SONANCE®

SONANCE INVISIBLE SERIES SPEAKER INSTALLATION

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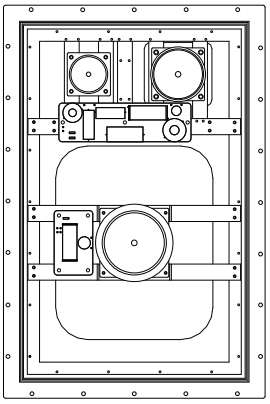
INTRODUCTION

SONANCE offers what few have before: the ability to contribute to brilliant architecture and genius design by removing an element. By removing dated protruding fixtures and other traditional wall-mounted necessities, and replacing them with flush fixtures, the products bow out of the spotlight and allow the artistic structure to take center stage. SONANCE INVISIBLE SERIES offers audiophile quality and ease of installation to any design project.

SONANCE INVISIBLE SERIES

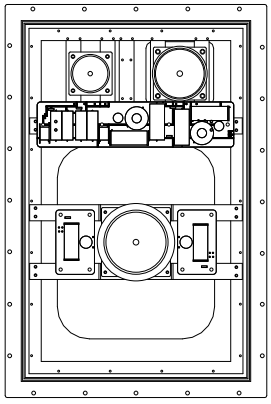


IS4

The new benchmark for invisible speakers. The IS4 features state of the art planar diaphragm technology. The rigid metal frame and optional enclosure make this speaker the best sounding fully concealed speaker in the world.

SPECIFICATIONS

Tweeter	4 sq. in (27 sq. cm) planar diaphragm, driven by a 1" (25mm) voice coil
Midrange	17 sq. in (110 sq. cm) planar diaphragm, driven by a 1" (25mm) voice coil
Woofer	113 sq. in (732 sq. cm) planar diaphragm, driven by a 2" (50mm) voice coil
Frequency Response	40Hz – 20kHz ±3dB
Impedance	8 ohms nominal
Power Handling	100 watts RMS
Sensitivity	90dB (1W/1 meter)
Dispersion	170º hemispherical up to 10kHz
Finish	Paper surface ready for texture and paint
Overload Protection	Three independent self-resetting gel switches (low, mid and high)
Cutout Dims - Without Enclosure (WxHxD)	16-1/8" x 24-1/8" x 2" (409mm x 613mm x 51mm)
Cutout Dims - With Enclosure (WxHxD)	16-1/8" x 24-1/8" x 3-13/16" (409mm x 613mm x 97mm)
Shipping Weight	25 lbs (11.25 kg) pair

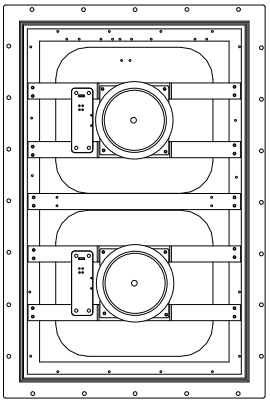


IS4 SST

The IS4 SST features single stereo technology, the ability to drive one speaker with two inputs. The IS4 SST is impedance matched to ensure proper amplifier protection. The perfect choice for small areas, such as hallways and corridors where two speakers would be impractical or impossible to install.

SPECIFICATIONS

Tweeter	4 sq. in (27 sq. cm) planar diaphragm, driven by a 1" (25mm) dual voice coil
Midrange	17 sq. in (110 sq. cm) planar diaphragm, driven by a 1" (25mm) dual voice coil
Woofer	113 sq. in (732 sq. cm) planar diaphragm, driven by a 2" (50mm) dual voice coil
Frequency Response	40Hz – 20kHz ±3dB
Impedance	8 ohms nominal
Power Handling	100 watts RMS
Sensitivity	90dB (1W/1 meter)
Dispersion	170º hemispherical up to 10kHz
Finish	Paper surface ready for texture and paint
Overload Protection	Three independent self-resetting gel switches (low, mid and high)
Cutout Dims - Without Enclosure (WxHxD)	16-1/8" x 24-1/8" x 2" (409mm x 613mm x 51mm)
Cutout Dims - With Enclosure (WxHxD)	16-1/8" x 24-1/8" x 3-13/16" (409mm x 613mm x 97mm)
Shipping Weight	13 lbs (5.85 kg) each

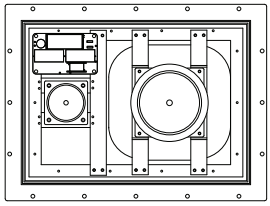


ISW

The ISW is a low frequency reinforcement to the IS line. Two voice coils drive the diaphragm for unsurpassed invisible low end response.

SPECIFICATIONS

Woofer	170 sq. in (1098 sq. cm) planar diaphragm, driven by two 2" (50mm) voice coils
Frequency Response	35Hz – 150Hz ±3dB
Impedance	8 ohms nominal
Power Handling	100 watts RMS
Sensitivity	90dB (1W/1 meter)
Dispersion	170º hemispherical up to 10kHz
Finish	Paper surface ready for texture and paint
Overload Protection	Self-resetting gel switch
Cutout Dims - Without Enclosure (WxHxD)	16-1/8" x 24-1/8" x 2" (409mm x 613mm x 51mm)
Cutout Dims - With Enclosure (WxHxD)	16-1/8" x 24-1/8" x 3-13/16" (409mm x 613mm x 97mm)
Shipping Weight	13 lbs (5.85 kg) each



IS2

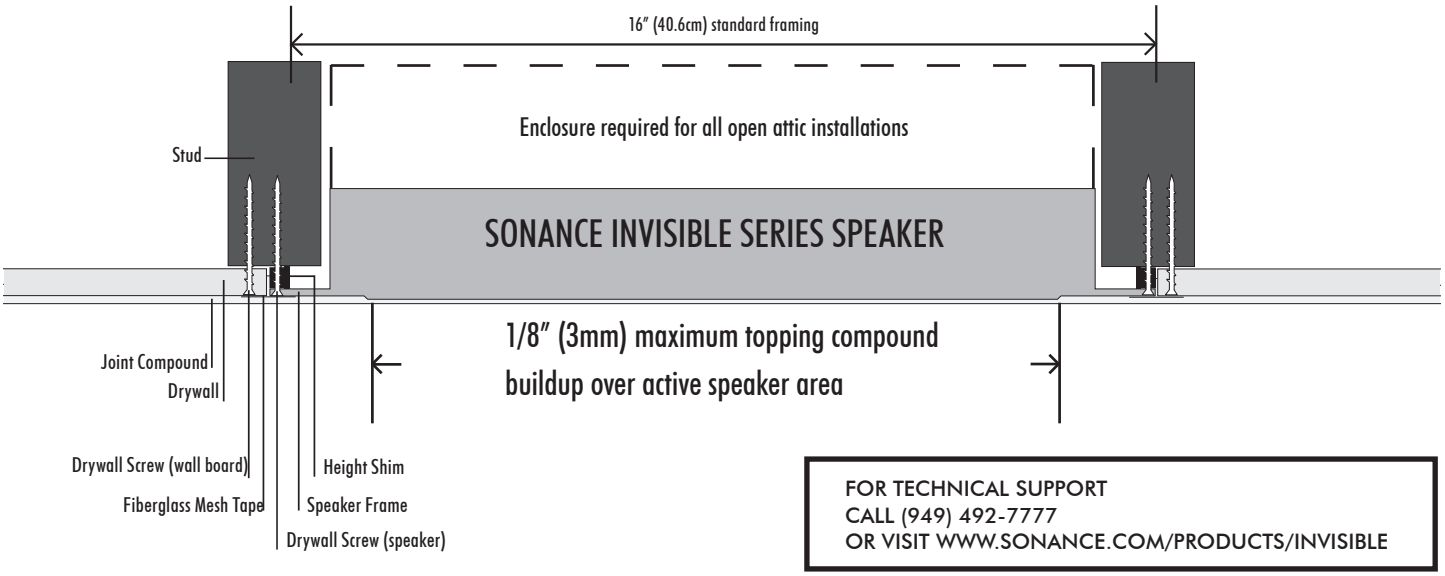
The IS2 is designed for tight installations or very small spaces yet delivers sound that is only bested by the IS4.

SPECIFICATIONS

Tweeter	4 sq. in (27 sq. cm) planar diaphragm, driven by a 1" (25mm) voice coil
Woofer	50 sq. in (320 sq. cm) planar diaphragm, driven by a 1" (25mm) voice coil
Frequency Response	50Hz – 20kHz ±3dB
Impedance	8 ohms nominal
Power Handling	80 watts RMS
Sensitivity	88dB (1W/1 meter)
Dispersion	170º hemispherical up to 10kHz
Finish	Paper surface ready for texture and paint
Overload Protection	Two independent self-resetting gel switches (low and high)
Cutout Dims - Without Enclosure (WxHxD)	16-3/32" x 12-3/32" x 2" (409mm x 307mm x 51mm)
Cutout Dims - With Enclosure (WxHxD)	16-3/32" x 12-3/32" x 3-13/16" (409mm x 307mm x 97mm)
Shipping Weight	12 lbs (5.5 kg) pair

UNDERSTANDING THE INVISIBLE SERIES INSTALLATION

INVISIBLE SERIES SPEAKER INSTALLATION DETAIL VIEW



FOR TECHNICAL SUPPORT
CALL (949) 492-7777
OR VISIT WWW.SONANCE.COM/PRODUCTS/INVISIBLE

Note: IMPORTANT CONSIDERATION FOR LOCATING THE IS2, IS4, IS4SST AND ISW ON WALLS

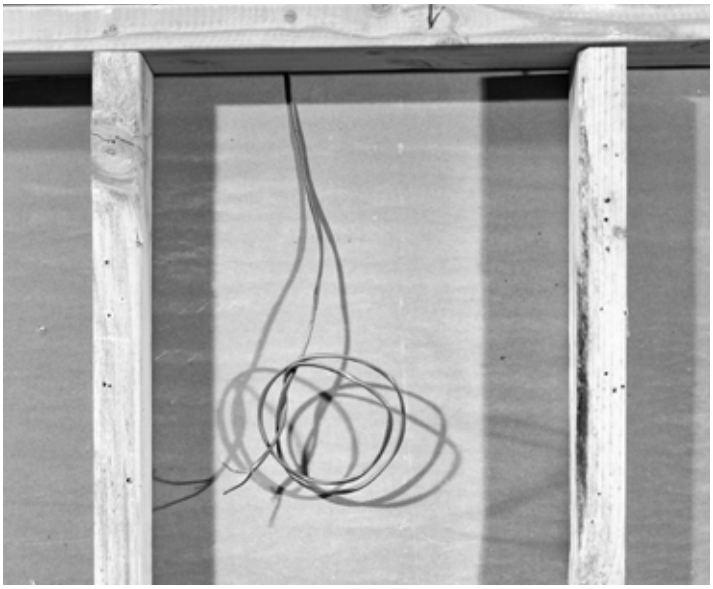
For wall installations, locate the bottom of the Invisible Series Speaker at least 7 ft. (2.1m) up from the floor. Placing the speaker lower on the wall will put it at risk for having picture nails or other hanging devices driven through the diaphragm and damaging the speaker. Since the final surface finish enables the speaker to completely disappear, it is critical to locate the speaker high enough on the wall to protect it for the future. Resulting damage of this type is not covered by the warranty.

WIRE GAUGE GUIDE

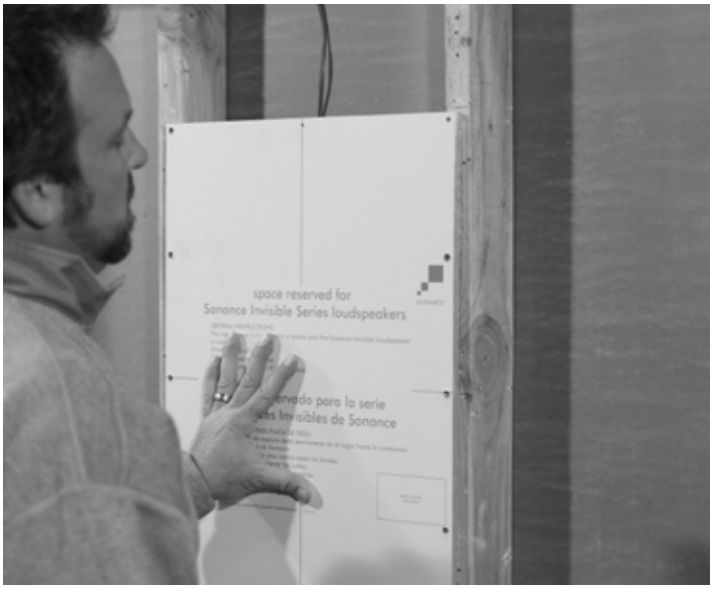
Extra resistance in the speaker wire can make speakers sound less dynamic and reduce definition of the bass frequencies. In extreme cases, it can even attenuate high frequencies. Also, amplifier power is wasted in wire with extra resistance, reducing your system's maximum output level. To prevent degrading sound quality, the total wire resistance should be less than 10% of the speaker's impedance. This means that for an 8-ohm speaker, the total resistance of the wire should be less than 0.8 ohms. Refer to the following table when selecting the proper wire gauge for your system:

WIRE RESISTANCE IN OHMS vs. LENGTH OF CABLE RUN						
DISTANCE IN FEET	50′	100′	150′	200′	250′	300′
20 Gauge	1.04	2.07	3.11	4.14	5.18	6.22
18 Gauge	.65	1.30	1.96	2.61	3.26	3.91
16 Gauge	.41	.82	1.22	1.63	2.04	2.45
14 Gauge	.26	.52	.77	1.03	1.29	1.55
12 Gauge	.16	.32	.49	.65	.81	.97
10 Gauge	.10	.20	.31	.41	.51	.61

1. Wire stud bay prior to mounting drywall. See page 4 for wire gauge chart.



2. Place space saver in desired final location of speaker.



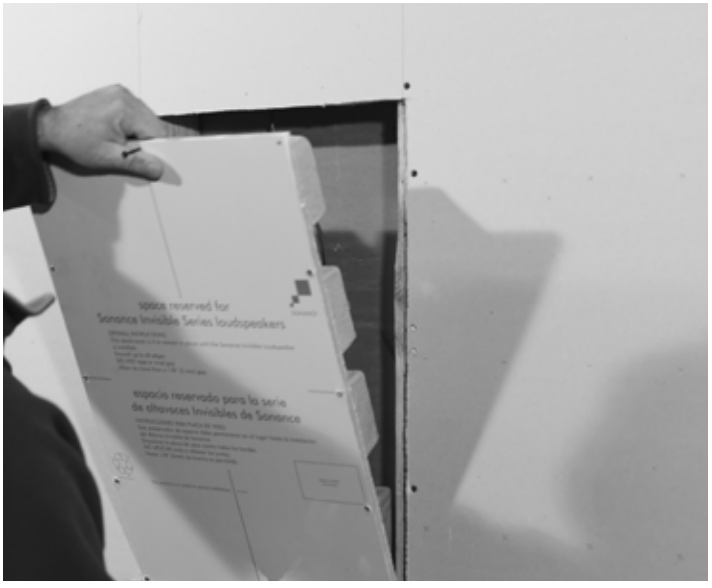
3. With the aid of a level, screw the space saver to the studs. Ensure the speaker cable will have easy access once the space saver is removed.

Space Saver Part Numbers:
IS4 & ISW = 92723
IS2 = 92722

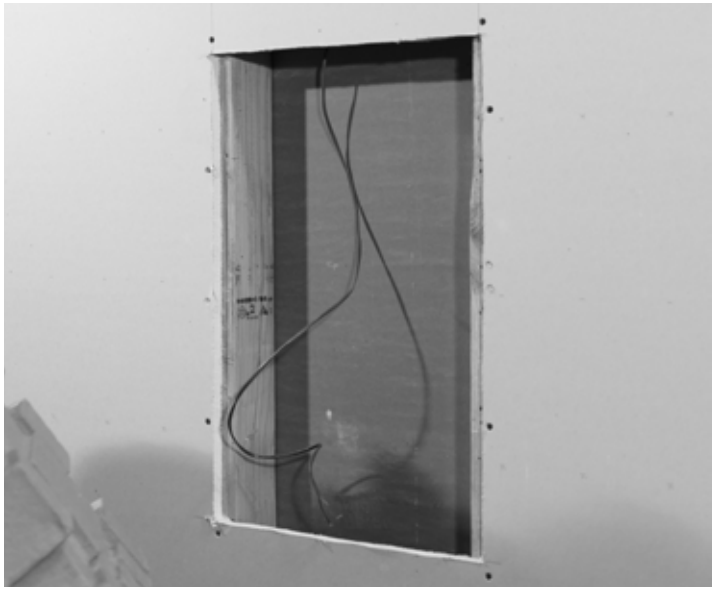
4. Secure edges of the space saver.

5. After all drywall is hung, begin speaker installation by removing space saver.

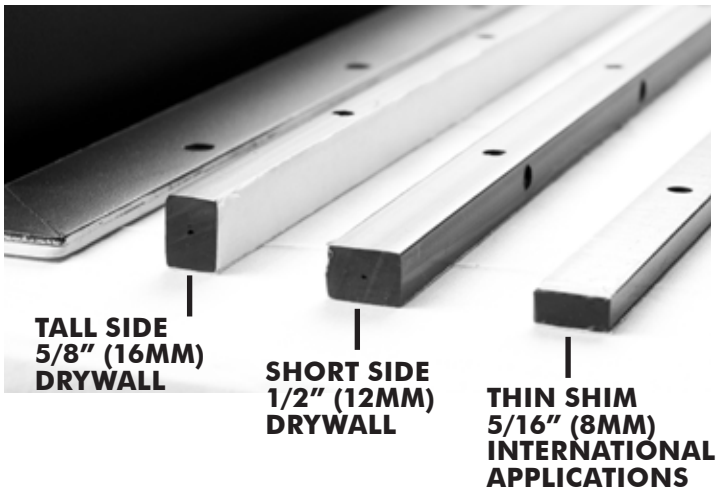
6. Be careful not to damage the exposed drywall during space saver removal.



7. Pull 2-conductor speaker wire down into the exposed opening.

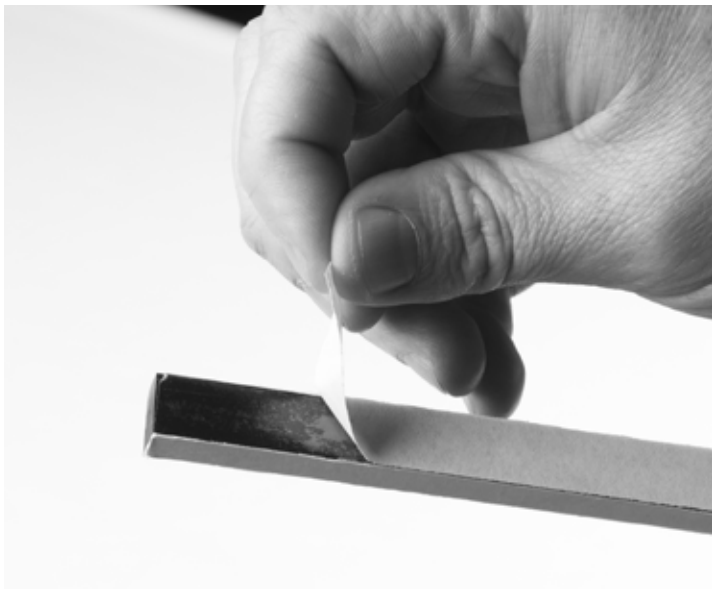


8. Select the appropriate shim for the application.* Use cardboard shims for fine tuning.



*All installations in 1/2" (13mm) and 5/8" (16mm) drywall with wood stud construction require a shim.

9. Peel off corresponding adhesive backing.



10. Press shim firmly into position, aligning screw holes.

11. Connect speaker wire to the appropriate terminal on the speaker. (Speaker shown with optional enclosure.)

Enclosure Part Numbers:
IS4 & ISW = 92970
IS2 = 92969

12. Insert speaker into opening.

13. Secure speaker with at least 4 drywall screws on each side. Top and bottom are optional. Do not over tighten.

TEST THE SPEAKER FOR 60 SECONDS WITH AN AUDIO SOURCE BEFORE COVERING WITH DRYWALL COMPOUND!
This is the last point any wiring corrections can be made. After test is complete finish securing with remaining drywall screws.

14. Go to Finishing Instructions starting on page 12.

EXISITNG CONSTRUCTION

1. Determine the location for the speaker.
2. Using a stud finder, locate the first studs/joists to the right and left of the speaker position.
3. Mark the centers of the studs/joists. *(See Figure 4, below.)*

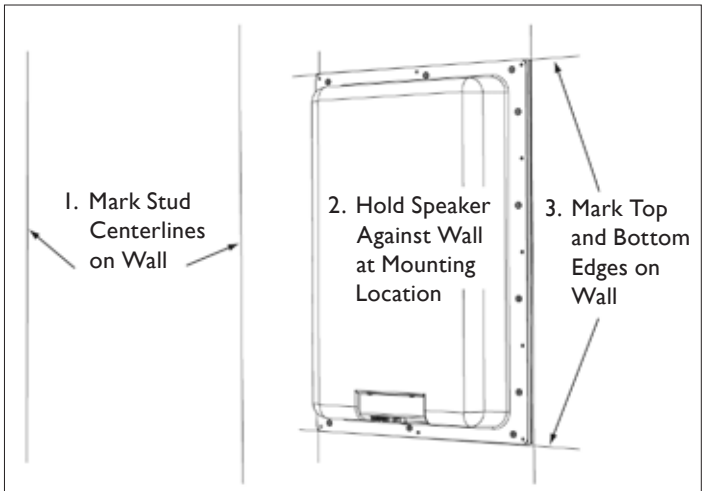


FIGURE 4: MARKING THE SPEAKER LOCATION

4. Using the speaker as a template, determine the desired speaker location on the wall. Mark the speaker's top and bottom edges on the drywall. *(See Figure 4, above.)*
5. Before proceeding, perform an obstruction survey to be certain that there are no studs, conduit, pipes, heating ducts, pocket doors, or air returns in the wall cavity that will interfere with the speaker.
6. Using a drywall saw, cut the drywall along the top and bottom horizontal marks UP TO THE INSIDE EDGES OF THE LEFT AND RIGHT STUDS/JOISTS. *(See Figure 5 below.)*

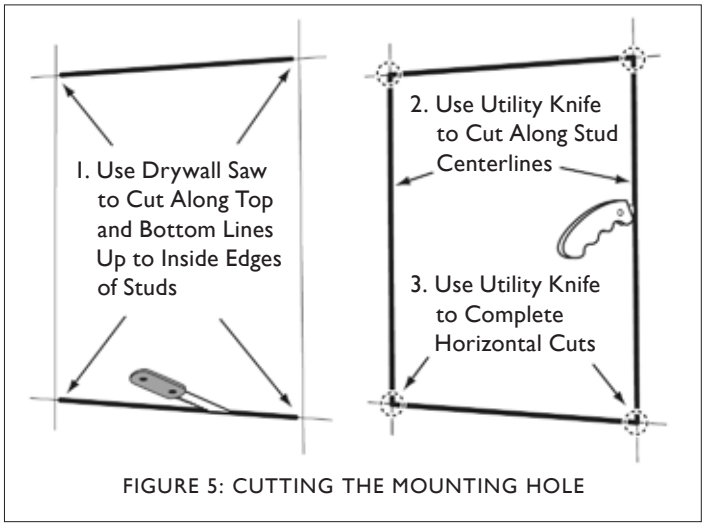


FIGURE 5: CUTTING THE MOUNTING HOLE

7. Using a utility knife, cut the drywall along the vertical marks at the centers of the studs/ joists. Use the utility knife to complete the horizontal cuts at each stud/joist. (See Figure 5, below.) Remove the drywall from the opening.
   - This should expose only ¾" (19mm) of each stud/ joist or half of the stud/joist surface. *(See Figure 6.)*

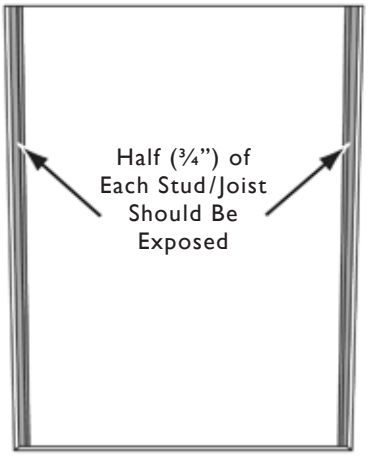
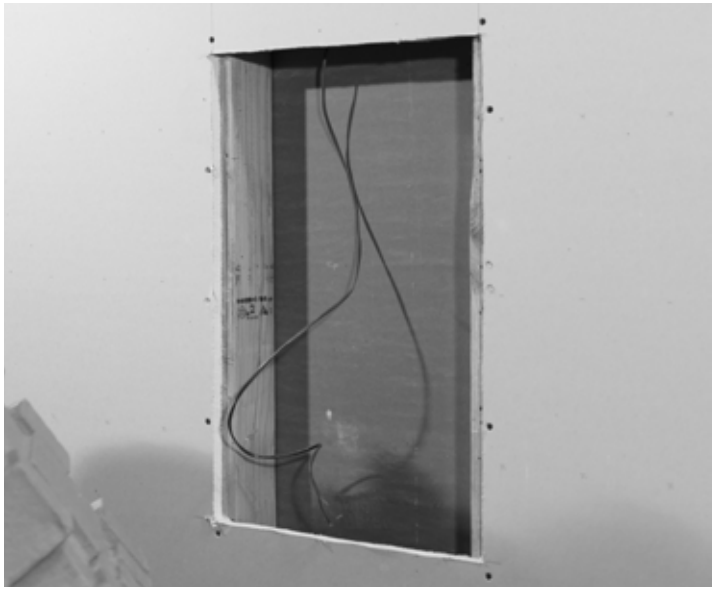


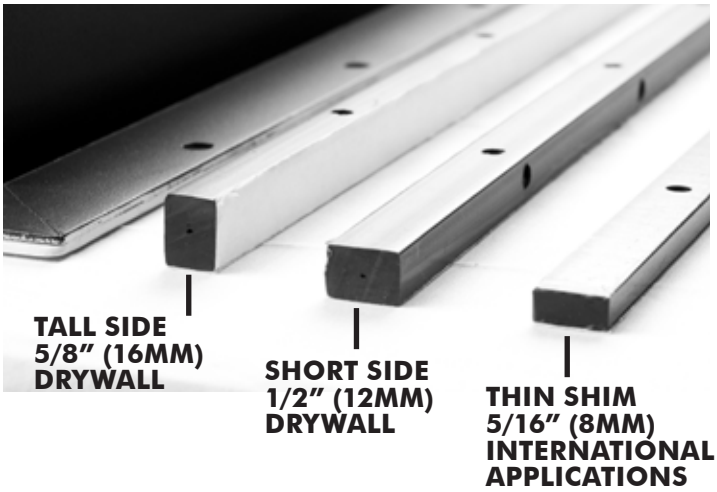
FIGURE 6: EXPOSED STUDS AFTER DRYWALL IS REMOVED

8. Test-fit the speaker into the opening, verifying that all of the speaker's edges are even with the drywall edges. If necessary, trim the edges of the drywall to properly accommodate the speaker.

9. Pull 2-conductor speaker wire down into the exposed opening.

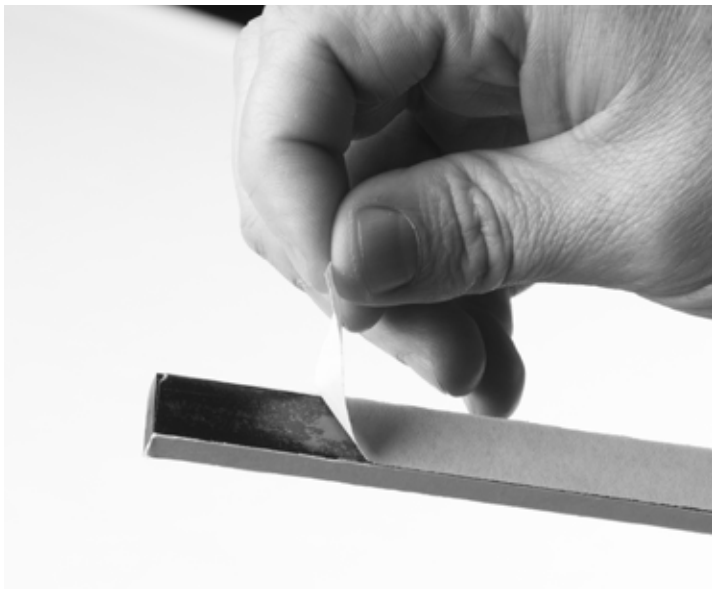


10. Select the appropriate shim for the application.* Use cardboard shims for fine tuning.



*All installations in 1/2" (13mm) and 5/8" (16mm) drywall with wood stud construction require a shim.

11. Peel off corresponding adhesive backing.



12. Press shim firmly into position, aligning screw holes.

13. Connect speaker wire to the appropriate terminal on the speaker. (Speaker shown with optional enclosure.)

Enclosure Part Numbers:
IS4 & ISW = 92970
IS2 = 92969

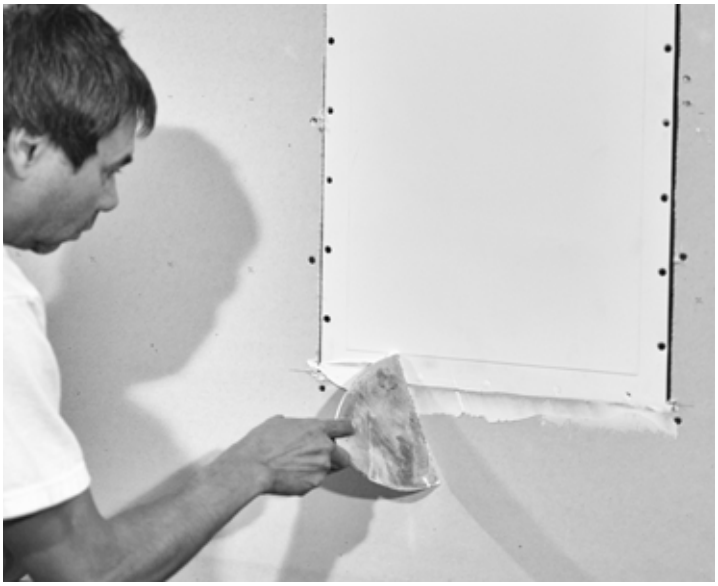
14. Insert speaker into opening.

15. Secure speaker with at least 4 drywall screws on each side. Top and bottom is optional. Do not over tighten.

TEST THE SPEAKER FOR 60 SECONDS WITH AN AUDIO SOURCE BEFORE COVERING WITH DRYWALL COMPOUND!
This is the last point any wiring corrections can be made. After test is complete finish securing with remaining drywall screws.

FINISHING INSTRUCTIONS

1. Fill the gap between speaker and drywall with 5 minute setting type joint compound (hot mud).



2. Feather all edges.

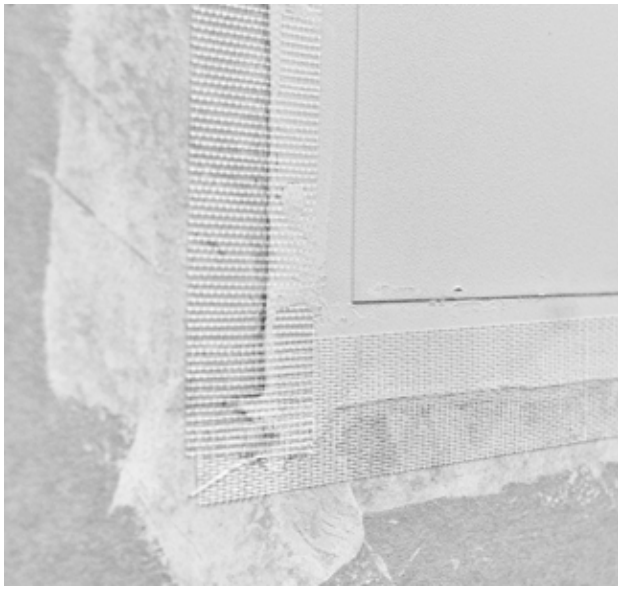
3. Allow hot mud to set slightly before applying mesh tape.

FINISHING INSTRUCTIONS

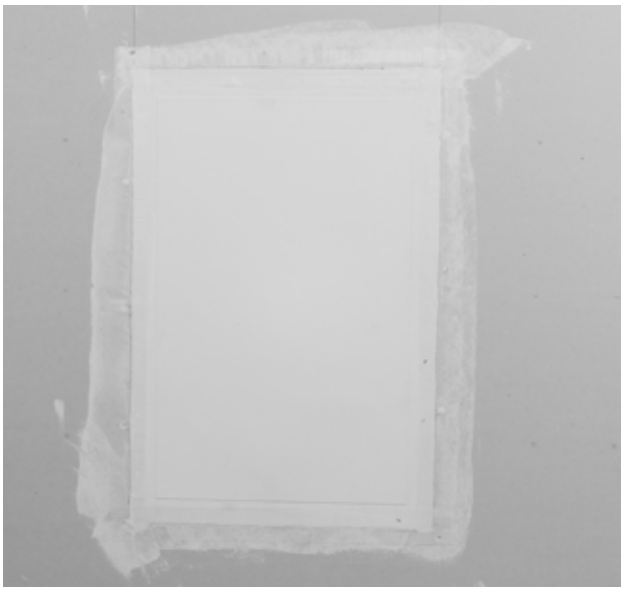
4. Place mesh tape over the drywall seams.

5. Overlap tape slightly.

6. **Do not tape over the raised portion of the speaker (diaphragm).**



7. Allow hot mud to fully cure or harden.



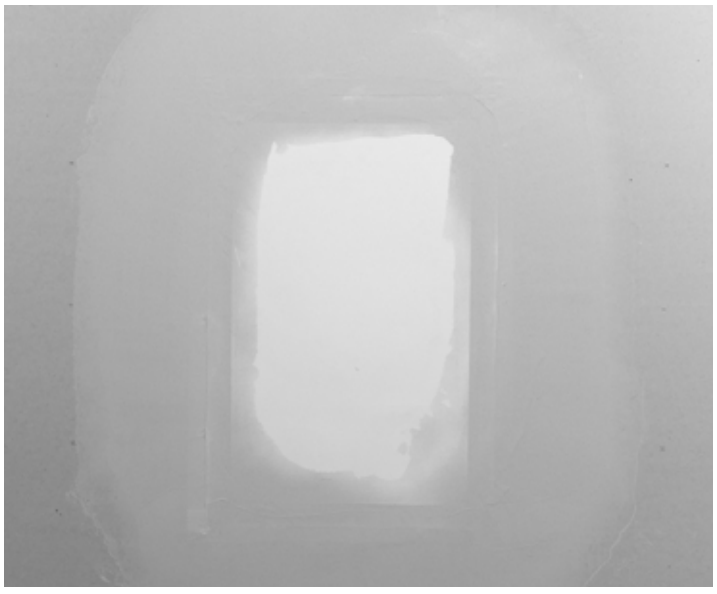
FINISHING INSTRUCTIONS

8. Once hot mud has fully cured or hardened, begin to Build layers of topping compound over speaker.

9. Build layers of compound as needed to obtain a flat surface.

10. Feather in all surfaces.

11. Allow first coat to fully cure or harden.



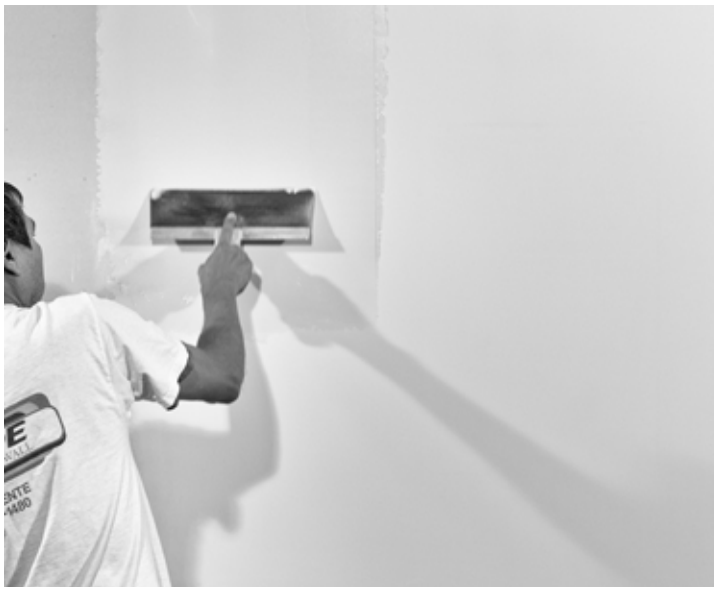
FINISHING INSTRUCTIONS

12. Start a second coat covering the entire surface of the speaker and all adjoining surfaces.

13. Compound buildup on the active surface of the speaker should not exceed 1/8" (3mm).

14. Detail the compound to minimize tool marks.

15. Build more coats as necessary to achieve desired finish.



16. Each successive coat should be thinner than the last. The final coat should be a very light application (skim coat).

17. After final coat is applied and has dried, use a manual pole sander or block sander on entire wall (do not use a power sander). Wall surface should show no signs of a speaker. If any defect is found, skim coat entire area, and sand down again.

IMPORTANT

TOTAL MATERIAL OVER ACTIVE SURFACE OF THE SPEAKER CAN NOT EXCEED 1/8TH OF AN INCH (3mm).

BEST PRACTICE

A 60 MICRON SANDING FILM IS RECOMMENDED FOR FINAL SANDING.

NOTES:

LIMITED FIFTEEN (15) YEAR WARRANTY

Sonance warrants to the first end-user purchaser that this Sonance-brand product ("Product"), when purchased from an authorized Sonance Dealer/Distributor and installed by a Sonance installer, will be free from defective workmanship and materials in the initial installation for the period stated below. Subject to the additional limitations stated below, Sonance will (a) 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, and (b) arrange at its reasonable expense to re-install the Product and prepare the surface of the speaker and/or mounting platform for finishing and nothing more.

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 WARRANTY 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 the period of Sonance's express warranty.

Your Product Model and Description: Sonance Invisible Series Speaker IS4, IS4 SST, ISW, IS2

Warranty Period for this Product: Fifteen (15) years from the date on the original sales receipt, invoice or other satisfactory proof of purchase.

Additional Limitations and Exclusions From Warranty Coverage: The warranty described above is non-transferrable, applies only to the initial installation of the Product, does not include re-finishing of the speaker and/or mounting platform or surrounding surface, does not include damage to allied or associated equipment which may result for any reason from use with this Product, and does not include Product failure caused by accident, disaster, negligence, improper installation, misuse (e.g. overdriving the amplifier or speaker, excessive heat or cold or humidity, outdoor installation), or from service or repair which has not been authorized by Sonance.

Obtaining Authorized Service: To qualify for the warranty, you (1) must contact your authorized Sonance Dealer/Installer or call Sonance Customer Service at (800) 582-0772 within the warranty period, (2) must obtain a return merchandise number (RMA), and (3) deliver the Product to Sonance shipping prepaid during the warranty period, together with the original sales receipt, invoice or other satisfactory proof of purchase.

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Due to continuous product improvement, all features and specifications are subject to change without notice.
For the latest SONANCE product specification information visit our website: www.sonance.com
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