



SAM300 SUBWOOFER AMPLIFIER INSTALL GUIDE

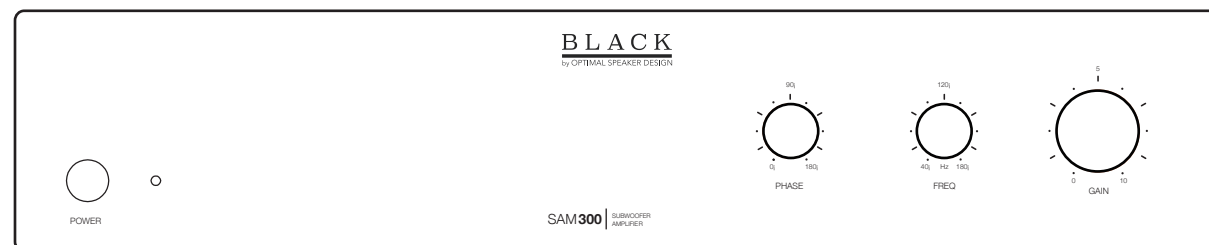
Thank you for purchasing the SAM300 subwoofer amplifier. Its tabletop design is compatible with many other popular electronic devices and multimedia furniture. The SAM300 offers its owner the freedom to use a stand-alone, high quality amplifier to operate a subwoofer speaker system.

FEATURES:

- Low-level, high-level, and LFE inputs
- Mono Class AB output stage for solid, well defined output
- Manual, auto, or triggered on/off modes for integration into any automated system
- Selectable bass boost
- Draws less than 1 watt in stand-by mode
- Heavy-duty steel chassis with brushed aluminum faceplate
- Adjustable phase, gain, and crossover
- Pop-out adjustment knobs keep settings from being disturbed easily
- Switchable 120V/240V input voltage

INSTALLATION:

The SAM300 is designed to provide high fidelity subwoofer amplification and is tailored for home audio and home theater audio systems. It is not recommended for use in DJ, pro sound, or other high-duty-cycle applications. For home audio systems, use the unit as it comes out of the box. Care should be taken to leave some room for air circulation above the amplifier. Stacked components that utilize rubber or plastic feet should provide adequate clearance in most situations.



FRONT PANEL:

1. Power Switch / Indicator LED

Front panel pushbutton power switch turns the amplifier on and off. When the indicator LED is lit dimly, the amplifier is in standby mode. When the LED is lit brightly, the amplifier is fully active.

2. Phase

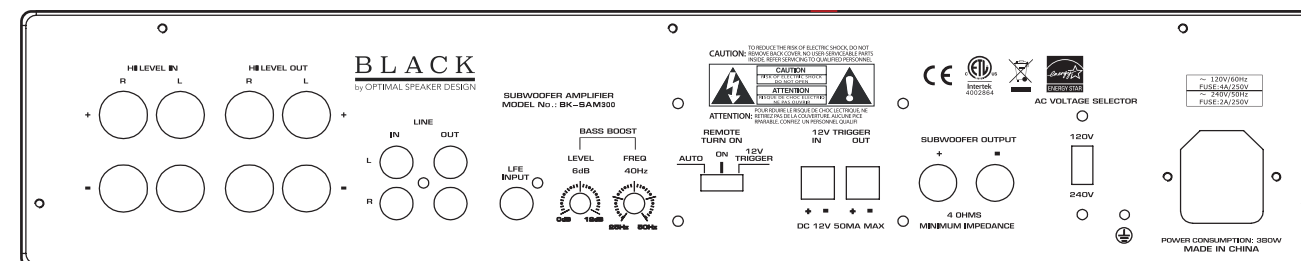
Adjustable phase compensation from 0 to 180 degrees. Corrects phase anomalies that result from differing listening distances between the subwoofer and main speakers, which can cause poor acoustic summation around the crossover point. In most situations the control knob should be left at 0 degrees, but for the advanced user it can be set either by ear or with the aid of measurement instruments.

3. Frequency

Adjusts the low-pass crossover frequency from 40 Hz to 180 Hz. When using the Left/Right inputs, this adjustment will allow you to properly integrate the subwoofer with the satellite or main speakers. It is recommended to experiment with different settings until the smoothest transition between subwoofer and speakers is achieved.

4. Gain

Sets the overall level of the amplifier, used to match the output of the subwoofer to the rest of the speakers in the system. If the source output has a variable control, we recommend that the user spend a moment or two determining the best balance between the two controls. When a balance is found between low noise, linear level control, and sufficient level to drive the amp to the required output, the gain knob can be considered to be the “volume control” for the subwoofer system.



REAR PANEL:

5. High-Level Inputs

Speaker level inputs terminated with binding post jacks that are compatible with banana-type plugs, bare wires, or spade terminals. These inputs facilitate connection of a full-range amplifier’s speaker level output to the input of the subwoofer amp, using standard speaker wire. A mono signal is derived from the stereo source, which then feeds the subwoofer amplifier crossover input.

6. Line Inputs

RCA-style jacks receive the audio signal from standard line-level audio sources. When used in a two-channel stereo system, both the left and right audio inputs should be connected and are internally summed to a mono output. The adjustable crossover is in effect when using the left or right inputs. When using an amplifier with an audio source that is mono and pre-filtered, the LFE input should be used; this bypasses the onboard low-pass crossover for more accurate reproduction of the incoming signal.

NOTE: Bass Boost is active on LFE and L/R inputs.

7. Bass Boost

Allows the user to add boost to the low end response by selecting a bass boost frequency from 25 Hz to 50 Hz and a boost level from 0 to 12 dB. Simply remove clear acrylic cover to access controls.

8. Remote Turn On

Selects the turn-on stimuli that will put the amplifier in “Ready” mode. “12V trigger” setting relies on voltage going into the 12V trigger input to activate the amplifier. “Auto” setting senses a signal on the RCA line-level inputs and automatically puts the amp in ready mode. “On” setting puts the amp constantly in “Ready” mode so that it can be controlled by the master power switch on the front panel. In “Auto” mode, the amplifier will take approximately 15 minutes to turn off from “Ready” to “Standby” mode.

9. 12V Trigger Input

The 12V trigger input is a handy feature when connecting the amplifier to an automated audio system. The Phoenix connectors will accept up to a 12V DC output from another device, or from a separate power supply. When the trigger input is energized, the amp turns from “Standby” to “On” mode. When using the SAM300 with a home theater receiver without a trigger output, the voltage can come from a 12V “wall wart” plugged into the receiver’s switched outlet and the amplifier’s trigger input.

10. Speaker Outputs

Speaker level output connections carry the amplified signal to the subwoofer drivers. The binding posts will accept bare wire, banana plugs, or spade plugs.

NOTE: The output load must have a minimum of 4 ohms impedance!

11. Voltage Selector Switch

This switch allows the user to select 120V or 240V operation. The unit is set at the factory for 120V operation and contains a 5A, 250V fuse. When operating at 240V be sure to change the fuse to a 2.5A, 250V fuse.

12. AC Power

The SAM300 is shipped standard for U.S. operation; simply connect the included IEC power cord to your wall outlet. For overseas operation, a separate power cord may be required and is not included. In stand-by mode it draws less than 1 watt.

SPECIFICATIONS:

Rated Power Output:	(1 % THD) 150Watts RMS into 8 ohms, 300 Watts RMS into 4 ohms
Signal to Noise Ratio:	85 dB A-weighted
Input Impedance:	12K ohms
Bass Boost:	25 Hz – 50 Hz
Low Pass Adjustment:	40 Hz – 180 Hz
Phase Adjustment:	0° – 180°
Gain:	0 dB – +10 dB
Dimensions:	17-1/4" W x 3-3/4" H x 13-7/8" D
Power Requirements:	120/240 VAC, 50 Hz/60 Hz
Stand-by Power Rating:	120V 0.82W
Weight:	18 lbs.

IMPORTANT SAFETY INSTRUCTIONS:

To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified personnel. To reduce the risk of fire and shock do not expose unit to rain or moisture. The unit should be connected to an earth grounded AC electrical socket. The unit should be operated in a well ventilated area. Minimum clearance is 2 inches from the ventilation openings.



NOTE: Unit is set at the factory for 120V operation. Be sure to change the fuse to a 2.5A rating before switching to 240V operation.

WARRANTY INFO

All Optimal Speaker Design electronics products have a 2 Year Limited Warranty against defects in materials and workmanship. Proof of purchase must accompany all claims. During the warranty period Optimal Speaker Design will replace any defective part and correct any defect in workmanship without charge for either parts or labor. Optimal Speaker Design may replace returned speakers with a product of equal value and performance. In such cases, some modification to the mounting may be necessary and are not Optimal Speaker Designs responsibility.

For this warranty to apply, the unit must be installed and used according to its written instructions. If necessary, repairs must be performed by Optimal Speaker Design. The unit must be returned to Optimal Speaker Design at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damaged resulting from abuse or from servicing performed by an agency or person not specifically authorized in writing by Optimal Speaker Design.

Optimal Speaker Design sells products only through authorized dealers and distributors to ensure that customers obtain proper support and service. Any Optimal Speaker Design product purchased from an unauthorized dealer or other source, including retailers, mail over dealers and on-line sellers will not be honored or serviced under existing Optimal Speaker Design warranty policy. Any sale of product by an unauthorized source or other manner not authorized by Optimal Speaker Design shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, you must email customer service at RMA@osdaudio.com for a Returned Merchandise Authorization (RMA) number# then the unit must be shipped to Optimal Speaker Design at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the speaker(s) in a corrugated container with at least 3 inches of resilient material to protect the unit from damage in transit.

This Warranty Does Not Cover: Damage caused by abuse, accident, misuse, negligence, or improper operation (installation) • Any products that have been altered or modified • Any product whose identifying number of decal, serial #, etc. has been altered, defaced or removed • Normal wear and maintenance.