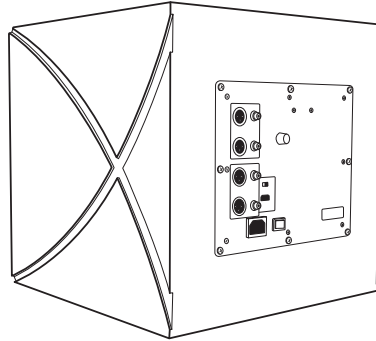
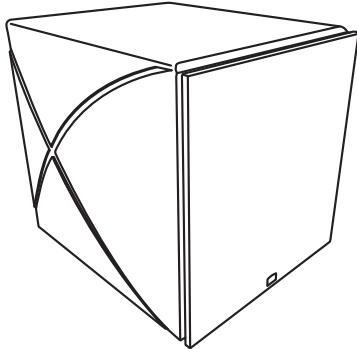


POWER LUX DSP SUBWOOFER

OWNER'S MANUAL: PL-10s, PL-12s, PL-10p and PL-12p



[INTRODUCTION]

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 ensures 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.

Phase Technology Corporation

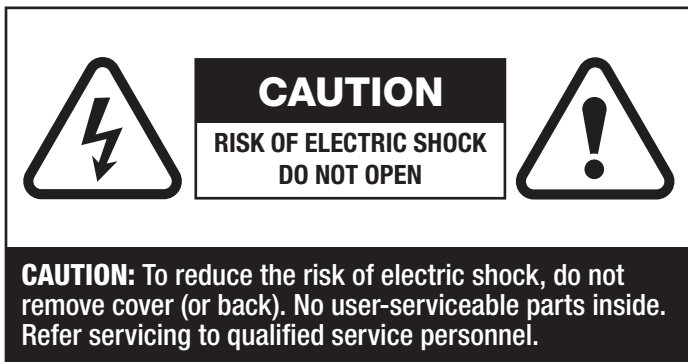
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[FEATURES]

- 325-Watt RMS, 750-Watt Peak Power Integrated Amplifier
- 10" or 12" Long Throw Mica-Graphite Poly Cone with NBR Surround
- Sealed or 3" Ported Enclosure
- Signal Sensing Auto Turn On/Off
- Level and Phase Control
- 5 band Manual EQ
- Variable Crossovers
- Stereo LFE Inputs
- Stereo Line Outputs with Wide Range and Subwoofer Mode Configurations
- Audio Control through MSE Sound Application

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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.

PORTABLE CART WARNING



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

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
- 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.

POWER LUX DSP SUBWOOFER

[GETTING STARTED AND PRECAUTIONARY NOTES]

For proper connection and therefore full enjoyment of your new Phase Technology speakers, we encourage you to read this Owner's 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.

[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.

[HOOKING UP YOUR POWER LUX DSP SUBWOOFER]

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

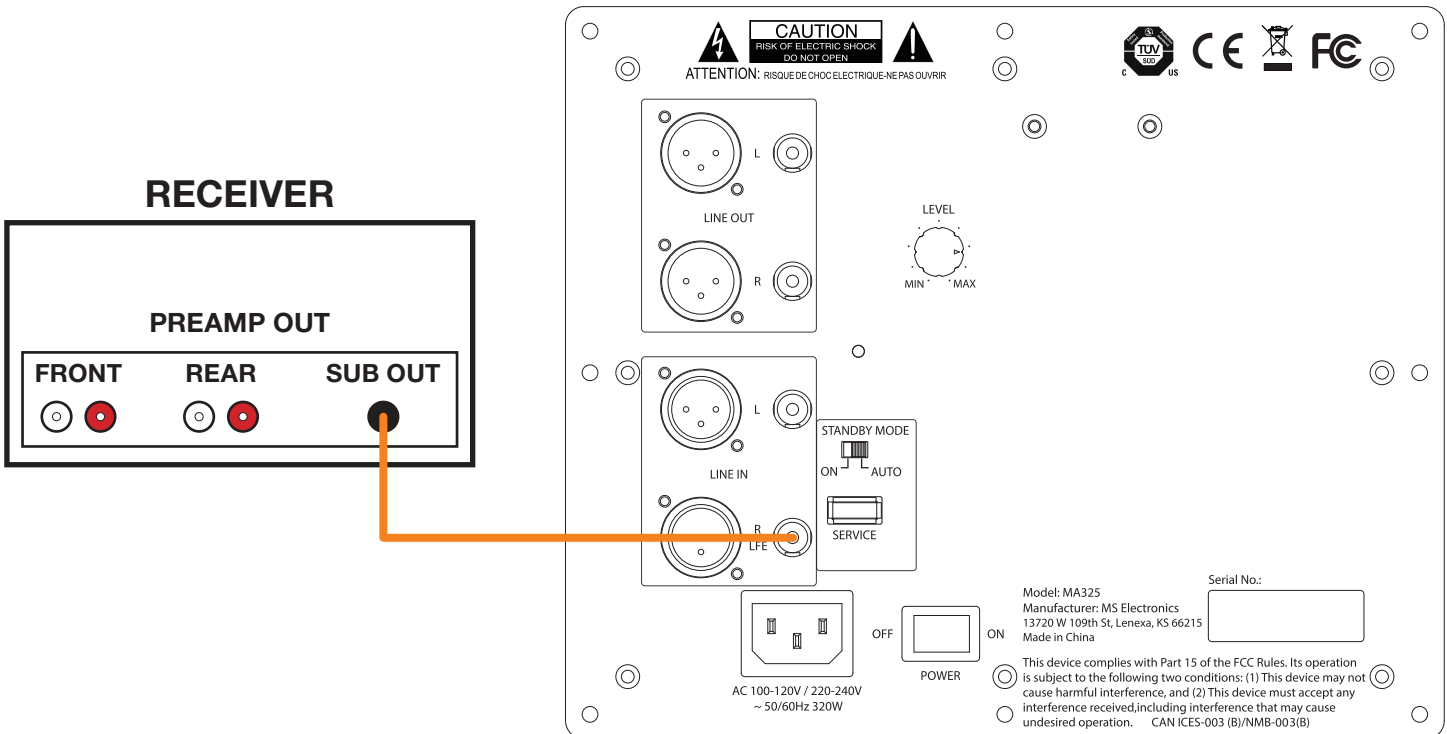


Special Note: Observe Speaker Polarity Carefully!

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.

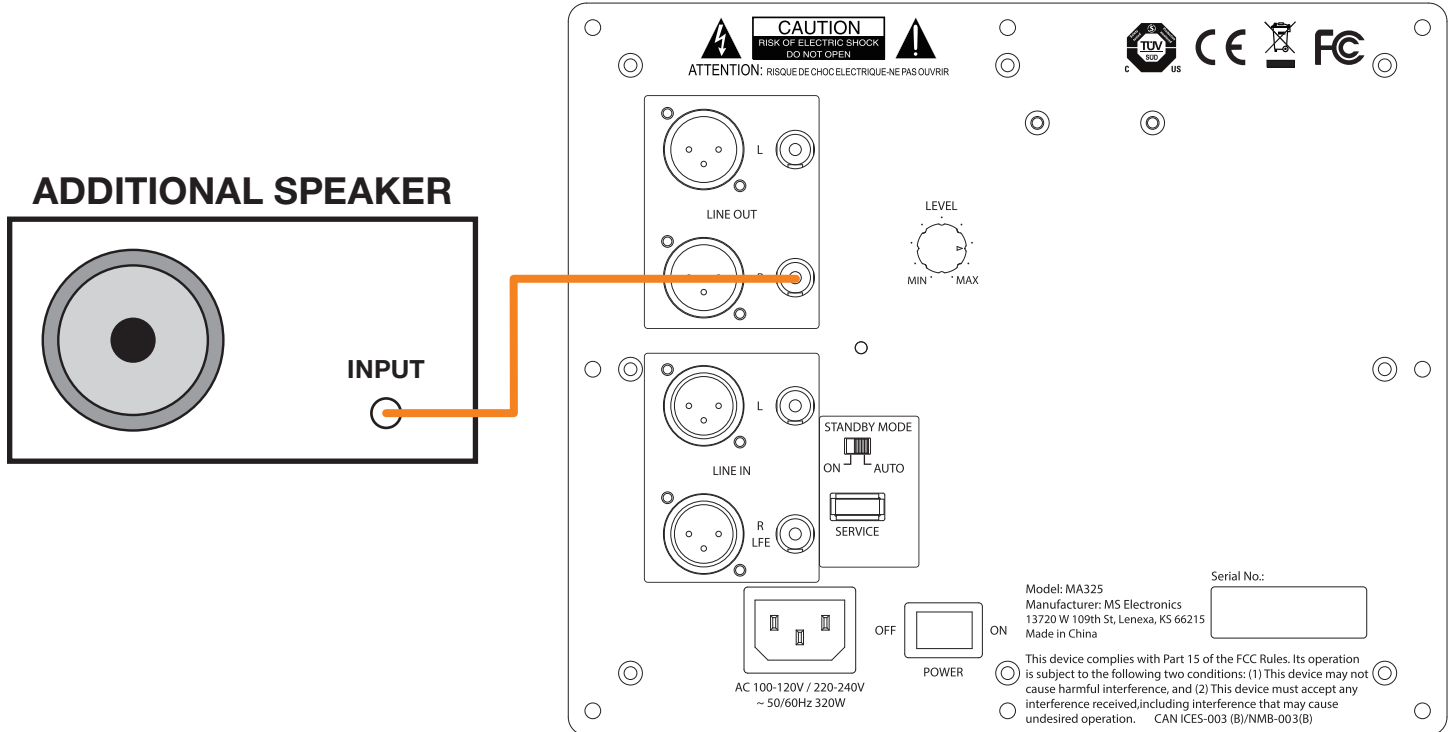
WIRED DIRECT INPUT CONNECTION SETUP

Two RCA and two XLR inputs are offered on the rear panel of the subwoofer. Most A/V receivers and processors are equipped with a “Subwoofer Out” or “Pre-Amp Out” connection. Run a dedicated RCA or XLR interconnect cable from the “SUB OUT” terminal on your receiver or amplifier to either the left or right “LINE IN” terminal on the subwoofer. For more input sensitivity, connect both “SUB OUT” terminals on your receiver or amplifier to both the left and right “LINE IN” terminals. If there is only one “SUB OUT” terminal, connect to both the left and right “LINE IN” terminals using a “Y connector.



WIRED DIRECT INPUT CONNECTION SETUP

Two RCA and two XLR outputs are offered on the rear panel of the subwoofer. This subwoofer comes equipped with the ability to select your line output configuration. The two configuration modes allow for different signal conditioning based on your target speaker. Please see the MSE Sound Application user manual for more information on how to select the line output configuration. To use the line out feature, run a dedicated RCA or XLR interconnect cable from the “LINE OUT” terminal(s) on your subwoofer to the “INPUT” terminal(s) on your additional speaker.



[AMPLIFIER SETUP AND BASS MANAGEMENT]

Many audio features of the Power Lux DSP subwoofer are controlled by the MSE Sound application. This mobile application allows for control over the level, phase, filtering, as well as a fully adjustable equalizer, and more. Please fully review the MSE Sound application user manual for an explanation of all features.

Many home theater receivers/processors have a feature that controls how the bass is processed and delivered to the subwoofer. It also adjusts the amount of bass signal that is sent to your satellite speakers. Look carefully in your amplifier or receiver's instruction manual for details on how to adjust for the speaker size (sometimes called "Speaker Setup") for your system.

[SUBWOOFER AMPLIFIER PANEL]

1. Main Power Switch: “ON” and “OFF” switch.

2. Power Input: Connects to a standard AC power outlet with the supplied power cord. The Power Lux DSP subwoofer is designed to adjust automatically to handle power sources of 100-240V, 50-60Hz.

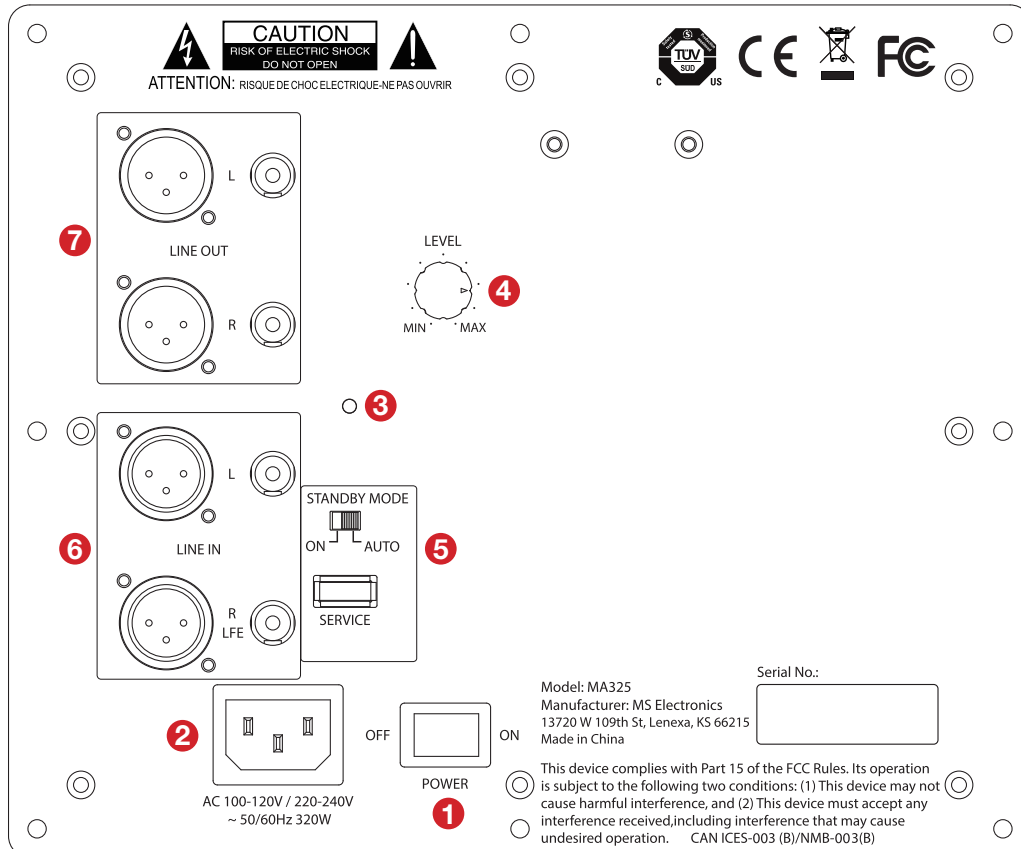
3. LED Indicator: When LED is GREEN, the subwoofer is “ON” and ready to play. When LED is BLUE, the subwoofer is connected to a mobile device through the MSE Sound application. When the LED is RED, the subwoofer is in “STANDBY”. When the LED is flashing RED, the subwoofer is in “PROTECT”.

4. Level Control: This adjustment increases or decreases the input sensitivity, and thus the volume of the Power Lux DSP subwoofer. It may take some experimentation to find the best level for your system.

5. Standby Mode ON/AUTO: When this switch is left “ON”, the subwoofer will stay on until the main power switch is turned “OFF”. When this switch is on “AUTO,” the subwoofer will go into “STANDBY” after approximately ten (10) minutes of silence. Also, the subwoofer will automatically power on upon detection of an audio signal. When a signal is detected, the LED will switch from RED to GREEN.

6. Line In: Using a high-quality RCA or XLR cable, connect the “SUB OUT” terminal on your receiver or processor to the “LINE IN” terminal(s) on your Power Lux DSP subwoofer. (See wired direct input connection setup instructions)

7. Line out: Using a high-quality RCA or XLR cable, connect the “LINE OUT” terminal(s) on your Power Lux DSP subwoofer to the “LINE IN” terminal(s) of an additional subwoofer or wide range satellite speaker amplifier. (See wired direct output connection setup instructions)



[CARING FOR YOUR PHASE TECHNOLOGY SPEAKER]

All Phase Technology speakers are finished with a high degree of craftsmanship in either hand polished paint, vinyl laminates or textured black finishes. 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 is unlikely that your speakers will ever need service if connected and used as outlined in this Owner's 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.

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 100 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.
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.

CONSTANT HUMMING SOUND FROM THE SPEAKERS

1. This problem could be caused by a ground loop condition. Inspect all signal connections for a good ground connection.
2. If the noise persists, use a three to two prong AC adapter on the subwoofer power cable.

DISTORTED SOUND FROM THE SPEAKERS

3. This problem is usually caused by setting the volume control too high. Reduce the amplifier/receiver volume to a lower level.
4. 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 **913.663.5600** or email sales@mseaudio.com.

[SPECIFICATIONS]

Model:	PL-10s	PL-12s	PL-10p	PL-12p
Description:	10" Sealed Subwoofer w/ DSP Amplifier	12" Sealed Subwoofer w/ DSP Amplifier	10" Ported Subwoofer w/ DSP Amplifier	12" Ported Subwoofer w/ DSP Amplifier
Frequency Response (-3dB):	23Hz-300Hz	19Hz-300Hz	19Hz-300Hz	17Hz-300Hz
Amplifier Power:	325 W Continuous, 750 W Peak	325 W Continuous, 750 W Peak	325 W Continuous, 750 W Peak	325 W Continuous, 750 W Peak
Max SPL (RMS/PEAK):	105dB/116dB	108dB/119dB	107dB/118dB	110dB/121dB
Driver:	10" Long Throw Mica-Graphite Poly Cone w/ NBR Surround	12" Long Throw Mica-Graphite Poly Cone w/ NBR Surround	10" Long Throw Mica-Graphite Poly Cone w/ NBR Surround	12" Long Throw Mica-Graphite Poly Cone w/ NBR Surround
Filtering:	300Hz LFE, 40Hz-200Hz LPF, 40Hz-200Hz Lineout HPF	300Hz LFE, 40Hz-200Hz LPF, 40Hz-200Hz Lineout HPF	300Hz LFE, 40Hz-200Hz LPF, 40Hz-200Hz Lineout HPF	300Hz LFE, 40Hz-200Hz LPF, 40Hz-200Hz Lineout HPF
Line Level Inputs:	(2) Stereo RCA, (2) Stereo XLR	(2) Stereo RCA, (2) Stereo XLR	(2) Stereo RCA, (2) Stereo XLR	(2) Stereo RCA, (2) Stereo XLR
Outputs:	(2) Stereo RCA, (2) Stereo XLR Outputs	(2) Stereo RCA, (2) Stereo XLR Outputs	(2) Stereo RCA, (2) Stereo XLR Outputs	(2) Stereo RCA, (2) Stereo XLR Outputs
Grille:	Black Cloth	Black Cloth	Black Cloth	Black Cloth
Color Options:	Textured Black	Textured Black	Textured Black	Textured Black
Dimensions:	13.875" L x 12.5" W x 12.5" H	15.625" L x 14.5" W x 15" H	17.375" L x 14.5" W x 16.5" H	18.875" L x 16" W x 18" H
Weight:	37 lbs	47 lbs	46 lbs	59 lbs

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