

Power Professional Owners Manual / Installation Instructions

P350 Amplifier

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

The P350 is the companion amplifier to Phase Technology custom in-wall subwoofer systems but its use is not limited to only subwoofer applications. It also has the flexibility of operation as a full range high current, high performance, mono-block audio power amplifier.

Regardless of application, serious audiophile listening or home theater, we recommend that you take the time to read this manual thoroughly before connecting this amplifier to speakers or your receiver. In the highly unlikely event that you should experience a problem with setup or operation, please contact one of our authorized dealers for assistance, or contact us directly. We trust that your new Phase Technology amplifier will enrich your enjoyment of music and movies beyond your expectations. We invite you to visit our website www.phasetech.com to browse our full range of products for audiophile listening, home theater and whole-home audio applications.



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P350 FEATURES:

- Variable input level control
- Variable low pass crossover at 24 dB/octave
- Phase control
- Variable low frequency equalization for room placement optimization
- Switchable input circuitry for Subwoofer, LFE or Full Range applications
- Auto-signal sensing for automatic amplifier turn-on
- 12 V auto turn-on for use with home remote control applications
- High current/high capacity power supply
- Rugged design that fits in a single rack space with thermostatically controlled cooling fan
- Designed to operate efficiently into 4 ohm speaker loads

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SAFETY INSTRUCTIONS



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 off 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.

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

a. the power supply cord or the plug has been damaged,

b. objects have fallen onto or liquid has been spilled into the appliance,

c. the appliance has been exposed to rain,

d. the appliance does not appear to operate normally or exhibits a marked change in performance, or

e. 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.

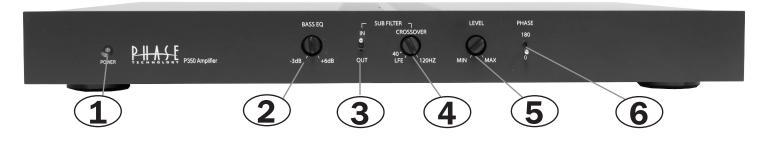
APPLICABLE FOR USA, CANADA OR WHERE APPROVED FOR USAGE

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.

OPERATING INSTRUCTIONS AND CONTROLS

FRONT PANEL



1. **Power:** The power LED on the front panel indicates the P350 status. A red indicator light means the main power is on and the P350 is in the standby mode. A green indicator LED means that the P350 is active and should be reproducing an audio signal. An orange or flashing red to orange LED means that the P350 has a problem or is overheated. Please check to be sure that your speaker is hooked up properly and is not shorted and there is adequate ventilation around the P350.

2. **Bass EQ:** The bass equalizer control allows the adjustment of bass equalization around 30Hz to compensate for subwoofer placement. The adjustment range is from -3 dB to +6 dB. This control is active in both the Subwoofer and LFE modes.

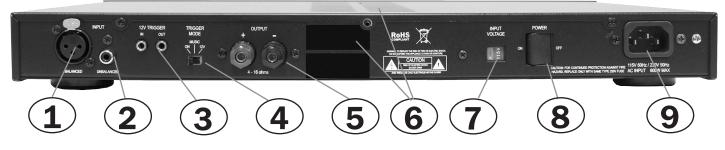
3. **Sub Filter, In/Out Switch**: The mode selector switch selects the operating mode of the amplifier for either a full range audio mono-block amplifier (OUT) or mono subwoofer amplifier (IN). In the OUT full range position the BASS EQ, CROSSOVER, LFE, PHASE and Soft Limit circuits do not function.

4. **Crossover/LFE:** The Low Pass crossover control is adjustable from 40-120 Hz. This control should be adjusted to obtain the smoothest transition in sound between the subwoofer and your main speaker system when other electronic crossovers are not being used such as a home theater receiver or processor. When using the P350 amplifier with a home theater receiver or processor set the switch to the LFE position. This will allow you to properly crossover the subwoofer with your other speakers using the receiver or processor. Please check the owner's manual of your receiver or processor for the proper setting.

5. Level: This control is used for level matching of the subwoofer system to the main loudspeakers. We recommend that you start with this control in about the 9-10 o'clock position as an initial setting and then adjust as necessary to match your other speakers. Use the level controls on the main equipment for fine adjustment of the overall speaker levels.

6. **Phase:** This switch is for adjusting the P350 amplifier output phase to match that of the main speakers. In the 0° setting the amplifier signal input and output are in phase. In the 180° setting the output signal of the amplifier is inverted or out of phase with the main speakers. Please experiment with this setting. The correct setting is that which yields the fullest bass and smoothest blend of the subwoofer with your main speakers. This control is active in both the Subwoofer and LFE switch setting positions.

REAR PANEL



Balanced Input: This connector is for a balanced audio line level input and accepts standard XLR type connectors.
 Unbalanced Input: This connector accepts a standard RCA audio interconnect cables.

3. **12 V trigger:** The IN connector accepts a standard mini style phone plug and is used to remotely turn the P350 from standby to on. Connect one end to the P350 in and the other to your receiver or processor trigger out. The OUT connector on the P350 acts as a remote trigger to turn additional equipment on and off.

4. **Trigger mode:** The selector switch allows you to choose the standby mode of operation for the amplifier. The ON position means that the P350 is constantly on and will not revert to the standby mode. Use this mode if you are turning the power on and off from another source such as a switched outlet. The MUSIC position will wake up the amplifier when there is an audio signal present at the input connectors. The P350 will return to the standby mode in about 10 minutes after the input signal ceases. The 12V mode is for use in conjunction with remote 12 volt trigger features on your main receiver or processor.

5. **OUTPUT:** The speaker output connection terminals are 5-way binding posts. They accept banana plugs, pins or bare wires on your speaker cables. We recommend that you use at least 14-gauge speaker wire for these hookup connections. The black terminal is the speaker negative (-) connection and the red terminal is the speaker positive (+) connection. The speaker output of the P350 is compatible with standard 4-8 ohm speakers.

6. **Exhaust Vent**: This is the exhaust opening for the internal cooling fan. It is very important that this opening and the ventilation holes on the top and bottom of the P350 are not blocked. Please allow adequate space around the amplifier for ventilation.

7. **INPUT VOLTAGE:** The A/C power line voltage selector is used for properly matching the line voltage of your wall outlet to the P350 amplifier. For the USA and Canada this switch is set to the 110-120V position. For other countries check with your retailer for the proper setting and line cord requirements.

8. **Power ON/OFF:** This is the master ON/OFF power control switch for the P350 amplifier.

9. **3-PIN POWER CONNECTOR:** The power line cord socket is for the connection of the main power cord from your wall outlet to the amplifier. In the USA and Canada the amplifier is supplied with a standard IEC polarized power cord. For other countries you should check with your retailer for the proper line cord requirements.

RACK MOUNTING: The P350 is supplied with rack mounting adapters for the convenience of installing the amplifier in standard 19" equipment racks. The P350 occupies 1 standard rack unit position. The supplied adapters are easily attached to the left and right side of the P350 chassis with the supplied screws. Depending on the application it may be necessary to remove the rubber isolation feet.

Description	P350 Class-G high current subwoofer/full range mono block amplifier
Amplifier Power	350 Watts RMS >.5% THD @ 4 Ohms, 700 Watts peak 225 Watts RMS >.5% THD @ 8 Ohms, 400 Watts peak
Crossover Frequency	Low Pass 40 - 120 Hz adjustable @ 24 dB/octave
LFE Frequency Response	20 - 500 Hz
Full Range Response	10 Hz - 20 kHz +0/25 dB, 5-60 kHz +0/-3 dB
Low Frequency EQ	-3 dB to +6 dB @ 30 Hz
Input Sensitivity	175 mV for full output unbalanced/ 220 mV balanced
THD	>.1% 20-20kHz below rated output power
S/N	Better than 80 dB unweighted
Damping Factor	<200
Input Impedance	22K unbalanced, 37.5K balanced
Protection Features	Soft Clipping (Subwoofer mode), Short Circuit/Overload, Thermostatic variable speed fan cooling, Thermal overload protection, Transformer thermal protection, Over current protection
Current consumption 120V	3A @ 8 ohms, 5.5A @ 4 ohms continuous
Dimensions (Overall)	17.25" W x 2.0" H x 13.25" D
Weight	17.8 lbs.

SPECIFICATIONS

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