



MAGNEPLANAR®: Sound + Decor

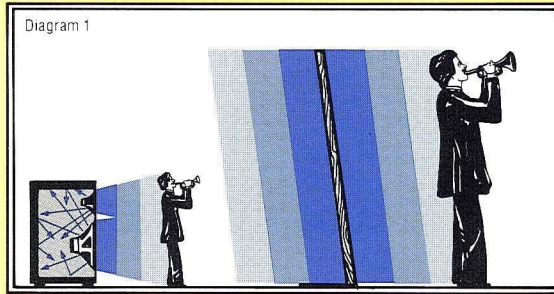
# 5 Good Reasons Why Over 35,000 Music Lovers Purchased Magneplanars®

**1. IMAGE SIZE**—Instruments projected from small boxes sitting on the floor *sound like* they are coming out of boxes on the floor. This problem can be partially corrected by putting the box speakers on tall speaker stands. However, the sound still seems to be coming out of a box, because that's precisely what it is doing.

The Small Magneplanar® (SMG) eliminates these problems by a fundamentally different approach to sound propagation. The 4 foot high Magneplanar® projects sound from top to bottom, giving the sound *height* as well as stereo width and depth.

In the concert hall instruments project in all directions. Instead of projecting sound out of a box, Magneplanars® project in all directions, which closely duplicates the original performance.

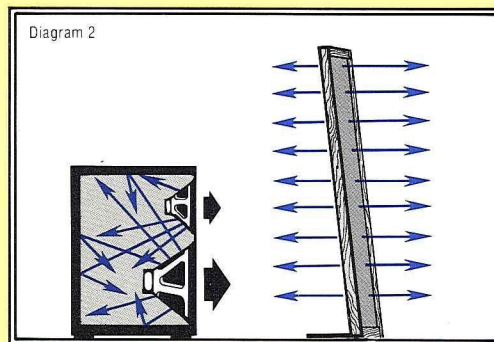
With your eyes closed the Magneplanar® will allow you to "see" the original performance suspended in space. The full height, width, and depth of the concert hall can be heard.



**2. LOADING**—Theoretically, loudspeakers should use massless drivers suspended in space with no box, magnet structure, or framework around the driver.

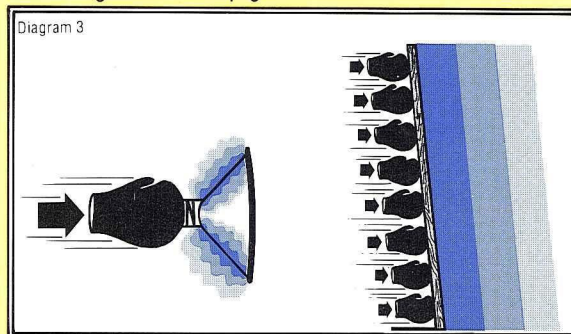
Most conventional box speakers are far from this ideal. The mass of the driver is high and the rear wave is contained within the box or magnet structure. While the frequency response can be smoothed out in a box speaker, the character of the sound is inevitably affected. The music sounds like it is coming out of a box—constricted and unnatural.

The Magneplanar® diaphragm comes closer to the ideal driver. The mass is low and the diaphragm is not contained. The sound is permitted to radiate freely into space. With the box removed, Magneplanars® sound more like you are there.



**3. UNIFORM DRIVE**—The power from the amplifier causes the conventional cone speaker to react as if it had received a sharp blow at the voice coil. Since the outer portions of the cone cannot respond instantly, the cone will flex. The resulting cone breakup gives music a "fuzzy", "blurred" quality.

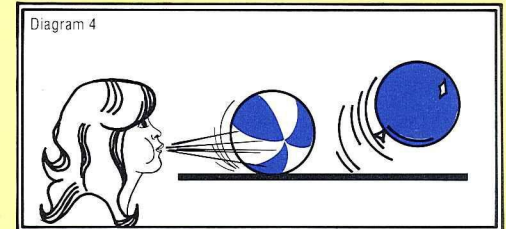
The Small Magneplanar® eliminates cone breakup by driving the Magneplanar® diaphragm over its entire area. The force from the amplifier is distributed over the entire diaphragm so that it all moves at the same time. Cone or diaphragm breakup is dramatically reduced and the integrity of the musical signal is preserved.



**4. MASS**—The effect of mass on a loudspeaker can be illustrated by the comparison of a balloon and a beach ball. In the case of the balloon a nominal force such as a puff of air will cause the balloon to accelerate quickly. When the force ceases, the balloon decelerates quickly. The same force will move the beach ball, but the ball is slower to start and slower to stop.

High mass is one of the main causes of sonic degradation in a conventional box speaker. Expecting a heavy cone woofer to move 1000 cycles per second in perfect synchronization with the electrical signal is expecting the impossible. The music is "blurred". The details and texture of the music is lost—the bass is "boomy", or "muddy"; mids and highs sound "nasal" or "raspy".

The Small Magneplanar® has less mass than the conventional box speaker; consequently, the Magneplanar® diaphragm is more in step with the electrical signal. The detail and texture of the music is maintained.



**5. VERSATILITY**—Serious listeners know that for best results, box speakers should be placed on speaker stands positioned away from walls. Unfortunately, this usually conflicts with the decor of the room.

The Small Magneplanar® (SMG) fits into the smallest of rooms (room in photo is 11 ft. x 12 ft.), yet is easily moved if the speakers cannot be left in the most accurate musical position.

Interior decorators find Magneplanars® to be the answer to "where do we hide those boxes?" The elegant Magneplanar® screen acts as a beautiful backdrop for plants or pieces of art.

## OTHER PERFORMANCE CHARACTERISTICS OF MAGNEPLANARS

- ◆ Purely resistive impedance for ideal amplifier loading.
- ◆ Accurate phase response is provided by woofer-tweeter diaphragm and voice grids all on the same plane.
- ◆ Linear power response—no compression of dynamic range.
- ◆ Mirror-imaged pair for stable stereo image.

## SMG SPECIFICATIONS:

**System Description**—two-way full range Magneplanar® loudspeaker.

**Midrange/Bass Radiating Area**—370 sq. in.

**Tweeter Radiating Area**—58 sq. in.

**Frequency Response\***—±4 db from 50 Hz to 16,000 Hz.

**Normal Power Requirements**—20-50 watt amplifier (rated at 8 ohms).

**Maximum Recommended Power**—100 watt amplifier (rated at 8 ohms).

**Sensitivity**—1 watt RMS—500 Hz—90 db—@ 3 feet. 1 watt RMS, 20-20,000 Hz, pink noise input will produce 85 db SPL at 3 feet.

**Impedance**—purely resistive, 4 ohms at any frequency.

**Crossover System**—6 db per octave at 2400 Hz (high quality capacitor and air core inductor).

**Dimensions**—24¼" x 48<sup>9</sup>/<sub>16</sub>" x 1¾".

**Weight**—28 pounds each.

**Finish**—Solid hardwood side moldings. Panel covered with brown fabric.

**Warranty**—5 years (limited).

**Shipping Weight**—70 pounds.

\*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 curves are minimum average performance levels that may be reasonably expected in normal installations. Because there are no specific limitations on how they may be stated, we recommend careful listening comparisons to determine which loudspeaker sounds the most natural.