

# **INSTALLATION MANUAL**

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## **INVISIBLE SPEAKER IS4 C**



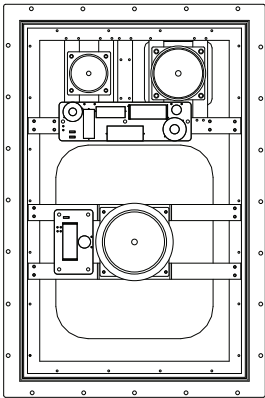
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# INTRODUCTION

SONANCE offers the ability to contribute to brilliant architecture and genius design by removing all speaker grilles from the room décor. SONANCE INVISIBLE SERIES offers audiophile quality and ease of installation to any design project.



## SONANCE INVISIBLE SERIES



### IS4 C

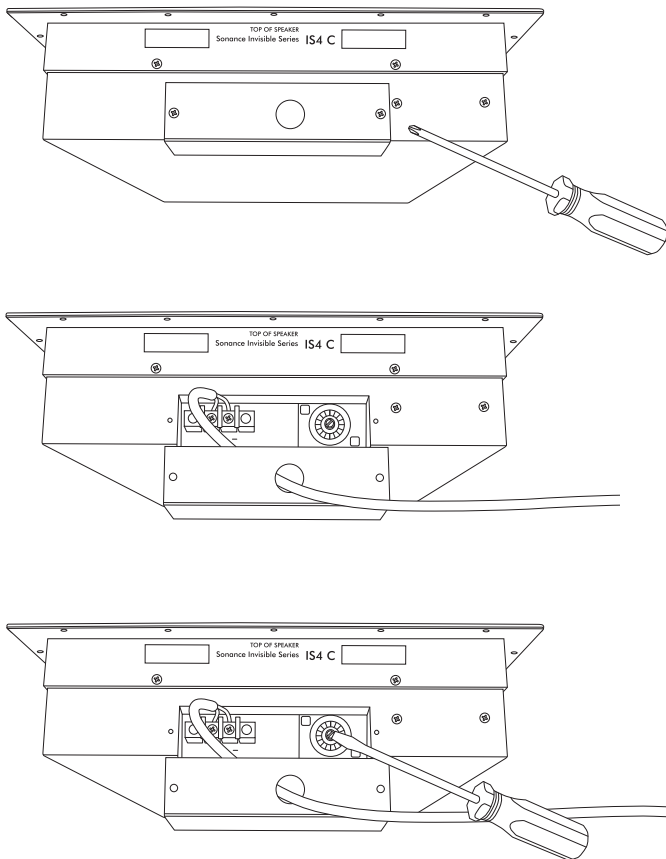
The IS4 C is for any commercial or residential settings where a 70 or 100 volt system is being used. The IS4 C features all the industry standard tap settings as well as an 8-ohm bypass.

### 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
Transformer	Primary voltage: 70V, 100V Primary taps (70V): 0.5W, 1.5W, 3W, 6W, 12W, 24W, 48W Primary taps (100V): 1.5W, 3W, 6W, 12W, 24W, 48W 5-ohm bypass
Power Handling	100 watts RMS
Sensitivity	90dB (1W/1 meter)
Dispersion	170° hemispherical up to 10 kHz
Finish	Paper surface ready for up to 1/8" (3mm) flexible material* and paint
Overload Protection:	Three independent self-resetting gel switches (low, mid and high)
Cutout Dims - Without Enclosure (WxHxD)	16-1/8" x 24-5/32" x 2" (409.5mm x 613.5mm x 51mm)
Cutout Dims - With Enclosure (WxHxD)	16-1/8" x 24-5/32" x 3-11/16" (409.5mm x 613.5mm x 94mm)
Back Box (WxHxD)	14-1/8" x 22-3/16" x 2-1/8" (358mm x 563.5mm x 54mm)
Shipping Weight:	28 lbs (12.7 kg) each
Environment Temperature:	0° - 125°F (-17.7 - 51.7°C)

\*Pliable, elastic material such as joint compound or wallpaper.  
Specifications subject to change.



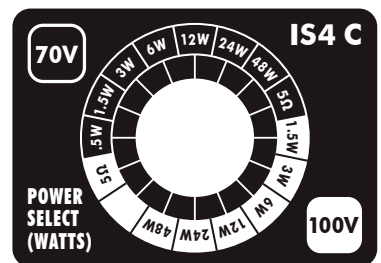


1. Using a #2 Phillips head screwdriver remove the two screws securing the terminal cover plate.
2. When using speaker wire without conduit, run the wire through the hole on the terminal cover plate. Wire needs to be clamped as required by national or local codes. Connect the wires to the terminal block being certain to connect the positive wire to terminal marked + and the negative wire to the terminal marked - .

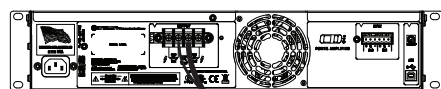
When using conduit attach the conduit connector to the terminal cover plate then connect the wires to the terminal block being certain to connect the positive wire to terminal marked + and the negative wire to the terminal marked - .

3. Using a flat head screwdriver set the transformer tap to the correct tap setting for your installation. We strongly recommend testing the system with music to determine the correct output level.

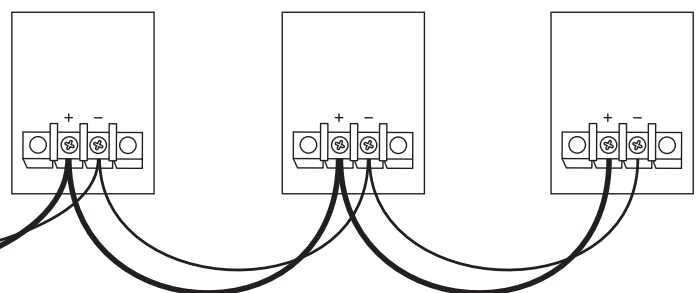
**WARNING:** Do not mount and finish over the speaker until you have selected the necessary tap setting to achieve the desired volume level. After selecting a given tap, play the speaker with an actual audio signal to verify the speaker provides adequate volume. If necessary, re-select a lower or higher tap setting.



### IS4 C Wiring Diagram



Amplifier

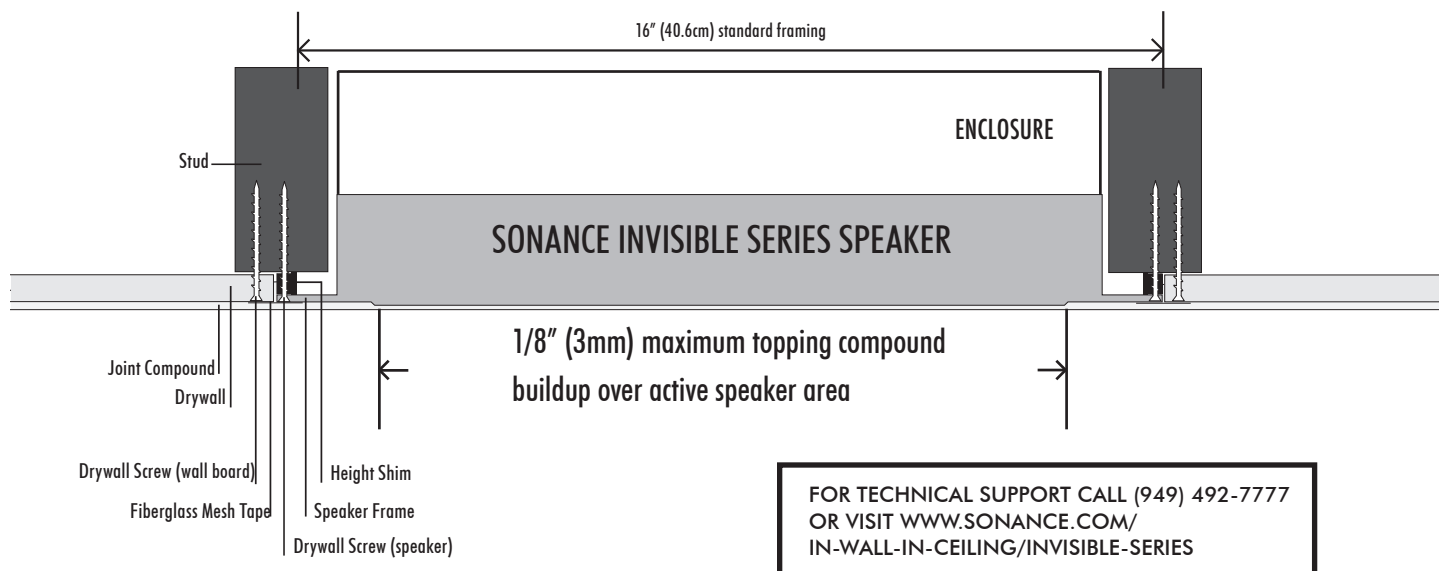


IS4 C Speakers

UNDERSTANDING THE INVISIBLE SERIES INSTALLATION



INVISIBLE SERIES SPEAKER INSTALLATION DETAIL VIEW



**Note:** IMPORTANT CONSIDERATION FOR LOCATING THE IS4 C 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.

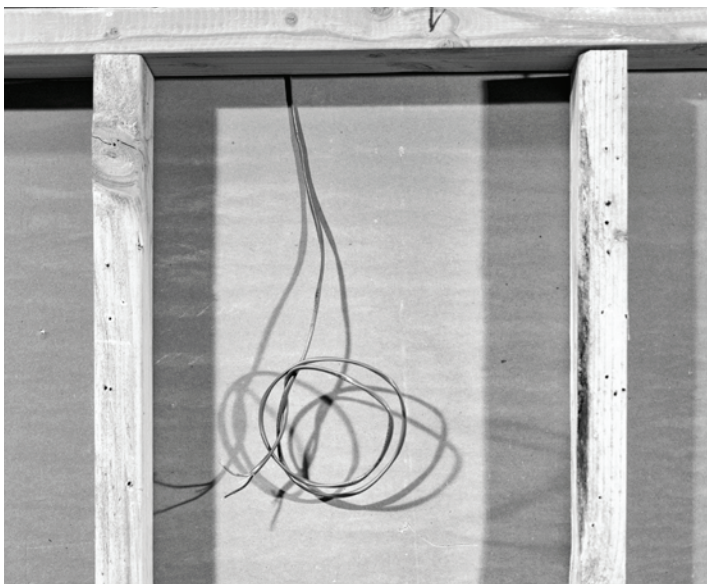
WIRE GAUGE CHART

Refer to the following table when selecting the proper wire gauge for your system:

WIRE GAUGE CHART							
WIRE GAUGE	5 WATT	10 WATT	15 WATT	30 WATT	50 WATT	100 WATT	200 WATT
16	10,000 FT	7,000 FT	4,600 FT	2,300 FT	1,400 FT	700 FT	350 FT
18	9,000 FT	4,500 FT	2,800 FT	1,400 FT	830 FT	415 FT	205 FT
20	5,500 FT	2,700 FT	1,800 FT	900 FT	540 FT	270 FT	135 FT
22	3,400 FT	1,700 FT	1,100 FT	550 FT	330 FT	115 FT	60 FT
24	2,100 FT	1,000 FT	700 FT	350 FT	210 FT	105 FT	50 FT

## NEW CONSTRUCTION

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

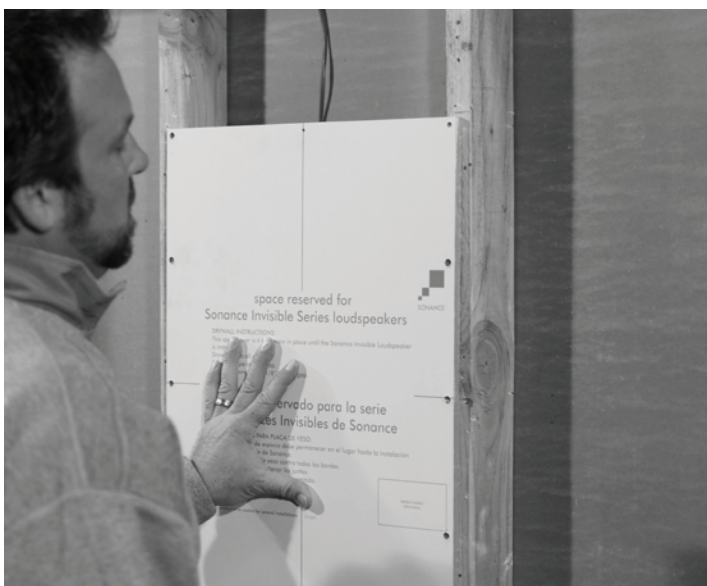


3. With the aid of a level, screw the space saver to the studs. Ensure the speaker cable will have easy access once the space saver is removed.



IS4 C Space Saver Part Number: 92723

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



4. Secure edges of the space saver.

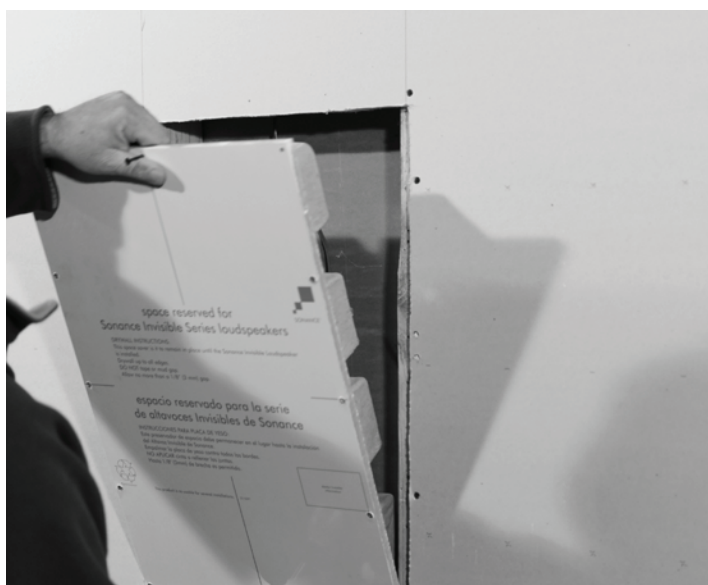


## NEW CONSTRUCTION

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

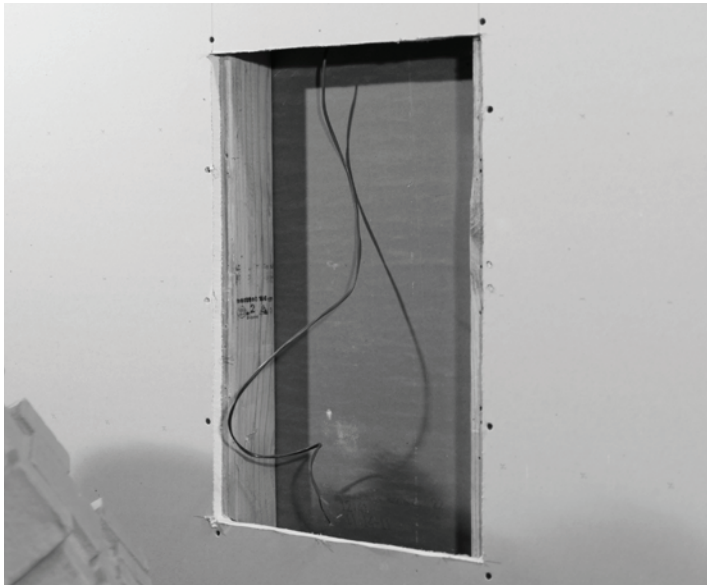


6. Be careful not to damage the exposed drywall during space saver removal.

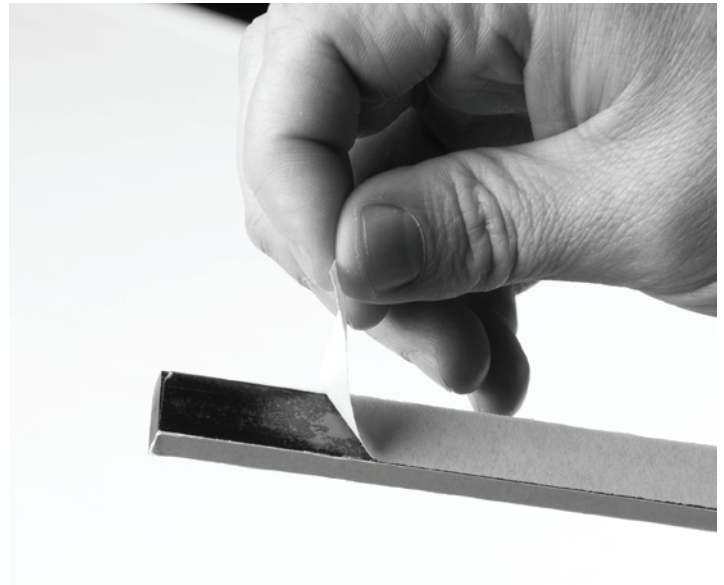


NEW CONSTRUCTION

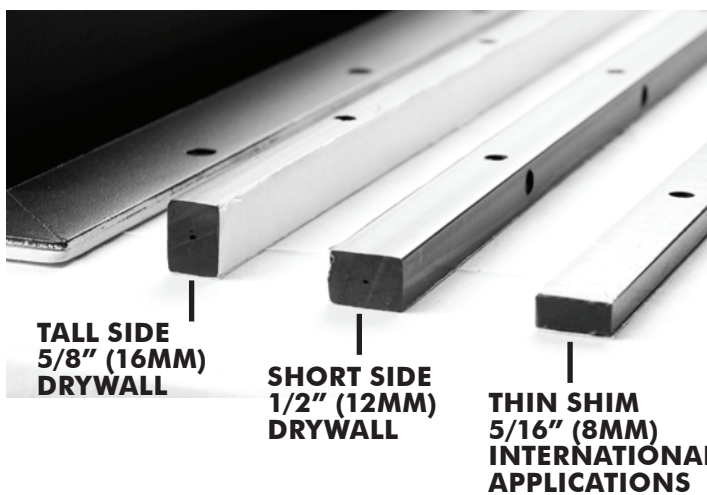
7. Pull 2-conductor speaker wire down into the exposed opening.



9. Peel off corresponding adhesive backing.



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



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



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

## NEW CONSTRUCTION

- 11.** Connect speaker wire to the appropriate terminal on the speaker. (Speaker shown with optional enclosure.)
- 13.** Secure speaker with at least 4 drywall screws on each side. Top and bottom are optional. Do not over tighten.



IS4 C Space Saver Part Number: 92723



**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.**

- 12.** Insert speaker into opening.

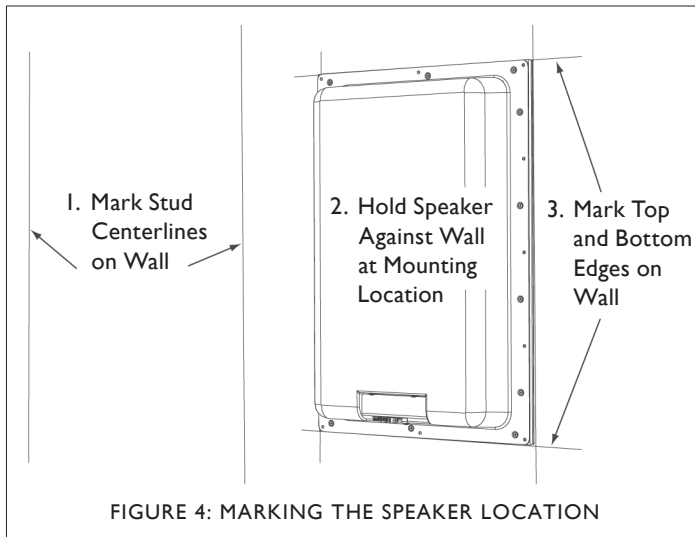


- 14.** Go to Finishing Instructions starting on page 12.

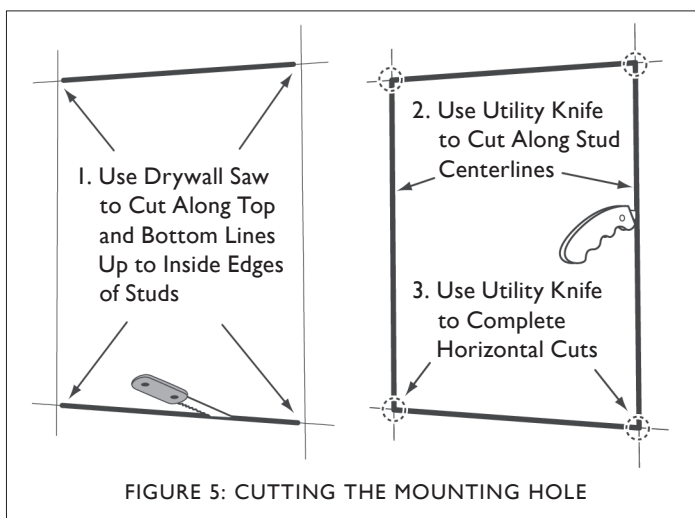


## EXISTING CONSTRUCTION

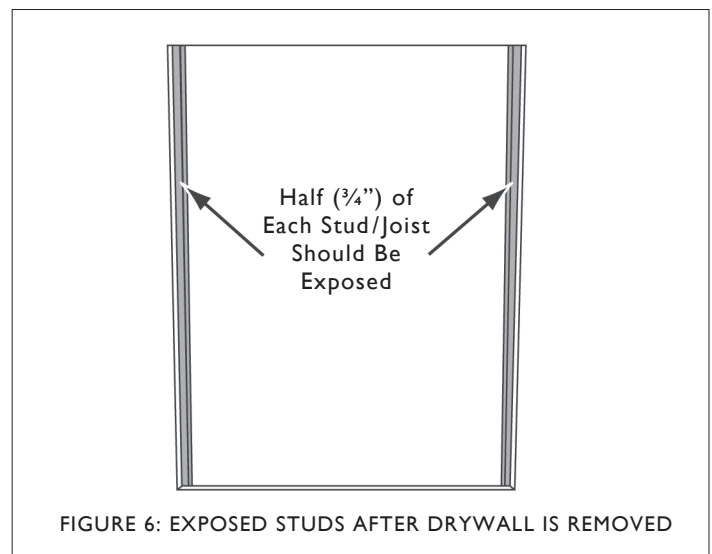
1. Determine the location for the speaker.
2. Using a stud finder, locate the first studs/joists to the right and left of the speaker position.
3. Mark the centers of the studs/joists.  
(See Figure 4, below.)



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.)



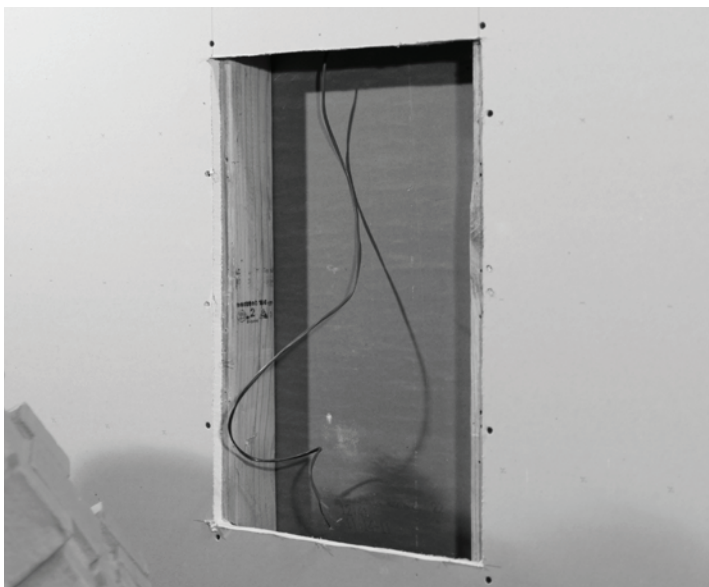
7. Using a utility knife, cut the drywall along the vertical marks at the centers of the studs/ joists. Use the utility knife to complete the horizontal cuts at each stud/joist. (See Figure 5, below.) Remove the drywall from the opening.
  - This should expose only  $\frac{3}{4}$ " (19mm) of each stud/ joist or half of the stud/joist surface. (See Figure 6.)



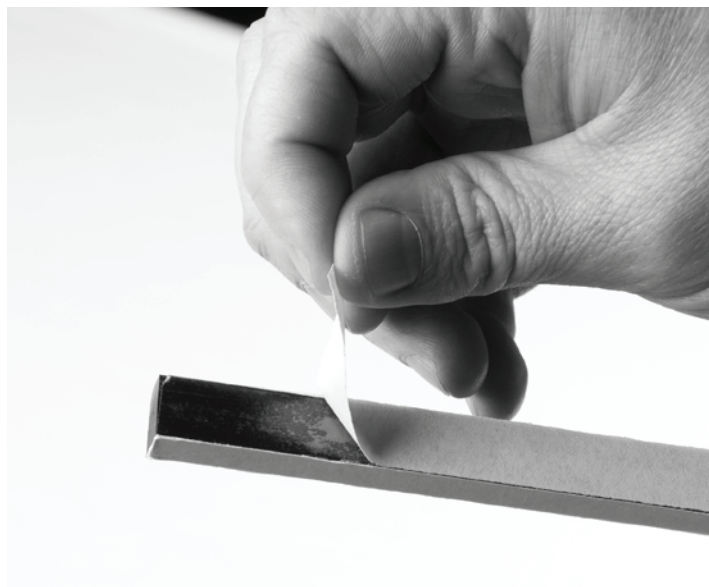
8. Test-fit the speaker into the opening, verifying that all of the speaker's edges are even with the drywall edges. If necessary, trim the edges of the drywall to properly accommodate the speaker.

EXISTING CONSTRUCTION

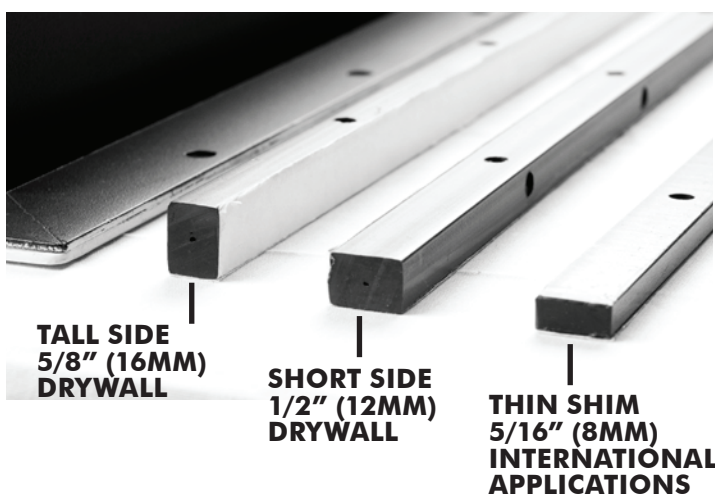
9. Pull 2-conductor speaker wire down into the exposed opening.



11. Peel off corresponding adhesive backing.



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



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



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

EXISTING CONSTRUCTION

- 13.** Connect speaker wire to the appropriate terminal on the speaker.
- 15.** Secure speaker with at least 4 drywall screws on each side. Top and bottom is optional. Do not over tighten.



IS4 C Space Saver Part Number: 92723



**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.** Insert speaker into opening.



## FINISHING INSTRUCTIONS

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



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



2. Feather all edges.



## FINISHING INSTRUCTIONS

4. Place mesh tape over the drywall seams.



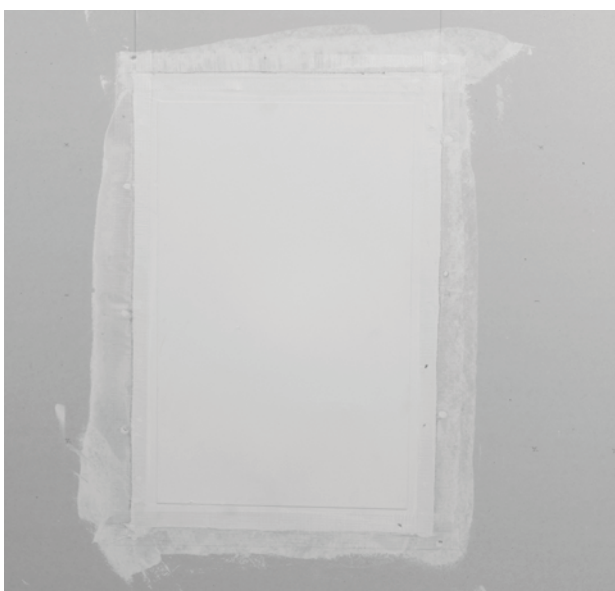
6. Do not tape over the raised portion of the speaker (diaphragm).



5. Overlap tape slightly.



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.



10. Feather in all surfaces.



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



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.



14. Detail the compound to minimize tool marks.



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



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



## FINISHING INSTRUCTIONS

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**

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

### **BEST PRACTICE**

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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.

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Your Product Model and Description: Sonance Invisible Series Speaker IS4 C

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 (949) 492-7777 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](http://www.sonance.com)

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