

Magneplanar 3.7i Instruction Manual

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Quick Set-up Instructions

The 3.7i has exceptional phase characteristics that are accomplished without the use of compensation networks. To realize the optimum phasing, the 3.7i should be angled inward as shown in the diagrams in the manual. (Do not place parallel to the front wall.) For a larger "sweet spot" and multiple listeners, place tweeters on the outside. Single listeners may choose to place the tweeters on the inside. If you do, cant the speakers inward sufficiently so that the tweeter is not ahead of the bass and midrange in time as shown in the diagrams below. **Whether the tweeter is on the inside or outside, the tweeter should not be closer to the listener than the bass section. Measuring from your seated position, if the bass panel is 10 feet, 6 inches, the tweeter should be at least 10 feet, 7 inches (think in distance, not angles).**

Tweeter attenuation may be necessary for rooms with hard, reflective walls. See Section 14 below.

Your 3.7is have been shipped with the tweeters disconnected.

You must install a resistor or jumper for the operation of the tweeters. Most listening rooms will have the smoothest response when using the enclosed 1 ohm resistors for the tweeter and midrange. Rooms that are large and/or overly-damped may require the enclosed jumper for smooth response.

The 3.7i provides more options for getting the bass just right for your particular room. There is no one-size-fits-all for every room. The 3.7i has provisions to adjust the relative levels of the bass, midrange and tweeter. The default position for most rooms requires attenuation of the midrange and tweeter with resistors. If that does not achieve a smooth balance in your room, additional bass diaphragm area can be added with one or more Maggie Bass Panels.

Introduction

Congratulations on your purchase. The Magneplanar 3.7i loudspeaker was conceived and designed by perfectionists, for perfectionists. Due to the elegant simplicity and ruggedness of the design, the Magneplanar 3.7i loudspeaker will give many years of trouble-free service.

General Description

The 3.7i is a 3-way, full-range ribbon design with a quasi-ribbon bass and midrange, and true-ribbon tweeter.

Carton Contents

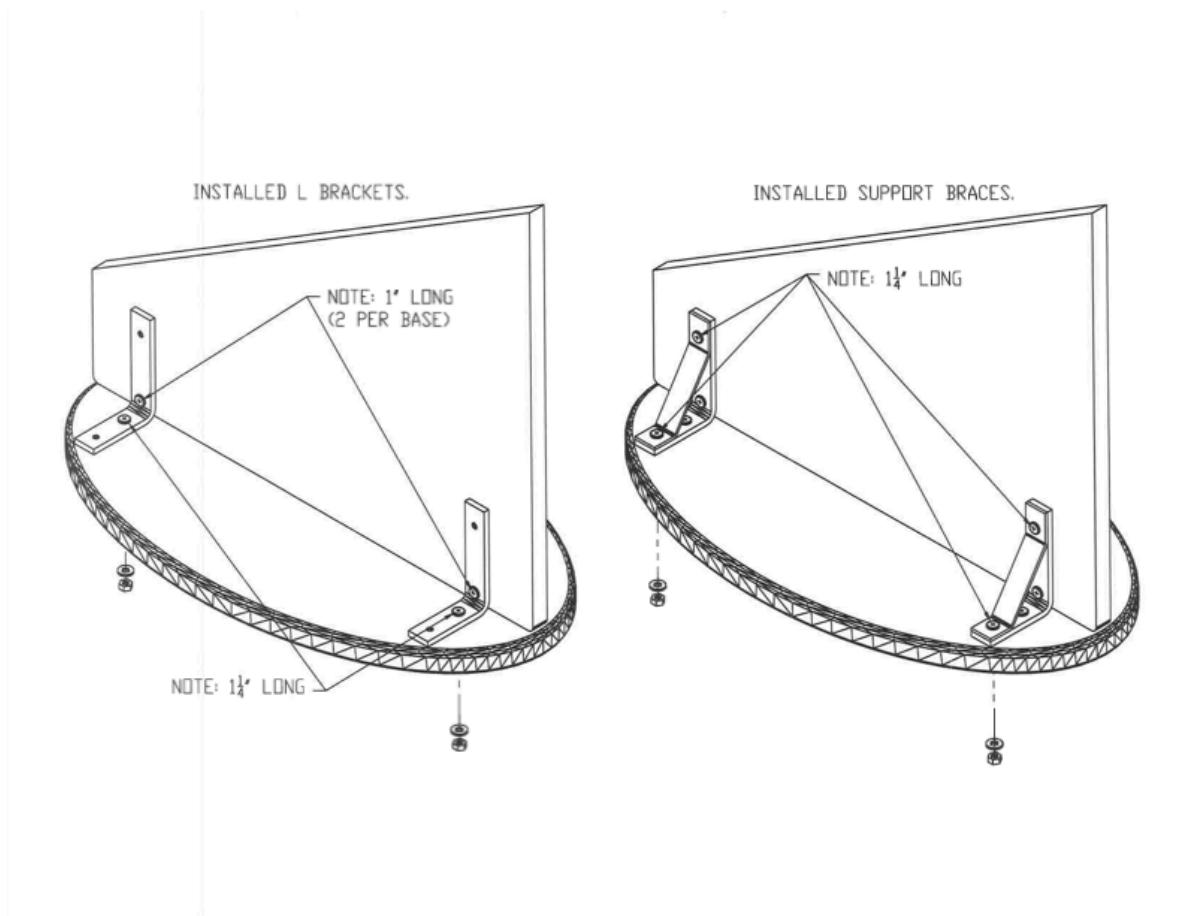
- 1 pair 3.7i loudspeakers
- 2 each oval base
- 8 each screws (6- 1 1/4 inch screws, 2 3/4 inch screws)
- 4 each 1 ohm resistors
- 2 each jumpers
- 2 each Magneplanar logos
- 1 each Allen wrench

Packaging

Save all packaging. If you need to transport the speakers, they can be shipped safely only in the original packaging. You may never have to return your loudspeakers, but should the occasion arise, they should not be shipped in any packaging but the original. Should you discard it, packaging is available.

Assembly

This will require the help of an assistant. Lay the speaker face down on a fabric-covered table, or as an alternative, carefully lay the speaker on its side. Attach the L-shaped brackets to the oval base and to the speaker panel using only the shorter length screws as shown in the diagram. Next, install the supporting braces with the longer length screws for each bracket. To prevent cross-threading the bolts, install by hand before using a screw-driver. Do not use power tools.



Hookup

The 3.7i features unique, high current connectors which provide optimum contact area with the speaker cables up to 10 gauge (or for banana connectors). Simply strip 1/2" of insulation from the end of the cable. Insert the cable into the terminal (observing polarity), and tighten the set screws with the Allen wrench provided. Banana plug connectors can be used and locked in place with the set screws. Spade lug adapters are available from your Magneplanar dealer for spade connectors that are incompatible with the Magneplanar high current connector.

Caution

The terminal plate states a maximum fuse value of 5 amps Type 3AG ("normal" or "fast blow") for the midrange and 2 1/2 amps for the tweeter. The bass section does not require fusing protection. This fuse value should never be increased or bypassed. Do not use slow-blow fuses. BURNED OUT MIDRANGE OR TWEETERS ARE NOT COVERED UNDER THE WARRANTY.

Speaker Placement

Proper speaker placement and room acoustics can have a greater effect on a music system than upgrading one of the components in the system. Unfortunately, there is no definitive guideline which will cover all possible listening rooms. Some experimentation is required for locating the optimum position. The following are a few general guidelines:

Bass Response

Play a CD with repetitive bass. Try the speakers in several possible locations in the room. Begin experimenting with the speakers about 3 feet from the front wall. Try moving the speakers forward or backward in increments of 6 to 12 inches. One position in the room should be noticeably better than others. Also experiment with your listening location to avoid standing waves.

Need more bass?

Most of the area of any full-range Maggie is devoted to bass reproduction. (In the case of the 20.7, 76% of the total radiating area is devoted to bass.) The Magneplanar Bass Panel offers you the flexibility to add bass diaphragm area to fit the needs of your room. From the \$600 pair MMG to the 20.7, the Maggie Bass Panel can get the bass/midbass "just right".

Left/Right

The 3.7i's are matched pairs and mirror-imaged. The tweeters are located in the narrow fabric section.

Stereo Width and Imaging

Once you have located the best position for the speakers and your chair for bass performance, separate the speakers by 50-60% of the distance from your chair to the speakers. For example, if your chair is 10 feet from the speakers, move the speakers 5-6 feet apart. Now, move the speakers apart in increments of 3 or 4 inches at a time, listening carefully at each position. At some point you will start to hear two separate speakers instead of a stage effect or continuous image. When this occurs, your speakers are too far apart. Begin moving the speakers back in small increments until you notice a point at which you achieve one cohesive sound stage.

Depending upon the acoustics of your room, the imaging and sound stage may be better with the tweeters on the inside for listening only in the "sweet spot". For a larger audience or listening off to one side, tweeters on the outside will keep the image centered for those listening off-axis. Angle the speakers as shown in Figures 1 or 2.

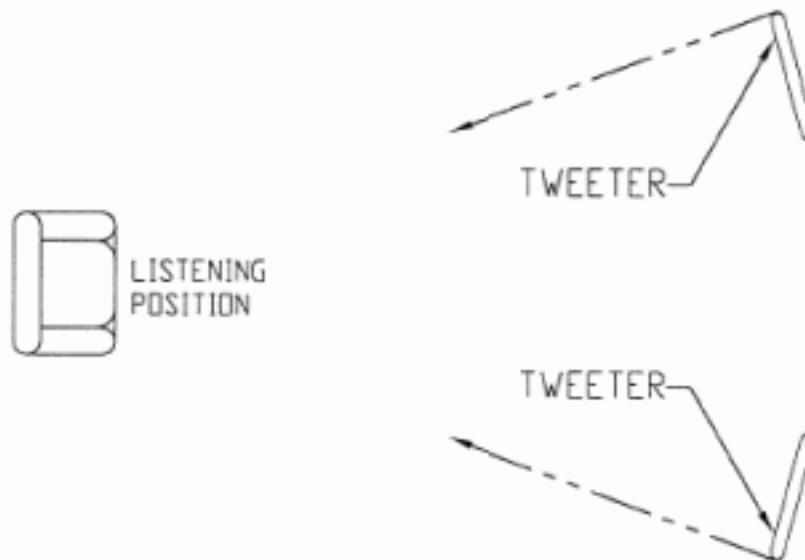


FIG. 1

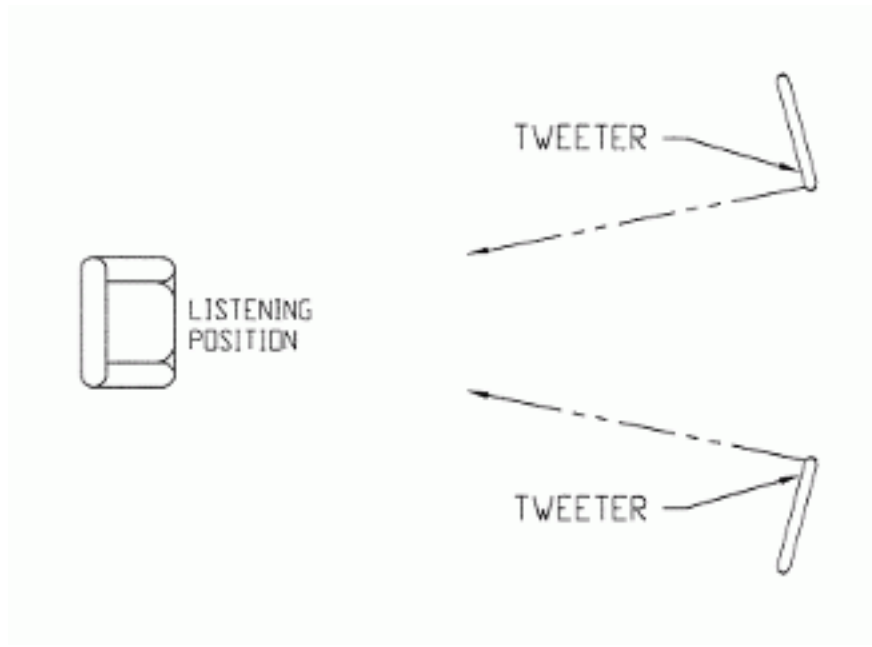


FIG. 2

Phasing

The Magneplanar 3.7i has superior phase characteristics. We suggest you resist the tendency to place the speakers so they are parallel to the front wall. For optimum phasing, the speakers should be angled as shown in Figures 1 or 2.

Once you have located the ideal speaker position, a mark is helpful for quickly replacing the speakers. A small tack, yarn woven into the carpet, or piece of tape can be placed on the carpet so your ideal listening spot can be easily relocated when the speakers (or chair) are moved for cleaning, etc. In the event your ideal listening spot is inconvenient from the standpoint of the room layout and decor, simply slide the speakers wherever they look best. For background listening the speakers can be placed close to the wall and it will make little difference.

The entire placement procedure may seem like a great deal of work, but is necessary in the setup of any high quality system. The time and effort expended should be necessary only once, and will repay the owner with countless hours of musical enjoyment.

Room Acoustics

The judicious use of damping material can improve the sound. Acoustical damping can be achieved with household items or wall hangings. A word of caution--when audiophiles discover the effectiveness of damping material, they sometimes overdo it (on the premise that if a little is good, more is better). Before making a permanent change to your room, experiment with the positioning of the damping material. Usually a portion of one or two parallel walls should have some damping. However, it is a trial-and-error process.

An over-damped room will provide very precise imaging, but the sound will seem "dead." An under-damped room may heighten the illusion of being in a concert hall, but the imaging will seem imprecise with all the instruments mixed together. "Hardness" or over-bright sound is usually the result of a room with hard surfaces (glass, hard paneling, etc.). Moderation is the key.

Diffusers are also helpful to improve the acoustics of a room. Contact your Magnepan dealer for more information on the proper use of diffusers.

Optional Tweeter or Midrange Attenuation

To attenuate the tweeter or midrange, remove the jumper(s) and install a resistor.

The 1 ohm resistor is the standard tweeter and midrange resistor values. Other tweeter and midrange resistor values are available from your Magneplanar dealer.

In addition to the tweeter resistor, installing the 1 ohm midrange resistor will also provide a "warmer" balance.

Specifications

System Description	3-Way, full-range, ribbon speaker with quasi-ribbon midrange and quasi-ribbon bass and true ribbon tweeter.
Frequency Response	35Hz--40 kHz
Sensitivity	86 dB, 500Hz, 1 meter, 2.83V
Impedance	Nominal 4 Ohms
Dimensions	24 W x 71 H x 1 5/8 D inches
Warranty	LIMITED. 3 years to original owner. 1 year on ribbon tweeter.
Shipping Weight	125 lbs.

* Because there are no universally accepted methods for loudspeaker measurements, frequency response specifications may be stated by most manufacturers without reference to measurement techniques and/or specific locations in rooms. Magneplanar loudspeaker frequency response specifications are average performance levels that may reasonably be expected in normal installations.