



[PREMIER collection]

OWNER'S MANUAL & INSTALL GUIDE

PC0.5 • PC1.5 • PC3.5 • PC33.5 • PC9.5 • PC-SURROUND-II

Thank you for choosing Phase Technology® speakers. We know there are a wide variety of choices available today, and we sincerely appreciate your purchase of our product. Phase Technology speakers are built to exacting standards and will provide many years of listening enjoyment.

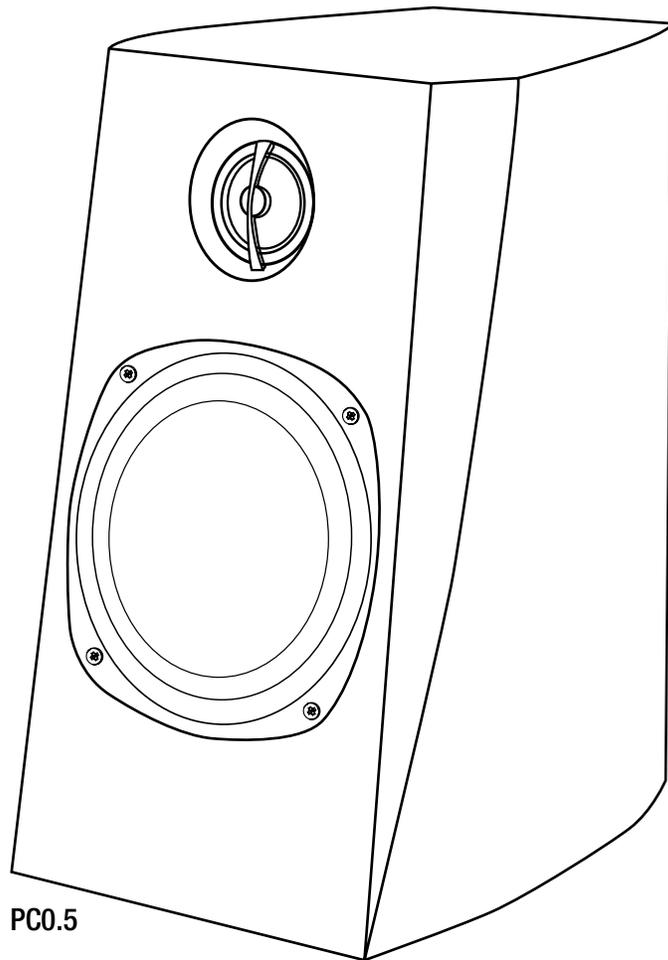
Our speakers are the result of over five decades of designing and manufacturing. We hold many key patents in loudspeaker technology including the soft-dome tweeter. Our mission, our passion is to constantly advance the art and science of accurate audio reproduction. Our dedication insures your new speakers will accurately reproduce all the impact, detail and delicacy of today's digital technology.

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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[PREMIER COLLECTION FEATURES]

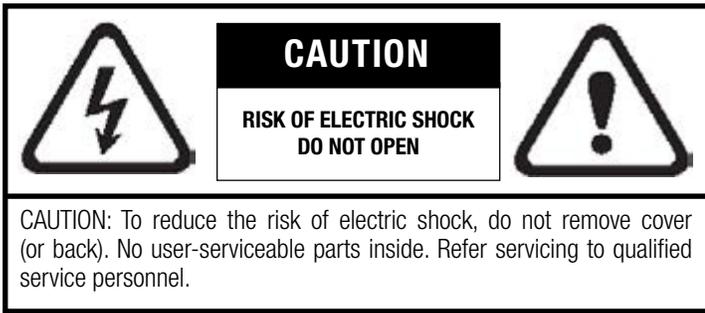
- Patented Flat Piston Woofers that utilize a Tri-Laminate of Kevlar, RPF™, and Glass Fiber (US Patent #4566178) which generate a widely dispersed sound from a rigid cone moving as one piece
- Patented Soft Dome Tweeter (US Patent #3328537)
- Absolute Phase® Crossovers, engineered to route sound to a particular driver and that the particular driver will only produce the frequencies for which it was designed



PC0.5

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[SAFETY INSTRUCTIONS]



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.



[GETTING STARTED AND PRECAUTIONARY NOTES]

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 and home entertainment equipment.

Speaker placement is very subjective. Placement follows the guidelines for the developers of multi-channel home entertainment systems, yet is also guided by personal preferences. The proper spacing, location and adjustment of front, rear and center-channel speakers as well as subwoofers are critical for complete enjoyment of your new speakers. This manual covers these topics thoroughly.

Before connecting your new speakers or other system components, turn the system power off and unplug your amplifier to avoid any possibility of damage from power surges or unbalanced loads before the system is properly connected.

Observe speaker polarity carefully! Every cable, speaker terminal and amplifier connection are clearly marked to show their positive (+) and negative (-) polarities. For ideal system performance, always connect the positive side of the cable (marked with a stripe, color and /or other indicator) to the positive terminals on your speakers and amplifier and the negative side of the cable to the negative terminals.

Amplifier selection is critical to your enjoyment of your new speakers. If you are considering upgrading your current component amplifier or multi-function receiver, we suggest purchasing as much power as your budget can afford. It will always be preferable to have an affordable high-powered model with fewer "bells and whistles" than a lower-powered model straining to operate near its power limits.

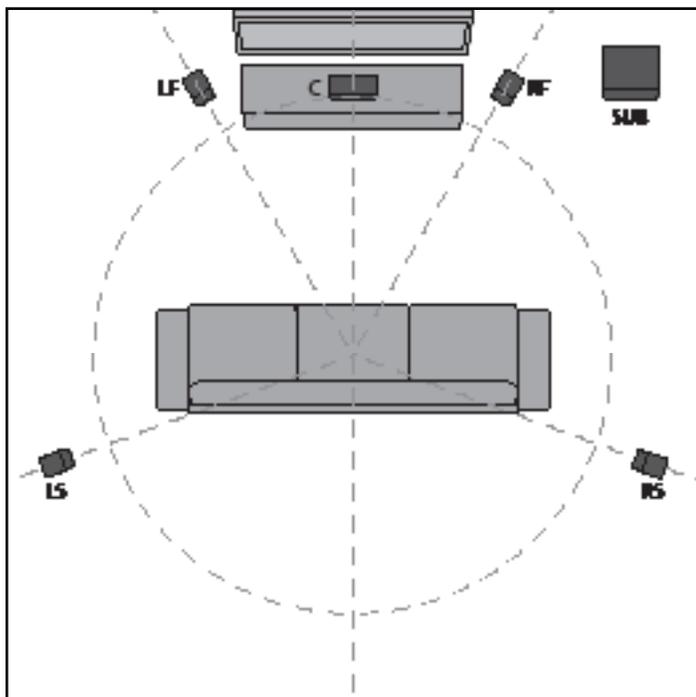
High volume settings that produce audible distortion – indicating an under-powered amplifier – could eventually damage your speakers and your amplifier. Begin and end listening sessions at low volume levels so you will not power up your system the next time with possibly harmful high voltages. A damaging surge also could result if you change the input source (from FM tuner to CD player, for example) at high volume levels.

If you suspect that one channel of your amplifier has failed, have it repaired immediately by your dealer. Damage to your speakers could occur if you switch between the good and defective channels.

[HOME THEATER SPEAKER PLACEMENT]

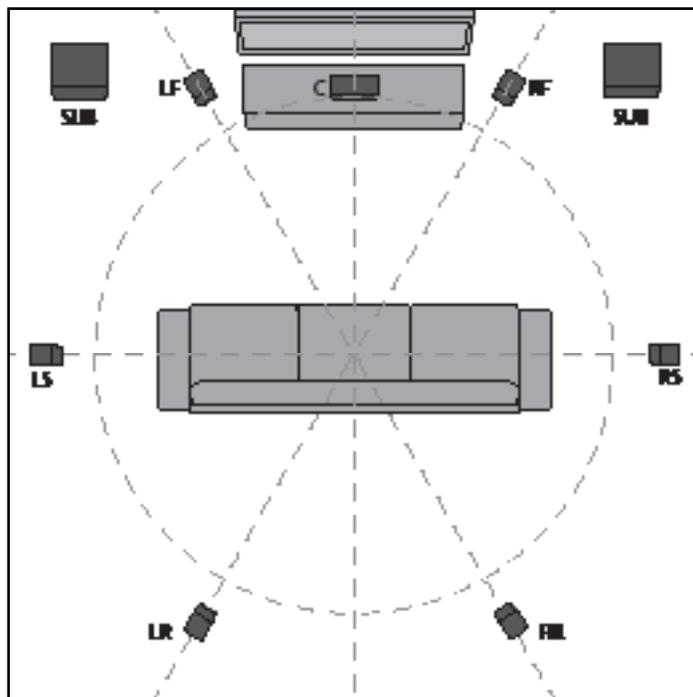
Today's digital multi-channel home theater technology has elevated the art of "surround sound" to reproduce the movie theater experience in your own home. Speaker requirements and placement are vitally important in reproducing these multi-media effects.

Two front speakers (left and right), two surround speakers (left and right), a center-channel speaker, and a subwoofer define the minimum arrangement for modern multi-channel systems. Placement of speakers in your room will impact the final listening experience. To position your speakers, there are some general guidelines that take room size, shape, and fixtures and furnishings into account. Use the following illustrations as a general guide for speaker placement in a typical home theater system.



5.1 HOME THEATER SYSTEM

In a 5.1 home theater system, the center channel (C) should be placed at 0° directly below or above the video screen, the left front (LF) and right front (RF) speakers should be placed at 30° from the listening area, and the left and right surrounds (LS and RS) should be placed at 110°. All five speakers should be placed at or near ear level.



7.2 HOME THEATER SYSTEM

In a 7.2 home theater system, the center channel (C) should be placed at 0° directly below or above the video screen, the left front (LF) and right front (RF) speakers should be placed at 30° from the listening area, and the left and right surrounds (LS and RS) should be placed at 90°. The left rear (LR) and right rear (RR) speakers should be placed at 150°. All seven speakers should be placed at or near ear level.

Front speakers should be placed 6-8 feet apart (or on the sides or your screen if your screen is wider) to fully separate the left and right channels. Whether placed on speaker stands or on shelves, your speakers should be at or slightly above ear level.

Rear surround speakers also should be placed at or slightly above your listening position for the best reproduction of surround-sound effects. Ideally, they should be facing into your favorite listening position from either side of the room

Center speaker placement should be, if possible, directly on top of or under your TV monitor or projection TV screen. Center speakers should be placed in a horizontal orientation, directly below (or above) the center of your video screen. This correctly positions the critical sound track information (usually dialogue) that filmmakers direct to the center channel. Phase Technology center speakers are magnetically shielded so that they will not interfere with the performance of a video monitor (TV). The two center channel speakers in the Premier Collection (PC-3.5 and PC-33.5) both include a table-top stand for placement on tables or shelves.

[SUBWOOFER PLACEMENT]

Subwoofer placement is less critical, because the frequencies they reproduce are omni directional. This means the human ear doesn't perceive these low frequencies as coming from a specific direction, enabling placement of a subwoofer virtually anywhere in the listening room.

It's best, however, to keep a subwoofer within the sound field of the other speakers. The closer the subwoofer is to a wall, the louder and more intense its bass output will be: this effect is even stronger when the sub is placed in or near a room's corner. If using two subwoofers, start by placing them next to the front left and right speakers, in both front corners or one in the corner and one 1/3 of the way along the front wall from the corner. Each room is different. Experiment with these options or try other locations until you get the best results. If you must choose a less-than-ideal position, the output level of Phase Technology powered subwoofers is adjustable to compensate for your listening environment.

[SPEAKER CONNECTIONS] *Please refer to the diagram on the page 7 for speaker connections.*

The following instructions apply whether you are using a separate amplifier or Home Theater receiver. For simplicity we will use the term "amplifier" throughout this manual to mean both.

Special note: Turn off and unplug your amplifier before connecting speakers.



Special Note: Observe Speaker Polarity Carefully!

Every cable, speaker and amplifier is clearly marked to show their positive (+) and negative (-) terminals. Amps and speakers may use some combination of these symbols and/or colors to indicate positive (usually red) and negative (usually black or white) connections. One strand of your cable will also be ridged and/or marked with a colored line or other indicator on the positive side. For proper polarity and, thus, ideal system performance, always connect the positive side of the cable to the positive terminals on your speakers and amplifier and the negative side of the cable to the negative terminals.

FRONT SPEAKERS: The pair of front speaker connections (left and right) on your amplifier will be labeled "Front" or "Main." Connect the speaker cables for your left and right front speakers using these terminals and then connect the cables to the front satellites. Observe positive and negative polarities.

PC9.5 BI-WIRING: The PC9.5 speaker is equipped with bi-wiring, with four speaker terminals instead of two. This may enhance speaker performance by using an additional pair of speaker cables. In order to bi-wire this speaker, remove the gold-plated strips between the speaker terminals and connect two cables between your amplifier's positive output terminal and the two positive (red) terminals on the speaker. Then connect the other two cables between the amp's negative output terminal and the two negative (black) terminals on the speakers. If you choose not to bi-wire your speakers, do not remove the metal strips between the speaker terminals. Connect each cable in the standard manner, with one cable each between the positive and negative speaker terminals and your amplifier.

CENTER SPEAKER: The center speaker connections on your amplifier will be labeled "Center" or "Center Channel." Connect the speaker cables for your center channel speaker using these terminals and then connect the cables to the center speaker. Observe positive and negative polarities.

SURROUND SPEAKERS: The pair of surround connections (left and right) on your amplifier will be labeled "Surround." Connect the speaker cables for your left and right surround speakers using these terminals and then connect the cables to surround satellite speakers. Observe positive and negative polarities.



Premier Collection Surround speakers are marked with arrows indicating "left" or "right" to denote how the speaker should point into the listening area. Make sure you are connecting the proper speaker to the proper set of wires before mounting.

REAR SPEAKERS (USED IN A 7.1 OR 7.2 SYSTEM): The pair of rear connections (left and right) on your amplifier will be labeled “Rear.” Connect the speaker cables for your left and right rear speakers using these terminals and then connect the cables to the rear satellite speakers. Observe positive and negative polarities.

[PC-SURROUND-II PLACEMENT AND MOUNTING]

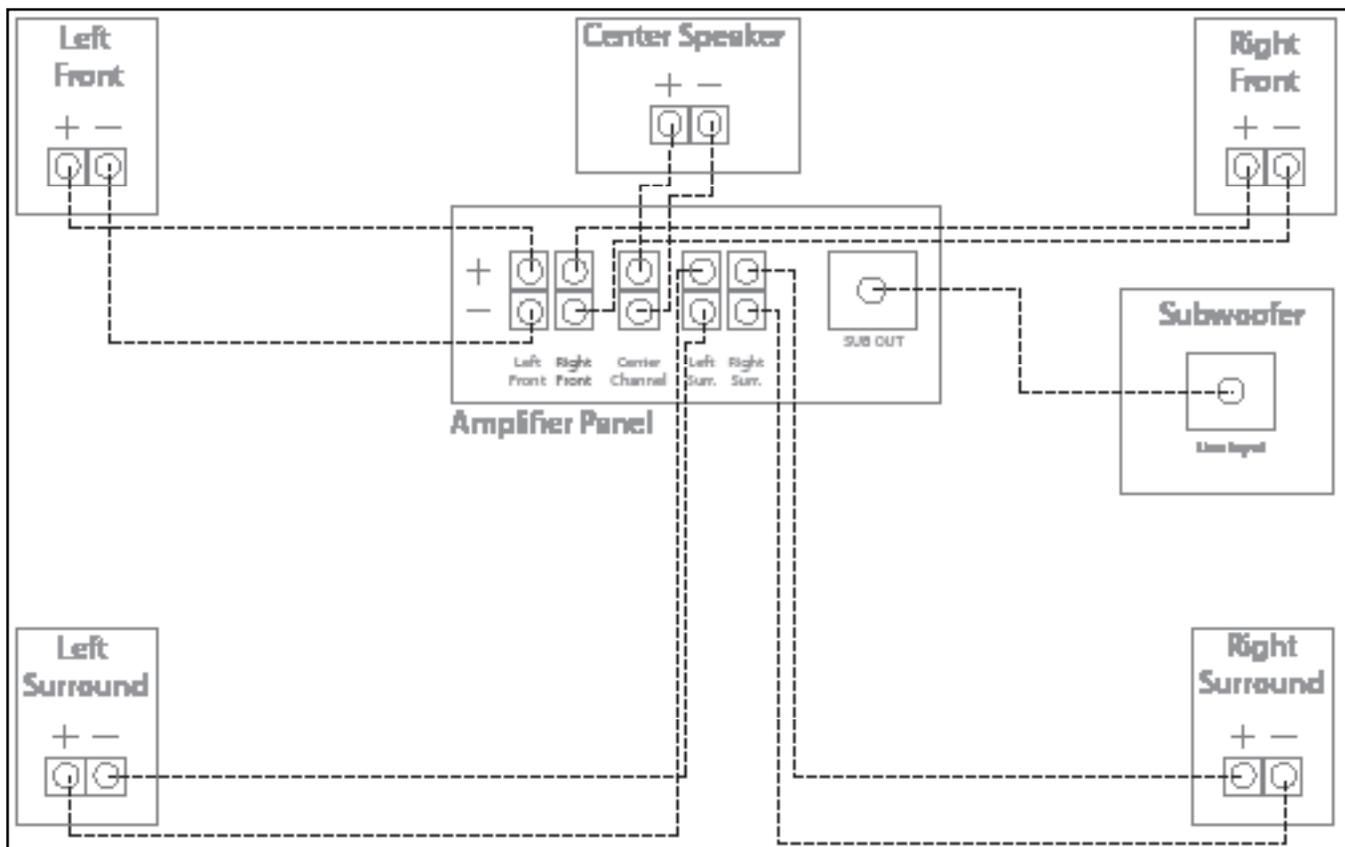
The PC-Surround-II rear-effects home-theater speaker offers you wide latitude of acoustic performance, system options and speaker placement (including wall, shelf and stand mounting.) Using the toggle switch located adjacent to the speaker terminals on the rear of the cabinet, the speaker can be changed from bipolar to dipolar mode to suit personal listening preferences.

In bipolar mode, the PC Surround serves as a full range speaker system to meet the recommended technical specifications for rear surround speakers in a Dolby Digital and DTS 5.1-7.2 home theater systems. As a dipolar speaker, it offers the diffused, subtle effect of out-of-phase drivers with a strong on-axis null polar pattern for more diffused surround effects.

In order for this effect to work in proper phase with the other speakers in your home theater they need to be placed in the proper orientation. Whether they are mounted on a stand, shelf or hung upside down on a wall the direction the arrows point on the rear of the cabinets will help you orient the surround speakers properly. For 5.1 systems when placed on a sidewall the arrows should point forward toward the front main speakers. When placed on a rear wall the speakers should be oriented so the arrows point away from each other. For 7.1 systems the rear speakers should be placed so the arrows are pointing toward each other. The side speakers remain as mentioned above.

The convenient “Key-hole” style mounting bracket on the rear of the speaker can be used for surface mounting with the appropriate mounting anchor. Please be sure that the anchor has a #8 or #10 screw head on it to properly fit the hanger. Other types of standard speaker mounts may be used with the speakers as well. Please check with your Phase Tech dealer for recommendations.

Note: It is very important whichever method you use to be certain the mounting screws or anchors will support the weight of the speaker. Self-stick rubber bumpers are provided with the PC Surround. A bumper should be attached to each rear corner of the cabinet. These bumpers space the speaker away from the wall to allow clearance for your speaker wires.



[TWO-CHANNEL SPEAKER PLACEMENT]

Phase Technology speakers utilize our Absolute Phase® crossover network. This design permits a much wider vertical output pattern than conventional speakers, allowing you to achieve the best quality musical experience regardless of speaker placement. For example, your speakers can be placed either vertically or horizontally on a bookshelf and will provide seamless transition of sound from one speaker to another even if the speakers cannot be placed at the traditional “ear level” height recommended by most manufacturers.

In most rectangular rooms speakers sound best when placed along one of the short walls. Begin by placing the speakers 1 – 3 feet away from the wall and approximately 6 – 8 feet apart. The exact final placement will be determined by how far away you are sitting from the speakers and other interior environmental factors. We suggest playing a familiar piece of music and adjusting the placement of the speakers until the desired sound is achieved.

Sometimes larger bookshelf speakers will sound better when placed upon stands designed expressly for the purpose of supporting them above floor level (not included). By “de-coupling” the speaker cabinet from the floor, bass frequencies are tighter and high frequencies more distinct. Smaller speakers can be placed in bookshelves or cabinets; however, some loss of imaging may be experienced.

[FLOOR SPIKES]

Floor spikes may have been provided with your new Phase Technology speakers to steady the speaker cabinets, especially on carpeting and uneven floor surfaces. Because most speakers tend to rock back and forth in small increments due to the force of the in/out motions of speaker drivers, these movements can affect the speakers’ performance.

Attach the floor spikes by screwing them into the pre-drilled holes in the base of the speaker and tighten the nuts securely. The sharp points will penetrate the carpet to make a more solid contact with the underlying floor surface. If your floor is not rigid, the spikes may actually add to the rocking motion, so we recommend you audition the speakers with and without the spikes inserted to see if you discover a personal preference in the sound quality.

Be especially careful when moving speaker cabinets with the spikes attached, as the points could damage carpeting or scratch floors.

[SPECIAL PRODUCT FEATURES]

Adjusting Variable-Axis, Soft-Dome Tweeters

Some Phase Technology speakers feature the company’s acclaimed variable-axis soft-dome tweeter (refer to the model specifications in this manual) offering even greater latitude in selecting speaker locations and listening positions.

This revolutionary tweeter can be adjusted by hand to direct the high frequencies towards a specific listening area for optimal tonal balance and channel separation. This enables owners of these Phase Technology models to place the speakers where they look or fit best and then aim the tweeter for best effect.

When adjusting these units, be careful to press on the outer rims only, avoiding contact with the center, or soft dome, of the speaker. A series of adjustments may be necessary to achieve the ideal clarity and smoothness of the high frequencies that the variable-axis soft-dome tweeter was designed to present.

Bi-Wired Connections

Some Phase Technology premium audiophile speakers are equipped for bi-wiring, with four speaker terminals instead of two. This may enhance speaker performance by using an additional pair of speaker cables.

In order to bi-wire these speakers, remove the gold-plated strips between the speaker terminals and connect two cables between your amplifier’s positive output terminal and the two positive (red) terminals on the speaker. Then connect the other two cables between the amp’s negative output terminal and the two negative (black) terminals on the speakers.

If you chose not to bi-wire your speakers, do not remove the metal strips between the speaker terminals. Connect each cable in the standard manner, with one cable each between the positive and negative speaker terminals and your amplifier.

[CARING FOR YOUR SPEAKERS]

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.

[TROUBLESHOOTING]

NO SOUND

1. Verify that all components are plugged in and turned on.
2. Check all speaker wires and cables for loose connections.
3. Check to see if you have selected the proper source on your amplifier.

VOICES DO NOT APPEAR TO COME FROM BETWEEN THE SPEAKERS / BASS RESPONSE IS WEAK

1. Verify that all speaker connections from the amplifier to the speakers are running PLUS+ to PLUS+ and MINUS- to MINUS-.
2. Check to see if there are any furnishings or plants that may be blocking the output of a speaker. Make sure nothing is directly in front of that speaker.

SOUND, BUT NO BASS (MOST LIKELY IN SYSTEMS WITH A SUBWOOFER)

1. Verify that the subwoofer is plugged into an AC outlet and power is turned on.
2. Check that the speaker wire / cable going from the amplifier/receiver to the subwoofer is securely fastened.
3. Check the volume control of the subwoofer.
4. Refer to your amplifier/receiver manual to make sure you have adjusted its bass output properly.

MUDDY OR BOOMY BASS

1. Check the volume control for the subwoofer. Excess volume can cause speakers to sound distorted and unnatural.
2. Try adjusting the crossover control on the subwoofer or the subwoofer setup on your receiver to a slightly lower frequency (example: reduce from 120 Hz to 80 or 60 Hz).
3. If the subwoofer or full size speaker is close to a corner, side or back wall, try moving it away from the wall. This may reduce the "boomy" bass considerably.
4. Bookshelf speakers placed in a semi-enclosed space or cabinet can artificially emphasize bass output. Reduce the bass control on your amplifier or move the speakers to the front of the cabinet. Alternatively, reposition the speakers to a more open location.

DISTORTED SOUND FROM THE SPEAKERS

1. This problem is usually caused by setting the volume control too high. Reduce the amplifier/receiver volume to a lower level.
2. If noise and distortion are audible at higher volume levels, your amplifier may not be powerful enough. Consider upgrading to a unit with higher power.

NOTE: Remember, even though your Phase Technology speakers can handle considerable power levels, ANY speaker if used improperly can be damaged. Consult your Phase Technology dealer for assistance in choosing a new amplifier or receiver.

[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]

	PC0.5	PC1.5	PC33.5	PC3.5
Description:	2-way bookshelf	2-way Bookshelf	3-way LCR Center	3-way LCR Center
Tweeter:	1" patented soft dome	1" patented soft dome	1" patented soft dome	1" patented soft dome
Midrange:	N/A	N/A	N/A	N/A
Woofers:	5.25" RPF/NBR flat piston	6.5" RPF/NBR flat piston	(2) 5.25" RPF/NBR flat piston	(2) 6.5" RPF/NBR flat piston
Frequency Response:	58 Hz - 22 kHz	40 Hz - 22 kHz	56 Hz - 22 kHz	36 Hz - 22 kHz
Sensitivity:	88 dB	90 dB	90 dB	91 dB
Impedance:	4Ω	4Ω	4Ω	4Ω
Height:	11.5"	13.6"	6.9"	22"
Width:	6.9"	7.9"	18"	7.9"
Depth:	9.6"	12.3"	9.6"	12.3"
Weight:	11 lbs.	14 lbs.	18.5 lbs.	32 lbs.
Finish Options:	Gloss Black	Gloss Black	Gloss Black	Gloss Black
Optional Accessories:	SST28 Speaker Stand	SST28 Speaker Stand	SST28 Speaker Stand	SST28 Speaker Stand
	PC9.5	PC-SURROUND-II	PC60 CA	
Description:	4-way Tower	2-way Switchable Bipole/Dipole Surround	2-way Limited Edition Bookshelf	
Tweeter:	1" patented soft dome	(2) 1" patented soft dome	1" patented soft dome	
Midrange:	1.5" soft dome	(2) 4" polypropylene dome	N/A	
Woofers:	(3) 6.5" RPF/NBR flat piston	6.5" RPF/NBR flat piston	6.5" RPF/NBR flat piston	
Frequency Response:	32 Hz - 22 kHz	60 Hz - 22 kHz	60 Hz - 22 kHz	
Sensitivity:	91 dB	89 dB	88 dB	
Impedance:	4Ω	4Ω	4Ω	
Height:	45.5"	15.5"	13.25"	
Width:	9"	14.5"	8.625"	
Depth:	14.7"	5.25"	8.25"	
Weight:	66 lbs.	19 lbs.	16 lbs.	
Finish Options:	Gloss Black	Gloss Black and Satin White	Oak and Black Oak	
Optional Accessories:	N/A	N/A	N/A	

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