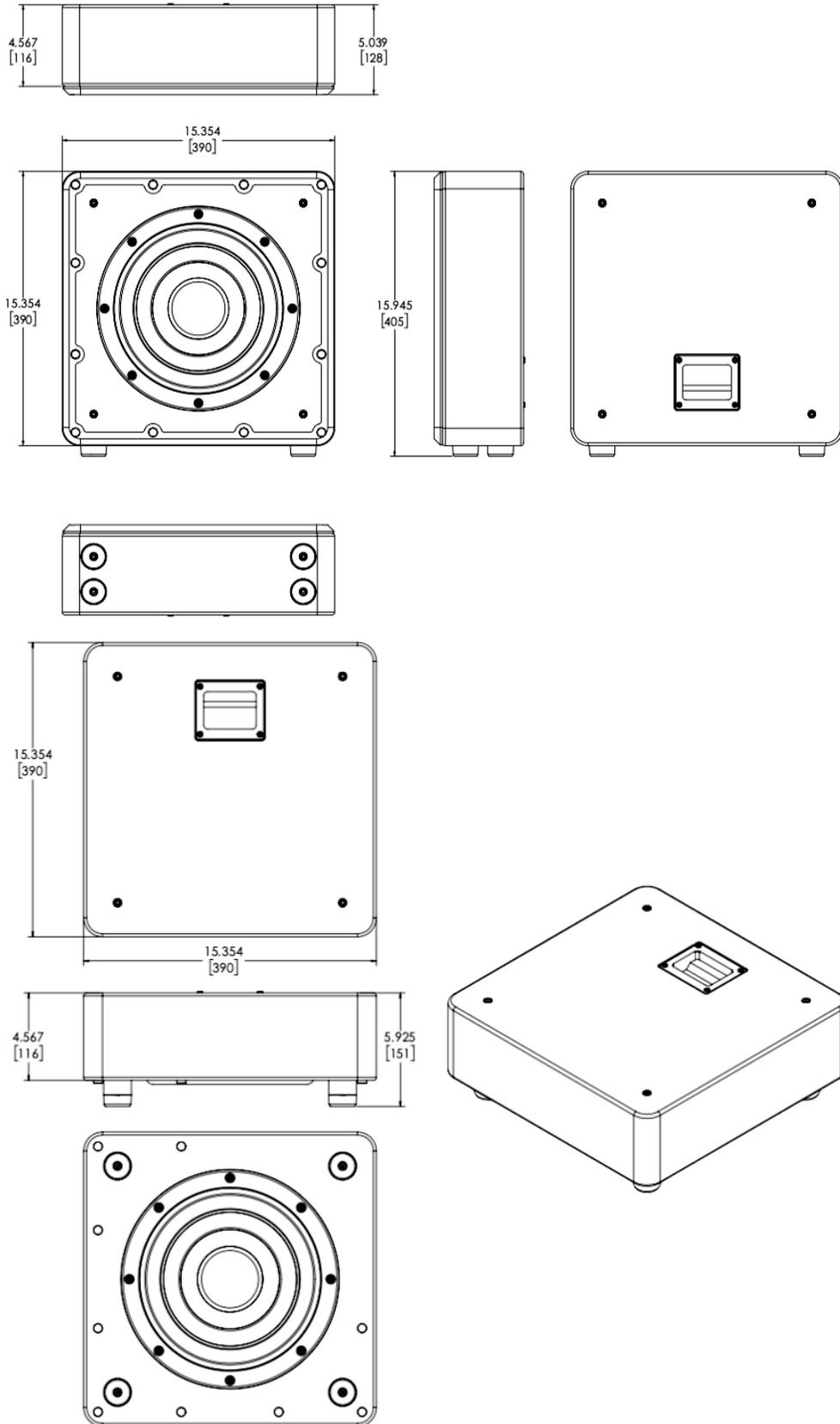
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S10 Dimensions





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