

OWNER'S MANUAL & INSTALL GUIDE

[CI X RECTANGLE FLUSH MOUNTS] CI20 X • CI70 X • CI-SURROUND X

Thank you for purchasing Phase Technology® CI custom installation speakers. This tenth generation of high performance ceiling mounted speakers features the same superb sonic performance as our acclaimed PC Series cabinet speakers in addition to great flexibility and easy installation. The most striking change to the Series X is a new look with the off-axis tweeter design. This feature maximizes the speaker's clarity and imaging by creating an asymmetrical loading or diffraction pattern, reducing the amount of diffraction normally caused by a flange-to-ceiling junction. The net result is the best sonic realism you can buy in an in-ceiling speaker.

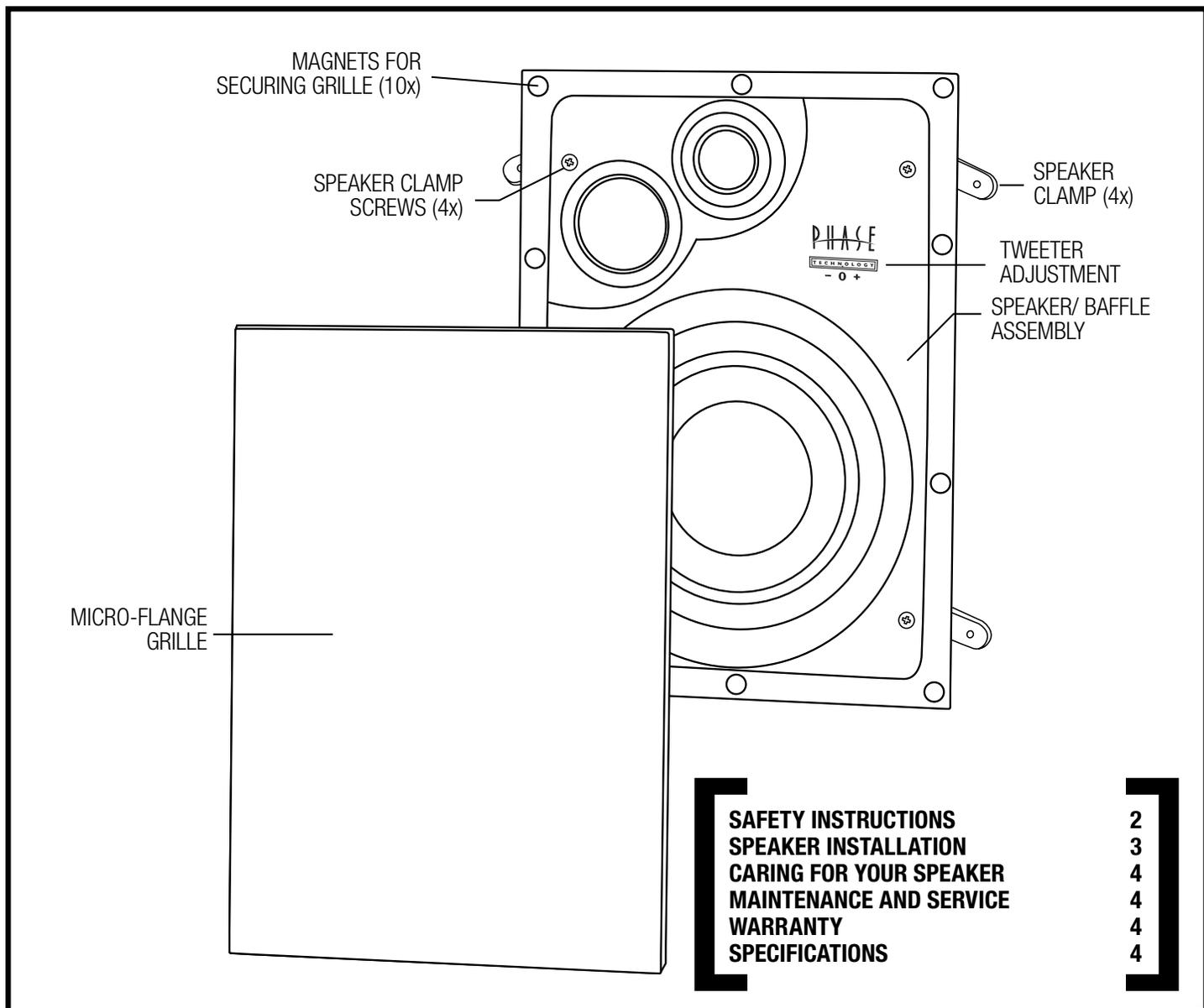
All CI Series speakers include self-resetting solid-state PTC protection circuits. This unique system is able to detect when the speaker is being over-driven and lowers the speaker volume until the problem is corrected. The PTC device then resets itself for normal operation. Other features include our new low profile Micro-Flange grille with magnetic retainers, liquid-cooled tweeters for greater power handling, moisture-resistant

materials in all of the critical speaker components, galvanized steel speaker grilles and corrosion resistance hardware.

Regardless of application, serious audiophile listening or home theater, we recommend that you take the time to read this manual thoroughly before connecting speakers to your amplifier or receiver. In the highly unlikely event that you should experience a problem with set-up or operation, please contact one of our authorized dealers for assistance, or contact us directly.

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[BOX CONTENTS]
1 SPEAKER
1 MICRO-FLANGE GRILLE
1 HOLE TEMPLATE



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[SAFETY INSTRUCTIONS]

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.		

Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.

2. Retain Instructions - The safety and operating instructions should be retained for future reference.

3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.

4. Follow Instructions - All operating and other instructions should be followed.

5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.

PORTABLE CART WARNING



7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.

8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet

that may impede the flow of air through the ventilation openings.

9. Heat - The appliance should be situated away from heat sources such as radiators, stoves, or other appliances that produce heat.

10. Power Source - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

11. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed up or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

12. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.

13. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

14. Object and Liquid Entry - Care should be taken so that neither objects fall nor liquids spill into the inside of the appliance.

15. Damage Requiring Service - The application should be serviced by qualified service personnel when:

- the power supply cord or the plug has been damaged,
- objects have fallen onto or liquid has been spilled into the appliance,
- the appliance has been exposed to rain,
- the appliance does not appear to operate normally or exhibits a marked change in performance, or
- the appliance has been dropped or the cabinet damaged.

16. Servicing - The user should not attempt to service the appliance beyond those means described in the operating instructions. All other servicing should be referred to qualified service personnel.

17. Grounding or Polarization - Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

APPLICABLE FOR USA, CANADA OR WHERE APPROVED FOR USAGE

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT, INSERT FULLY.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRESE ET POUSSER JUSQU'AU FOND.

[SPEAKER INSTALLATION]

For proper connection and therefore full enjoyment of your new Phase Technology speakers, we encourage you to read this owners' manual thoroughly, even if you are very familiar with installing speakers. Speaker placement is very subjective. Placement follows the guidelines for the developers of in-ceiling speakers, yet is also guided by personal preferences. The proper spacing, location and adjustment of in-ceiling speakers are critical for complete enjoyment of your new speakers. This manual covers these topics thoroughly.

STEP 1: Choose the appropriate mounting location for each speaker.

NOTE: When deciding upon a location, consider the following:

- Be certain your speaker wires can be run to or are accessible from these locations.
- Make certain the wall or ceiling material is sturdy enough to support the weight and vibration of the speakers.
- It is recommended that our pre-construction rough-in brackets (part number RB-23) be used whenever possible in new construction.
- Be certain the area behind the speaker is free of obstacles such as wall studs, electrical wiring, pipes, etc.
- Each speaker should be positioned properly, relative to the listening area for good coverage.
- Audio performance and room-to-room isolation will be improved if there is some fiberglass insulation placed loosely behind the speaker.

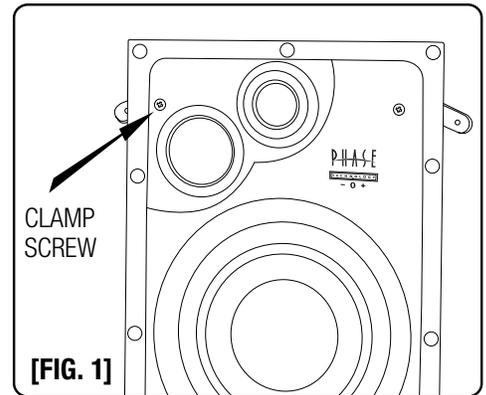
STEP 2: Using the supplied cutout template, carefully mark the area to be cut out. Using a drywall knife or saw, cut a hole in the drywall and prepare the speaker wires for connection to the speaker terminals.

STEP 3: Loosen the baffle clamping screws on the speaker assembly (Figure 1) one turn (counter clockwise) to release the clamp. Use a level to insure that the flange is square. Next tighten all 4 flange clamp screws evenly to secure the speaker assembly to the wall. It is best to tighten each screw with the same amount of force (torque). **CAUTION: DO NOT OVER TIGHTEN.**

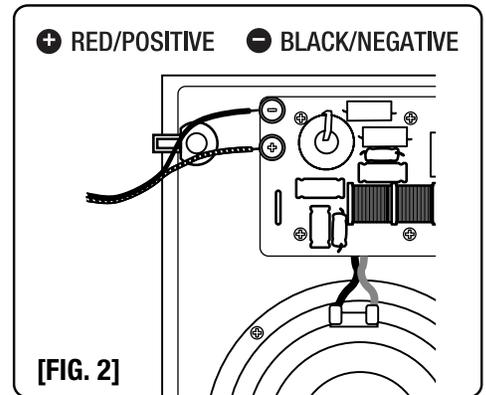
STEP 4: Connect the speaker wires to the spring loaded input terminals (Figure 2) on the rear of the speaker, making sure no loose strands are exposed.

STEP 5: Using some familiar source material, listen to the tweeter's balance with the level control in each of its three positions (Figures 4A-4C) to find your favorite tonal balance.

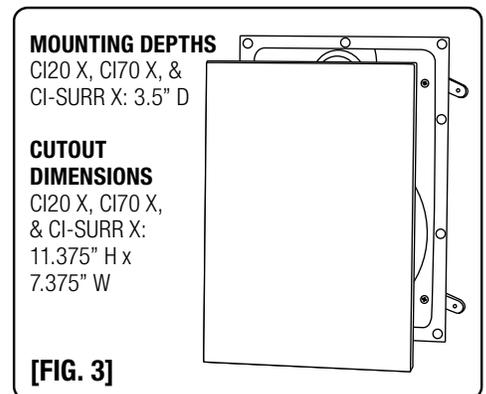
STEP 6: Carefully replace the grille by pressing it onto the speaker. (Figure 3) The grille will snap into place using magnets.



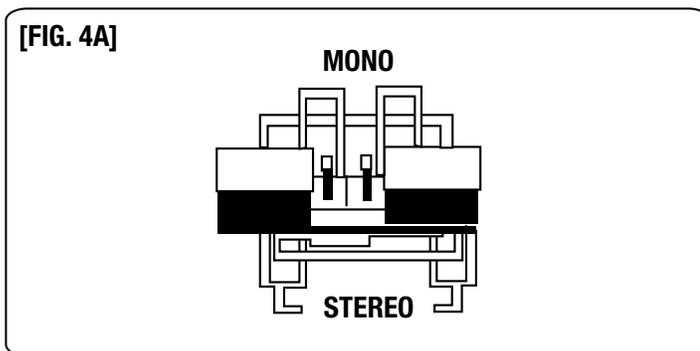
[FIG. 1]



[FIG. 2]



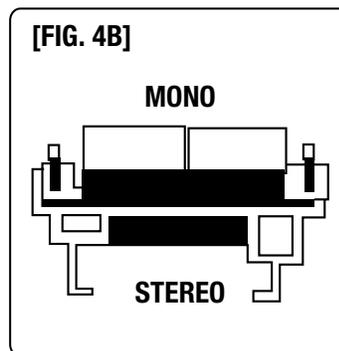
[FIG. 3]



[FIG. 4A]

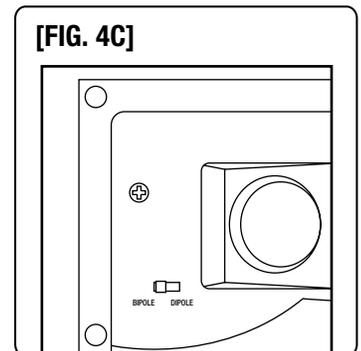
STEREO FIG. 4A-8 ohms: Use this configuration to drive one channel (left OR right) of a stereo pair. Set jumper plugs in the stereo position. (Fig. 4A) Connect the right or left signal wire to the right set of terminals on the rear of the speaker. Leave the front panel switch in the Bipole position.

STEREO POINT SOURCE FIG. 4A-8 ohms: Use this configuration to combine left AND right channels for full fidelity sound from a single loud-speaker stereo source (Fig. 4A). Set jumper plugs in the stereo position. Connect right and left signal wires to the spring-loaded terminals on the rear of the speaker. Leave the front panel switch in the Bipole position.



[FIG. 4B]

MONO/STEREO FIG. 4B-4 ohms: Use this configuration to drive one channel (left OR right) of a stereo pair with a 4 ohm speaker load. Set jumper plugs in the mono position. (Fig. 4B) Connect the right or left signal wire to the left set of posts on the rear of the speaker. Acoustic output of the speaker is increased by 3 dB in this configuration.



[FIG. 4C]

BIPOLE/DIPOLE FIG. 4C-4 ohms: Use this configuration for home theater surround applications. For bipole mode, connect as in the Mono/Stereo instructions (Fig. 4C): one speaker to each surround channel. For dipole mode, connect speaker inputs the same as Mono/Stereo instructions (Fig. 4C), but reverse the + and - connections of the red and black tweeter wires to put one of the tweeters out of phase.

[CARING FOR YOUR PHASE TECHNOLOGY® SPEAKER]

All Phase Technology speakers are finished with a high degree of craftsmanship in either hand polished paint or vinyl laminates. We recommend using a lint-free rag with a small amount of glass cleaner to maintain the long-lasting beauty of the finish. Avoid products containing silicones, oils, oil derivatives, or solvents. Enclosures finished in vinyl laminates may be cleaned with a damp cloth as necessary.

[MAINTENANCE AND SERVICE]

Because of Phase Technology's uncompromising quality control programs, it's unlikely that your speakers will ever need service if connected and used as outlined in this Owners' Manual. In the unlikely event that a problem does occur, please contact your Phase Technology dealer. Your dealer has the necessary factory-authorized parts and trained technicians to quickly restore your speaker to its original performance specifications.

[WARRANTY]

LIMITED WARRANTY: Phase Technology® warrants its loudspeakers to be free from defects in material and workmanship for a period of ten (10) years for speaker product, limited lifetime for CI speakers, and three (3) years for the electronic components to the original purchaser. Purchase must be made from an authorized Phase Technology dealer.

This warranty does not cover service or parts to repair damage caused by misuse, abuse, damage while in transit, alterations, unauthorized repairs, failure to follow instructions, fire, flood or any other cause beyond the reasonable control of Phase Technology. Defects in speaker cabinets or grilles must be brought to the attention of your dealer immediately after purchase. This warranty will be void if the products' serial number has been altered or removed.

Should your Phase Technology® product require service, please call the MSE Audio customer service department for a return authorization. All merchandise returned to Phase Technology without prior authorization will be refused. For your return authorization number, please call 855.663.5600 or email sales@mseaudio.com.

[SPECIFICATIONS]	CI20 X	CI70 X	CI-SURR X
DESCRIPTION	6.5" 2-Way In-Wall Speaker	7" 3-Way In-Wall Speaker	6.5" 2-Way In-Wall Surround Speaker
TWEETER	1" Variable Axis Soft Dome	1" Variable Axis Soft Dome	(2) 1" Synthetic Woven Soft Dome
MIDRANGE	N/A	1.5" Synthetic Soft Dome	N/A
WOOFER	6.5" Woven Glass Fiber/NBR Surround	7" Woven Glass Fiber/NBR Surround	6.5" Woven Glass Fiber/NBR Surround
RMS	10 - 120 Watts	10 - 150 Watts	10 - 150 Watts
FREQUENCY	48 Hz - 20 kHz	35 Hz - 22 kHz	45 Hz - 20 kHz
SENSITIVITY	91 dB	92 dB	90 dB
IMPEDANCE	8 Ohms	8 Ohms	8 Ohms
DIMENSIONS	12.57" H x 8.63" W x 3.75" D	12.57" H x 8.63" W x 3.75" D	12.57" H x 8.63" W x 3.75" D
CUTOUT DIMENSIONS	11.375" H x 7.375" W	11.375" H x 7.375" W	11.375" H x 7.375" D
MOUNTING DEPTH	3.5"	3.5"	3.5"
WEIGHT	5 lbs.	5.5 lbs.	5.5 lbs.
GRILLE	Paintable White Powder-Coated Galvanized Steel Micro-Flange	Paintable White Powder-Coated Galvanized Steel Micro-Flange	Paintable White Powder-Coated Galvanized Steel Micro-Flange
ACCESSORIES	Pre-Construction Bracket (RB-23)	Pre-Construction Bracket (RB-23)	Pre-Construction Bracket (RB-23)

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