

Installation in Brief

The Monolith IIIp Crossover Module

Introduction

Congratulations, you have invested in one of the world's premier loudspeaker systems!

The Martin-Logan MONOLITH IIIp CROSSOVER (the "p" is for "passive") is a precision instrument that represents the culmination of an intensive, dedicated group research program toward establishing a world class reference monitor utilizing leading-edge technology, without compromising durability, reliability, craftsmanship, cost, aesthetic design or ease of use. The MONOLITH IIIp CROSSOVER incorporates the latest innovative technologies developed in our on-going research and development programs at Martin-Logan.

A great amount of energy was spent on the circuit design, layout and parts quality to improve the interface between the electrostatic element and the woofer, with astonishing results. Special switches on the IIIp allow you to tailor the bass and midrange response to suit your particular room environment or listening tastes.

With the introduction of the IIIp into your system, the transition from the electrostatic element to the woofer becomes invisible and an unbelievable continuity of sound prevails. A veil is lifted and you are brought closer to the musical truth. Dynamic information suddenly becomes frightening. Power handling and system efficiency are enhanced. Bass response has excellent extension, impact and incredible definition. Highs are exceptionally extended, detailed and effortless. The sound takes on a natural, effortless character.

By following these instructions, you may connect the IIIp into your system, sit back, relax, and enjoy this most exacting instrument. It has been designed and constructed to give you years of trouble-free listening enjoyment. **Happy listening!**

Important

Warranty Information:

Your Martin-Logan MONOLITH IIIp CROSSOVER is provided with automatic Limited 90 Day Warranty coverage.

You have the option, at no additional charge, to receive Limited 3 Year Warranty coverage. To obtain Limited 3 Year Warranty coverage you need only complete and return the *Certificate of Registration* that was included with your IIIp CROSSOVER to Martin-Logan, within 30 days of purchase.

If you did not receive a *Certificate of Registration* with your crossover, you cannot be assured of having received new units. If this is the case, please contact Martin-Logan.

Installation in Brief:

We know you are anxious to listen to your Monolith III speaker system. So, to speed you along, we have provided *The Monolith IIIp CROSSOVER Installation in Brief*. Please read and follow these instructions as you initially connect your speakers into your system. These instructions are important and will prevent you from experiencing any delay, frustration, or system damage which might occur in a trial-and-error procedure.

Your Monolith III Speaker System User's Manual:

Your *Monolith III Speaker System User's Manual*, included with the Monolith III Speakers, will explain in detail *The Electrostatic Concept, Room Acoustics, Room Placement, History of the Electrostatic Loudspeaker, and general information about the operation and care of the Monolith III*. A clear understanding of your speakers will insure that you obtain maximum performance and pleasure from this most exacting speaker system.

Operation

Caution!
Turn your amplifier off before making or breaking any signal connections!

Standard Connection

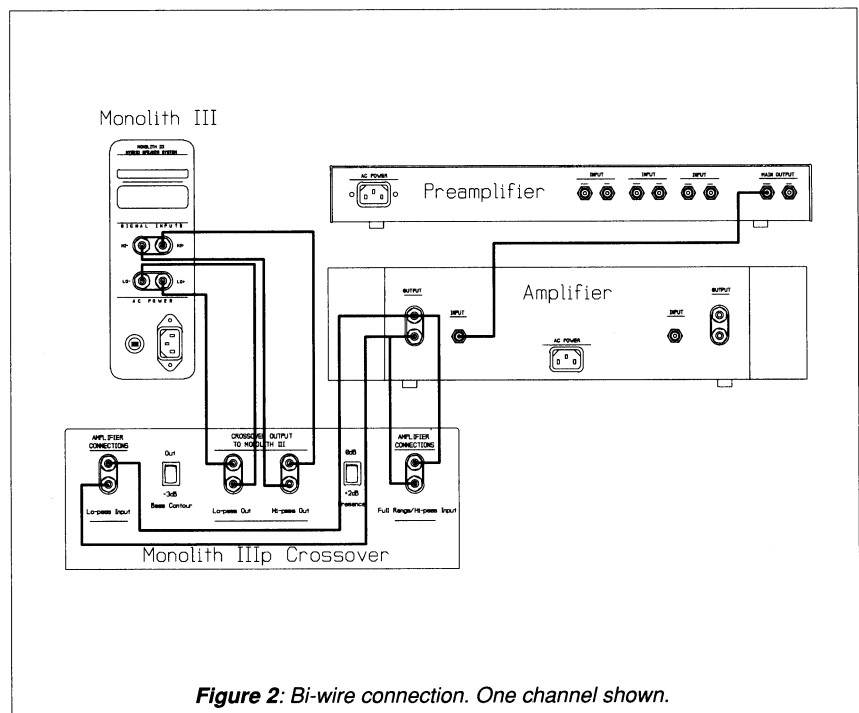
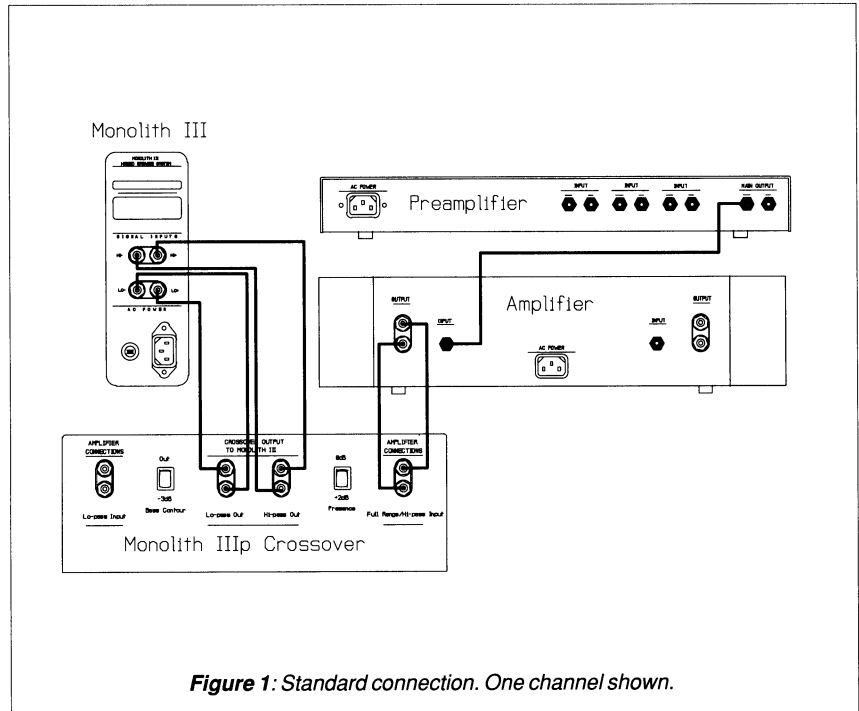
With the four binding posts of the IIIp CROSSOVER facing you, connect the speaker wire from your amplifier to the rightmost AMPLIFIER CONNECTIONS binding post. Next, connect the IIIp CROSSOVER to the MONOLITH III SPEAKER (for your convenience, we have provided speaker cables for this purpose - though color choice connection is arbitrary, for simplicity we suggest Red right+ Black right-, Blue left+ White left-). See *Figure 1*.

Bi-wire Connection

For superior performance, to bi-wire with the IIIp CROSSOVER requires that the crossover be internally reconfigured.

TO CONFIGURE YOUR PASSIVE CROSSOVER FOR BI-WIRING, first, using the provided tool, remove all of the allen screws securing the cover and lift the cover off of the crossover: inside you will see a switch. Now, move the switch to the TWO position and replace the cover. You are now ready to bi-wire.

Using two sets of speaker cable between your amplifier and the crossover doubles the signal carrying conductors from the amplifier to the speaker, thus direct-coupling the high-pass and low-pass portions of the crossover network to the amplifier. This will minimize interaction between the two sections of the crossover network. Finally, connect the IIIp CROSSOVER to the MONOLITH III SPEAKER with the provided cables. See *Figure 2*.



Operation

Passive Bi-amplification

For those of you that desire ultimate performance, the MONOLITH III may be passively bi-amplified using the IIIp CROSSOVER.

WARNING! Only after your crossover has been properly reconfigured may you connect individual runs of speaker cable from your amplifier to the Lo-pass and Hi-pass AMPLIFIER CONNECTIONS binding posts. Damage will occur to your amplifiers if your crossovers are not properly configured! See previous section BI-WIRE CONNECTION for instructions.

Passive bi-amplification takes the bi-wiring concept one step further. Now you will have a dedicated channel of amplification directly connected to the high and low-pass sections of the crossover.

There are two different methods to passively bi-amplify. The first, and most common, is referred to as **Horizontal Bi-amping**. The second method that is gaining in popularity is referred to as **Vertical Bi-amping**. With either method you may use two stereo amplifiers, or four mono amplifiers, or two mono amplifiers and one stereo amplifier. Get the idea? With either form of passive bi-amplification, your pre-amplifier must have dual outputs. If your pre-amplifier is not so equipped then you must purchase or construct a "Y" adapter.

Horizontal bi-amping allows you to use two different types, models or brands of amplifiers (i.e. tubes on top, transistor on the bottom), assuming that they have **identical gain** or that one stereo pair has **adjustable gain**. However, we recommend that you use

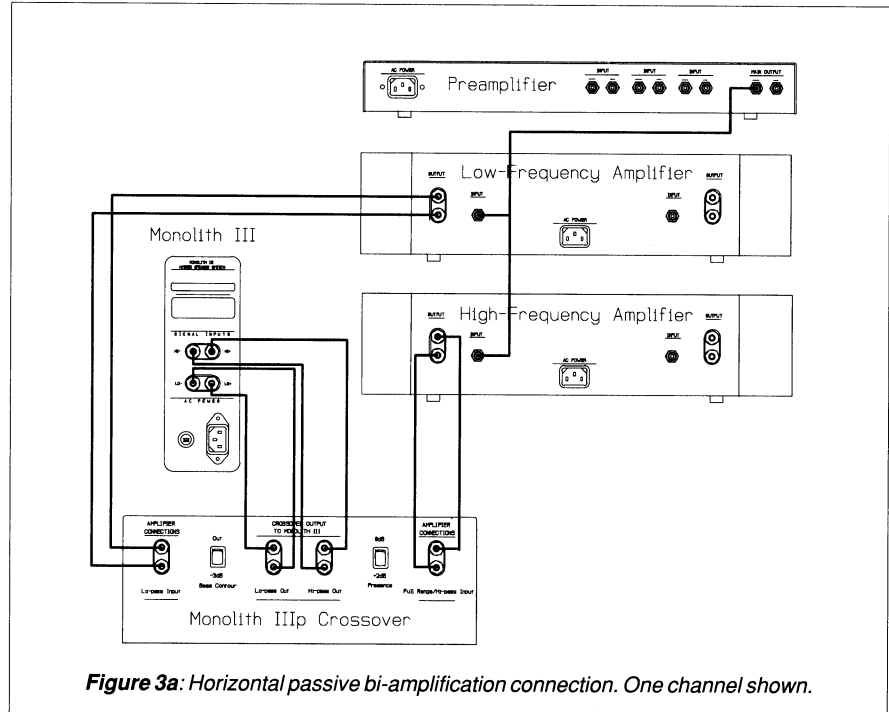


Figure 3a: Horizontal passive bi-amplification connection. One channel shown.

two identical amplifiers (i.e. same brand and model). If the amplifiers of choice do not have the same gain characteristics, then a sonic imbalance will occur between the high-pass and low-pass sections of the speaker and integration between the two will suffer greatly. By using identical amplification on the high-pass and the low-pass you will eliminate the negative effects of time delay (also referred to as group delay) that occurs when a signal passes through two dissimilar amplifiers. The very nature of **vertical bi-amping** dictates that both amplifiers be identical.

Horizontal Bi-amping:

With **horizontal bi-amping**, one amplifier drives the high-pass section while the second amplifier drives the low-pass section. To **horizontally bi-amp** your Monoliths, connect the low frequency amplifier to the **LO+** and **LO-** AMPLIFIER SIGNAL binding posts of each IIIp INTERFACE. Connect the

high frequency amplifier to the **HI+** and **HI-** binding posts. Next connect the left and right preamplifier outputs to the appropriate left and right inputs of both amplifiers. See *Figure 3a*.

Vertical Bi-amping:

With **vertical bi-amping**, each of the stereo amplifiers is dedicated to one speaker. For instance, the left channel of one amplifier drives the low-pass section while the right channel drives the high-pass section. To **vertically bi-amp** your Monoliths, connect the left amplifier channel of amplifier #1 to the **LO+** and **LO-** binding posts and the right amplifier channel of amplifier #1 to the **HI+** and **HI-** binding posts of the IIIp INTERFACE. Repeat the same procedure for the other speaker with amplifier #2. Connect the left preamplifier outputs to both inputs of the left channel amplifier (#1) and the right preamplifier outputs to both inputs of the right channel amplifier (#2). See *Figure 3b on the following page*.

Operation

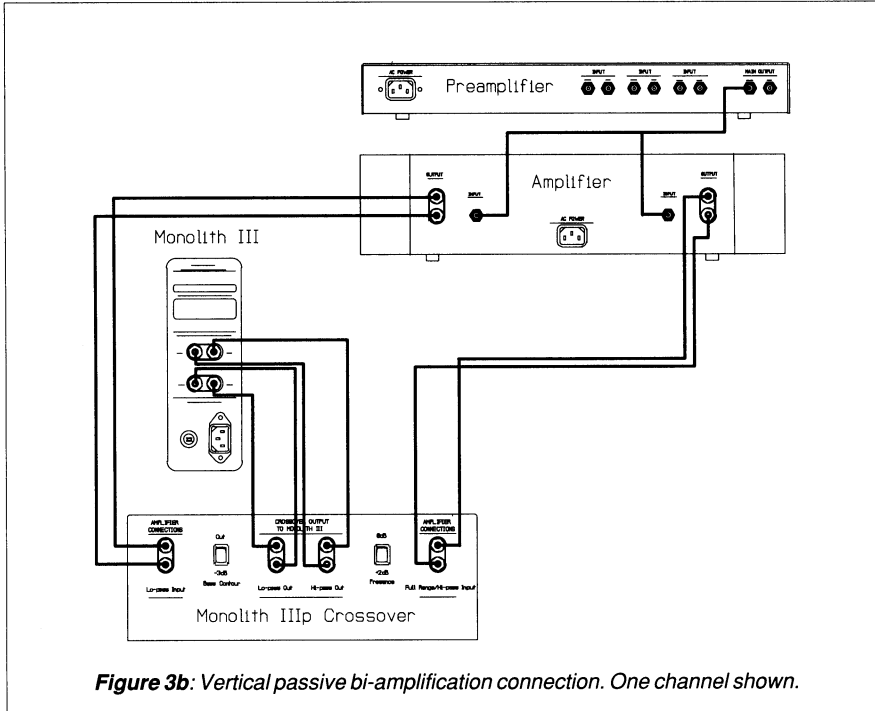


Figure 3b: Vertical passive bi-amplification connection. One channel shown.

Contouring Switches

Because of the wide variety of room environments, recording techniques and customer preferences that we feel are important issues for today's premier loudspeaker designers to address, we have provided the MONOLITH IIIp CROSSOVER with two switches that will give you more flexibility and control over the final sound.

The **Bass Contour** switch is located between the Lo-pass Input and the Lo-pass Out binding posts. The **Presence** switch is located between the Full Range/Hi-pass Input and the Hi-pass Out binding posts.

Bass Contour Switch:

The **Bass Contour** switch is a two-

position switch that allows you to tailor the low frequency response of the MONOLITH III. The **Out** position is considered the normal setting for most rooms. However, if you feel that the bass in your system is too strong relative to the mid-range and high frequencies, simply select the **-3 dB** position. This switch position will attenuate the woofer response by 3 decibels below 100Hz. With the **Out** position selected, the **Bass Contour** circuit is removed from the audio signal path, thereby eliminating any possibility of signal degradation caused by added circuitry or components.

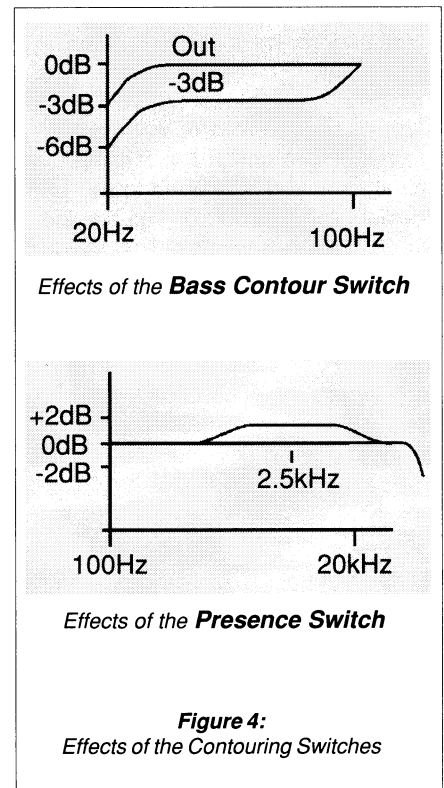
Presence Switch:

The **Presence** switch is also a two-position switch that allows you to tailor the mid-range response (presence) of

the MONOLITH III. The **0dB** position is considered the normal setting for most rooms. However, if you would like more presence, select the **+2dB** position. This switch setting will cause a 2 decibel rise centered around 2.5kHz. With the **0dB** position selected, the rise is eliminated. Please refer to the graphs in *Figure 4* showing how these switch settings effect the response of the MONOLITH III.

Some experimentation with these two switches will allow you to find the optimal tonal balance to meet your specific tastes, room environment and audio equipment.

Now, sit back and enjoy!



*Effects of the **Bass Contour** Switch*

*Effects of the **Presence** Switch*

Figure 4:
Effects of the Contouring Switches