SONANCE

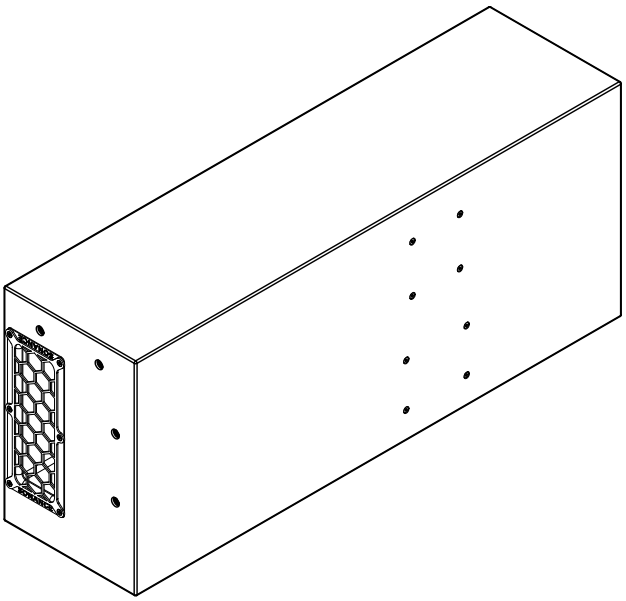
BEYOND SOUND

PS-S210SUBT
COMMERICAL SUBWOOFER
INSTRUCTION MANUAL

PROFESSIONAL SERIES

Surface Mount Subwoofer

PS-S210SUBT



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IMPORTANT SAFETY INSTRUCTIONS

This product is intended to be installed by professional AV integrators and installers only. This product manual is intended to serve as a general guideline for most applications. When deploying this product in a surface mount, suspended, or otherwise elevated location, always consult a qualified structural engineer if there are any questions or concerns regarding the structural integrity of this product's deployment. Always use an assistant or mechanical lifting equipment to safely lift and position this product. It is the installer's responsibility to ensure this product is installed in accordance with local building codes and regulations. Consult a local authority for specific requirements, regulations, and building codes of the jurisdiction in which this product is to be installed.

READ THIS DOCUMENT IN ITS ENTIRETY BEFORE ATTEMPTING INSTALLATION.

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 a 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. Only use attachments/accessories specified by Sonance.
10. Refer all servicing to qualified service personnel.

PRODUCT DESCRIPTION

The Sonance Professional Series PS-S210SUBT Subwoofer houses dual 10” woofers in a compact bandpass enclosure constructed of rigid, internally-braced, multi-laminate hardwood with a ruggedized poly finish. The side-exit port can be easily repositioned to the long side of the cabinet—onsite—allowing for multiple subwoofer orientations. This sub can be hidden under bench seating, surface-mounted with the optional C-bracket, and even suspended using the integrated M10 fly points. An internal 70V/100V high-output transformer allows easy switching between tap settings and can be bypassed for low-impedance operation. With high SPL capability and high sensitivity, the PS-S210SUBT is a perfect bass-augmenting complement to the Sonance Professional Series In-ceiling, Pendant, and Surface Mount speakers when additional low frequency extension and output is needed.

BOX CONTENTS

(1) PS-S210SUBT Subwoofer

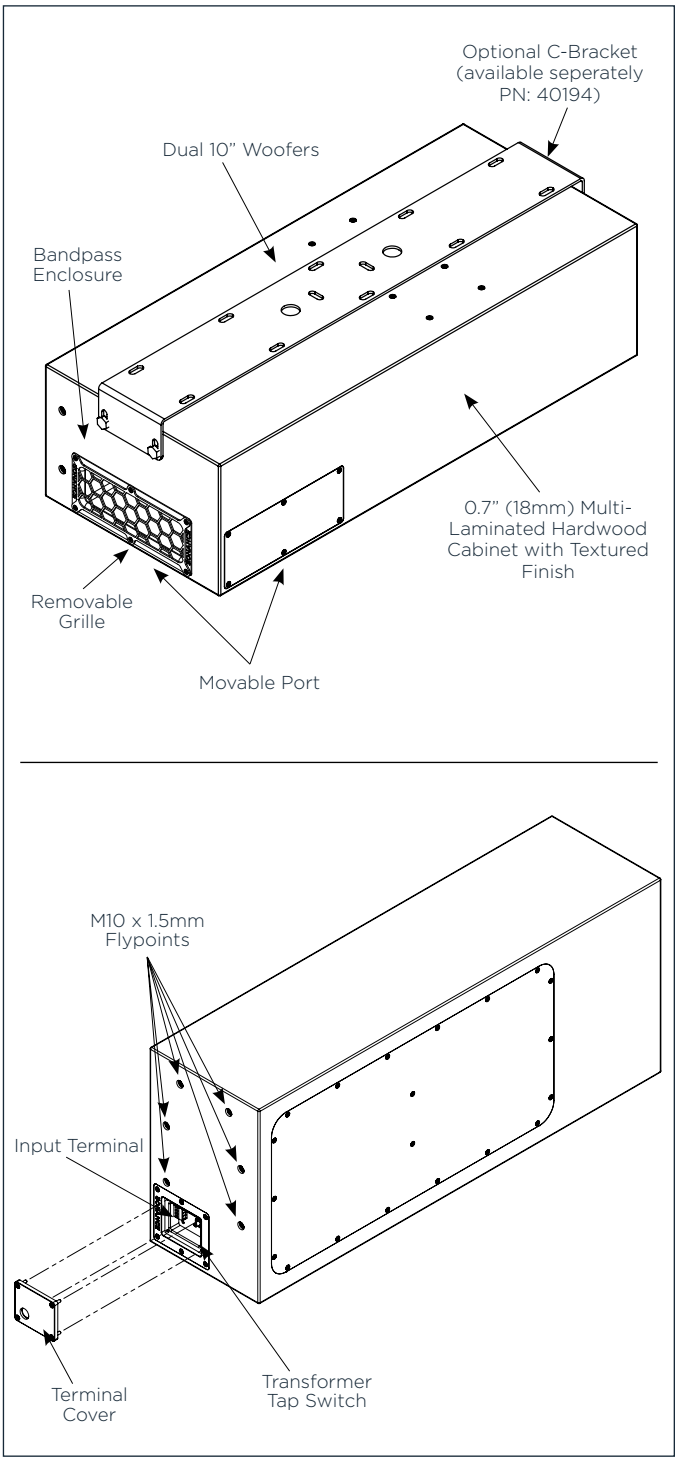
(1) Terminal Cover and (4) Screws

(1) Euroblock Connector

(4) Rubber Feet

(1) Installation Manual

PRODUCT FEATURES



PRODUCT PREPARATION

AMPLIFIER SELECTION

When choosing an amplifier, the maximum number of speakers and the output level of each speaker must be known. The sum of the tap settings should never exceed 80% of the amplifier's rated output. For example, if there are 5 speakers and the taps are set at 15 watts, the load would be 75 watts (5 x 15 watts = 75 watts). To arrive at the needed power for this number of speakers, simply divide the total load by 0.8. In this case, 75 / 0.8 = 93.75 watts. Therefore, a standard 100 watt amp would safely drive this load. To calculate the amount of usable power an amp offers, simply multiply the rated output by 0.8, i.e., 100 watts x 0.8= 80 watts.

WIRE GAUGE – 70V/100V SYSTEM

The most common wire used on commercial 70 volt systems is 18 gauge, 2 conductor, stranded, and jacketed without a shield. The wire starts at the amplifier location and is paralleled at each speaker location. Maximum recommended wire length using 18 gauge is up to 700 feet with a 100 watt load. If you double the load (sum of your tap settings), you will reduce the footage by half, to 350 feet. Conversely, if you halve the load, you may double the acceptable wire length, i.e., a 50 watt load is safe over 1400 feet of 18 gauge. Stepping up to 16 gauge wire extends the allowable run length by approximately 35%. For example, a 100 watt load can go 700 feet on 18 gauge; the same load may be placed on 1100 feet of 16 gauge.

WIRE GAUGE – 8 OHM SYSTEM

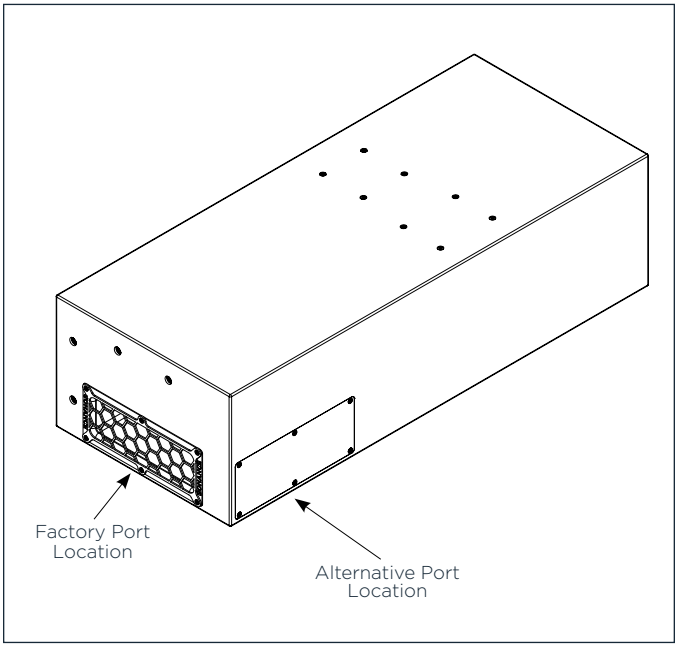
When using the PS-S210SUBT in an 8 ohm system, the total wire resistance should be less than 10% of the speaker impedance. The speakers are nominally 4 ohms impedance, so your total wire resistance should be no more than 0.4 ohms. In simple terms, the extra resistance from the wire will have a very negative affect on the sound quality of the speaker. The sound can be less dynamic, definition of bass frequencies can be reduced, and in extreme cases, the high frequencies can be attenuated. Amplifier power is also wasted in the wire, reducing the maximum output level of the system. Please refer to the following chart when deciding on the appropriate wire gauge for your installation.

WIRE RESISTANCE IN OHMS VS. LENGTH OF CABLE RUN						
DISTANCE IN FEET	50'	100'	150'	200'	250'	300'
20 GAUGE	.86	1.73	2.59	3.45	4.32	5.18
18 GAUGE	.65	1.30	1.94	2.59	3.24	3.89
16 GAUGE	.43	.85	1.28	1.71	2.14	2.56
14 GAUGE	.27	.54	.81	1.08	1.35	1.62
12 GAUGE	.17	.34	.51	.68	.85	1.02

INSTALLATION

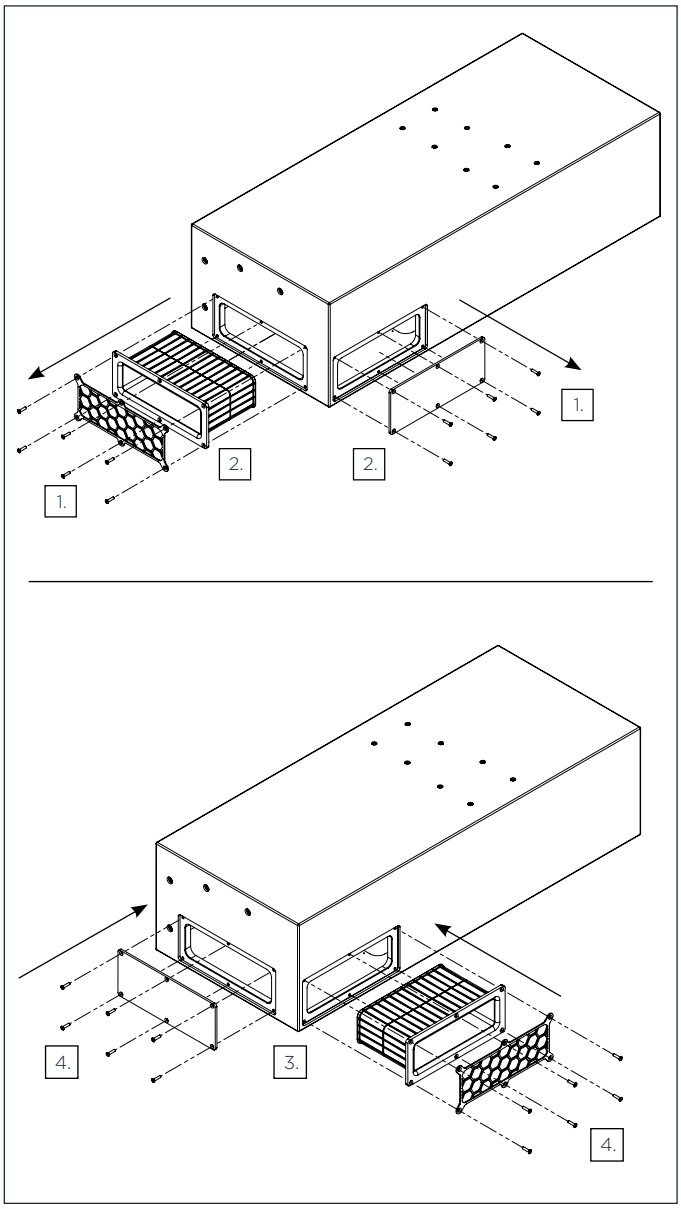
Before beginning the install process, choose a port position on the subwoofer based upon the intended subwoofer orientation and install location. Ensure that there is at least 8" (200mm) of clearance around the port opening in the desired installation space. Move the port to the alternate position if there is any potential interference. If the installation location is surface-mounted, elevated, or otherwise sufficiently hidden, the port grille can be removed for optimal performance.

MOVING THE PORT

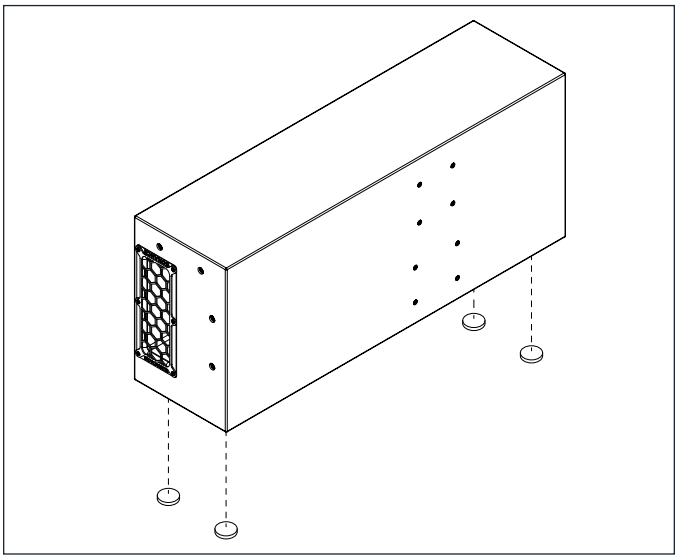


Note: when re-locating the port, do not remove or damage the pre-installed gaskets that seal the port and port cover.

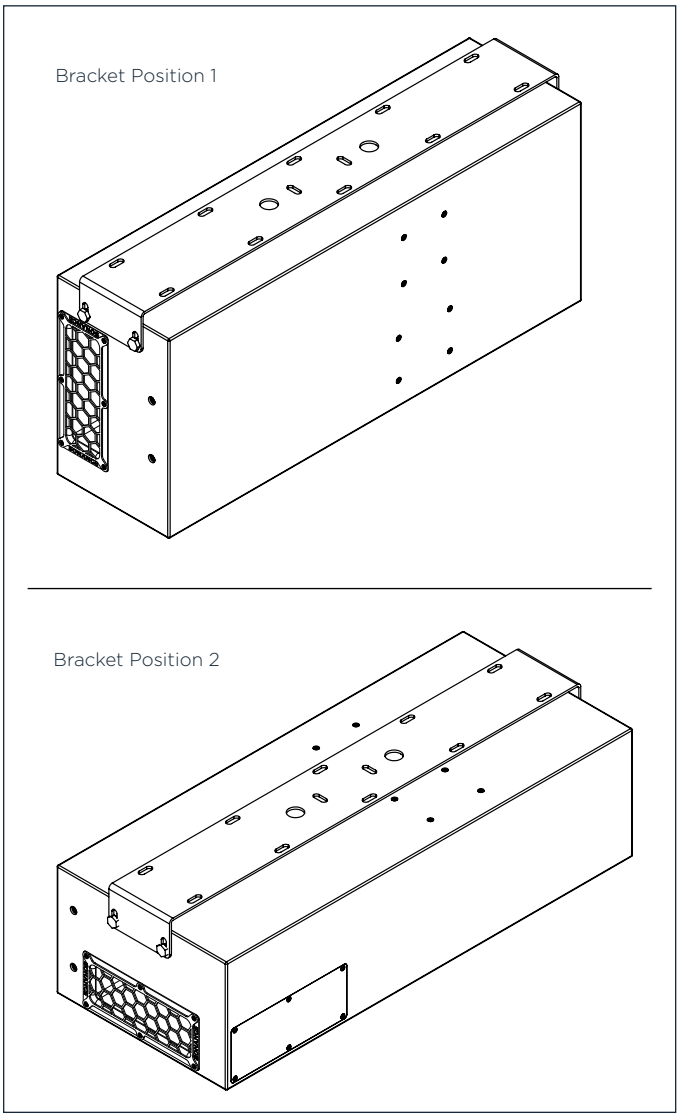
1. Remove port screws, port grille, and port cover screws.
2. Pull out port and remove port cover.
3. Swap locations of port and port cover.
4. Secure port, port grille, and port cover with screws from step 1.



For floor-mount applications such as under bench seating or in cabinetry, use the 4 included adhesive-backed rubber feet.



The optional C-bracket (Part Number “40194” - BRACKET PS-S210SUBT) can be used to install the subwoofer on wall and ceiling surfaces in multiple orientations. Make sure your installation substrate can adequately support the weight of the subwoofer. Do not use any bracket other than the official Sonance bracket. Refer to the bracket instructions for a detailed installation guide.



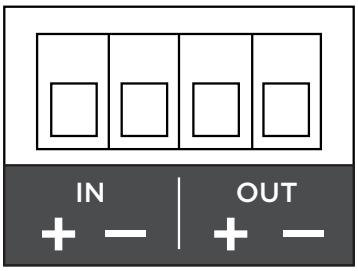
When surface-mounting the subwoofer, we recommend using the integral M10 x 1.5mm flypoints with eyebolts and rigging (not included) as a safety backup whenever possible. The flypoints can also be used to suspend the subwoofer as the primary mounting technique if no other mounting options are feasible. When flying the subwoofer, consult a qualified structural engineer to validate the installation plan, rigging hardware, and mount points.

WIRING

1. Route the wires from your amplifier (and wire from any other speakers running in parallel) through the punchout in the terminal cover.

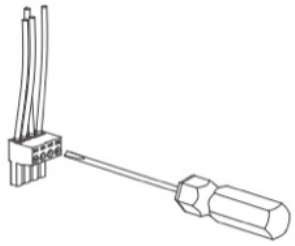
2. Connect the wires from your amplifier to the includedEuroblock input connector (see figure 2).

Figure 2: Input Connector



3. Strip approximately .1875” (5mm) of the insulation off each wire. Insert the wire into the correct square opening on the connector. Use a small flat head screwdriver to tighten the corresponding screw to secure the wire (see figure 3).

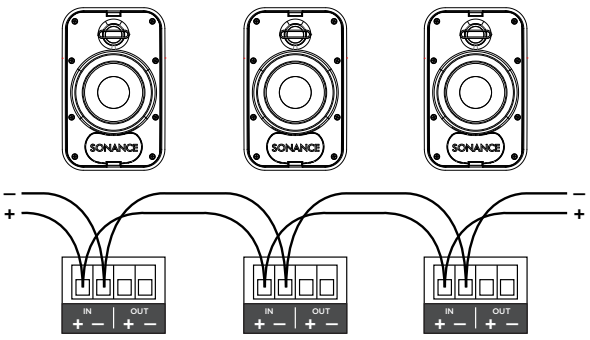
Figure 3: Securing the Wire



Pin 1 + Postive In
Pin 2 - Negative Out
Pin 3 + Postive In
Pin 4 - Negative Out

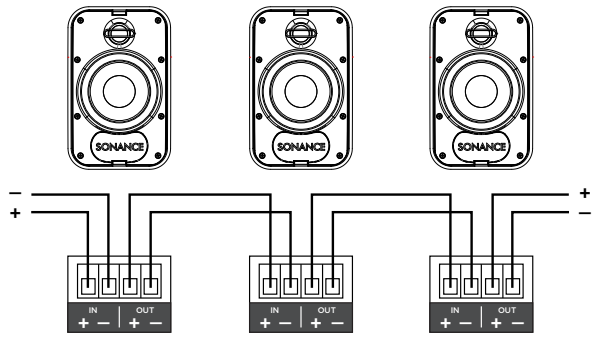
When using multiple subs or speakers, you can connect them either in parallel or in the loop through method as shown (see figure 4 & 5).

Figure 4: Parallel Connection



From Power Amplifier To Next Speaker

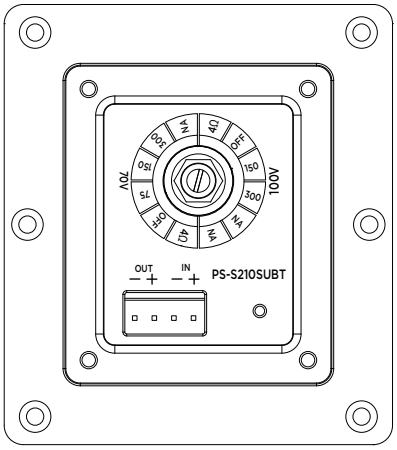
Figure 5: Loop Through Connection



From Power Amplifier To Next Speaker

4. Determine the proper wattage setting for each speaker and sub in the installation and set each transformer tap selector (see figure 6). Use a flat head screwdriver to point the selector’s slot towards the desired tap setting. Note that if you are installing this product into a 70V system, refer to the tap settings on the left side of the switch. If you are using a 100V system, refer to the tap settings on the right side of the switch.

Figure 6: Transformer Tap Selector



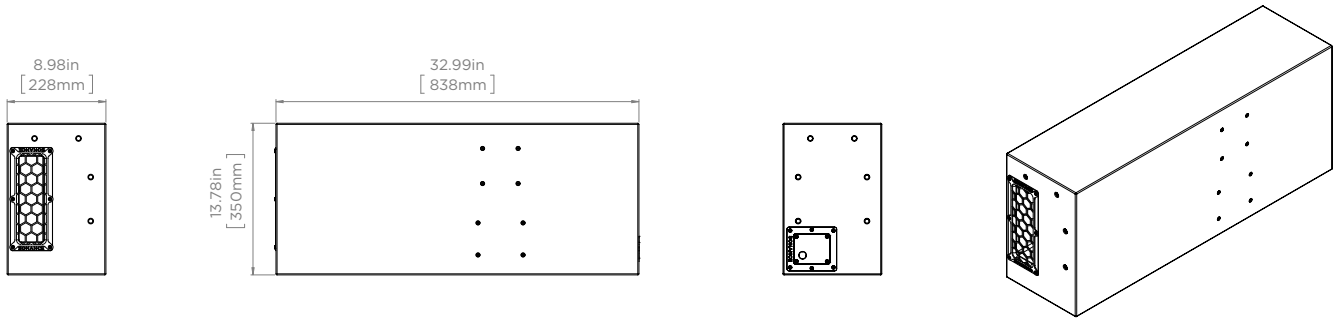
5. Connect the Euroblock-terminated wiring from your amplifier into the subwoofer’s input terminal.

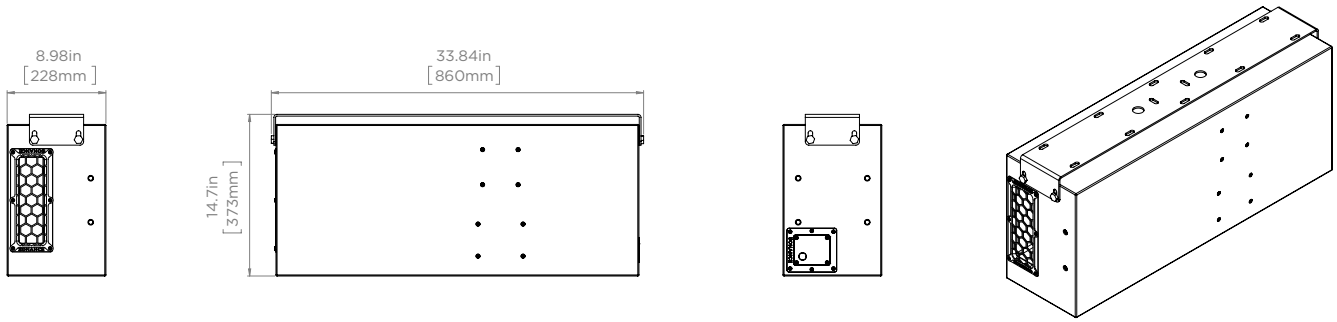
6. Use the included zip tie to secure the wiring and prevent pull-out.

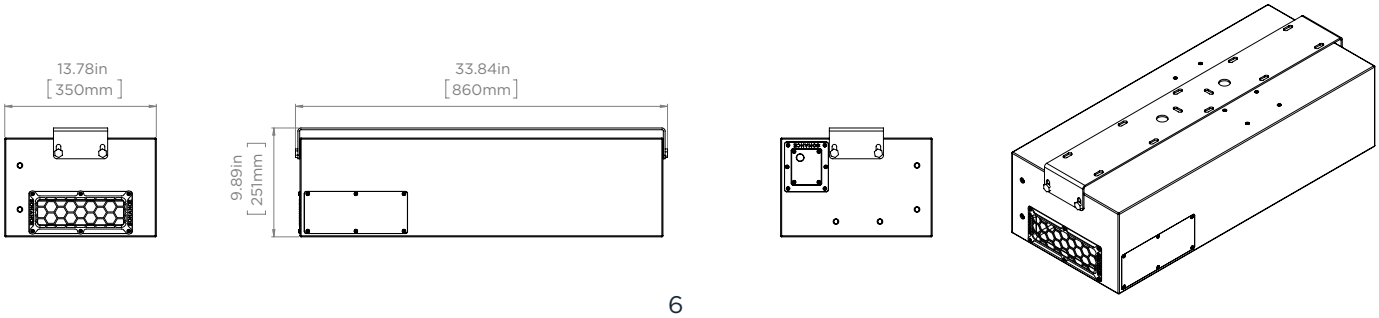
7. Install the terminal cover with the included screws.

TECHNICAL SPECIFICATIONS

Sonance Professional Series	PS-S210SUBT
Frequency Range	(-10dB) 34Hz – 155hz
Frequency Range	(-3dB) 44Hz – 132Hz
Power Capacity	500 Watts Continuous Program Power 300 Watts Continuous Pink Noise
Nominal Sensitivity	94 dB
Nominal Coverage Angle	180 degrees conical coverage
Rated Maximum SPL	121dB @ 1 meter (3.3 feet) average, 127dB peak
Rated Impedance	4 ohms nominal, 3.7 ohms minimum
Transformer Taps	300W, 150W, 75W and (37W @70V)
Crossover Point	150Hz low pass filter, 12dB/octave
Transducers	
LF Driver	Dual 10” (254mm) Woven glass fiber cones, Butyl rubber surrounds
Enclosure	
Input Connectors	Four pin Euroblock with loop output connections
Included Accessories	Euroblock connector, terminal cover & screws, installation manual, rubber feet
Overall Dimension HxWxD	8.98” x 33.00” x 13.78” (228mm x 838mm x 350mm)
Net Weight	61 lbs (27.7kg) each
Shipping Weight	75.8 lbs (33.0kg) each
Optional Accessories	C-Bracket (PN: 40194)
Included Accessories	(4) M10 mounting bolts, installation manual







ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a subwoofer comprising a polyurethane coated, laminated plywood enclosure containing two 10" (254mm) low profile, woven glass fiber cone with Butyl with rubber surround, ultra-high excursion low frequency transducers. Frequency range shall be 44Hz – 132Hz (-3dB). Total power handling shall be 300 Watts continuous pink noise and 500 Watts program. Sensitivity measured with 2.83 volts input at 1 meter on axis averaged between 44Hz – 132Hz shall be 94dB. The unit shall be supplied with a line-matching transformer suitable for 100 volt or 70 volt with a side-mounted control allowing user selectable power taps of 300W, 150W, and 75W (70V) and an 8 Ohm bypass. It shall include an integrated low-pass filter. The speaker shall be supplied with feet, and an optional metal C-Bracket should be available with fitment on two sides of the enclosure via 8 x M10 female-threaded blind rigging points. Wire shall be terminated on the side of the enclosure via a four-pin Euroblock connector with loop-through with a cover. External dimensions shall be 9" height x 33" width x 13.78" deep (228mmx 838mm x 350mm) and it shall weigh 61 lbs. (22.7 kg) per unit. It shall feature the ability to port sound through either the front or the side of the enclosure to ensure and have a have a removable port grille. The loudspeaker shall be the Sonance Professional Series PS-S210SUBT. No other system shall be acceptable unless the above combined performance specifications are equaled or exceeded.

TECHNICAL ASSISTANCE AND SERVICE

The Technical Assistance Department at Sonance is available at (949) 492-7777 to answer any questions concerning the operation and installation of your speakers between the hours of 7:00 AM and 5:00 PM Pacific time, Monday through Friday, except holidays.

In the event your unit should need repair or service, you may return the unit to your authorized dealer or use the following guidelines:

PLEASE KEEP ORIGINAL PACKAGING WHEN POSSIBLE.

1. Be prepared to state the model number and / or serial number, date of purchase, and dealer's name and address when calling.

2. Contact Sonance directly at (949) 492-7777 or at www.sonance.com. **YOU MUST HAVE PRIOR AUTHORIZATION TO RETURN YOUR UNIT.**

3. If you are returning the product directly to Sonance, call us to obtain a return authorization number before shipping.

4. Ship the product via United Parcel Service, Federal Express, or other package delivery service. Please do not use the U.S. Postal Service.

5. Include the return authorization number on the shipping label.

6. Ship to:

Attn: Quality Assurance Department,
RMA#(include RMA number here)
Sonance
11016 Mulberry Ave.
Suite B
Fontana, CA 92337

LIMITED FIVE (5) YEAR WARRANTY

Sonance warrants to the first end-user purchaser that this Sonance-brand product ("Product"), when purchased from an authorized Sonance Dealer/Distributor, will be free from defective workmanship and materials for the period stated below. Sonance will at its option and expense during the warranty period, either repair the defect or replace the Product with a new or remanufactured Product or a reasonable equivalent.

EXCLUSIONS

TO THE EXTENT PERMITTED BY LAW, THE WARRANTY SET FORTH ABOVE IS IN LIEU OF, AND EXCLUSIVE OF, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY SONANCE. ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, IMPLIED WARRANTY OF FITNESS FOR USE, AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED.

No one is authorized to make or modify any warranties on behalf of Sonance. The warranty stated above is the sole and exclusive remedy and Sonance's performance shall constitute full and final satisfaction of all obligations, liabilities and claims with respect to the Product.

IN ANY EVENT, SONANCE SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, ECONOMIC, PROPERTY, BODILY INJURY, OR PERSONAL INJURY DAMAGES ARISING FROM THE PRODUCT, ANY BREACH OF THIS WARRANTY OR OTHERWISE.

This warranty statement gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion of implied warranties or limitations of remedies, so the above exclusions and limitations may not apply. If your state does not allow disclaimer of implied warranties, the duration of such implied warranties is limited to period of Sonance's express warranty. Your Product Model and Description: PS-S210SUBT. Warranty Period for this Product: Five (5) years from the date on the original sales receipt or invoice or other satisfactory proof of purchase. Additional Limitations and Exclusions from Warranty Coverage: The warranty described above is non-transferable, applies only to the initial installation of the Product, does not include installation of any repaired or replaced Product, does not include damage to allied or associated equipment which may result for any reason from use with this Product, and does not include labor or parts caused by accident, disaster, negligence, improper installation, misuse (e.g. overdriving the amplifier or speaker, excessive heat, cold or humidity), or from service or repair which has not been authorized by Sonance. Obtaining Authorized Service: To qualify for the warranty, you must contact your authorized Sonance Dealer/Installer or call Sonance Customer Service at (949) 492-7777 within the warranty period, must obtain a return merchandise number (RMA), and must deliver the Product to Sonance shipping prepaid during the warranty period, together with the original sales receipt, or invoice or other satisfactory proof of purchase.

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BEYOND SOUND

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