# S U O N O



## The SUONO 100SD SPATIAL DIFFUSER

### **Introducing SUONO**

We at Angstrom are first and foremost music lovers. However, we do appreciate that the solutions to achieving high quality music reproduction in the home, aesthetically, are often less than satisfactory. Nowhere is this more apparent than in the physical design of loudspeakers which can often be difficult to integrate within carefully chosen decorative schemes.

SUONO *loudspeakers are different.* Care has been taken to make them as unobtrusive as possible while retaining the musical qualities that have earned Angstrom an enviable reputation almost 40 years.

The SUONO 100SD is compact on-wall 2-way 5drivers design with dual 4" woofers and a 1" front firing soft dome tweeter And 2 side-firing soft dome tweeters all in a tuned MDF enclosure that mounts vertically or horizontally The side-firing tweeters account for the SD in the model name, which stands for Spatial Diffuser.

The toggle hidden with the speakers terminals can make 6-decibel cut in the level of the front tweeter. Please take a few moments to read this booklet before setting up your new loudspeakers. In addition to the advice it contains you may want to discus the installation with your reseller who will be able to assist you in achieving optimal performance. Alternatively, feel free to contact us directly with any queries you may have.

#### Unpacking

In the carton you will find: 1 SUONO 100 SD loudspeaker and 1 wall mounting bracket, located under the inside flaps at each end of the carton. We suggest you keep all the packaging for safe transport of your loudspeakers in future. Always re-pack them front to front face in the carton to avoid damaging the grille cloth.

#### Connections

Before making any connections, please remove the Bottom Cap (as shown in the adjacent diagram) by pulling out the cap.

Connect a loudspeaker to each channel of a stereo amplifier/ receiver. Connect the "+" (red) and "-"(black) side of each channel to the "+ "and "-" loudspeaker terminals. Use good quality cable. Replace the Bottom Cap securely after making the connections.



#### Your System

While costly hi-fi components will achieve their potential with SUONO loudspeakers, remarkably improved results will be obtained with the Home Theatre in a Box based systems. SUONO loudspeakers are easy to drive, ideal for amplifiers from 10W per channel upwards. Although the maximum volume is reduced with small amplifiers, they will still give satisfying sound. In general, more powerful amplifiers improve the sound by allowing greater headroom for musical peaks. Additional low frequency information can be reproduced by using any of Angstrom's active low frequency transducers (subwoofer).

#### Running in

The SUONO loudspeakers sound their best after a running in period. Bass increases during running in, and both tonal balance and smoothness improve as the woofer suspension loosens up. Five to ten hours use at reasonable levels will accomplish this, although the loudspeakers continue to improve for up to 30 hours before stabilizing. Avoid critical listening before running in, as the loudspeakers were "voiced" for the correct tonal balance after running in.

#### Positioning

The SUONO 100 SD loudspeaker has been designed for use on or near walls to blend into commercial and domestic surroundings. Their performance has been optimized for a natural well-controlled bass response in such locations. Unlike other loudspeakers, many of which are designed to be used well out into the room, SUONO loudspeakers may often be located to advantage close to corners, particularly in large rooms. However, all rooms differ and there are no hard and fast rules. If possible, experiment with positioning before drilling holes in the wall.

The SUONO 100 SD is a Spatial Diffuser, meaning that the sound produced is spread out in an un-concentrated manner. The sound has an actual extension in space. As the SUONO SD has a true 180 degree radiating pattern and therefore the loudspeaker will seem to be very large.

The 100SD is mainly intended to be hung on walls. They may be hung vertically or horizontally, using the same wall brackets. They should be placed at least 30cm (1ft.) along the wall from the corners. The height of the SUONO 100 SD is determined by the desired effect required for the installation.

#### **Placement hints**

- Set the loudspeakers at least 2-3 meters (7- 10ft.) apart.
- Keep the loudspeakers edge at least 30cm (1 ft.) from corners (60cm for the 400)
- Don"t obstruct the loudspeakers with furniture/curtains
- Place the loudspeakers at approximately 2 meters high

#### Applications are almost unlimited

SUONO SD loudspeakers are ideal for multi-channel home theatre systems, or to enhance stereo televisions They are perfect for restaurants, public spaces such as reception areas, offices, waiting rooms and general areas where normal loudspeakers have limited performance.

#### As an Audio Diffuser

Install the SUONO 100 SD in any area where diffused or background audio is required. Space about 2-3m (7-10ft.) apart. This may vary based on application. They should be wall mounted at approximately 2 meters ( $6 \frac{1}{2}$ ") from the floor.

#### As A Rear Channel/Side Channel

The 100 SD is an exceptional wall mounted rear or side channel effects loudspeaker. Place the loudspeakers fairly high up on the side walls behind the viewing position, or well spaced on the rear wall.

#### As a Centre Channel

Use the 100 SD for the centre channel. It should be mounted horizontally on the wall immediately behind and above the TV set, or below a projection screen. An alternative for projection systems is a pair of 100 SD's, one above and one below the screen and run in parallel (both connected to the same centre channel output) giving a true mono central image localized directly on the screen, coupled with an unprecedented sound stage.

#### The Attenuation Switch

The Angstrom 100SD is fitted with an ATTENUATION SWITCH on the top of the loudspeaker between the loudspeaker connection terminals. Set at the "0" position the front firing tweeter has full output. Set at the opposite position, -6db, the output to the tweeter is attenuated by 6db. Use the Angstrom 100SD in the attenuated position, -6dB in applications where high frequency information my be too "bright" or too "direct". This feature works particularly well in situations where people are in close proximity to the loudspeaker. This would be very applicable in restaurant installations. Please experiment with location, height and placement and the attenuation adjustment before attempting any permanent installation. Please feel free to call our Customer Service at 416-988-8806 with any questions or concerns.

#### Wall Mounting

The 100 SD may be placed vertically or horizontally.

SUONO 100SD loudspeakers are packed with two part wall brackets. The loudspeaker part is already in place on the back of the loudspeaker. All you have to do is fix the other part of the bracket to the wall.

Securely fix the wall bracket to the wall, with the folded flaps to the top. Make sure it is straight and level. Use hardware appropriate for your wall construction. The bracket holes are over-sized to allow some adjustment on the wall. This is easiest if washers are used under the screw heads. For maximum security we recommend using all four fixing holes provided in the wall bracket. Fix the bracket and adjust it using two screws. Then drill for the other two once it is firmly in place.



Hang the loudspeaker by lowering it onto the wall bracket so that the folded edges mesh. The loudspeaker is coupled to the wall via the triangular spike at the bottom of the loudspeaker bracket. The wall bracket makes the loudspeaker stand off from the wall by about 9mm. This allows cables to be dressed, and accommodates walls which are not flat.

If the loudspeaker is not quite straight, the wall bracket should be adjusted by loosening the re-tightening the fixing screws and washers. If there is not enough play available, further adjustment can be made by loosening and moving the plate on the back of the loudspeaker as well. Follow the instructions on horizontal mounting to do this.

#### **Horizontal Mounting**

To hang the 100 SD horizontally, rotate on the rear of the loudspeaker through  $90^{\circ}$ . Lay the loudspeaker face down on a flat surface. Remove the black bolts. Turn the plate through  $90^{\circ}$  and replace them. Tighten securely.



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