

Instruction Manual
For
Hsu Research Bass Optimizer

Introduction

Congratulations! You have purchased the world's smallest footprint true powered subwoofer with the bass optimizer. It fits into the tightest space, or placed behind cabinets or couches to disappear completely... Talk about spouse acceptance!

The ingenuity of it all lies in the fact that all the high Spouse Acceptance Factor is achieved without any sacrifice in the Audiophile Acceptance Factor: there is no compromise in the sound at all!

In order to get optimum performance from your new purchase, please read this easy-to-follow instruction manual for the bass optimizer and the manual for the subwoofer before trying out the subwoofer. It can save you a lot of time and possible unjustified disappointment.

A/C Connection

Connect the power cord from the wall adaptor to the bass optimizer and the wall adaptor to an AC outlet. You can leave the bass optimizer permanently powered. If you need to unplug it, unplug it after the subwoofer amp has been turned off.

Connecting to Your System

The bass optimizer is for use with systems that already has a line-level crossover, and the user already has an amplifier for driving the TN series subwoofer.

The bass optimizer goes between your preamp and your subwoofer power amplifier. Connect from the subwoofer out of your preamp/processor to the inputs of the bass optimizer and from the bass optimizer to your subwoofer amplifier.

If you have a single subwoofer out, and a single subwoofer, connect the sub out to the right input of the bass optimizer and from the right output of the bass optimizer to the subwoofer amplifier.

If you have a single sub out and two subwoofers and a stereo subwoofer amplifier, use a Y adaptor to feed the single subwoofer out to both inputs on the bass optimizer, and from the two outputs of the bass optimizer to the L & R inputs of your stereo subwoofer amplifier.

Then run a long speaker cable(s) from the speaker output(s) on the subwoofer amplifier to the 5-way gold-plated binding posts on the bottom of the subwoofer(s).

If you have the TN1220HO, set the EQ switch to position one. If you have the TN1225HO, set the EQ to position two. If you have a stereo crossover, you can get stereo or mono bass by selecting mono or stereo on the bass optimizer.

Functions of Controls

EQ Switch – EQ1 position gives EQ and subsonic filtering for the TN1220HO. EQ2 position is for the TN1225HO. Make sure you set the switch according to which subwoofer you have! Leaving the EQ switch in EQ1 position while using a 1225HO will damage the subwoofer. Leaving the EQ switch in EQ2 for a 1220HO will yield an uneven bass response, and no output below 25 Hz.

Stereo/Mono Switch – If you have a stereo subwoofer source, and prefer to get mono bass (yields lower distortion and higher headroom in mono), switch it to mono. Otherwise switch it to stereo.

Subwoofer Level Control – Allows you to adjust the gain of the subwoofer. If you use very efficient main speakers such as Klipschorns, some crossover/processor may not provide sufficient gain in their subwoofer out to compensate for the efficiency difference between the subwoofer and the main speakers. The bass optimizer gives you 14 dB of extra gain. Set to 1 O'clock position for about unity gain.

Using the Bass Optimizer as a High Pass Filter

If you have ordered the bass optimizer as a high pass filter, EQ1 position would be set for one frequency, and EQ2 will be set for the second frequency that you have specified. It will be a second order high pass filter.

Connect the bass optimizer between the preamp and the power amp that drives the main speakers. Leave the mono/stereo switch in the stereo position and set the level control to about 1 o'clock position for unity gain.

Technical Specification

Gain: 14 dB (not including the bass EQ).

Input Impedance: 10k ohm.

Output Impedance: 100 ohms.

Inputs: Two line level inputs.

Output: Two line level outputs (stereo or mono).

Controls: Subwoofer level, EQ selection, and stereo/mono selection.

Shipping Weight: 1 lb.

Dimensions: 4"(w) x 2"(h) x 4" (d)

Power Requirements: 120 VAC, 5W.

Warranty: 1-year.