

# Magneplanar 1.7 Instruction Manual

## Quick Step-Up Instructions

The 1.7 has exceptional phase characteristics that are accomplished without the use of compensation networks. To realize the optimum phasing, the 1.7 should be angled inward as shown in the diagrams in the manual. (Do not place parallel to the front wall.) In most rooms with one or two listeners, we have achieved the best imaging with the tweeters placed on the inside for listening in the "sweet spot". For a larger audience and listening further off-axis, try tweeters on the outside. But, again, the speakers must be angled inward as shown in the diagrams below .

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### 1. Introduction

Congratulations on your purchase. The Magneplanar 1.7 loudspeaker was conceived and designed by perfectionists, for perfectionists. Due to the elegant simplicity and ruggedness of the design, the Magneplanar 1.7 loudspeaker will give many years of trouble-free service.

### 2. General Description

The 1.7 is a 3-way, full-range, quasi-ribbon design with a quasi-ribbon bass/midrange, tweeter, and super-tweeter.

### 3. Carton Contents

- o 1 pair 1.7 loudspeakers
- o 4 each feet
- o 8 each foot bolts

- o 8 each plastic washers
- o 2 each 1 ohm resistors
- o 2 each Magneplanar logos
- o 1 each Allen wrench
- o 1 instruction manual

## 4. 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.

## 5. Assembly

Before you begin -- Spacers are provided to adjust the vertical angle of the speakers for a combination of sitting and standing listening positions. Install the spacers on the bottom mounting bolt to tilt the speaker backwards. The amount of angle will be dependent on your particular listening conditions. Under most conditions, stacking 2 spacers will be adequate; however, some experimentation may be necessary.

- A. Remove speakers and feet from carton. The 8 mounting bolts are installed in the speakers.
- B. We suggest the assistance of a second person will facilitate the installation of the feet. Place the speaker on its side edge.
- C. Remove the 8 bolts from the internal T-nuts. Note that one end of the foot is longer than the other end. Place the longer end toward the front of the speaker. Carefully align the foot on the backside of the panel so the holes in the foot line up with the bolts in the panel. Using your fingers, insert a bolt through the center hole until the bolt engages with the nut in the panel. Do not use a screwdriver until the bolt has engaged the threads. Care must be taken not to cross-thread the bolts. Use longer bolts if spacers are used to tilt the speaker.
- D. Repeat the same procedure for top hole.
- E. Tighten all the bolts securely.

## 6. Hookup

The 1.7 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.

## 7. Caution

The terminal plate states a maximum fuse value of 4 amps Type 3AG ("normal" or "fast blow"). 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 TWEETERS ARE NOT COVERED UNDER THE WARRANTY.

## 8. Speaker Placement

Proper speaker placement and room acoustics can have a greater effect on a music system than

## 9. **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.

### **Fine-tuning the bass and midbass with the Maggie Woofer.**

Due to standing waves, dips and peaks in the bass and midbass are a fact of life. Each room has its sonic signature depending upon the size, shape and construction. One solution is electronic equalization to deal with room aberrations. Many of the newer receivers and processors incorporate a microphone and automatic EQ that will correct frequency imbalances. However, this approach has drawbacks and is not well accepted by most audiophiles. There is another and better solution.

Multiple subwoofers are commonly used to smooth room bass response. Although an expensive solution, this technique has been proven to be superior to EQ of a single subwoofer. Using the same fundamentals of acoustics, Magnepan has a solution which can fine-tune the bass and midbass of our floor-standing models--- the Maggie Woofer (DWM and DW 1).

More information is available on the Magnepan website to describe how the Maggie Woofers can be used to give you smooth bass and midbass in the most difficult of rooms.

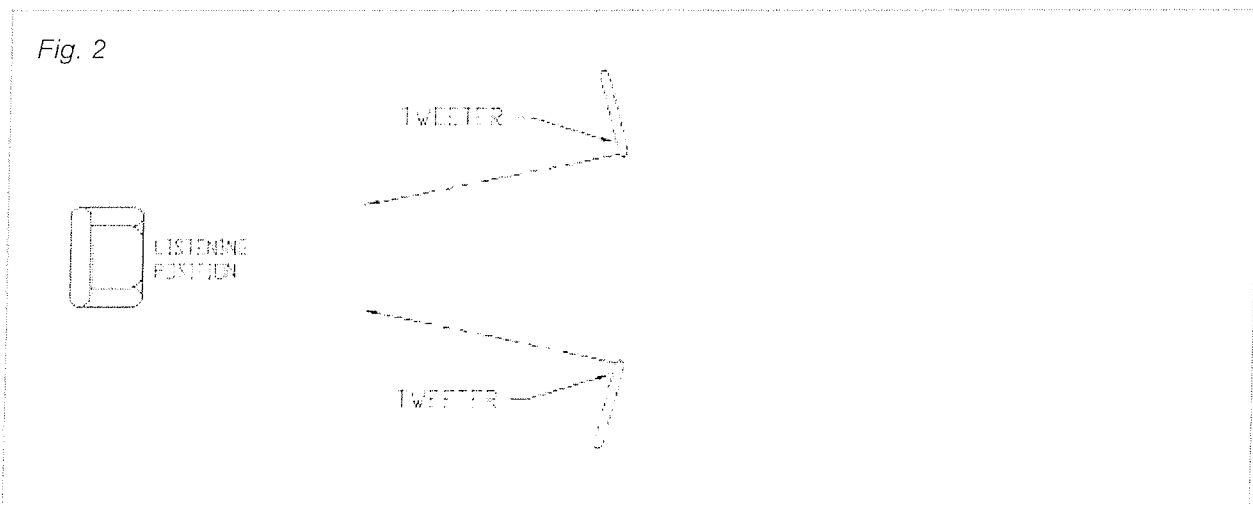
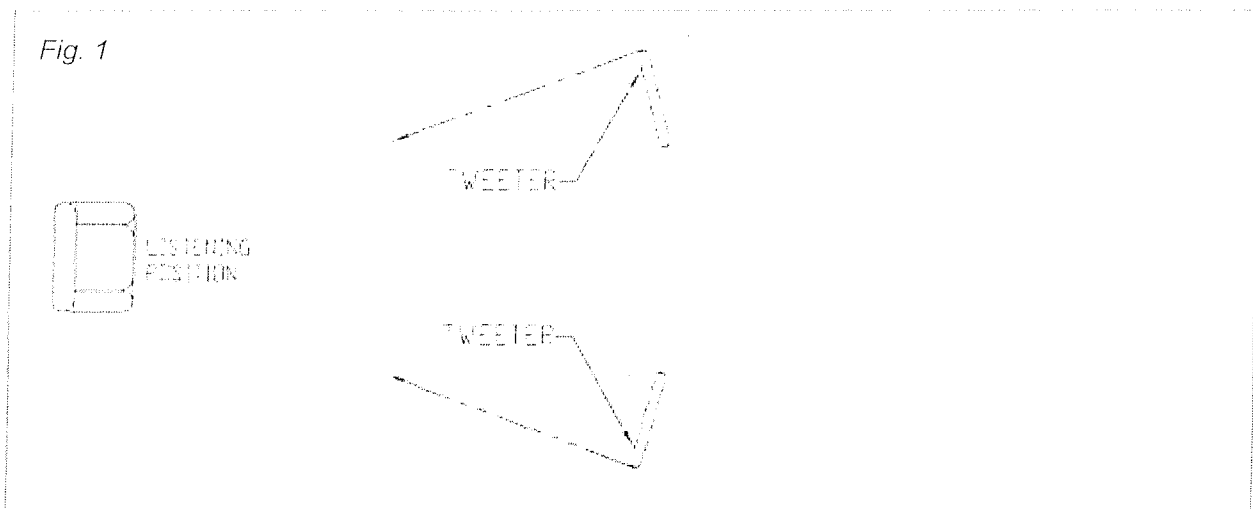
## 10. **Left/Right**

The 1.7's are matched pairs and mirror-imaged. The serial number for each speaker in the pair is the same, except for a "1" or "2" following each serial number. As you face the front of the speakers, the speaker with the serial number ending with the "1" after its serial number has the tweeter near the left edge, and the speaker serial number ending with the "2" has the tweeter near the right edge.

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:

## 11. 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.



## 12. Phasing

The Magneplanar 1.7 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.

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 and listening further off-axis, try tweeters on the outside. Angle the speakers 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.

### 13. 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.

### 14. Optional Tweeter Attenuation

There are two principal reasons for needing to attenuate the Magneplanar Quasi-Ribbon Tweeter and Super Tweeter:

- A. Pop or rock recordings often exhibit a pronounced rise in the treble region.
- B. The Magneplanar Quasi Ribbon Tweeter is very efficient in its total energy dispersion. If the surrounding walls are exceptionally reflective, the overall perceived acoustical balance will be tipped towards a "hot" high end.

Attenuation is performed through insertion of a resistor in place of the jumper. The pair of 1.2 ohm resistors will attenuate the tweeter 1-2 dB. Other values are available from your Magneplanar dealer.

## 15. **Maintenance**

Light vacuuming of the grille cloth is possible.

## 16. **Specifications**

- o System Description: 3-Way, full-range, quasi-ribbon speaker.
- o Frequency Response: 40Hz--22kHz" +/- 3dB
- o Sensitivity: 86 dB, 500Hz, 1 meter, 2.83V
- o Impedance: Nominal 4 Ohms
- o Dimensions: 19-1/4" X 64-1/2" X 2"
- o Warranty: LIMITED. 3 Years to Original Owner
- o Shipping Weight: 95 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.

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