



# CIT

## CUSTOM INSTALLATION TRANSDUCER

### OWNER'S MANUAL

DESIGNED BY NEIL PATEL FOR AVALON ACOUSTICS



This product is certified to meet the requirements of the European Union (EU) Electromagnetic Compatibility (EMC) Directive (89/336/EEC). Because the permanent magnets attached to the loudspeaker drivers produce magnetic fields, it is recommended that the product not be positioned in very close proximity to computer monitors or television sets.



## Introduction

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Your Avalon MultiChannel Systems CIT loudspeaker and mounting system has been designed to provide true high-end sonic performance previously obtainable only with large in-room transducers. Without intruding into the room environment, dimensional imaging, dynamics, and focus have been unattainable characteristics. Our goal was to create a transducer that fit entirely within standard stud and drywall constructions, covered with an unostentatious grille that may be painted to match the surrounding décor. After mounting, the CIT loudspeaker system should require no further maintenance, draw no attention to itself, and disappear in service to the music.

The visual aspects of final fit and finish in any room are a matter of personal taste that will be dictated by the overall aesthetic concept of the space. For this reason we have chosen to provide a minimalist approach to the in-room look of this transducer. Our desire was not to make a fashion statement that intruded upon the room, but to leave the option open for greater elaboration in the capable hands of the architects and interior designers whose ideas should take precedence.

The mounted transducers may be covered utilizing any number of contextual ideas, including an open wooden lattice framework or a picture frame with open weave fabric stretched over it. Various pre-printed fabrics or even custom hand painted works of art may be used in creating a finished aesthetic that fits well within the room concept, elegantly concealing the loudspeakers. This level of individualization is beyond the scope of our expertise, but please feel free to contact us to discuss the sonic impact or technical feasibility of implementing a more personalized finishing option.

## *Important Cautionary Notes*

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Before attempting installation of The CIT, this manual should be read in its entirety. Exercise extreme caution when cutting into any wall (or ceiling) as there may be hazardous voltages, gas lines, plumbing, communications lines (etc...) behind it.

Care should also be taken when handling the mounting bracket assembly and grille frame, as some of the edges may be sharp.

## *Placement*

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Optimum stereo performance will be obtained by locating the loudspeakers equidistant from the centerline on the wall in which they will be mounted. Ideal horizontal placement for each speaker will be between a quarter of the wall width, to one third of the wall width, equidistant from each corner. Of course, if the loudspeakers are being used as front left and right channels in a theater system, they should be mounted on the sides of the screen. Vertical placement should be just slightly higher than the midpoint of the room height, with the tweeter defining this midline. Once again, in a theater installation, the loudspeaker should be centered along the midline of the screen. For center channel applications, The CIT may also be mounted horizontally which will obviously require non-standard wall stud spacing.

## *Wiring and Amplification*

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All wiring used to connect these loudspeakers should comply with local safety codes. The extremely long runs of wire employed in the installation of "inside the wall loudspeakers" will have a much greater impact on the overall sonic presentation than an in-room speaker. For this reason, the finest available wiring and amplification are strongly recommended for the optimum performance of the CIT.

## Specifications

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Impedance:	4 Ohms
Sensitivity:	89 dB
Driver Complement:	(2) 5.25" Ceramic Coated Woofers, (1) Proprietary Composite Tweeter
Frequency Response:	42 Hz to 20 kHz
Recommended Amplifier Power:	25 to 100 watts

## Physical Dimensions

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CIT:	11.5"W 4"D 27.5"H
Wall Cutout Size:	14"W x 28.75"H
Product Weight (each):	30 lbs.
Shipping Weight (pair):	70 lbs.

## Supplied Hardware

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4 pcs. 1/4-20 Nylon Lock Nut  
4 pcs. 1/4-20 Nuts  
6 pcs. #10 x 1" wood screws  
2 pcs. 1" White Finish Nails  
1 pc. Frame Hanger

## Required Tools

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Pencil  
7/16" Nut Driver  
7/16" Open end or Box Wrench  
Level  
Drywall Saw  
1/8" Drill Bit  
Phillips Bit Screw Gun  
Hammer  
Large Blade Common Screwdriver

# Installation



1. When unpacking the box, you will find 2 cardboard templates, 2 grilles and two loudspeakers. Be sure not to discard the cardboard template.



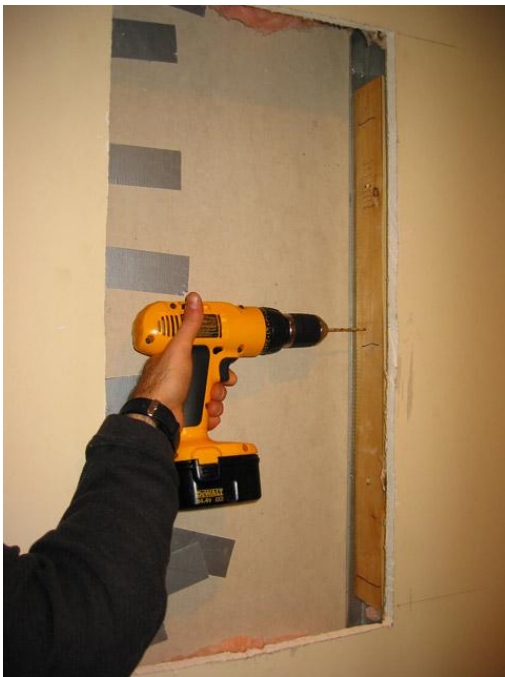
2&3. The loudspeakers may be removed from the box by placing your fingers into the port tubes and then lifting the entire assembly. Be careful, they are heavy.



4. Determine the optimum position for each loudspeaker, being sure to precisely locate the studs to which the bracket will be attached. After this has been done, use a level to draw a line between the studs parallel to the floor, at the approximate height of the top of the cutout. Fold the edges of the template up, drawing a pencil line around the template for the wall cutout outline. Cut drywall with saw between the studs (cut the drywall carefully to insure a finished look).



5&6. Push template into drywall cutout, being sure that template is flush with back of cutout. Mark both studs with a pencil through the perforated holes in the template.



7. Remove template and pre-drill pilot holes for bracket in the previously marked spots.

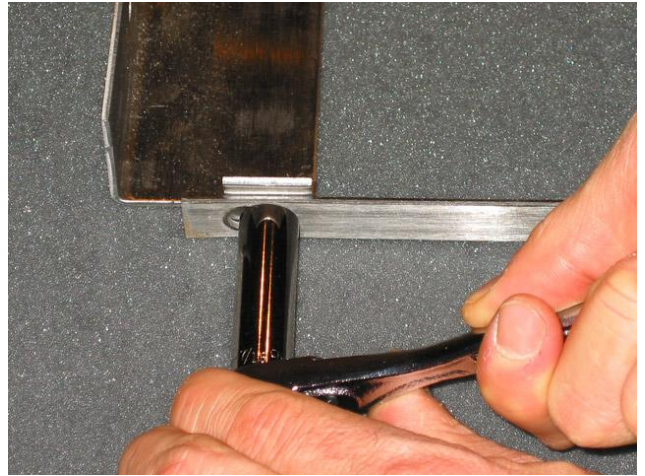


8. Loosen and remove the 4 Nylon lock nuts (using a 7/16" wrench) that secure the loudspeaker to the bracket assembly.





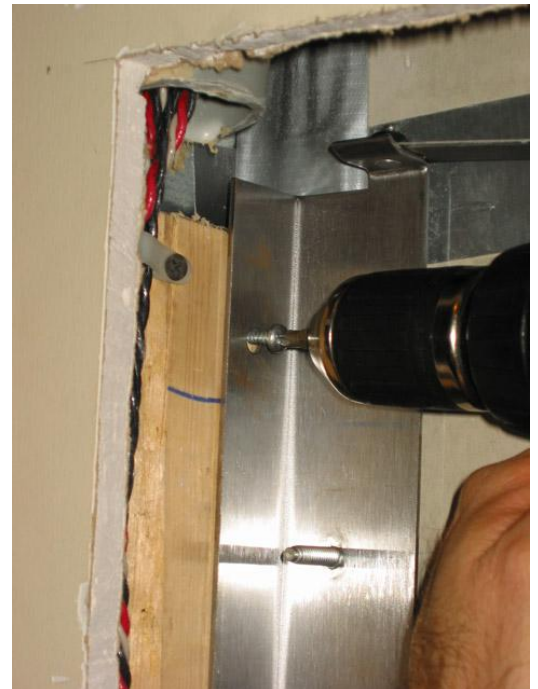
9. Separate the loudspeaker from the mounting bracket.



10. Loosen cross brace nuts (do not remove) with a 7/16" wrench in order to adjust bracket width to compensate for uneven stud distances.



11. Place the bracket assembly in cutout, locating the bracket over the predrilled pilot holes.



12. Mount bracket to studs using the six supplied #10 wood screws.



13. Tighten cross brace nuts using a 7/16" open end wrench.

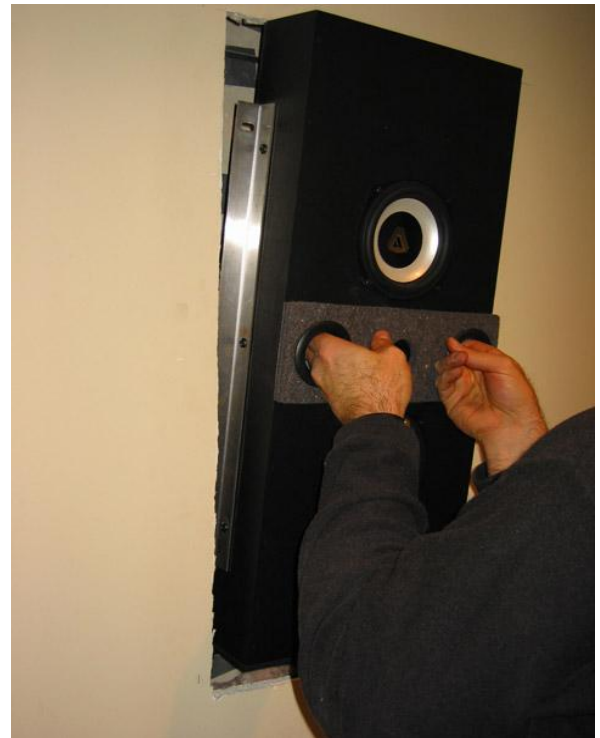


14. In pre-construction installations, the template may be reversed with the cardboard flaps in the wall, defining the bay as reserved.



15. Attach the wires to the loudspeaker terminals. Be sure to observe the proper polarity! Tighten with large blade screwdriver.

16. Lift loudspeaker into position, aligning bracket studs with loudspeaker mounting holes. Secure the loudspeaker to the mounting bracket with the four 1/4-20 Nylon lock nuts. Do not fill the air gap between the loudspeaker and drywall.







17. Place a brad at the lateral midpoint of the wall cut-out about 1/2" from the edge; hammer into place.



18. The grille may be hung directly on the center-line brad, or by attaching the (supplied) frame hanger.

## *Finish Notes*

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Be sure not to compromise the loudspeaker drivers in any way during the installation and finishing process. Touching the drivers could easily damage them, so proper care should be taken. All paint and sealing substances must also be kept away from the drivers. Both the wall and the grille, along with the heads of the brads, may be painted with household latex paint. Do not attempt to paint the grille when mounted in place. Some minor thinning of the paint will be necessary, and should be done away from the loudspeaker in a separate process. If the grille perforations become filled in any way during the painting process, the sonic integrity of the system will be compromised; be sure to properly thin the latex paint.

The finish level of the installation can be improved by properly detailing the edges of the dry-wall behind the grille.

## *Grill Frame Notes*

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The grille itself may be extracted from the frame by loosening the corner screws on the long sides (DO NOT REMOVE SCREWS). It should only be necessary to do this on one end of the frame. The short side of the frame will then slide out of the long rails. The plastic tubing used to hold the grille tightly in place should be carefully removed and set aside. After painting, the grill is slid into the frame, screws re-tightened, and plastic tubing pushed in between grille and frame. The short tubing should be pushed in first.

## Warranty

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Your Avalon MultiChannel Systems loudspeakers are warranted against defects in workmanship and materials for a period of two years from the date of first purchase to the original registered purchaser, provided that the enclosed registration card is returned to the factory within seven days of the purchase date. If the registration card is not returned within the seven-day period, this warranty is null and void, and you will not be notified of future updates. If you did not receive the registration card with your loudspeakers, please contact the factory immediately so that we may send you a replacement card. A complete statement of warranty is given below. Please take the time to fill out and return the enclosed warranty registration card.

### IN THE EVENT OF A PROBLEM

In the unlikely event of a problem with your Avalon MultiChannel Systems loudspeakers, have your dealer contact Avalon MultiChannel Systems. All warranty claims must be made through an authorized Avalon MultiChannel Systems dealer or distributor.

## Warranty Statement

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1. Avalon MultiChannel Systems warrants the materials, workmanship, and proper functioning of this product for a period of two years from the date of first purchase to the original registered purchaser, provided that the completed registration card is returned to Avalon MultiChannel Systems within seven days of the date of purchase. If the registration card is not returned to the factory within the seven-day period, this warranty is null and void. If any defects are found in the materials or workmanship of this Avalon MultiChannel Systems product, or if the product ceases to properly function within the appropriate warranty period from the date of first purchase, the unit will be repaired or replaced by Avalon MultiChannel Systems or its authorized agent after receiving authorization from the factory or dealer. This warranty is not transferable.

**Unauthorized dismantling of this product will render this warranty void.**

2. Purchaser must obtain an RMA number by contacting dealer/distributor and return the product, packaged in the original shipping carton, freight prepaid. Shipping address will be provided at the time the RMA number is issued. No returns will be accepted without prior authorization.

3. Avalon MultiChannel Systems reserves the right to inspect any products which are the subject of warranty claim prior to repair or replacement. Final determination of warranty coverage lies solely with Avalon MultiChannel Systems and only products which are determined to be covered under this warranty shall be repaired or replaced by Avalon MultiChannel Systems. The customer will be informed of any delays and Avalon MultiChannel Systems will provide replacement as quickly as possible. Out-of-warranty claims will be billed for labor, materials, return freight, and insurance as required. Any product for which a warranty claim is accepted will be returned to the purchaser and cost of return shipping and insurance will be factory prepaid within the boundaries of the USA. Units to be shipped outside of the USA will be shipped freight collect only. This warranty gives specific legal rights. The purchaser also has implied warranty rights, and may also have other rights which vary from state to state.

4. This warranty is extended to the original registered purchaser for value.

5. Avalon MultiChannel Systems strives to manufacture the very finest possible equipment, and therefore reserves the right to make changes in design and improvements upon its products, without necessarily assuming an obligation to retrofit such changes upon its previously manufactured models.

6. The above warranty is the sole warranty given by Avalon MultiChannel Systems, and is in lieu of all other warranties. All implied warranties, including warranties of merchantability or fitness for any particular purpose shall be strictly limited in duration to two years from the date of original purchase, and upon the expiration of the warranty period (two years), Avalon MultiChannel Systems shall have no further obligation of any kind whether express or implied, including but not limited to merchantability. Further, Avalon MultiChannel Systems shall in no event be obligated for any incidental or consequential damages as a result of any defect or any warranty claim, whether express or implied. Some states do not allow exclusion or limitation of incidental or consequential damages or limitations on how long implied warranties last, so the above limitations and exclusions may not apply to you.

7. Avalon MultiChannel Systems does not authorize any third party, including any dealer or sales representative to assume any liability for Avalon MultiChannel Systems, or make any warranty for Avalon MultiChannel Systems. The unit must not have been altered or improperly serviced or repaired. The serial number on the unit must not have been altered or removed.

8. Warranty registration cards must be completed and mailed to Avalon MultiChannel Systems within seven days of date of purchase; otherwise, this warranty is null and void. Avalon MultiChannel Systems may, at its option, require from the purchaser valid proof of purchase.

9. If this product is used in a commercial or industrial application, then special warranty exclusions may apply. Contact your dealer or Avalon MultiChannel Systems for commercial warranty policies.

## NOTES

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