

LEGACY

Owners Manual For The
Step One
Environmental Processor



Table of Contents

Registration

3. Owners Record

Setup

4. Unit Connections

6. Using the Step One

7. Adjusting the Step One

8. Unit Care

Technology

9. Designer's Note

12. Specifications

Owners Record

The model and serial numbers are located on the rear of the unit. Record these numbers in the spaces provided below. Refer to them when calling upon your dealer regarding this product.

Model No. _____

Serial No. _____

Date of purchase: _____

Thank you for selecting a Legacy Audio System. Please take a few moments to read this brief manual to insure maximum benefit from your electronic system.

Unit Connections

Single Ended Uniamplication

Option 1:

Preamplifier Processor Output to STEP ONE Unbalanced Input
STEP ONE Unbalanced Variable Output to Processor Input Engage
Processor Loop on Preamplifier

Option 2:

Preamplifier Output to STEP ONE Unbalanced Input
STEP ONE Unbalanced Variable Output to Amplifier Input

Balanced Uniamplication

Preamplifier Balanced Output to STEP ONE Balanced Input
STEP ONE Balanced Output to Amplifier Balanced Input

Unit Connections

Single Ended Biamplication

Preamplifier Unbalanced Output to STEP ONE unbalanced Input
STEP ONE Unbalanced Fixed Output to High

Frequency Amplifier Input STEP ONE Unbalanced Variable
Output to Low Frequency Amplifier Input

Using The Step One Environmental Processor

When uni-amplifying using a single-ended stereo amplifier, STEP ONE can be used on an external processor loop of your preamplifier. It may also be inserted between your preamplifier and power amplifier. STEP ONE may also be placed on a tape monitor loop to “see” the effect of the unit; but for normal operation we recommend placing the environmental processor between your preamplifier and amplifier for optimum performance.

*Be sure your entire system has been **turned off** for at least 3 minutes before making connections.* After connections are made:

1. Turn on sources
2. Turn on preamplifier
3. Turn on STEP ONE
4. Turn on Amplifier(s)

Always observe this turn-on sequence!

Adjusting Low Frequency Level

STEP ONE is a dramatic addition to your Legacy loudspeaker system. One of the most exciting features of the STEP ONE Processor is its flexibility. No matter what size your listening room, no matter what sensitivity differences may exist between your amplifiers, no matter how far you sit from your speakers, the STEP ONE Environmental Processor will allow you to adjust the low frequency balance until it is spectrally correct. Simply rotate the large knob on the front panel clockwise to increase low frequency output. Trust your ears to tell you when it is right.

Unit Care

If you wish to clean your Step One, use diluted ammonia based window cleaner. Do not use any abrasive cleaners or chemical solvents. Take care not to damage the aluminum faceplate, since aluminum is a medium hardness metal and can be scratched by the careless use of tools during the installation.

The Step One may overheat and the finish may fade if exposed to direct sunlight or intense heat sources for prolonged periods. Save your box and packing material; they may be necessary for moving or shipping the unit for servicing by the factory.



Designer's Note (From Bill Dudleyston)

The STEP ONE Environmental Processor is an intelligent solution to the acoustical problems encountered in most hi-fi systems. No longer will you have to tolerate uncontrollable bass (*room boom*), glaring spectral balance or a congested soundstage.

Easy to use, STEP ONE is inserted after your preamplifier. All you'll need is one extra pair of interconnects. STEP ONE may also be placed in a tape loop for easy "before and after" comparison of adjustments. Its experimentally derived algorithm is based on data from 75 listening rooms over a four year period and addresses these common listening room problems:

1. The typical listening room suffers from a lingering resonance typically centered around 65 Hz. This axial resonance can cloud bass response and smear detail. Even when the bass drivers have begun the rarefaction stroke, the room just doesn't seem to let go of the note. STEP ONE'S configurable circuitry reduces the buildup of this axial energy, restoring a more natural decay to the notes. Upper bass punch will become quick and taut, allowing less audible deep bass to be heard and felt.

Designer's Note (From Bill Dudleyston)

2. Did you know the amount of bass that you hear is strongly dependent on the size of your listening room?

Larger rooms can require much more low frequency power from a loudspeaker than smaller rooms. The cubic volume of your room determines how much your speaker's output will be reinforced.

STEP ONE provides a spectral control below 125 Hz, following the natural taper of room gain. For the first time, you'll actually be able to match your system's bass volume to your room's cubic volume with the turn of a single knob.

3. Our research has shown that in most listening rooms system channel separation is nearly nonexistent below 500 Hz. In fact, the signal reaching your right ear is likely to contain just as much left channel information as right channel information. As reverberant field energy becomes dominant, clarity and imaging suffer severely. In the natural free field, the human hearing mechanism is provided nearly 6 dB of separation in this range to localize sounds properly. The wall bounded listening environment masks this critical information.

Designer's Note (From Bill Dudleston)

STEP ONE'S sophisticated algorithm improves low frequency separation to more closely approximate the live performance. Bass will seem quicker and your soundstage will decompress. And while your high frequencies remain untouched, you will experience an obvious improvement in definition and "air" as the low frequency resolution is restored. Like removing a cloud, you will hear the dimensionality that was there all along.

Only the finest components are used throughout the STEP ONE Environmental Processor; French-built AXON capacitors, 1% tolerance resistors, hand-braided internal wiring, and an Alps Blue Velvet level control. Balanced and unbalanced inputs and outputs are provided to ensure ultra high-end performance. A high current toroidal power supply with 27,200 μF of capacitance will drive any power amp handily.

Specifications



Frequency Response 10Hz to -3dB at 35 kHz

Maximum Output 4.5 Volts peak

Input Impedance

47.5k Ohms unbalanced

20.0k Ohms balanced

Power Supply 80VA Toroidal transformer with
27,200 μ F of capacitance

Dimensions

Height: 2.5" Faceplate, 3.0" Overall

Width: 17.0" Faceplate, 17.0" Chassis

Depth: 12.0" Overall

Weight 15 pounds

Notes:



© 2003 Legacy Audio
150 Locust Street.
Macungie, PA 18062
Phone: 610 965 0494
Fax: 610 965 4915

